

# The Digital Transformation of Corporate Entrepreneurship: The Role of Digital Skills and Digital Champions

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**Keywords:** Digital Skills, Corporate Entrepreneurship, Digital Transformation, Intrapreneurship, Lean Startup, Digital Champions, Business Model, Business Model Innovation.

**Abstract:** Digital transformation is perhaps the most pervasive managerial challenge for incumbent firms of the last and coming decades. Digital possibilities need to come together with skilled employees and executives to reveal the transformative power of digital technologies. Despite the contemporary significance, extant literature lacks guidance for digital competence enhancement - i.e., assess digital competencies and carry out effective initiatives to bridge the identified and measured digital competence gaps. Moreover, existing literature on digital skills focuses mainly on the educational context while leaving less explored the corporate context. And more, there is still little evidence on how digital skills can affect entrepreneurship in incumbent organizations. Thus, this study explores how incumbents assess and develop digital skills within their organizations through an in-depth, longitudinal case study of a utility company. We shed light on how incumbents can integrate digital skills in their organizations to embrace digital transformation and initiate corporate entrepreneurship initiatives that leverage the usage of digital technologies. Based on the findings of this study, we contribute to digital skills, digital transformation, and corporate entrepreneurship literature and we offer practical implications for incumbents.

## 1 INTRODUCTION

This study explores how incumbents can assess and develop digital skills within their organizations. Digital transformation, defined as transformation 'concerned with the changes digital technologies can bring about in a company's business model, ... products or organizational structures' (Hess et al., 2016, p. 124) is perhaps the most pervasive managerial challenge for incumbent firms of the last and coming decades and increasingly digital possibilities need to come together with skilled employees and executives to reveal its transformative power (Nadkarni and Prügl 2020; Van Laar et al., 2017; Van Laar et al., 2020). To this matter, it is important to understand how to cope with the development and enhancement of digital skills within an organization. Despite the extensive literature on digital competencies and their contemporary significance, extant literature lacks guidance for digital competence enhancement - i.e., assess digital competencies and carry out effective initiatives to bridge the identified and measured digital

competence gaps (Badr, 2016). Specifically, the literature presents a knowledge gap about how incumbents can integrate old and new capabilities in the context of digital transformation (Nadkarni and Prügl, 2020). Furthermore, limited attention has been placed on how incumbents can develop and sustain a shared digital culture intended as an organizational resource (Spante et al., 2018). In the digital era, digital capabilities can enable corporate entrepreneurship (Soltanifar et al., 2021; Recker and von Briel, 2019), intended as the capability of firms to identify and pursue new business opportunities, recognized as a fundamental driver for innovation and a sustainable competitive advantage (Kuratko and Covin, 2021; Burgelman, 1983). Despite the considerable literature on corporate entrepreneurship, there is little evidence of how digital capabilities can affect entrepreneurship and innovation in incumbent organizations (Ghosh et al., 2021; Nambisan, 2017). In particular, in corporate entrepreneurship literature, and more specifically in intrapreneurship, i.e., corporate entrepreneurship at the individual level (Pinchot, 1985; Antoncic and Hisrich, 2001), digitalization has

opened new opportunities for intrapreneurship (Pinchot and Soltanifar, 2021). While there is a large body of research examining the role of intrapreneurial figures (e.g., Howell and Higgins, 1990; Roure, 2001; Obstfeld, 2005), such as “innovation champions”, there is very little corresponding literature investigating the role of digital intrapreneurial figures (Pinchot and Soltanifar, 2021) and how they can leverage on digital technologies to develop digital entrepreneurship and innovation in incumbent organizations despite the increasing interest in digital technologies among managers and the growing practitioner literature urging incumbent organizations to embrace digital transformation. Given these arguments, this study addresses the following overarching question: “How do incumbents assess and develop digital skills within their organization?” The research design is based on a single case study. Due to its novelty and the depth of the investigation required to grasp the mechanisms and logics of assessing and developing digital skills in incumbent organizations, our research question warrants a qualitative research methodology. Specifically, we decided to address this research focusing on a single case study based on qualitative interviews and additional triangulated sources on a utility company. A utility company represents an appropriate research setting as the utility sector has been slow to embrace digital transformation technologies and there is increasing pressure on this sector to transition to the digital age necessary for ecological transition (Booth, et al., 2016; Stewart, et al., 2018). Thus, a company operating in the utility sector represents a suitable case for investigation following our research questions. This study provides at least three potential contributions. First, this study contributes to digital skills literature, shading light on how incumbent organizations can assess, develop and integrate digital skills addressing the need of guidance for digital competence enhancement in incumbent organizations. Second, this study connects digital skills and corporate entrepreneurship as few studies have done so far, contributing to a better understanding of digital skills as an enabler for entrepreneurial initiatives in incumbent organizations, as well as framing the role of digital champions within organizational boundaries thus contributing to digital corporate entrepreneurship at the individual level. Third, this study offers a series of practical actions for incumbent organizations to implement digital transformation, by assessing, developing, and implementing digital skills with established capabilities simultaneously within their

organization in the context of digital transformation and identifying and empowering digital champions.

## 2 LITERATURE REVIEW

Digital technologies are increasingly reshaping the global competitive scenario. To cope with the current digital context, organizations are increasingly prone to develop new skills and develop a proper people strategy to deal properly with the challenges brought by technological change and innovation in an increasingly fast-moving digital world. Given the pervasiveness of digital technologies and their continuous evolution, employees need to develop a set of digital skills that allows them to thrive in the current changing world. Van Laar and colleagues (2017) define a set of 21st century digital skills, recognizing that in a global knowledge economy those skills determine organizations’ competitiveness and their ability to drive innovation in organizations. Van Laar et al. (2017) framework of digital skills is based on six core aspects: technical information management, communication, collaboration, creativity, critical thinking, and problem solving. Since employees’ skills drive organizations’ competitiveness and innovation capacity, the integration in organizations of these new skills is fundamental. Moreover, digital technologies offer new opportunities for incumbent organizations to seek, develop and launch innovations based on internal entrepreneurial ideas and capacities. To better leverage on entrepreneurial opportunities in the current digital context, organizations must adapt themselves and digital skilled employees and executives are required (Nadkarni and Prügl, 2019). However, despite practitioners have started multiple digital transformation initiatives, there are limited guidelines for fostering entrepreneurship and innovation in large organizations enabled by digital affordances and how incumbents can develop and sustain a shared digital culture (Ghosh, et al., 2021). And more, literature lacks a guidance for digital competence enhancement in incumbent organizations, i.e., assess digital skills and carry out effective initiatives to bridge the identified and measured digital gaps. Moreover, few studies specifically address training to acquire, nurture, build and transfer digital competences and the mechanisms required for facilitating or hindering the integration of digital skills and competences in the organization. Firms need to incorporate ‘old’ and ‘new’ capabilities into their organizational structure in a complementary and not impeding way (Nadkarni and Prügl, 2019).

Despite the relevance of integrating digital skills for innovation and entrepreneurship, one of the most intriguing challenges for incumbents is to manage the ambidexterity of capabilities in terms of analog and digital capabilities. In addition, given the complexity and explosive pace of digital technologies, there is a threat of a growing skills gap between pre-digitization workers and recently hired digitally savvy employees and traditional IT trainings may not be effective anymore (Kohli and Johnson, 2011). Moreover, little evidence is present in literature on how digital skills can influence and empower corporate entrepreneurship. Digital skills, allowing to explore and face new technological situations in a flexible way and to exploit technological potentials in order to represent and solve problems and build shared and collaborative knowledge (Calvani et al., 2009), can enable entrepreneurial behavior and activities within the organization, i.e., corporate entrepreneurship defined as “*the process whereby an individual or group of individuals, in association with an existing organization, create a new organization or instigate renewal or innovation within that organization*” (Sharma & Chrisman, 1999, p. 18). Considering the disruptive nature of digital technologies, organizations can revitalize and reinvent organizations also through digital technologies (Nadkarni and Prügl, 2021). Despite the extensive literature on corporate entrepreneurship, there is little research regarding how digital skills can enable corporate entrepreneurship (Soltanifar et al., 2021; Recker and von Briel, 2019), facilitating the adoption of digital technologies to explore and exploit entrepreneurial opportunities (Soltanifar et al., 2021). Digital technologies can offer opportunities also for intrapreneurial behavior. Intrapreneurship, intended as corporate entrepreneurship at individual level (Antoncic and Hisrich, 2001) creates opportunities for individuals to be innovative and entrepreneurial within and for the organization that employs them (Soltanifar et al., 2021). Moreover, more studies are needed to leverage on intrapreneurial capabilities leveraging on digital technologies. Despite the extensive literature on intrapreneurial figures, such as innovation champions, defined as experienced employees which have gained organizational knowledge and extensive network inside the organization, there is limited research on correspondent digital figures that can enhance digital entrepreneurship and innovation within incumbent organizations (Drechsler et al., 2018). Literature underlines the necessity to investigate this emerging figures also in the context of digital transformation shading lights on digital intrapreneurship defined as

“any intrapreneurship that uses digital means as a critical component of its innovation initiative” (Pinchot and Soltanifar, 2021, p.238). Although digital transformation is currently impacting a large variety of businesses, there has been a limited attention towards the role of digital intrapreneurship within traditional industries (Soltanifar et al., 2021). Few studies had explored so far how to search employees in the organization that possess the required digital skills and the intrapreneurial behavior with the use of digital technologies within the corporate context (Soltanifar et al., 2021). And more, it is underexplored the role of champions within digital transformation and there is limited empirical investigation of champions to keep technological innovation ideas alive and thriving. In addition, very little research has been done on how the process of championing takes place within firms, what mechanisms are used by champions to foster entrepreneurship, especially in the digital context, and which mechanisms are successful or not.

### 3 METHODOLOGY

Given the early stage of development of research linking digital skills with digital transformation and corporate entrepreneurship, a qualitative approach was felt to be necessary (Miles et al., 2013). Consequently, we opted for an in-depth single, longitudinal case study, to shade lights on the role of digital skills in facilitating digital transformation and corporate entrepreneurship in incumbent organizations. We choose the single case methodology for three main reasons. First, a case study as empirical enquiry is suitable to “investigate a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used” (Yin, 1984, p.23). Second, a case study allows to investigate an under-explored phenomenon at various levels and to acquire an in-depth understanding, together with the needed depth and insight, which is difficult to replicate on a wider sample (Yin, 2013; Eisenhardt, 1989). Third, recent studies have pointed out the necessity to investigate in a detailed and comprehensive manner the challenges generated by the integration of digital skills with pre-existing competences in incumbents, as well as how digital skills can facilitate digital transformation and corporate entrepreneurship (Nadkarni and Prügl, 2021; Pinchot and Soltanifar, 2021; Shakina et al., 2021). This study analyzes the case of a leading utility company EnerWaterGas

Group (hereafter "EnerWaterGas" or "the Group" or "the Company").

### 3.1 Data Gathering and Data Analysis

In our case study, data were collected through multiple sources of information (Yin, 1984). Primary source of information in our research were semi-structured interviews. Primary data source consisted in 25 semi-standardized. The interviews lasted between 45 and 60 minutes, and was recorded and fully transcribed, to ensure the quality of the data. As case studies rely heavily on the correctness of the information provided by the interviewees for their validity and reliability; this can be enhanced by using multiple sources or "looking at data in multiple ways" (Eisenhardt, 1989; Yin, 2009). For this reason, we proceeded with a triangulation of data, to ensure the qualitative research to be trustworthy and persuasive. To this end, several secondary sources of evidence and archival data including strategic reports, internet pages, newspaper articles, podcasts and whitepapers were also added to supplement the interview data. We indeed collected information from internal documents (e.g., presentations, emails, reports, additional memos from meetings) and external documents. Interviews content analysis was performed applying the open coding practice from Grounded Theory methodology (Glaser & Strauss, 1967). Through the inductive coding tree, fine-grained in vivo codes were transformed into aggregated concepts, and the real-world content obtained from the qualitative interviews enabled us to proceed with the abstraction and theory building (Saldaña, 2009). Through the three-order analysis we were able to highlight the connection between the data and the inductive concepts, to prove a high-quality qualitative study (Gioia, et al., 2012).

### 3.2 Case Description

The single case study relates to an Italian multi-utility company undergoing a process of digitalization and integration of new digital skills within the organization. The company is among the nation's largest multi-utilities, born in 2002 out of the aggregation of 11 municipal Italian companies and specifically operating in the environment (waste management), water (aqueduct, sewerage and purification) and energy (electricity, gas distribution and sales, energy services) sectors, offering additional services in the public lighting and telecommunications.

## 4 RESULTS

The presentation of our findings is organized as follows. First, we illustrate how digital skills are assessed and developed within the incumbent organization and the mechanisms to facilitate the integration of them within the corporate. Finally, we focus on the role of digital champions to enable digital transformation and corporate entrepreneurship within the incumbent organization.

### 4.1 How Digital Skills Are Assessed and Developed Within the Incumbent Organization

To assess and develop digital skills, the Company has defined a three-phase process with the support of the consulting firm: (i) assessing digital skills; (ii) identifying digital champions; (iii) developing digital skills and carrying out corporate entrepreneurship initiatives. In the first phase, "Assessing digital skills" phase, the Company launched in 2019 an assessment of digital skills based on Van Laar and colleagues' digital skills' scale (2017), addressed to the entire organization, to map the individual digital skills of the entire company population, involving even the most operative figures in the organization. The assessment, based on an online survey, was extended to the entire company population, ca. 8.500 employees, with a redemption of almost 60%, obtaining a final sample of 5.000 respondents. Despite the company population was invited to fill the online survey through an email invitation, EnerWaterGas had to manage the segment of people with difficult accessibility towards the usage of digital technologies, i.e., the blue collars - the more operative figures. For this critical segment, specific communication actions consisted in non-digital communication initiatives and offline measures such as printed communications, QR codes or short message service to fill in the survey. This phase of assessing digital skills lasted about one month and a half from the official launch of the assessment to the closing and it was preceded by one month of preparatory communications started from the institutional communication of the Chief Executive Officer to the launch of the assessment of digital skills. In the second phase, the "Identify digital champions" phase, EnerWaterGas aimed to identify digital champions to facilitate digital transformation and corporate entrepreneurship in the incumbent organization. To do so, on the basis to the results obtained on the assessment of digital skills, a specific profile for each employee was assigned following a



gamification logic to increase the engagement of company population. The identification of digital champions leveraged on an evaluation based on a likert scale (from 1 to 5) for each dimension included in the Van Laar and colleagues (2017) 21st-century digital skills assessment scale, i.e., technical; information management; communication; collaboration; creativity; critical thinking; problem solving. Values below than 3 (i.e., neutral value for the scale) in the likert scale were considered as “negative” for that specific dimension while values above than 3 were considered “positive” for the same dimension of the assessment of digital skills. EnerWaterGas assumed to identify potential digital champions if respondents obtained an average value higher than 3 for all the dimensions of the Van Laar and colleagues (2017) 21st-century digital skills assessment scale or in at least five dimensions (on seven) of the entire assessment. The clustering of profiles and restitution of results was managed by the HR and Training & Development function with the support of the consulting firm to identify digital champions and develop customized and targeted activities based on the target profile. To identify digital champions, EnerWaterGas triangulated the results obtained from the assessment of digital skills with two other factors: first, the time availability that these people have to dedicate on digital champions activities; second, the willingness to exert efforts as digital champions. Digital champions could come from every hierarchical level and function also to favor a transversal diffusion of digital skills within the organization. The final resulting cluster of digital champions was engaged in digital corporate entrepreneurial activities within the organization, i.e. Digital lab (see below), while the remaining part of the company population was involved in training and development activities aimed to empower digital skills. In the third phase, “Developing digital skills and carrying out digital corporate entrepreneurial activities” phase, based on the assessment of digital skills, EnerWaterGas organized customized training and development activities for digital skills as well as corporate entrepreneurship initiatives. These activities following the assessment of digital skills were included in the new program called “Digital engagement program” aimed to nurture, develop, and spread digital skills as well as to create a community of “digital champions” able to contribute to digital transformation and corporate entrepreneurship within the organization. In other words, through the Digital engagement program, the firm aimed to engage every person at every hierarchical level of the organization to be protagonist of its own training. The program has

been structured in three main sections, each one with a different objective and including specific initiatives addressing a specific segment of company population. The three sections of the program were respectively: “Digital mindset”, “Digital envisioning” and “Digital lab”. The first two types of activities aimed to develop digital skills while the third one, addressing digital champions, was more “entrepreneurial”, focused on the development of new corporate innovation solutions based on digital technologies. First, Digital mindset is a dedicated online training path formed by training courses open to the entire company population to spread a common digital culture about the use of digital technologies. Second, Digital envisioning are events addressed to the top management aimed to inspire and train the top management of EnerWaterGas on the opportunities offered by digital technologies. These events involve also expert teachers and external testimonies with the objective to promote and share best practices and open debates on topics related to digital technologies and digital entrepreneurship and innovation as well as to present future emerging trends offered by digital technologies. Finally, Digital lab are structured programs directly involving the digital champions with the objective to develop digital corporate entrepreneurship solutions focused on organizational improvement and rejuvenation leveraging also on digital technologies. In other words, in Digital lab activity, digital champions, i.e. digital talents identified starting from the assessment of digital skills, take part of this structured program to develop digital corporate innovation solutions focused on organizational rejuvenation, thus developing new solutions focused on improving the organizational functioning of EnerWaterGas. Specifically, Digital lab activity involves two teams, each formed by six digital champions that are the final digital champions, resulting from the assessment of digital skills and selected by HR function also considering the time availability and willingness to act as a digital champion). Specifically, each team is committed to find new ways of working or improve organizational processes of the company leveraging on digital tools. Related to this, the HR and Training & Development function was responsible to facilitate the formation of the teams even if it was given the possibility to the digital champions to form independently their teams. In particular, the HR and Training & Development function tried to form cross-functional teams in order to spread knowledge and skills within the entire organization. In the Digital lab, the final resulting 12 “digital champions” (accurately identified within the top 500 emerging from the assessment of digital

skills) carry out selected briefs together with an internal sponsor who proposed the brief based on business needs emerged with the internal confrontation with the top management. For instance, business needs relate on how to allow employees to report in real-time problems related to the operational services provided by EnerWaterGas; how to improve the employee's experience with a focus on onboarding and participation of employees in training activities or how or to stimulate internal virtuous behaviors leveraging on digital tools. In sum, Digital lab aimed to bring digital corporate entrepreneurship solutions in the organization and create a community of digital entrepreneurial figures starting from the selected "digital champions". In the next section we illustrate the specific organizational mechanisms that facilitated EnerWaterGas in assessing and developing digital skills.

#### **4.2 Organizational Mechanisms to Facilitate the Integration of Digital Skills Within the Organization**

In this section, we describe the organizational mechanisms that have facilitated to assess, develop and integrate digital skills in the incumbent organization. Specifically, the organization enabled the integration of digital skills as well as the identification of digital champions through top management support, the engagement of the entire company population and the intervention of HR function.

##### **4.2.1 Top Management Support**

The assessment, development, and integration of digital skills in the organization required the top management support resulting in three different ways. First, encouraging employees to believe that digital skills are part of the role set for all members of the organization and they are necessary to introduce innovation in the organization in the current digital scenario. Second, recognizing digital champions who bring ideas forward in the organization. Finally, supporting the solutions of the digital innovation projects generated by digital champions, the top management has been involved in the choice to implement the solutions created by the digital champions but also in allocating necessary seed money to get projects off the ground and implement them in the organization.

##### **4.2.2 Company Population Engagement: Mechanisms to Face the Digital Gap Within the Incumbent Organization**

The second mechanism that allowed EnerWaterGas to embrace the integration of digital skills within the organization was the engagement of the entire company population. In this respect, EnerWaterGas has engaged the entire company population in order to have a representative picture of the current level of individual digital skills within the entire organization but also to bring the entire company population on board to facilitate a successful integration and empowerment of digital skills within the organization to face digital transformation and undertake corporate entrepreneurship in the digital age. And more, to involve the entire company population and thus facilitate the initiative for digital skills, the organization had to implement specific actions to face and mitigate the digital skills gap within the organization addressing specific critical segments of company population: first, the segment of the reluctant people for organizational issues towards the introduction of digital technologies; second, the segment of people with difficult accessibility towards the usage of digital technologies (i.e., blue collars, thus the operative figures of the company) and finally the segment of people with limited abilities for individual characteristics towards the adoption of digital technologies (i.e., seniors figures that do not have familiarity with digital technologies).

##### **4.2.3 HR Function Intervention: Reallocation of Work Activities and Selection of Digital Champions**

The third tactic that has facilitated the assessment and development digital skills and thus the integration of them within the organization was related to the intervention of HR function. Related to this aspect, beyond its role in involving the entire company population, the role of HR function resulted fundamental in two ways. First, in the management of the digital intrapreneurial initiatives, specifically the Digital lab, i.e., the activities of development of new solutions focused on organizational improvement and rejuvenation of EnerWaterGas, with the business as-usual activities. In this respect, the HR function facilitated the management of the time of the digital champions involved in the Digital lab. The intervention of HR function resulted fundamental to allocate protected time for the development of innovative solutions carried out by digital champions and aligning the head of business of digital

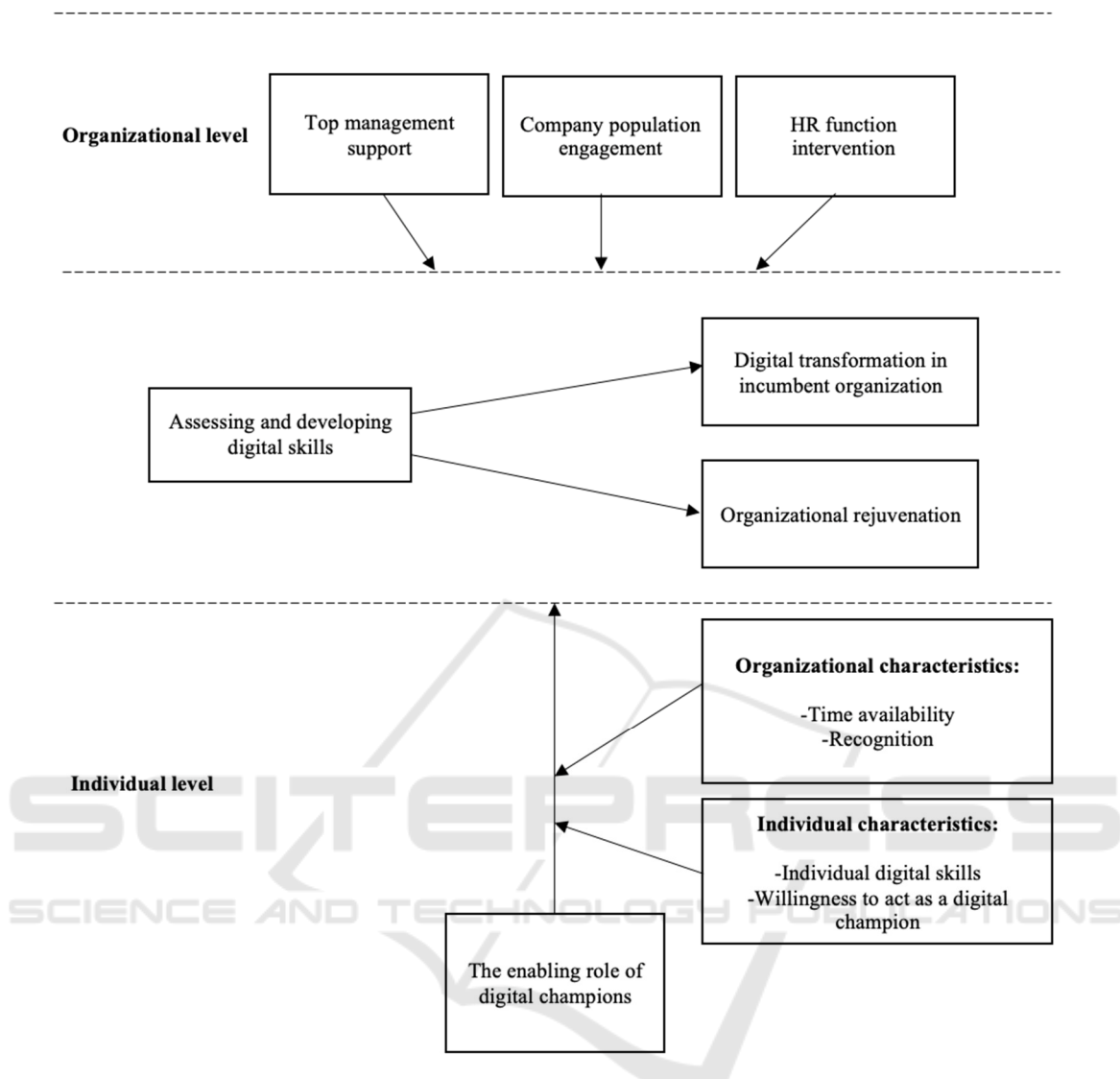


Figure 1: Assessing and developing digital skills in incumbent organizations: the role of digital champions.

champions for their activities. This protected time resulted a half day per week (10%) plus extra voluntary time dedicated to carry out digital champions activities (i.e., organizational rejuvenation based on digital technologies, facilitator for digital transformation as well as dissemination of knowledge on digital technologies), defined in accordance with the heads of business. Second, the intervention of HR function resulted fundamental in the selection of digital champions. Due to their view and knowledge on the human resources of EnerWaterGas, the HR resulted fundamental to select and engage the suitable digital champions considering the individual digital skills resulted from the assessment of digital skills but also the time availability to dedicate on digital

champions activities and willingness to act as digital champions.

### 4.3 Who Are the Digital Champions?

In this section we illustrate, first, the role of digital champions and, second, the organizational characteristics and individual characteristics enabling their activity.

#### 4.3.1 The Role of Digital Champions

Digital champions are individuals internal within the organization that can come from every hierarchical level or function and selected starting from the

assessment of digital skills with two objectives: first, to facilitate digital transformation within the organization; second, to carry out corporate entrepreneurship initiatives with a focus on organizational rejuvenation, i.e., the improvement of organization functioning leveraging on digital technologies. Specifically, digital champions are selected first to take part at the Digital lab initiative aimed to develop digital corporate innovation solutions and bringing a digital culture within the organization. Beyond the activities planned for the Digital lab, the role of digital champions is at least twofold. First, EnerWaterGas has assigned to the digital champions the role to become reference and mentors for less digital ready colleagues within the organization, by highlighting the possible benefits deriving from the adoption of digital technologies as well as offering a guidance for them in the adoption of digital technologies.

Second, they are in charge of developing digital corporate entrepreneurship solutions, focused on organizational rejuvenation and that leverage on digital technologies, bringing potential benefits and solutions to specific units or directly to the whole organization in accordance with the business needs expressed by internal sponsors of EnerWaterGas. To do so, they are called to rethink and improve how the organizational processes are formulated leveraging on the usage of digital technologies. In sum, digital champions act first as facilitators and ambassadors of digital transformation within the organization, spreading digital culture within the organization, second, as catalyst for digital intrapreneurial initiatives within the organization, undertaking digital corporate innovations while pursuing their everyday job.

#### **4.3.2 Organizational Characteristics and Individual Characteristics that Enable to Act as Digital Champions in the Incumbent Organization**

Digital champions are selected not only based on digital skills assessment, and thus on the basis of individual digital skills, but also considering organizational characteristics and individual characteristics: first, the time availability to dedicate on activities related to digital champions as well as the formal recognition assigned by the organization to the digital champions; second, the willingness to undertake and take part to these initiatives within the organization.

## **5 DISCUSSION**

In this study we explored how incumbents can assess and develop digital skills and address the related challenges. We highlight also the role played by digital champions for digital transformation and corporate entrepreneurship in incumbent organizations using a single longitudinal case study, as highlighted in Figure 1. Our first key findings show how incumbents can nurture and develop digital skills to support digital transformation and undertake corporate entrepreneurship in the digital age. In particular, the study shows some specific tactics the incumbent firms can deploy to assess, develop and integrate digital skills within the organization and address the related barriers. Borrowing a terminology from corporate entrepreneurship literature, we found three organizational mechanisms that can enable incumbents in developing and integrating digital skills in a corporate context: (i) the top management support (Antoncic and Hisrich, 2001); (ii) the engagement of company population (Kassa and Raju, 2015; Lockwood, 2007); and (iii) the involvement of HR function (Kassa and Tsigu, 2021). Our second key finding regards the enabling role of digital champions in driving digital transformation and corporate entrepreneurship in the digital age. While the extant literature on corporate entrepreneurship has largely documented how innovation champions support entrepreneurship in incumbent organizations (Drechsler et al., 2021; Perry-Smith and Mannucci, 2016; Kelley and Lee, 2010), less is known about the corresponding figures in the digital age (i.e., digital champions) and the internal corporate environment that can influence the decision to act as digital champions. We address this gap by showing the role of digital champions in facilitating digital transformation and organizational rejuvenation leveraging on their digital skills (i.e., the improvement of organizational functioning leveraging on digital tools). More specifically, our case shows some organizational characteristics and individual characteristics that can enable the decision to act as digital champions in incumbent organizations. We found that the organizational characteristics take the forms of time availability and recognition. While we found that the individual characteristics take the forms of individual digital skills (Van Laar et al., 2017) and the willingness to act as digital champions.



## 6 CONCLUSIONS

### 6.1 Contributions to Research

We offer contributions to digital skills, digital transformation, and corporate entrepreneurship literature. First, we contribute to the debate on digital skills by exploring how incumbents can assess and develop digital skills and used them as a tool to support digital transformation in incumbent organizations and corporate entrepreneurship in the digital age (Nadkarni and Prügl, 2021; Pinchot and Soltanifar, 2021). This study contributes to digital skills literature also investigating the role of digital skills in a corporate context as few studies have done so far. By illustrating how incumbents can assess and develop digital skills, we advance the extant research offering guidance for digital skills enhancement in incumbent organizations, i.e., assess digital skills and carry out effective initiatives to bridge the identified and measured digital skills gaps (Nadkarni and Prügl, 2021; Hess et al., 2016). By extending the literature on digital skills, this paper offers some distinctive contributions also to research on digital transformation and corporate entrepreneurship. Concerning digital transformation, this paper contributes to the extant literature on digital transformation in two ways. On the one hand, this study advances digital transformation literature, shading light on how incumbents can structure (digital) skills and thus providing a better understanding of the role of digital skills in this aspect (Solberg et al., 2020; Ferreira et al., 2019; Nambisan, 2017). Our case shows a people strategy based on the enhancement of digital skills (i.e., assessment and development of digital skills) to face digital transformation in an incumbent organization. On the other hand, our study adds knowledge on how incumbents can develop and sustain a shared digital culture intended as an organizational resource (Ghosh et al., 2021; Nadkarni and Prügl, 2021; Spante et al., 2018). Our case shows how the presence in the organization of digital champions, who have appropriate individual digital skills and willingness to drive digital transformation and to create and implement corporate entrepreneurship leveraging digital technologies, can serve this purpose. Finally, concerning corporate entrepreneurship, our study advances intrapreneurship literature in the digital age, i.e., corporate entrepreneurship at the individual level (Antoncic and Hisrich, 2001; Pinchot, 1985), shading lights on digital champions, i.e., champions in the digital age as few studies have done so far (Drechsler et al., 2021). In particular, our study shades light on

the role of digital champions in facilitating digital transformation and corporate entrepreneurship leveraging digital technologies in incumbent organizations as well as how the process of championing takes place within incumbent organizations in the digital context, i.e., how to select digital champions in incumbent organizations.

### 6.2 Implications for Practice

This study offers several practical implications for strategic leaders of incumbent organizations who are confronted with the challenge of digital transformation and corporate entrepreneurship in the digital age. First, our study shades light on the enabling role of digital skills for digital transformation and corporate entrepreneurship in incumbent organizations. Another crucial implication from our study regards the design and implementation of tactics to face and mitigate the digital skills gaps and the related barriers within an incumbent context and thus facilitate the integration of digital skills in incumbent organizations. An in-depth exploration of the corporate digital divide could be vital for strategic leaders and practitioners in incumbent organizations. Related to this, this study offers guidance for digital competence enhancement in incumbent organizations i.e., assess digital competencies and carry out effective initiatives to bridge the identified and measured digital competence gaps in incumbent organizations. Finally, our study offers practical implications for practitioners to identify digital champions in incumbent organizations.

### 6.3 Limitations and Further Research Developments

Despite the several potential contributions, this study is not free of limitations and corresponding remedies point to possible future avenues of research. First, a single case study is apt to our research goal to inductively explore and generate evidence on those processes through incumbent firms can assess and develop digital skills. For instance, future quantitative studies can investigate under which conditions individual digital skills (Van Laar et al., 2017) may influence individual entrepreneurial orientation (Bolton and Lane, 2012), thus allowing a better understanding of their influence on entrepreneurial behaviors in incumbent organizations.

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