JEMI

Company Culture Matters

Edited by

Wioleta Kucharska

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The JOURNAL OF ENTREPRENEURSHIP, MANAGEMENT AND INNOVATION

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Organizational culture matters
– From the Editor

Wioleta Kucharska[1] iD

"Company culture eats strategy for breakfast," according to Peter Drucker (cited in Kesterson, 2015, p. 56). Therefore, this issue of Journal of Entrepreneurship, Management and Innovation (JEMI) entitled "Company culture matters" presents studies that extend the current body of knowledge regarding company culture pattern recognition, promotion, implementation, and execution. The main inspiration for all of the studies included in this issue was the assumption that most of a company's challenges in present times are rooted in company culture.

A company's strategy is an ambitious plan that requires motivated people for it to be implemented successfully. Company culture is the pattern of behavior that is accepted and promoted within an organization to foster the company's aims and achievements. Moreover, it determines actions and influences many critical areas of management, such as human resources (Jurek & Besta, 2019). As Basinska and Dåderman (2018) stated, self-efficacy, personality, and different affect states in entrepreneurs and managers are essential factors for effectiveness and well-being. Undoubtedly, company culture influences it (Juchnowicz & Sienkiewicz, 2016). Company culture is the social and 'normative glue' that enables a strategy to be effective. Working in multicultural teams seems to be a real challenge (Lewis, 2006; Stankiewicz, & Ziemiański, 2015). This special issue focuses on the relations between human resources and strategic management in the context of company culture, like overall corporate performance (Idris et al., 2018) and finance (Aziz et al., 2019), knowledge management (Zieba & Schivinski, 2015), entrepreneurship, innovativeness (Matricano, 2018), and many other areas of organizational activities that strongly depend on the organizational climate. Company culture is so worth investigating.

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In the context of strategic management, culture is very often claimed principally as a constraint to deep-seated organizational change. A smart city idea is a good example of an innovative approach that requires a cultural, mental change (Orłowski et al., 2016). But it must also be admitted that not even the most dynamic, motivated, and development-oriented culture can implement a poorly formed or ill-conceived strategy and deliver an excellent performance. It happens surprisingly often that managers develop strategies their companies cannot perform without making significant changes to their corporate cultures. Bedford and Kucharska (2020) pointed out three reasons for this: 1) some executives do not consider the time and energy required to match strategy and culture; 2) others lack the soft skills necessary for successfully managing strategy and culture together; 3) some change either strategy or culture but do not change both at the same time. Consequently, weak strategies, plans or policies, and fragile cultures make for weak performance. Also, a perfect strategic plan alone cannot create organizational excellence. Neither can culture. Culture and strategy alignment are needed. It requires open-eyed management by well-trained executives who have professional skills and soft management skills. So, authors of studies selected to the presented Issue contributed to it by their more-in depth investigations.

The first paper, written by Goncalves, Bergquist, Bunk, and Alänge (2020), investigates "cultural aspects that enable organizational agility" in the automobile industry. Their findings suggest that cultural differences affected the studied automakers' ability to develop organizational agility, which enabled their innovation capability. Moreover, the authors reveal that the hierarchy and the general culture of the market matters for incumbents inhibited innovation capability. At the same time, startups adopted a "Clan and Adhocracy" culture in a way that enabled continuous innovation growth. The authors introduced this phenomenon as an "Agile culture."

The second paper was written by Abdalla, Suresh, and Renukappa (2020) to explore the organizational cultural transformation needed for managing knowledge in the context of smart cities. Their article entitled "Managing knowledge in the context of smart cities: An organizational cultural perspective" presents a systematic review, covering publications on smart cities, KM, and organizational culture. The findings revealed three key themes important for smart-city idea implementations: the organizational perspectives of smart cities; organizational change, innovation, digital transformation; and the relationship between corporate culture and KM. The paper concludes that the cultural transformation required for the development of smart cities needs to facilitate the ability to integrate, create and reconfigure both internal and external competences to manage knowledge that originates from within and beyond project boundaries. This

study provides an insight into urban policymakers, planners, and scholars, so they can prepare for the challenges that organizations face in their efforts to manage and implement smart cities successfully.

In the next paper, entitled "Does employer branding beat head hunting? The potential of company culture to increase employer attractiveness" Barbaros (2020) introduced a vital for company culture, the theme of human resources. She investigates the combined effort of the HR Department and the Marketing and Communication Department to define and implement employer-branding strategies. To achieve this aim, qualitative research was designed that enabled the establishment of the relationship between employer attractiveness, organizational attractiveness and company culture, and to identify to what extent company culture can be communicated through employer branding. Therefore, firstly, the study clarifies the links between employer branding, employer attractiveness, company culture, and these concepts' boundaries. Then it examines how employer branding works concerning company culture attributes. The paper draws some interesting conclusions that will address practical implications in the form of employer brand management.

This topic was developed next by Boudlaie, Mahdiraji, Shamsi, Jafari-Sadeghi, Daneshvar Hakimi Meibodi, and Garcia-Perez (2020), who identified the strategic objectives and design of the strategy map of human resource management (HRM) with the stakeholder approach from the perspective of the company culture based on the balanced scorecard. Their research proposed redesigning the strategy map and balanced scorecard of human resource management by adopting the combined process of the thematic analysis and the construction of the related big narratives and with the stakeholder approach, and from the company culture perspective.

Graczyk-Kucharska and Erickson's (2020) in-depth study investigated the human-resources factor of company culture and explored a remarkably interesting topic entitled "A person-organization fit Model of Generation Z: preliminary studies." They provide a clearer understanding of the links between a person-organization fit and an organization's culture. The literature review presented by the authors suggests that Generation Z appears to be both more demanding and more flexible about workplace preferences. They are willing to work in different environments, including remotely, and on different schedules. They are open to international work. Simultaneously, they have specific communication preferences and expect their employers to have strong, transparent values, particularly in areas such as environmental sustainability. As they become more prevalent in the workforce, what do we know about how they will "fit" with the organizations employing them? Particularly when one considers the guidance of this person-organization fit model. They presented numerous individual and organizational factors that

matter for personal-organizational alignment. Based on a substantial sample of students at technological secondary schools in the Wielkopolska Region of Poland, the authors provided evidence of the workplace preferences for this cohort. For this region, Generation Z has variable individual needs and wants, some of which can be easily identified (gender, profession), but some of which may be less clear. In designing appealing workplaces, organizations need to consider the nature and communication of what they have to offer, as well as how they can be flexible in adapting these offerings to unique individuals.

Continuing the human resource, Generation Z and company culture relations studies, the research given by Szeluga-Romańska and Modzelewska (2020) entitled "The managerial role in organizational culture as perceived by management students" offers a more in-depth investigation of the new generational cohort's perception of the managerial position in the organization. The authors reveal how skill-demand is seen in the manager's position today by young managers and soon-to-graduate management students. Their investigation brings new light on how organizational leaders' expectations are formulated by those who have just entered or are entering into the labor market. The authors captured the "perfect manager" picture taken by the cultural lens of these young people's generation (age) whose perception may surprise. Hence, in the broad context of their findings, we learn that an organizational culture shaped by shared experiences and expectations, matters for organizational unity and cross-generational co-operation. The study identifies the key problems and concerns of management students, and highlights the knowledge needed for better adaptation in the workplace. Moreover, it highlights that organizational culture matters in the whole management process, and it may foster the adaptation of conditions in the workplace.

I do hope that our distinguished readers find the selected papers inspiring. Most of them, based on qualitative studies, deliver many interesting insights worthy of more in-depth investigation. Company culture matters for each part of the organizational activity – so there is considerable space for scientific exploration given by all the authors. Moreover, I do believe that the presented set of studies offers many interesting practical guidelines, which may also reach a more extensive range of readers, not only researchers but also practitioners and company culture enthusiasts. Finally, I am grateful to Anna Ujwary-Gil, Editor-in-Chief, for her trust, and to all the authors and anonymous reviewers for their precious contribution to make this Special Issue so enjoyable.

Thank You!

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Biographical note

Wioleta Kucharska, Ph.D. Eng., holds an Assistant Professor position at the Management Department of the Management and Economy Faculty of Gdańsk University of Technology, Gdańsk, Poland. She is involved in multiple knowledge cultures, knowledge management, including tacit knowledge sharing international scientific projects. She has published many peer-reviewed studies with Wiley, Springer, Taylor & Francis, Emerald, and IGI Global. Her recent study entitled "How to achieve sustainability? An employee's point of view on company culture and CSR practice" was awarded the 'Top Downloaded Paper 2018–2019' Wiley certificate. She was awarded, along with her distinguished Management and Economy Faculty of Gdańsk University of Technology colleagues: E. Lechman and M. Zieba, the 'Elsevier Research Impact Leaders 2019 Wzie PG.' Alongside her scientific passion and achievements, she also has 12 years of managerial experience; therefore, her works with theoretical foundations actively refer to management practice. Her recently written book, co-authored with Denise A.D. Bedford, called "Relating Information Culture to Information Policies and Management Strategies" provides a holistic picture of business cultures and strategy challenges and was the inspiration to invite co-authors to contribute to this *Journal of Entrepreneurship, Management and Innovation* Special Issue on company culture.

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Cultural aspects of organizational agility affecting digital innovation

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Abstract

The purpose of this study is to understand how the cultural aspects of organizational agility affect digital innovation capability. In the context of increasing demand for fast-paced digital innovation, organizational agility becomes strategically crucial for large incumbent companies to increase their competitiveness. The literature on organizational agility shows that incumbents, with their vast access to resources, still can have limited ability to innovate and respond to change. This is in sharp contrast to startups, who sometimes are impressively innovative despite their very limited resources. Sometimes the incumbents are even outcompeted and disrupted by startups because of their ability to embrace change, and rapidly seize new business opportunities. However, we know little about why some incumbents are not able to use their resources efficiently for digital innovation and why some smaller startups can transcend these resource limitations. In this context, we find that cultural aspects are especially crucial as enablers for organizational agility in digital innovation. We designed a comparative study to investigate the differences in the influence of culture on organizational agility; and how it hinders or enables digital innovation, at both incumbent firms and startups in the automotive industry. We applied a qualitative research approach and selected semi-structured interviews as our main research method. The Competing Values Framework was used as a tool to categorize different cultures that affect organizational agility, but also to identify how and when tensions between values supported or hampered the organizations' ability to innovate. Our findings show that, while a blend of Hierarchy and Market cultures inhibited the innovation capability, Clan and Adhocracy cultures promoted innovation. In our

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sample, the incumbents predominantly adhered to the first two cultures, while the startups typically belonged to the second group. The most successful startups were even able to create a combination of Clan and Adhocracy cultures — a concept we here term 'Agile culture.' This culture allowed them to reach a beneficial state of digital innovation growth. When it comes to the implications for research and practice, we found the need to analyze the role of culture for organizational agility; and how to utilize culture as an asset to enable digital innovation growth. One contribution is the identification of 'Agile culture' that is an amalgamation of Clan and Adhocracy culture. The value agile culture creates when applied, enables organizational agility, which can enhance digital innovation capability.

Keywords: *agile culture, organizational agility, entrepreneurial culture, competing values framework, digital innovation capability*

INTRODUCTION

The purpose of this study is to understand the influence of cultural values on organizational agility. The paper reports on a comparative study of startups and incumbent firms in the automotive industry; and how they work with enabling organizational agility to enhance digital innovation. We applied the Competing Values Framework (CVF) by Cameron and Quinn (2011) as a theoretical lens to identify the influence of cultural values on organizational agility, including to identify how and when tensions between values supported or inhibited the organizations' ability to innovate. We defined an incumbent firm as already having a position in a market, at least one or more products available, and to a high extent, financed through company-generated revenue. A startup was defined as being at an early stage in the enterprise life cycle, with no or few products released, and often financed through venture capital.

While the role of organizational agility has been approached from different academic strands since the beginning 1990s, the influence of cultural values on organizational agility and innovation capability in firms has recently gained attention. However, only a few qualitative studies have focused on how cultural values drive organizational innovation. Crocitto and Youseef (2003) noted that research has mainly focused on the technical and/or quantitative side of organizational agility and has had little focus on the qualitative side of how organizations achieve the agility that is crucial to their success. Here, we have chosen a qualitative study for a better understanding of how cultural values impact organizational agility and enable innovation. In this study, we are particularly interested in tensions between different cultural traits, i.e. how they compete. Cameron and Quinn (2011) argue that different cultural values can enhance organizations' ability to act in a flexible

and agile way, but when values compete, this may lead to reduced efficiency. We propose that transformative companies, such as the incumbents found in the contemporary automotive industry, are particularly relevant to study. They need to change their culture to meet the challenges of digitalization and demands for organizational agility.

With its large international actors, the automotive industry was chosen because of its maturity and because they recently have been challenged by newcomers with very different approaches to innovation. The newcomers are "born globals" with the ability to grow fast — largely through co-creating with network partners (Andersson, 2011). Another reason for choosing the automotive industry was because of how digitalization has changed prioritization for automotive industries, especially for industries organized in hierarchical structures supported by a culture that promotes vertical integration (Schimpf, 2016). For example, when the Original Equipment Manufacturer (OEM) Tesla, already in their startup phase, challenged established automakers with their innovation speed and capability it spurred discussions on how new companies can take such a fast leap from a garage startup to a challenger of future transportation (Say, 2017). According to Pontes (2019), the forecast for 2019's top ten best-selling fully electric vehicle brands is: 1. Tesla, 2. BAIC, 3. BYD, 4. Nissan, 5. Renault, 6. Gradually, 7. Chery, 8. JMC, 9. JAC, 10. Hawtai. The European premium brands, e.g. BMW and Volkswagen are replaced by brands of Chinese origin. Just in the USA, Tesla's best-selling vehicle, the Model 3 luxury sedan, not only outsold every other electrical vehicle by at least 750% between Jan–Jun 2019 (Matousek, 2019) but also threatened none EV midsize models of luxury automakers from Europe (Shahan, 2019). The market change is not only a change in technology, going from combustion engines to electric. Another aspect is the company's capacity to enhance digital innovation. Tesla's success can also be explained by their "born digital" approach to innovation: their software mindset has developed the car into a mobile digital platform, where digital service innovation can take place at speed and be continuously deployed over the air (Sebastian et al., 2017). This means that a Tesla car can be seen as an investment by the owner, as mostly everything continuously gets enhanced regardless of whether it is increased engine performance or new services, which become available at no additional cost to the car owner. Digital innovation then becomes a differentiator, a means for global competitiveness. This is radically different from any ordinary automaker where the car value starts to decline as soon as you put in the car key. The traditional automakers normally have their business on aftermarket services adding extra costs for the owner and the bulk of profits for OEMs. Normally, there is a limitation on compliant services that can be added. This is a major mindset change in

innovating products and business models in the digital era. This also leads to radically different user experience and added customer value. This kind of reinvention of how companies do business to stay competitive indicates that an organization's capability to be agile has increasingly become important for innovation among incumbent firms in the automotive industry. This is one of the reasons why organizational agility has become a strategically important competence for these companies in their continuous innovation effort (Yusuf, Sarhadi, & Gunasekaran, 1999). Felipe, Roldán, and Leal-Rodriguez (2017) have shown that organizations often go through a cultural transformation when implementing an efficient innovation process. However, while organizational culture is important in the process of enhancing organizational agility, culture can also hamper such transformational attempts, regardless of whether the company is an incumbent or a startup. Competing cultural values in the organization can reduce organizations' ability to develop agility, thereby reducing their ability to effectively support innovation processes (Felipe et al., 2017; Naranjo-Valencia, Jimenez-Jimenez, & Sanz-Valle, 2011).

This study explores the influence of culture as an important key factor for the automotive companies' to enhance organizational agility by asking the following research question: How do cultural values shape organizational agility when incumbent firms and startups within the automotive industry explore digital innovation opportunities? The automotive industry is particularly suitable for investigating this question because of its long tradition of manufacturing products that is currently challenged by digital innovation.

The paper is organized in the following way: first we review previous research on organizational agility and culture followed by a presentation of the theoretical lens for the classification of organizational cultures, the CVF. The methods section then describes the design of the empirical study involving both incumbent and startup companies in the automotive industry. The result section places the data in context and analyzes the result using the CVF lens. We end with a concluding discussion, limitations of the study, and suggestions for future research.

LITERATURE REVIEW

The influence of cultural values on organizational agility is a growing field of interest within information systems research. The following section provides an overview of literature on organizational agility, the four core concepts characterizing an agile enterprise (leaders and people, virtual organization, capability for reconfiguration, and continuous learning*),* and capabilities that

enable such agility. Finally, we present organizational culture that leads to the introduction of the Competing Values Framework (CVF).

Organizational agility

Organizational agility is a firm's capability to manage expeditious, persistent, and uncertain change to prosper in the competitive environments of continually and unpredictably changing circumstances (Dove 2002; Teece, Peteraf, & Leih, 2016). Agility is a dynamic, context-specific, aggressively change-embracing, and growth-oriented system (Goldman, Nagel, & Preiss, 1995). It goes beyond speed and requires massive structural and infrastructural changes (Youssef, 1994). According to Conboy (2009) the definition of agility in information systems is "the continual readiness of an information systems development method to rapidly or inherently create change, and learn from change while contributing to perceived customer value (economy, quality, and simplicity), through its collective components and relationships with its environment." The main driving force for agility is change (Conboy, 2009), and an organization must be able to sense, seize and transform, in order to seize new business opportunities as they arise. Agility and reliance are essential 'soul mates' according to Holbeche (2018). Organizational agility is regarded as crucial for organizations' innovation and competitive performance in contemporary business (Sambamurthy, Bharadwaj, & Grover, 2003; Tallon & Pinsonneault, 2011). In the digital world, organizations are increasingly relying on information technologies, knowledge processes, and communication technologies that enhance their agile ability (Sambamurthy et al., 2003). Agility depends on leadership at all levels to promote agility as an organizational value and create an agile vision and mission (Crocitto et al., 2003). Leaders need to create a supportive culture of innovation, diffusion of information, teamwork efficiency, and employee learning and rewards for agile employees (Crocitto et al., 2003; Kraśnicka, Głód, & Wronka-Pośpiech, 2016).

There are four core concepts that define organizational agility; *virtual organization*, *capability for reconfiguration*, *core competence and management* (sometimes referred to as leaders and people), and *knowledge driven enterprise* (sometimes referred to as continuous learning) (Yusuf et al., 1999). An agile organization can act proactively with fast decision making, and has an ability to maximize its knowledge utilization, which means that it is able to use its competence where it is most needed in order to rapidly re-configure and re-align the business to serve a particular purpose as the window of opportunity opens up. According to Goldman et al. (1995), there are four strategic dimensions of agile competition: A) enriching the customer, meaning selling solutions instead of products; B) cooperating to

enhance competitiveness, meaning to fully apply the virtual organization concept, use whatever resources are needed regardless of whether they are within or outside the organization, even direct competitors could be used to leverage resources through cooperation; C) organizing to master change and uncertainty, important to have people that are motivated and knowledgeable enough to convert change and uncertainty into new opportunities for innovation growth, they need to be empowered, routinely and rapidly; D) leveraging the impact of people and information, important having management that nurtures an entrepreneurial organizational culture enabling leveraging the impact of people and information on operations. This is achieved by distributing authority, providing what is needed for people to get the job done by reinforcing a climate of mutual responsibility for joint success, and nevertheless reward innovation.

Although the term "agility" was coined in 1991 by a committee at the Iacocca Institute, Lehigh University (PA), to study the US industry's lack of international competitiveness (Yusuf et al., 1999), agility has become a paradigm for how organizations should prepare for digital innovation that puts speed and efficiency in focus. To achieve organizational agility, companies tend to promote a culture of change and development that enables continuous innovation (Brettel, Mauer, Engelen, & Küpper, 2012; Holbeche, 2018). In 1986, Takeuchi and Nonaka stated, "In today's fast-paced, fiercely competitive world of commercial new product development, speed and flexibility are essential. Companies increasingly realize that the old, sequential approach to developing new products simply won't get the job done." Goldman et al. (1993) claims that "Agility is becoming a condition of survival" and that the agile capabilities are not limited by equipment, only by the "imagination creativity and skills of the workforce". Steiber (2017) goes even further by claiming that it is an urgent need for companies to apply a fundamentally new approach to managing firms in the digital era. According to Steiber (2017), the traditional model for incumbent management is 'outmoded.' The current market landscape favors companies that put a premium on qualities like continuous innovation, adaptability, and rapid response. Another important remark is that it is not enough just to adopt modern tools and procedures because, if companies continue to keep their core of bureaucracies, locked into the old structure, procedures, and culture, it will make them slow to change course effectively. According to Appelbaum, Calla, Desautels, and Hasan (2017, p. 5), "The nature of sustainability also has a major influence on an organization's capabilities of performing with agility, as it is a topic which is continuously in flux." Innovative business units are more open towards an "all-in" agile and skipping an initial bimodal setting (Gerster, Dremel, Brenner, & Kelker, 2019). Agile structure adoption

takes place at enterprises at large scale regardless of industry or size (Gerster et al., 2019). The 'all-in' agile holistic approach works as an accelerator for continuous innovation since it enables innovation and speed to become embedded capabilities in the agile 'business as usual' daily work (Goldman et al., 1995; Holbeche, 2018).

Appelbaum et al. (2017) highlight the gap in literature with respect to agility, in that most research focuses on the characteristics of agile organizations, with little attention to how organization can develop agile capabilities and embed the commitment to continuous change deep into the corporate DNA. According to Appelbaum et al. this goes beyond the level of processes and more into the psyche of the people driving the organization. Social implications are also highlighted by Appelbaum et al. (2017), where they claim that the challenge of the next century for large organizations will be to regain their innovative, agile beginning, and for startups to continue to foster dynamic capabilities as they grow. Gerster et al.'s (2019) research showed that agile transformations are not a short-term, transitory trend, and will play a significant role when companies need to increase speed and flexibility to innovate new digital products and services. There is some learning to capture and some capabilities to be built when companies evolve from a state of "doing" agile to instead "being" agile (Gerster et al., 2019, p. 4965).

Capabilities enabling organizational agility

Capabilities enabling organizational agility have been reported in different academic strands with the following common abilities; the ability to think and act as a founder (entrepreneur) with the customer in mind; the ability to adjust and adapt to change; the ability to use whatever resources are best suited to build and optimize the needed resources, regardless of whether these resources are within or outside the organization; to fail fast and learn fast in order to keep a fast innovation pace.

Entrepreneurial capabilities have been discussed for a long time, and according to Drucker (2015, p. 30), the term "entrepreneur" can be attributed to Jean Baptiste Say, who coined the term around 1800. Say defined the term entrepreneur as "shifts economic resources out of an area of lower and into an area of higher productivity and greater yield." However, Drucker (2015) states that Say's definition does not say anything about who this "entrepreneur" is, just that the resources need to be "economic." Furthermore, Drucker (2015) states that the entrepreneur is often defined as one who starts his own new small business in the USA. A remark, though, is that not every new small business is entrepreneurial or even represents entrepreneurship (Drucker, 2015). Joseph Schumpeter (1934) was the first of the major economists to go back

to Jean Baptiste Say, suggesting that dynamic disequilibrium is brought on by the innovating entrepreneur, rather than optimization and equilibrium (Drucker, 2015). According to Schumpeter, this is the "norm" of a healthy economy and is central to economic theory and practice. Schumpeter (1943) contributed to the understanding of innovation, stressing the role of large companies as the main drivers of innovation (Hagedoorn, 1996).

A company that is entrepreneurial does not automatically equal an agile organization; not only does it require physical, structural resources, it also depends on an innovation- and risk-oriented culture (Breu, Hemingway, Strathern, & Bridger, 2002; Crocitto et al., 2003; Holbeche, 2018). Management in an agile company nurtures an entrepreneurial organization culture that leverages the impact of people and information on operations (Goldman et al., 1995). Steiber and Alänge (2016) identified that an important difference between "traditional" incumbents and innovative firms, was the overarching orientation of the company that rippled through the system, affecting both the behavior of the employees and the ultimate growth and profit or loss of the company. Steiber and Alänge (2013) conclude that a strong innovation-oriented culture together with creative smart employees with passion to transform generates a strong drive towards continuous innovation. Therefore, involving people that support the company's entrepreneurial culture and acknowledge accountability (Goldman et al., 1995; Holbeche, 2018) enables innovation growth and competitiveness (Steiber & Alänge 2016). The shortage of talent and their expectations will drive the need for organizations to look into a more open win-win employment relationship with their employees. Culture is the foundation of any innovative ecosystem (Hwang & Horowitt, 2012) as well as a key differentiator; it defines the identity of a company. According to Steiber and Alänge (2016), Silicon Valley companies compete with culture as a means to attract and retain talent. Holbeche (2018) states that the most agile organizations are usually entrepreneurial startups that works as a power plant for innovation. These companies are obsessed with providing customer value and are prepared to put in significant effort to establish exactly what it is that their customers want or need – a customer first strategy (Holbeche, 2018). Drawing on Say and Schumpeter's definitions of entrepreneurship, social entrepreneurship is a relatively new concept in the digital context (Robert & Woods, 2005). The social and challenging big vision like e.g. "How to save the world?," and similar types of socially challenging big visions, are applied by successful Silicon Valley companies (Steiber & Alänge, 2016). According to Robert and Woods (2005), social entrepreneurship aims at larger social values than only the business values that characterize classical entrepreneurship. This works as a powerful driver

to attract the born-global generation, and for social change, which also involves the ability to learn continuously and keep delivering customer value.

Continuous learning

Knowledge in the digital era holds a notion of "knowledge is power" (Yusuf et al., 1999, p. 39), but it has an expiration date, and people need to embrace continuous and fast learning in order to cope with the speed of business that has increased gradually during the last decade (Kuusisto, 2017). Steiber (2017, p. 1) states that incumbent companies are like "computers running on an outdated operating system" with limited upgrade options. Continuous learning has been suggested as a way to counter these limitations and enable innovation and process effectiveness (Holbeche, 2018). Another important aspect is that incumbent companies have difficulties to attract staff with digital competence and to tap into their creative abilities (Steiber, 2017). This underlines the breadth of how important it is for all human resources in organizations to apply continuous learning to its workforce, in order to have a chance to keep pace with the rapid development of technology (Takeuchi & Nonaka, 1986; Nonaka, Toyama, & Konno, 2000). People learn in different ways and this requires that companies apply a dynamic process involving much reliance on trial and error and learning by doing (Takeuchi & Nonaka, 1986; Goldman et al., 1995; Schwaber & Beedle, 2001). As of now, there is a need to focus thoroughly on new learning and create value through knowledge, leading to constant innovation in a world of constant change (Takeuchi et al., 1986; Nonaka et al., 2000; Steiber, 2017; Holbeche, 2018). According to Holbeche (2018), resilient organizations, thanks to their increase in learning and resilience, can turn crises into a source of strategic opportunities. With that said, one can conclude that learning is the key to adaptation and innovation, e.g. Google, Apple, Amazon, and 3M are all "changeable". They learn faster, better and have significantly better economic growth than their peers (Holbeche, 2018).

Virtual organizations

Another way to capture and utilize new learning is through virtual organizations. Abbe Mowshowitz first coined the term virtual organization in the North American linguistic area in 1986. This concept includes different kinds of cooperation inside as well as outside of companies. According to Goldman et al. (1995) the virtual organization is a pragmatic tool for organizations to use if seeking a strategic concept they can apply in an environment of change and uncertainty. This could also be applied as a context resilient dynamical network where many integrating networks enable the organization to gather

knowledge and use expertise quickly and effectively (Holbeche, 2018). But already back in 1986, Takeuchi and Nonaka presented a holistic method that would get the job done on a volatile market. This holistic approach consists of six characteristics: built-in instability, self-organizing project teams, overlapping development phases, multi-learning, subtle control, and organizational transfer of learning. The approach was compared to a six pieces jigsaw puzzle, fitted together, forming a fast and flexible process for new product development. Each element, by itself, does not bring speed and flexibility but taken as a whole, it develops a powerful new set of dynamics that will make a difference. This approach acted as a change agent; and was seen as a vehicle for introducing creative, market-driven ideas and processes into stagnated organizations (Takeuchi & Nonaka, 1986). Goldman et al. (1995) identified six strategic reasons that organizations should take into account when applying the virtual organization concept to ensure they focus on strategic company benefits when adopting the virtual organization model of cooperation:

- sharing infrastructure, R&D, risk, and costs;
- linking complementary core competencies;
- reducing concept-to-cash time through sharing;
- increasing facilities and apparent size;
- gaining access to markets and sharing market or customer loyalty;
- migrating from selling products to selling solutions.

Organization reconfiguration

Agile enterprises have the capability to make a significant shift in focus easily, diversify, configure and re-align their business to serve a particular purpose rapidly as opportunity windows open up (Yusuf et al., 1999). These types of organizations are well-positioned to take advantages of speed by getting to the market before competitors with new products, and in a proactive way, by providing a product or solution to market just before the customer need arises. Many incumbents are facing the challenges because they have lost the agility that they once had when they were smaller. The agile capability is something that Silicon Valley companies have been able to mitigate while growing (Steiber & Alänge, 2016), e.g. Google even created the title Chief Culture Officer in 2006 just to ensure that their Google startup culture wouldn't get lost even when the company grows (Steiber & Alänge, 2013; Steiber, 2017). Holbeche (2018) mentions that companies must be prepared to divest resources that no longer add value. It is ruthlessly decisive. Companies must constantly be adaptable, able to change their working methods in order to deliver optimum value to customers, and do so at a glance. It is a resilient behavior. According to a former Google manager,

Mo Gawdat, radical innovation is better than incremental improvements – "The easiest way to innovate is to see what resources you have, what the market requires and then choose the shortest path to profitability". But the problem with this approach, according to Gawdat, is that you do not change anything fundamentally and that you also get stuck in old mindsets and habits. Gradual improvements will not do the job, but a tenfold improvement will (Wallenberg, 2019; Takeuchi & Nonaka, 1986; Schwaber & Beedle, 2001).

Organizational culture

The literature on organizational agility recurrently emphasizes the importance of organizational culture as a determinant factor, e.g. learning, resilience, reconfigurability, and other capabilities that enable organizational agility towards an innovative orientation (Schein, 2017; Naranjo-Valencia et al., 2011). Holbeche (2018) and Schein (2017) define culture as the assumed shared beliefs, values, norms and priorities that lead to a certain behavior enabling innovativeness. This can also be a powerful enabler for stability, since familiar practices are reinforced over time, and become habits and routines that maintain the status quo, regardless of whether these serve their business well or not (Holbeche, 2018). A well-known citation on this topic is Peter Drucker's, 'culture eats strategy for breakfast,' meaning culture is more important than strategy in determining an organization's fate (Holbeche, 2018). A company that has taken this seriously is Google by establishing the role of a chief culture officer in order to retain their startup culture over time (Steiber & Alänge, 2013). Google has a recruiting strategy to recruit just the 'right' people who 'fit' the organization culture, to ensure that people with skills that align with the company's core values can thrive and deliver in alignment with organizational culture (Holbeche, 2018; Steiber & Alänge, 2013). According to Steiber (2017, p. 24), an executive at Google stated, "We hire people that are curious and want to be part of something bigger". "The kind of people you recruit matters for innovation" (Steiber & Alänge, 2013, p. 247). Google's founders laid the ground for the company's culture; subcultures are permitted as long as the core values remain intact (Steiber & Alänge, 2013).

ANALYSIS FRAMEWORK

To explore the role of culture in organizational agility, we chose the Competing Values Framework as the analytic lens for this study. As shown in Figure 1, this framework works as a holistic navigator helping us understand the

different case companies in this study regarding their corporate culture and orientation towards innovation.

Competing Values Framework (CVF)

According to Cameron and Quinn (Cameron et al., 2014) tensions arise between different logics that coexist in organizations. The CVF helps in understanding how and why tensions arise in organizations and how the organization can cope with such tensions. Each quadrant in the framework describes a logic. An organization is not locked within a certain quadrant; however, it cannot fully focus on all logics at the same time. Companies typically tend to move their focus between the different quadrants and when doing so tensions are generated within the organization because of the multiple logics present at the same time.

The application of the CVF emerged from studies of factors that account for highly effective organizational performance. The x-axis captures competing value logics between internal (maintenance) and external (positioning) focus. Typical questions asked internally are: "What is important for us?" and "How do we want to work?." The right half of Figure 1 describes the external focus: "What is important for the outside world, our clients, and the market?". The y-axis captures competing values ranging between individuality and flexibility (top) and stability and control (bottom). This creates four approaches to culture.
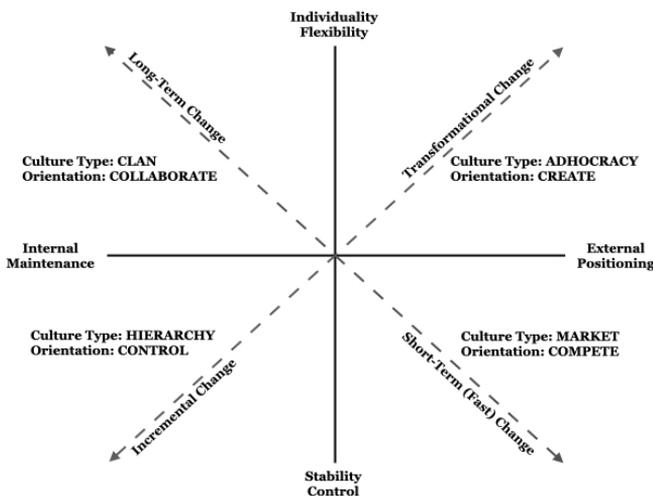
Figure 1. Competing Values Framework

Source: Cameron et We added al. (2014).

Four approaches to culture

Each type of culture is described based on the following attributes: orientation, leader type, value drivers, and the theory of efficiency (Cameron et al., 2014). *Clan culture*: environment similar to a large family, where there is a great involvement, teamwork, and participation; emphasis on continuous learning, and bonding to colleagues by morals; executives are mentors or father figures that value the needs of the clients and caring for their people. *Adhocracy culture*: dynamic and creative environment; leaders are innovators, entrepreneurial, visionary and risk takers; focus on experiments and innovation; value drivers are innovative outputs, transformation, and agility; success factors are availability of new products or services; organizations promote individual initiative and freedom. *Market culture*: focus on results, finishing work, and getting things done; people are competitive and focused on goals; leaders are ambidextrous, hard drivers, producers, have high expectations, promote winning; reputation and success are important. *Hierarchy culture*: formalized and structured work environment, formal rules and policy keep the organization together; leaders organize around command and control; success factors are trustful delivery, smooth planning, and low cost.

The CVF has been identified as one of an important framework for identifying the role of cultural values for business efficiency (Yu & Wu, 2009). It helps identify the criteria of effectiveness that organizations must pursue when it comes to what leadership and managerial competencies are most effective in the underlying organizational culture. The framework describes the core approaches of how to think when designing an organization depending on what the organization should emphasize; innovation, creativity, entrepreneurship, collaboration, teamwork, or controlling, goal achievement, assessing and measuring.

Studying organizational agility from a culture perspective

The purpose of an agile enterprise is to increase the speed of response to change, leaders perseverance of continuously scanning the environment, and provide market-creating innovations that lead the company to so called "blue oceans" of profitability (Denning, 2019). Blue-ocean strategy is about doing business where there is no competitor by redefining e.g. the product, service, customer, business model, or work methods (Kim & Mauborgne, 2004). This kind of behavior permits the agile enterprise to react to what they see coming earlier than competitors, and serves as a mitigation strategy to enable the company to respond proactively to changes within increasingly competitive global markets (Schwaber & Beedle, 2001). As Appelbaum et al. (2017, p. 73)

concluded, "Becoming and maintaining an agile organization is not easy. It is a journey, perhaps without an end." By using the CVF as our analysis lens, we have found that organization culture is of huge importance for enabling the creation of a "greenhouse" environment where innovation will thrive, but this requires a gardener, i.e. a certain type of leadership to make it flourish.

Naranjo-Valencia et al. (2011) concluded that Adhocracy cultures better promote innovation, while Hierarchy cultures preferably drive an imitation orientation. However, it becomes evident from our studies that only growing an Adhocracy culture is not enough to successfully drive innovation. Continuous learning is also a cornerstone to create a state of continuous innovation (Drucker, 2015; Cameron et al., 2014). This cultural aspect is predominantly found in the Clan culture. Furthermore, as Drucker (2015) states, "bureaucracies" in big organizations (hierarchical culture) and their "conservatism" are serious impediments to entrepreneurship and innovation. This could be further explained by defining "culture" as a recurring pattern of behavior and values that lead to an ability to do something (capability). Practices are needed in order to create an entrepreneurial climate. A company that wants to operate in a fast-paced digital market needs continuous innovation capability. The inability to mitigate the temptation of "starve tomorrow" and just "feed yesterday" is deadly and inevitably ages and declines the organization (Drucker, 2015). Drucker (2015) meant that it is easier to continue allocating productive resources to existing business, and simply go for exploitation, by getting a little bit more of what they already have. Furthermore, in the rapid change in the digital landscape the decline will be fast (Drucker, 2015). It is important to keep in mind that innovation cannot be "commanded out." Organizations need to be receptive to innovation and view change as an opportunity rather than as a threat (Drucker, 2015). It is up to every company to decide what capabilities they want or need to create, in order to be a *driver* or a *follower* in the market (March, 1991; Naranjo-Valencia et al., 2011). Depending on their choices, they should choose to develop capabilities that lead to the desired organizational culture, which in turn suits their purpose in the best way. If the choice is to be a driver, choose to develop capabilities that lead to enabling a Clan and Adhocracy culture. If the choice is to be a follower, choose to develop capabilities that lead to enabling Hierarchy and Market culture. When the company has made their decision on their wanted culture they need to recruit or transform the leaders and people to match the wanted organizational culture.

RESEARCH METHODS

Research approach

To identify the influence of cultural values on organizational agility in the context of digital innovation in the automotive industry, we choose a qualitative research approach and conducted semi-structured interviews. We applied generic purposive sampling (Bryman, 2012), and chose five international automotive companies because of their active approach to digital service innovation since this is generally driving innovation in this domain today (Lyytinen, Yoo, & Boland, 2016). The selection of the incumbent companies was based on their ambition to master the new digital service market. The two startups were chosen because of their disruptive innovation capability on the global market within a couple of years, despite limited resources. The three incumbents and one startup were located in Sweden and one startup in the USA. The US company was chosen because of its interaction with OEMs in the Swedish market.

We interviewed individuals with management and strategic positions in the companies to understand how the company's board and top management lead their company, how the company structure and culture supported or hindered innovation, new business opportunities and business models, what major challenges they were facing for the upcoming one to five years, and how they tackled these challenges. We used an interview guide with 13 predefined open-ended questions. Examples of questions from this guide are: "Does your company culture hinder or support you in experimenting with new business opportunities?;" "In what way could it have supported you more?" These questions were grounded in the organizational agility theory's core concepts (leadership and people, virtual organization, continuous learning, capability for reconfiguration) discussed in the literature review. The question "To what extent do you involve external actors in order to try out and to understand new opportunities and threats? (in respect to innovation and development)," was specifically related to capabilities enabling organizational agility and innovation growth. The question "How would you describe your company board and their role?," was asked to capture how the board supported or hindered the companies' entrepreneurial capability and innovation growth. Another theme in the interviews aimed at capturing how the companies worked with business model innovation for their products/services and if they considered changing models to deal with new business opportunities, e.g. "How did you come up with this business model?" (from idea to current state).

Data collection

We conducted ten semi-structured interviews (see Table 1). For the Swedish companies, we conducted all interviews at the company site. For the American company, we conducted the interview via an interactive on-line dialogue.

The interviews took approximately 1–1.5 hours per person and followed the common set of 13 predefined open-ended questions. All interviews were recorded and later transcribed. Some of the companies offered a guided tour as an introduction to the company (basic historic information). Additional secondary data collection included white papers, web pages, YouTube films, and a literature survey.

Table 1. Sample for this study

Company ID	Size	Type	Roles
1	L	Incumbent	Vice President Consumer Connectivity Services Senior Director Strategy & Innovation Vehicle Software & Electronics
2	M	Incumbent	Delivery Manager
3	M	Incumbent	Director Product Innovation Research Affairs & Innovation Manager Strategy & Sustainability Manager
4	S	Startup	Marketing Director Autonomous System Director Innovation Manager
5	M	Startup	CEO

Data analysis approach

First, we transcribed and coded the recorded interviews using a bottom-up approach (Myers, 2013). *Second*, we compared each recorded answer to the corresponding interview question to systematically identify similarities and differences between the companies' approach to innovation. Our analysis of the interviews revealed four different recurring themes: company structure, company culture, external actors, and innovation. The analyzed results were categorized according to CVF directly in Table 2 and plotted in Figure 2. During our analysis, it became evident that the cultural values were clustered two by two in Hierarchy/Market and Clan/Adhocracy. *Third*, we have selected quotes from our interviews to better clarify our results and reasoning and to give a sense of how these companies actually think about their business and market. The results are further elaborated in the Results and Analysis subsections. *Fourth*, we applied quasi-quantification as an analysis method

to better understand the data. This enabled us to study the cultural spread and position in the CVF for the each company, and also to compare cultural properties between the different companies. A plot of the quasi-quantified data is showing in Figure 2 (geometric shapes fitted with cubic polynomials). The Discussion section is initially structured according to the described culture quadrants in the CVF followed by a discussion of culture values' impact on organizational capability related to extant literature.

RESULTS AND ANALYSIS

Organizational culture types and orientation

The findings showed a focus towards Hierarchy and Market among incumbents but with an increasing awareness that market opportunities change fast and that they needed to be able to adapt faster than before. This required major changes for the incumbent firms at all levels to become more agile, attract and retain talent, get a better understanding of their customers' needs, and prioritize to maintain competitiveness in the market. Four out of five companies mentioned that recruitment is one of the major challenges they face, particularly by the incumbent firms. The interviewed incumbents experienced a need to build dynamic capabilities to handle continuous change over time. Table 2 summarizes the main results based on the structure derived from the CVF culture attributes (orientation, leader type, value drivers, and the theory of effectiveness), capabilities that enable organizational agility, e.g., vision, people and innovation (Cameron & Quinn, 2014; Crocitto et al., 2003; Steiber & Alänge, 2016) and is followed by a thorough description. We found, as Table 2 shows, that the cultures dominating incumbents were a blend of hierarchy and market, while startups were dominated by a blend of clan and adhocracy.

Incumbents – Hierarchy & Market

Orientation: The incumbent firms felt that their current organizational structure was an obstacle for enabling innovation work to happen and to take their products and services fast to market. All incumbent firms had started an agile transformation journey by rolling out the Scaled Agile Framework for enterprise (SAFe). The reason to start an agile transformation journey at company level was mostly to gain new capabilities, e.g. speed, transparency, greater visualization enabling better prioritization regarding what needed to be done. A transformation success was seen as crucial to attracting the needed talents and accelerating innovation speed and reducing time to market with

solutions that were not obsolete already when launched. Company-3 differed by mainly covering one culture (Hierarchy).

Table 2. Cultural attributes and their influence on the studied companies

Cultural Attribute	Incumbents	Startups
Orientation	High organizational complexity. Well-defined responsibilities. Long decision process.	Low organizational complexity. Flat structure enabling transparency, fast learning, quick decision making.
Leader Type	Competitor, organizer, coordinator but moving towards agile leadership. Hierarchy creates distance between top-leaders and people on the floor.	Leaders are very present, transparent, involving, sharing. Focus promoting the company's challenging big social vision inside and outside the company.
Theory of Effectiveness	Hybrid stage-gate model and SAFe (ongoing roll-out).	Social entrepreneurship, effectuation, born globals.
Vision	Could have a challenging vision but still something that is achievable.	Challenging big social vision contributing to a greater influence to a more sustainable world.
People	Relying on role descriptions, focus on expertise domain and titles. Passion for cars and to drive them.	Empowered people, entrepreneurial mindset, fast learners, self-organized/driven. A passion to make a greater contribution to a more sustainable world.
Innovation	Hybrid traditional innovation and open innovation.	Radical open innovation / disruptive. Transparency enabling increased resources and speed, with limited means.

Vision: The incumbents had developed a challenging vision but still something that everyone would be able to achieve. Company-3 had a vision that reminded of a bigger social challenging vision as found in the successful Silicon Valley companies, but they were not open regarding what the meaning of their vision was to them.

Leaders: According to Company-1, agile transformation required an extensive mindset change. It was important that the first attempts were handled by management in a way that would not jeopardize the idea with agile transformation. Incumbents' top management supported the agile transformation but were not directly taking part or being present in the organization to motivate people as to why the changes were needed. Instead,

they delegated this to middle management who experienced lack of support, transparency, engagement and courage in communication and decisions. Even though top leaders wanted the agile efficiency and innovation growth, their way of leading had not changed.

Culture: The incumbent firms were aware that they had a culture within their company that was not optimal for a change towards an agile philosophy and/or agile working methods, and that it would be a struggle to move to a new more agile culture. However, there were differences between the studied companies. Company-2 has been able to retain some degree of startup culture and practices from before they were acquired by the current owner. They explained that their culture actually still differed from the mother company units even though the same rules, values, etc., applied for all units.

People: Results show differences between incumbents in the way the organizational culture and orientation attracted talents. Company-2 pointed out that some employees had different behaviors depending on whether they originally came from the startup or the new mother company. People from the mother company were seen as less driven, engaged and passionate compared to the ones originating from the startup firm. Much of the tension in this company was explained by these differences in internal organization and cultural values. All studied incumbents' agile transformation was challenged by different traditions carried by the different domain groups, e.g. hardware, software, supply chain, for how to organize people around the new agile mindset.

Innovation: The automotive industry is going through four major challenges: autonomous drive, electrification, digitalization and increased degree of shared mobility. In order to increase innovation speed to reach market impact, the studied incumbents were aware that they needed more open innovation and co-creation with external actors. This kind of co-creation was limited to joint ventures. Company-1 had several innovation centers, but it was hard to get new ideas approved by senior management. They realized that a broad innovation approach, with several forms of innovation strategies, was needed and that competitiveness was dependent on the ability to learn, develop, and deliver new products continuously to the market. Another insight was that there are differences compared to the past with new types of partnership even outside the automotive sector and the companies' comfort zone, such as electronic retail companies, energy companies, and the like. None of the studied companies had measurements in place for innovation growth and did not see the value in or need for this kind of measurement.

Startups – Clan & Adhocracy

Orientation: The startups were comfortable with their current lean structure. This was also a necessity given their small margins. Agile meant that they had to be prepared for quick changes – completely if needed – regardless of whether it was due to internal or external reasons.

Vision: The studied startups were formed as answers to social challenges based on a vision about contributing to a more sustainable world.

Leaders: Managers were present and communicated the need for openness, sharing and promoting the company's vision both inside and outside the company. Leadership was personalized with a focus on motivating people and supporting them. Company-4 explicitly applied social entrepreneurship, e.g. every Monday, they would kick off the week with a standup meeting hold by their CEO. "Our CEO created and maintains this culture." "Our CEO is very present, transparent, involving, sharing."

Culture: The startup firms had explicit cultural values that were communicated both internally and externally as part of their identity. Company-4 "Culture was an important driver for the startups." Company-5 stated, "Culture is of huge importance, and cannot be underestimated. This goes back to being able to retain people." They were convinced that it was important to make employees feel that they are part of a team and that sharing the same values positively affected their will to stay in the company. The startups mentioned that they verified that everyone had the same goals and made sure that they worked closely with their colleagues regardless of where they were located globally. For Company-4, cultural values such as the need for innovation and transparency were carried by the company founder. One of the interview persons at Company-4 stated "Compared to other companies we are very authentic with those values, you can feel them." The company had monthly status reports on YouTube to keep people outside the company updated about their latest progress and engaged open source communities in product development. Collaborating with larger incumbents could force them to step back on their openness.

People: The startups were very selective when hiring people, for them, it was important that talent could fit into the cultural values they embraced. This is in order to get the "right" talent that can function and take initiative in this type of innovation collaboration culture. Company-5 pointed out the importance of recruiting the right talent by stating the following: "It is hard to find the right people, still we are very selective. Last year we hired 80 people and for those we had 23,000 people applying. You give what you pay for. Hiring the wrong people is much more costly than spending the time hiring the right person – it has taken a lot of time – having engineers that spend 30% of their

time interviewing." They looked for empowered people with an entrepreneurial mindset who were self-organized and driven by passion rather than titles. Company-5 CEO stated, "We encourage people to be independent and to be self-driven and not wait for someone to tell them what to do." Employees were passionate about being part of a journey to make a contribution to a more sustainable world. Company-4 stated, "This place is driven by passion rather than rules." Most of the startups' recruitment was based on networks and weak ties: people who knew the founders' work and wanted to be part of the journey. For these companies it was important that employees had the right attitude, rather than having the right experience. Company-5 CEO, "I try to talk to everyone that we make an offer to." Company-4 stated, regarding what is important when it comes to recruitment, "It is all about attitude and mindset, be open-minded and want to do something great. Skills are important but without attitude it will not work."

Innovation: Startups stated that innovation was something they did by necessity. Innovation processes had to be lean. Novel and innovative methods and processes were used during the engineering, manufacturing and production phases. The startups competed with front-end technologies such as autonomous vehicles, which forced them to be innovative since the solutions did not yet exist. As startups they saw it as advantageous that there were no preconceived ideas about how particular problems should be solved. They continually tried to reduce time to get their innovations to market. According to the interviewed managers, success was dependent on a company culture of being open-minded, applying radical open innovation methodologies and fast feedback loops from target groups. Ideas for solutions could come from unexpected sources, according to Company-4, "Still today every idea counts." This was motivated by the scarce resources that forced them to continually identify and evaluate new ideas and being prepared to team up with external partners to have a chance to succeed. Various strategies were used: with some partners the collaborative tool was a software or hardware platform, with others, the collaboration was strategic with shared critical information, keeping core technologies and strategies internal. Company-5 was quite aware from the start that they would not be able to succeed without collaborating with others, "It is a big space and one cannot do it all; even though you can do it all maybe you shouldn't. Others might do it better." Company-4 applied a "digital first" strategy, which meant that they first built a digital model before developing a physical product that helped the developers in their design and manufacturing process. The startups viewed collaboration and partnership to get hold of experience and knowhow and gain speed as the approach to continually develop in the future.
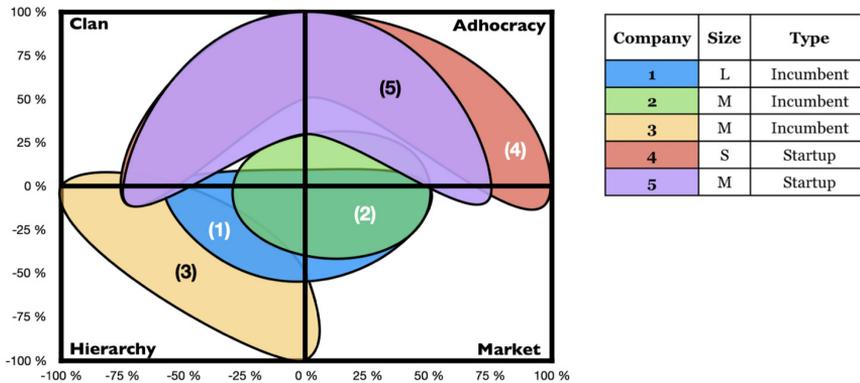
Figure 2: Culture focus for the five different companies

DISCUSSION

The purpose of this study is to investigate how cultural values shape organizational agility in the automotive industry in the context of how these companies explore digital innovation opportunities. We compared how different organizational approaches and value systems in automotive startups and incumbents supported or hindered their ongoing work to develop organizational agility to increase their ability to innovate. Figure 2 summarizes the results presented in the results section (Table2) plotted on the CVF matrix. Below, we discuss four different ways culture affected the way the studied organizations were able to use different agile capabilities to promote innovation (Figure 1).

Hierarchy: Incremental change

With its internal maintenance focus and value drivers such as control, efficiency and stable production and a controlling management, the hierarchical culture created a capability for small incremental change but left little room for experimentation and fast decisions. To innovate within this environment took time, and improvements developed stepwise in a controlled way. Hierarchical culture had a negative impact on organizational agility that requires flexibility, adaptability, and fast decision making. Empowered employees should be able to collaborate with other resources, regardless of whether they were within or outside company control. A risk was identified that the companies with hierarchical culture could not survive the current fast-pace innovation environment in the digital market, especially for Company-3 that almost entirely had its cultural focus in the Hierarchy quadrant (Figure 2).

Market: Short-term change

The Market culture, with its external focus and value drivers such as market share growth, aggressive competition and goal achievement, provides a capability for fast change and short-term performance but does not promote collaboration and experimentation. The hard-driver and competitor leadership style of this culture values fast business profit and market share growth. Although this culture promotes a focus on external positioning in the market, it does not necessarily positively impact organizational agility, which promotes continuous learning, team collaboration, co-creation, and experimentation. The Market culture promotes competition both internally and externally. This generates agility in relation to the market, but can have a negative impact on the organizational environment for innovation due to the focus on aggressive competition and fast business profitability. The time and space for innovation is, therefore, not well supported. Because the Market culture focuses on external positioning and fast change it could easily be perceived as being an Agile culture. However, an Agile culture should also emphasize elements of openness and co-operation. This difference, between the "espoused theories" and the "theories-in-use" (in the terminology of Argyris & Schön, 1996), has also been observed in other domains. According to Argyris and Schön (1996), an individual is normally not aware of which are his theories-in-use, and can typically only become aware to a limited extent, and even then with substantial effort through 'double-loop learning,' when efforts are made to deeply reflect upon a situation, including questioning its basic assumptions. Company-1 and 2 (Figure 2) were well represented within this culture and they were both struggling to get innovation with external actors to happen. Company-2 stated that they were struggling to spend time on innovation since customer projects always took priority.

Clan: Long-term change

The Clan culture contributed to a capability for long-term change, individuality and flexibility, with its internal focus and value drivers such as collaboration, team building, commitment and development that had a positive impact on organizational agility, as collaboration and continuous learning were key capabilities for organizational agility. Mentor leaders also had a positive impact on organizational agility as they promote people to be self-driven and make their own decisions, including permitting failure as long as people learn from their mistakes. Empowerment and commitment built openness and trust, enabling people to innovate. This culture alone did not fully drive innovation, as people also had to be inspired and passionate about

what they do, for innovation to take off. This was, in particular, promoted by Company-4 and 5 (Figure 2). At Company-4 all employees supported each other to meet the goals and targets. For example, during the visit to the site to interview people for this study, engineers could be seen working with a UX designer down on the garage floor, to solve the lighting design on the car in order to achieve the best-suited design both from a technical design perspective and from a user experience perspective. Even though Company-4 did apply "digital first", they sometimes needed to see and feel how it would work out in the real physical car. Both Companies-4 and 5 had great collaboration with external actors. Company-5 CEO stated that from the start they realized that their potential market space was large and they would not be able to do it by themselves – their strategy has been to collaborate with others. As he said, "It is a big space and one cannot do it all, even though you can do it all maybe you shouldn't. Others might do it better." Company-4 even had the well-established incumbents knock on their door to be part of their journey. They tried to find win-win solutions since Company-4 was not able to pay for the incumbents' tools that they offered them to use in their development. The incumbents partnered up with Company-4 for branding, e.g. to gain some of the hype status to boost their incumbent image to attract talent, or to use Company-4 as a testbed for their own products. What Company-4 clearly stated was that it was never for charity, there needed to be a win-win for both companies.

Adhocracy: Transformational change

With its flat structure, external positioning, focus on individuality and flexibility and value drivers such as a challenging social vision and a focus on innovative outputs, the Adhocracy culture had a positive impact on organizational agility and provided a capability for transformational change (Iivari & Iivari, 2011). The visionary leaders were able to inspire both people and customers and gain their loyalty and commitment to innovate and develop. This was a highly energetic environment where innovation took off, but for enabling continuous innovation "Clan" capabilities like continuous learning and collaborations were needed. This means that the Adhocracy culture is not enough to enable the continuous innovation needed in a fast-paced, innovating digital market. Company-4's (Figure 2) frugal use of titles, unless needed to ease external communication, created a change-able mindset of all employees. As several of Company-4's interviewed people stated, "Titles are of no importance, has no internal value," "Team members are those in charge," and "Ideas for solution can come from anywhere." They

even stated, "This is due to the culture and the talent that we get into the company, to be open-minded until the last second."

Organizational culture values

The organizational culture values' impact on organizational agility (capabilities) differs depending on whether it concerns non-competing, competing, or complementary values.

Non-competing values

Company-3 (Figure 2) was unique among our interview companies since it was only placed within one culture, namely the closed hierarchical culture. An observation was that their external communication did not reflect the actual company inside, which could be an effect of their hierarchical culture. These were the most difficult interviews to do and where trust was not really in place. We experienced this company as a very closed company, which is not really suitable for open innovation that requires a high degree of openness and co-innovation (Kucharska, 2017). We did not find any competing values within this company.

Competing values

For Company-1 and 2 (Figure 2) their hierarchical culture values with respect to formal rules, policies, control and their hierarchical cultures' organization glue dimension had a negative effect on innovation (Naranjo-Valencia et al., 2011). The difference between these two companies was that Company-2 showed more openness. As explained by them, it was due to keeping their startup culture and organization agility that they had prior to the acquisition by their mother company. This was something that Company-2 was struggling with in order to be able to retain its original culture now when being in the "new" environment where they had to be compliant with the mother company's processes and routines.

Complementary values

Cameron and Quinn (2011) found that companies spanning several cultures are likely to generate internal tensions due to competing value systems that can make them less efficient and thus hamper their ability to innovate. Surprisingly the studied startups (Company-4 and 5, figure 2) showed a high degree of organizational agility while at the same time spanning two value logics – Clan and Adhocracy. The influence of these cultural values was seen

as crucial for the studied companies to develop organizational agility as a dynamic capability to enable innovation growth (Steiber & Alänge, 2013). The combination of Clan and Adhocracy culture generated a value system that supported a creative agile environment for both leaders and other employees, which moved the organizations into a hyper productive state (Takeuchi & Nonaka, 1986; Schwaber & Beedle, 2001). For the startups in this study it meant moving into a hyper-innovating state due to cooperative and knowledge sharing rather than competitive behavior, which also has been noted in other startup studies regarding organizational culture (Prystupa, 2017). As Company-4 stated, "Ambition level is 10 out of 10. It is all in by everyone." We could not identify a direct tension within the culture combination of Clan and Adhocracy. Instead, they blended into one compound culture, which we term *Agile culture*. The Clan culture focused on caring for people, fostering collaboration, enabling continuous learning to develop employees' skills and competence (Takeuchi & Nonaka, 1986; Schwaber & Beedle, 2001). Naranjo-Valencia et al. (2011) identified what they call organization glue that had a positive effect on innovation when employees shared values. In particular, these values were a commitment to innovation and change. The structure in these organizations was flat with little formal expression of Hierarchy.

The studied companies recognized the importance of what Yusuf et al. (1999) named the core concepts of an agile enterprise: virtual organization, capability for reconfiguration, core competence and management, and knowledge driven enterprise, e.g. continuous learning. This was especially evident in the incumbents' struggle to establish a culture that would let organizational agility permeate the whole work organization to obtain a holistic perspective. The startups had this approach as a cultural premise for the entire organization. As Goldman et al. (1995) has argued, to succeed, companies need to tailor their approach to fit their organizational context so that everyone can embrace the vision. There is no generic receipt that fits all (Goldman et al., 1995). In this study, the incumbents were all trying to organize their move around the Scaled Agile Framework, SAFe. This required both structural and cultural transformational change (Cameron et al., 2011). A culture move towards organizational agility also required top management to have a clear vision of why the move was needed (Paasivaara, Behm, Lassenius, & Hallikainen, 2018). The incumbents identified the innovation capability fostered by the startups' new type of agile culture. They realized that it put pressure on them to transform from an organization dominated by Hierarchy and Market culture, to an organization charged by Clan and Adhocracy culture. However, the study shows that it was hard for the incumbents to involve all levels of the company to embrace an agile approach

to the organization because of the dominating waterfall regime. While the startups managed to fuse Clan and Adhocracy into a new agile culture, the acceleration of the transformation towards organizational agility led to increased tensions between Hierarchy/Market culture and Clan/Adhocracy culture in the studied incumbents.

Felipe et al. (2017) concluded in their study on the relationship between competing values and organizational agility that Clan, Adhocracy, and Hierarchy cultures are positively related to organizational agility, while Market culture is negatively related to organizational agility. Their findings suggest that agile companies might benefit from a certain degree of stability, order and control in crisis and uncertainty times. It is noted by Felipe et al. (2007) that Hierarchy culture may lead to short-term success. However, our results show that short-term integration into a Hierarchy culture can have a negative impact on innovation capability. This was also an important reason why the three incumbents in our study transformed their organizations towards combining Clan and Adhocracy cultural values. All studied companies proposed that, in order to be able to create novel products and services and rapidly take them to market, they needed to collaborate with external actors in a more open and collaborative way than before. This required that they reassess criteria for effectiveness based on Clan and Adhocracy cultural values, such as present and committed leaders, flat organizations, co-creation, and agile techniques and tools, such as empowerment, teamwork and innovation (Cameron et al., 2014). Given the challenges facing companies today, incumbents in particular, in order to attract and retain the necessary talent needed within the digital era, a transformation towards an agile environment can be a way of mitigating the challenge of attracting and retaining this needed talent. According to Lund (2003), job satisfaction is negatively related to Hierarchy and Market cultures, and positively related to Clan and Adhocracy cultures.

CONCLUSION AND CONTRIBUTION

This paper set out to answer the research question: How do cultural values shape organizational agility when incumbent firms and startups within the automotive industry explore digital innovation opportunities?

Our first conclusion is that organizational agility effectiveness is gained only when both Clan and Adhocracy cultures are present and integrated. We call the integrated sum of these two cultures 'Agile culture.' This is in contrast to the competing values between the Clan and the Adhocracy cultures identified by Cameron and Quinn.

A second conclusion is that Hierarchy and Market culture values are opposite to the amalgamation of Adhocracy and Clan culture, which we refer to as agile culture. Hierarchy and Market culture values competed with agile culture. This made it difficult for incumbents to gain organizational agility by incorporating a 'startup culture' that had the desired combination of Clan and Adhocracy values, e.g. as shown for Company-2 (Figure 2). This was also the main reason why all incumbents that participated in this study started an 'all-in' agile transformation journey, aiming to move their organization from a traditional culture (Hierarchy & Market) that had an inhibitory effect on their innovation capability, to an agile culture that would in particular enable their open innovation capability.

Limitations and future research. There are some limitations to this study. The data collection is primarily from three large, global Swedish automotive companies, except for one startup in Sweden and one startup in USA. Another limitation is that the data is from two startups from two different continents, and it would be interesting to further study startups from other continents. Therefore, generalization of the results must be made with caution. Further research is needed to better understand the influence of culture on organizational agility in the context of open innovation. This includes understanding how companies co-create with external actors in ecosystems or networks and the implications for continuous innovation growth.

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Abstrakt

Celem tego badania jest pogłębienie wiedzy dotyczącej tego, w jaki sposób kulturowe aspekty zwinności organizacyjnej wpływają na zdolność do generowania innowacji cyfrowych. W kontekście rosnącego zapotrzebowania na szybko rozwijające się innowacje cyfrowe, zwinność organizacyjna staje się strategicznie kluczowa dla dużych firm, aby zwiększyć ich konkurencyjność. Literatura na temat sprawności i zwinności organizacyjnej jednoznacznie wskazuje, że obecnie nawet organizacje szerokim dostępem do zasobów, wciąż mogą mieć ograniczone możliwości wprowadzania innowacji i reagowania na zmiany. Sytuacja organizacji dojrzałych istotnie kontrastuje z sytuacją startupów, które bywają imponująco innowacyjne mimo bardzo ograniczonych zasobów. Czasami firmy zajmujące ugruntowaną pozycję rynkową są deklasowane przez startupy ze względu na ich olbrzymią zdolność do wdrażania zmian i szybkiego wykorzystywania nowych możliwości biznesowych. Jednak brakuje wiedzy o tym, dlaczego niektórzy obecni operatorzy rynkowi nie są w stanie efektywnie wykorzystywać swoich zasobów do wdrażania innowacji cyfrowych i dlaczego niektóre mniejsze startupy mogą swobodnie te ograniczenia zasobów przekraczać. Autorzy uważają, że na tą sytuację mają wpływ czynniki kulturowe. Aby zweryfikować to założenie, zaprojektowali badanie porównawcze dot. wpływu kultury na sprawność organizacji w firmach dużych (wieloletnich), jak i startupach z branży motoryzacyjnej. Zastosowali oni jakościowe podejście badawcze w oparciu o wywiady częściowo ustrukturyzowane. Ramy konkurujących wartości organizacyjnych zostały wykorzystane jako narzędzie do kategoryzacji różnych kultur, które wpływają na sprawność organizacji, ale także do określenia, w jaki sposób i kiedy napięcia między wartościami wspierały lub utrudniały zdolność organizacji do innowacji. Nasze odkrycia pokazują, że podczas gdy mieszanka kultur hierarchii i rynku hamowała zdolność do innowacji, kultury klanowe i adhokracyjne promowały innowacje. W badanej próbie wieloletnie firmy przeważnie należały do dwóch pierwszych kultur, podczas gdy startupy zazwyczaj należały do drugiej grupy. Zaobserwowano, iż startupy odnoszące największe sukcesy we wdrażaniu innowacji były w stanie stworzyć kombinację kultur klanowych i ad-hokracji, którą autorzy nazywali „kulturą zwinną". Ta kultura pozwoliła im osiągnąć korzystny stan wzrostu innowacji cyfrowych. Autorzy sformułowali również implikacje badawcze i rekomendacje praktyczne, stwierdzili potrzebę dalszego, głębszego przeanalizowania znaczenia elementów kultury zwinnej dla sprawności organizacyjnej; oraz zaznaczyli konieczność dalszej eksploracji wątku dot. tego jak wykorzystać kulturę jako atut umożliwiający rozwój innowacji cyfrowych. Oryginalność przedstawionych wyników polega na identyfikacji „kultury zwinnej", która jest połączeniem kultury klanowej i adhokracji. Kultura zwinna, a konkretnie wartość, którą ona tworzy, gdy jest stosowana, umożliwia sprawne wdrażanie innowacji cyfrowych.

***Słowa kluczowe:** kultura zwinna, sprawność organizacyjna, kultura przedsiębiorczości, ramy konkurencyjnych wartości, zdolność do innowacji cyfrowych*

Biographical notes

Dulce Goncalves is an industrial Ph.D. student in her third year at Halmstad University. Dulce holds a master's degree in informatics and has substantial industrial experience in global R&D software product development. She has held several strategic and leading roles (e.g., R&D manager, Agile thought leader, business area manager, board member, and senior management consultant) since the beginning of 2000, supporting large incumbents within different industries through their all-in agile transformation journeys. Her research centers on organizational agility; and how it enables and drives continuous digital innovation growth.

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Richard Bunk has a Ph.D. in Physics with a background in both engineering and business administration. He has headed several companies, industrial excellence programs, innovation and patenting projects, and global product development journeys over three decades — with roles such as CEO, CTO, Board Chairman, and Strategy Officer. As Chairman of the Board of Swedsoft, he gathers Swedish industry and government in a joint effort to become a world-leading nation in software development. He also heads an open innovation center for digital mobility solutions: Future Mobility Center at Halmstad University. As a senior management consultant, he reshapes industrial organizations to master continuous innovation through dynamic capabilities and an agile culture.

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Conflicts of interest

The authors declare no conflict of interest.

Citation (APA Style)

Managing knowledge in the context of smart cities: An organizational cultural perspective

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Abstract

Smart cities need to take advantage of the opportunities that the knowledge-based economy and society can bring to the city. Therefore, cities planners and decision makers need to develop cities that take advantage of local knowledge and the intellectual capital of the population. Organizational culture is widely held to be a major barrier to creating and leveraging knowledge. Successful implementation of knowledge management (KM) almost always requires a culture change in order to promote a culture of knowledge sharing and collaboration. Hence, organizations implementing smart cities need to place great emphasis on the need to change organizational culture to pursue effective KM and its successful implementation. However, the management of culture change is a complicated task; its precise nature in smart-city development and the strategies required to be adopted remains underspecified. This study aimed to explore organizational cultural transformation needed for managing knowledge in the context of smart cities. The methodological approach for this study is a systematic review, covering publications on smart cities, KM, and organizational culture. The method used in this study involved three stages: planning the review, conducting the review, and reporting and disseminating the results. The findings revealed three key themes which are: organizational perspectives of smart cities; organizational change, innovation, and digital transformation; and the relationship between organizational culture and KM. The paper concludes that the cultural transformation required for the development of smart cities needs to facilitate the ability to integrate, create and reconfigure both internal and external competences to manage knowledge that

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originates from within and beyond projects boundaries. This study provides an insight into urban policymakers, planners, and scholars to prepare for the challenges that organizations face in their efforts to manage and implement smart cities successfully.
Keywords: *culture, smart cities, knowledge management, transformation change*

INTRODUCTION

The concept of smart cities has garnered increasing attention in recent years. There has been much written espousing the development of smart cities, and the need for adopting smart-city initiatives as a strategy to mitigate the unprecedented challenges of continuous urbanization, increasing population density and at the same time to provide a better quality of life to the citizens, and enhance sustainability and economic growth. Albino, Berardi, and Dangelico (2015) noted that the concept of smart cities is far from being limited to the application of technologies to cities. In fact, the use of the term is proliferating in many sectors with no agreed-upon definitions. This has led to confusion among urban policy makers, hoping to institute policies that will make their cities "smart." Ardito et al. (2019) noted that the most recent view on smart-city development has recognized that the level of technology adoption in urban contexts is no more able to reflect the real smartness of cities.

Boulton, Brunn, and Devriendt (2011) noted that a smart-city is seen as a center of knowledge, education, and creativity. It comprises a concentrated diversity of people with different professional, cultural, and social backgrounds that are creative, skilled, and work flexibly in organizations. Furthermore, Leon and Romanelli (2020) work on six smart cities in Romania and Italy from a Knowledge Management (KM) perspective posited that the difference among cognitive, emotional and spiritual knowledge might influence the tools that policymakers could use for smart-city development. Therefore, knowledge is a fundamental source of value for cities and the practical base upon which smart-city plans must engage. The knowledge economy principles, KM, and KM frameworks have gained significant importance in both global and local strategic developments. This paradigm shift in strategic planning has strongly influenced urban development, with the result that knowledge is now perceived as the core component that makes cities smart. Moreover, Bakici, Almirall, and Wareham (2013) suggested that to take advantage of the opportunities that a knowledge-based economy and society can bring to the city, leaders and decision makers need to develop cities that take advantage of local knowledge and the intellectual capital of the population.

Organizations developing smart-city projects need to become learning organizations before they can formulate and implement smart-city policies

to create smart production and smart consumption of their services, so as to increase the outcome effectiveness of their policies and services (Anttiroiko, Ari-Veikko, Valkama, & Stephen, 2014; Owoc & Marciniak, 2013). Therefore, smart-city decision makers need to be aware of all possible kinds of knowledge resources and to consider these resources as crucial factors for organization strategic management techniques. The smart-city organizations need to design specific systems to acquire and analyze the use (re-use) of knowledge in order to make faster, smarter and better decisions, and to provide quality services and products so that they can achieve a competitive advantage.

Although smart cities' development requires incorporating more soft assets into city planning, the current literature on smart cities shows an exclusive focus on hard infrastructure and technology. But it ignores one of the most critical elements – the managerial aspects, and specifically, KM and the organizational cultural transformation needed to ensure effective and successful implementation. There is probably no work that explores the synergy of the three aspects, i.e. smart cities, KM, and organizational culture. Therefore, this paper discusses the theoretical background of smart cities, KM, and organizational culture. After that, it follows a systematic review of literature methodology to identify the authors' various works. Finally, this paper presents findings, discussion, and conclusion.

THEORETICAL BACKGROUND

Smart cities

Smart cities are an emerging strategy to mitigate the problems generated by rapid urban population growth and rapid urbanization (Chourabi et al., 2012; Xu, Wu, & Wang, 2012). A smart-city strategy is global and long-term planning in a city's economic, social, and environmental development, ultimately to achieve sustainable urban development. Dameri and Ricciardi (2015) noted that being smart is about capitalizing on all available resources to build a better quality of life for all – including the next generations. Although there is an increase in the frequency of use of the phrase "smart-city," there is still no clear and consistent understanding of the concept among practitioners and academia. Mora, Deakin, and Reid (2019) noted that disagreements over smart-city development status were first reported on by Hollands (2008). After reviewing the literature on smart cities produced between 1990 and 2007, his research identified and compared a number of attempts to formulate a definition of the smart-city, capturing both a lack of clarity and absence of any agreement on how this concept is

understood by the scientific community. According to Albino, Berardi, and Dangelico (2015), despite the intervening growth of research on smart-city development, these disagreements on what such a development represents are still firmly entrenched in the scientific literature. In summary, as Giffinger et al. (2007) concluded, there are several fields of activity that are described in the literature in relation to the term smart-city: industry, education, participation, technical infrastructure, and various 'soft factors.'

Anttiroiko, Ari-Veikko, Valkama, and Stephen (2014) noted that the smart-city phenomena attracts increasing attention from urban scientists, combining modern Information and Communication Technologies (ICTs) with organizational planning and design to unbundle economic processes, cut bureaucracy, streamline service processes and implement organizational innovations. Smart cities also provide the right environment to enable innovation and positive economic development. They are generally flush in high-quality education facilities, including universities and other establishments for life-long learning (Nam & Pardo, 2011). Moreover, ICT can also enhance the access to and exchange of knowledge between institutions and individuals. Such a concentrated environment of highly skilled citizens and a well-developed knowledge infrastructure also attracts businesses and even more educated individuals (Nam & Pardo, 2011; Angelidou, 2014).

Mora, Deakin, and Reid (2019) noted that strategies for smart-city development could be found all over the world and researchers have made significant efforts in investigating their design and implementation processes. Younes and Aljunaedi (2018) and Hollands (2008) defined smart-city as the facts of urban classification, mainly in terms of skimpy and smacking the label philosophically. Despite this growing interest in smart cities and almost three decades of literature on the matter, research is still unable to clearly explain what needs to be done in order for urban environments to be successful when designing and implementing smart-city development strategies.

According to UNECE (2015), the comprehensive "smart cities" initiative aims at improving key dimensions of cities, including; urban environment (energy, buildings, transportation, water, waste), governance, social capital, economic conditions, and citizens' experience. For example, more focus is being placed on energy savings and fluctuating renewable energy sources. While electricity savings should be promoted heavily, an increasing emphasis is placed on the integration of fluctuating renewable energy into the electricity system to lower emissions. For example, the smart grid community has a strong focus on the use of ICT, smart meters and smart grids connected to existing electricity demands, Electic Vehicles (EVs) and individual heating technologies, flexible demand, storages and electricity storage, distributed generation and transmission (Mathiesen et al., 2015).

Smart-city projects and research are aimed at the sustainability, resilience, quality of life, and competitiveness of city systems (Chourabi et al., 2012; Dameri & Ricciardi, 2015). The smart-city community strongly believes that knowledge is the key to the future and that the pivotal strategies in the development of "smart" knowledge are technological innovation, collaborative networking, and participative social interactions (Schaffers et al., 2011; Dameri & Ricciardi, 2015; Ardito et al., 2019). Therefore, there is a need to link the role of knowledge and intellectual capital (IC) to the development and creation of smarter ecosystems and be regarded not as a single organization, but as a network of different actors and subjects rooted in different communities (Gray, 2006; Dameri & Ricciardi, 2015). According to Dameri and Ricciardi (2015), each smart-city entity should be viewed as a new form of knowledge-based, project-oriented network organization, which in most cases needs to be jointly managed by people from different traditional organizations, such as public administration bodies, universities, public transportation companies, etc. This novel type of project-based network organization should be at the center of a new stream of management studies in order to investigate which possible business models and organizational designs could be adopted for smart-city organizations. The smart-city organization requires the development of specific, intertwined knowledge management and project portfolio management approaches, capabilities, and tools (Dameri & Ricciardi, 2015).

City governments have to become learning organizations before they can formulate and implement smart-city policies to create smart production and consumption of their services so as to increase the outcome effectiveness of their policies and services (Anttiroiko, Ari-Veikko, Valkama, & Stephen, 2014). Yigitcanlar, Desouza, Butler, and Roozkhosh (2020), in addition to Xu, Wu, and Wang (2012), noted that information technology, KM, and innovative networks are shaping the face of our world, which makes our cities more knowledge-intensive and innovation-driven. Ardito et al. (2019) noted that, over time, the rationale underlying the development of smart-city projects has changed in terms of priorities and perspectives.

However, a significant body of research considers this technology-led theory of supply-push solutions inadequate and unable to cope with smart-city development's complexity. It promotes a utopian and technologically deterministic interpretation of smart cities that serves nothing but the interests of companies working in the technology industry. The researchers such as Hollands (2008), Caragliu, Del Bo, and Nijkamp (2011), Scuotto et al. (2016), Yigitcanlar (2016), Mora, Deakin, and Reid (2019), raising objections to this interpretation, call for a much more progressive and holistic vision that conceives smart cities not as technological fixes resulting from the

agglomeration of ICT solutions in urban infrastructures, but as complex socio-technical systems in which technological development is aligned with human, social, cultural, economic and environmental factors.

Knowledge management

Knowledge is one of the building blocks for an organization's success and acts as a survival strategy in this knowledge era (Renukappa et al., 2020; Renukappa, Hanouf, & Suresh, 2019; Suresh, Olayinka, Chinyio, & Renukappa, 2017). Paterek (2017) noted that organizational knowledge is a value of learning from the theoretical perspective and KM is a value from a practical standpoint. Lin and Hwang (2014) indicated that knowledge resources reside in employees' minds and organizations have to utilize this valuable resource for their competitive advantage. At the heart of an organization's strategy process, it has been observed that it is a force, which has been termed as the 'knowledge force,' which is powered by the knowledge workers (Renukappa et al., 2017).

An increasing number of organizations are turning to KM as a key to leverage their distinctive core competencies in their pursuit of competitive advantage (Bhatt, 2001). Accordingly, Todericiu and Stanit (2016) noted that KM is one of the processes of new management techniques. It is the process of organizational knowledge to give value to the organizations, and it plays an essential role in achieving sustainable competitive advantage. KM ultimately aims at creating business value and generating a competitive advantage. Nguyen and Mohamed (2011) noted that organizations are interested in KM to boost their processes' efficiency, increase their productivity and the quality of their services, and achieve innovative solutions and products for their customers. Consequently, the contributions of KM to the overall success of an organization have been widely acknowledged. Prior research studies have demonstrated that organizational culture is widely held to be a major barrier to creating and leveraging knowledge (Bhatt, 2001; Dixon et al., 2017; Abdalla, Renukappa, Suresh, & Al-Janabi, 2019).

Massingham (2014) noted that knowledge is an intangible resource, and it combines with other firm resources (e.g., financial and physical) to create capabilities. Knowledge resources are often classified as either tacit (implicit) or codified (explicit). Nonaka and Takeuchi (1996) make the distinction between two types of knowledge: explicit knowledge and tacit knowledge. Discussions of this concept are abundant in the KM literature. Explicit knowledge is defined as structured and codified knowledge. It is formal and systematic and is easily expressed in production specifications, scientific formulae, or computer programs; thus, it can be easily communicated and shared (Nonaka & Konno, 1998). Tacit knowledge, in contrast, is unconsciously

understood and applied, challenging to articulate, and developed directly from experience and action. Tacit knowledge is highly personal, hard to formalize, and difficult to communicate or share with others (Nguyen & Mohamed, 2011; O'Dell & Hubert, 2011).

Abdalla, Renukappa, Suresh, and Al-Janabi (2019) noted that a smart-city notion is understood to refer more generally to the development of a knowledge economy within a city-region. Combining various sources of data together allows a city to develop an accurate understanding of societal challenges such as sustainability, mobility, health, and security. This understanding helps make better, smarter, data based choices (Dixon et al., 2017; North, Maier, & Haas, 2018; Abdalla, Renukappa, Suresh, & Al-Janabi, 2019). Therefore, to retain and rebuild competitive advantage, organizations implementing smart-city projects need to develop capabilities for digital renewal and learn how to create and implement digital business strategies and to adopt the needed changes to their culture and KM procedures.

Organizational culture

Organizational culture is an anthropological metaphor used to inform research and consultancy and to explain organizational environments (Mannion, Konteh, & Davies, 2009). Several definitions of organizational culture can be found in the literature. They range from the extremely simple – "the way we do things around here" – to the more complex definition proposed by Schien (1985): "the pattern of shared basic assumption – invented, discovered or developed by a given group as it learns to cope with its problems of external adaptation and internal integration – that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think and feel in relationship to those problems." A consistent element of each of these definitions is that 'organizational culture' pertains to multiple aspects of what is shared among people within the same organization. These shared characteristics may include beliefs, values, norms of behavior, routines, traditions, sense-making, etc. (Parmelli et al., 2011). Culture is, therefore, a lens through which an organization can be understood and interpreted (Mannion, Konteh, & Davies, 2009). Mannion, Konteh, and Davies (2009) highlighted that culture is not merely the observable in social life, but also the shared cognitive and symbolic context within which a society can be understood. Parmelli et al. (2011) and Dalkir (2017) noted that understanding the culture is to understand your organization. Schein (1992) approaches this issue through his three levels (Table 1).

Table 1. Culture levels

Cultural level	Description
Artifacts	The visible organizational structures and processes.
Values	The stated strategies, goals, philosophies, and
Assumptions	justifications.
	The basic, underlying assumptions and unconscious, taken-for-granted beliefs, perceptions, thoughts and feelings.

Source: Schein (1992).

Akhavan, Sanjaghi, Rezaeenour, and Ojaghi (2014) noted that organizational cultures represent an organization's characteristics, which direct its employees' day-to-day working relations and guide them on how to behave and communicate within the organization, as well as how the company hierarchy is built. From this perspective, culture is one of the most essential features of an organization with contextual properties that can have supportive and deterrent effects on all areas and activities of the organization. According to Akhavan, Sanjaghi, Rezaeenour, and Ojaghi (2014), a review of the literature shows that organizational culture is usually a set of key values, assumptions, perceptions and norms shared between members of the organization and will be taught to newcomers as the correct way to behave and act.

Groysberg, Lee, Price, and Cheng (2018) noted that understanding an organization's culture requires determining where it falls along two main dimensions: people's interactions and response to change (Figure 1). An organization's orientation toward people interactions and coordination will fall on a spectrum from highly independent to highly interdependent. Cultures that lean toward the former, place a greater value on autonomy, individual action, and competition. Those that lean toward the latter, emphasize integration, managing relationships, and coordinating group effort. People in such cultures tend to collaborate and to see success through the lens of the group. Moreover, whereas some cultures emphasize stability – prioritizing consistency, predictability, and maintenance of the status quo – others emphasize flexibility, adaptability, and receptiveness to change. Those that favor stability tend to follow the rules, use control structures such as seniority-based staffing, reinforce hierarchy, and strive for efficiency. Those that favor flexibility tend to prioritize innovation, openness, diversity, and a longer-term orientation (Groysberg, Lee, Price, & Cheng, 2018).

Flexibility

Learning   Purpose

Enjoyment   Caring
Independence   ────────────────────────────── Interdependence
Results   Order

Authority   Safety

Stability
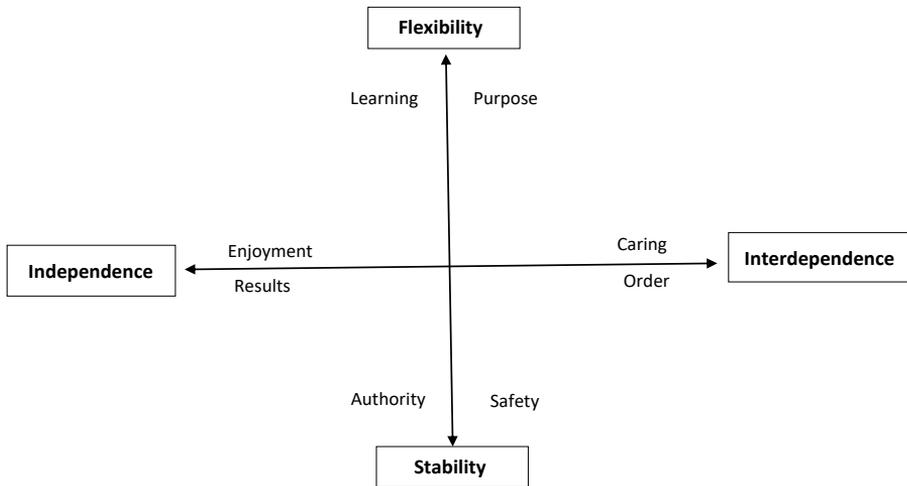
Figure 1. Organization culture styles
Source: Groysberg, Lee, Price, and Cheng (2018).

Schein (1999) uses the classic three-step approach to discuss change – unfreezing, cognitive restructuring, and refreezing. The key issue for leaders is that they must become marginal to a sufficient degree in their own culture to recognize its maladaptive assumptions and learn some new ways of thinking as a prelude to unfreezing and changing their organization. While organizational change is complicated and often lengthy to undertake, it is a critical requirement for most, if not all, KM implementation. The key lies in symbolic action, dealing with essential symbols of values, norms, and assumptions (Dalkir, 2017). By applying this fundamental insight about the dimensions of people interactions and response to change, Groysberg et al. (2018) have identified eight styles that apply to both organizational cultures and individual leaders (Table 2).

Table 2. Eight styles that apply to both organizational cultures and individual leaders

Style	Description
Caring	Focuses on relationships and mutual trust. Work environments are warm, collaborative, welcoming places where people help and support one another. Employees are united by loyalty; leaders emphasize sincerity, teamwork, and positive relationships.
Purpose	Exemplified by idealism and altruism. Work environments are tolerant, compassionate places where people try to do good for the long-term future of the world. Employees are united by a focus on sustainability and global communities; leaders emphasize shared ideals and contributing to a greater cause.
Learning	Characterized by exploration, expansiveness, and creativity. Work environments are inventive and open-minded places where people spark new ideas and explore alternatives. Employees are united by curiosity; leaders emphasize innovation, knowledge, and adventure.
Enjoyment	Expressed through fun and excitement. Work environments are light-hearted places where people tend to do what makes them happy. Employees are united by playfulness and stimulation; leaders emphasize spontaneity and a sense of humor.
Results	Characterized by achievement and winning. Work environments are outcome-oriented and merit-based places where people aspire to achieve top performance. Employees are united by a drive for capability and success; leaders emphasize goal accomplishment.
Authority	Defined by strength, decisiveness, and boldness. Work environments are competitive places where people strive to gain personal advantage. Employees are united by strong control; lead
Safety	Defined by planning, caution, and preparedness. Work environments are predictable places where people are risk-conscious and think things through carefully. Employees are united by a desire to feel protected and anticipate change; leaders emphasize being realistic and planning ahead.
Order	Focused on respect, structure, and shared norms. Work environments are methodical places where people tend to play by the rules and want to fit in. Employees are united by cooperation; leaders emphasize shared procedures and time-honored customs.

Source: Groysberg, Lee, Price and Cheng (2018).

Organizational culture and knowledge management

In the body of available literature about KM, the concept of 'culture' has been used repeatedly. This concept is mostly presented in expressions like 'knowledge-sharing culture' or 'knowledge culture.' Although other expressions like 'organizational culture' 'organizational climate' or 'national culture' are also propounded (Allameh, Zamani, and Davoodi, 2011), 'knowledge culture' is one of the specific branches of organizational culture. It is an indication of an organizational life method that uses people in the process of creation and exchange of information. Moreover, it uses its own, as well as the knowledge of others, to accomplish organizational goals and attain success (Allameh, Zamani, & Davoodi, 2011).

Allameh, Zamani, and Davoodi (2011) noted that KM systems go beyond technology; an organizational culture in which new roles are defined has a critical role in knowledge creation. Effective KM depends not merely on IT platforms, but more broadly on an organization's social ecology, and that IT is simply a facilitator. Allameh, Zamani, and Davoodi (2011) noted that most of the value added to the performance of KM is not the result of the technology used; rather, it was the result of the new organizational managing roles and also the people who used this technology in the most efficient manner. Moreover, Allameh, Zamani, and Davoodi (2011) noted that the presence of a specific culture in an organization is necessary for the effective performance of KM processes. The authors emphasized that an efficient culture is one that emphasizes knowledge exchange, trust in interactions and creativity, and that such knowledge would be successful in performing management processes. Furthermore, organizational culture is one of KM's key success factors because culture affects learning, acquisition, sharing, and other related areas of knowledge (Alavi & Leidner, 2001; Akhavan, Sanjaghi, Rezaeenour, & Ojaghi, 2014; Renukappa et al., 2020).

Effective KM, therefore, requires that attention be paid to the human and cultural aspects of business, particularly the experiences and tacit knowledge of employees (Nonaka & Konno, 1998). Accordingly, in order to effectively implement KM systems, managers need to diagnose the fit between their organization and KM objectives. However, organizational culture is the main obstacle in knowledge transfer (Allameh, Zamani, & Davoodi, 2011). Therefore, it is essential to articulate how organizational culture and leadership styles affect an organization's ability to create and apply knowledge. It is only then, that appropriate strategies can be designed to either adapt the organizational culture, or to try reshaping it in order to support KM objectives (Nguyen & Mohamed, 2011).

Culture is an important, as well as complicated, issue in KM (Allameh, Zamani, & Davoodi, 2011). Organizational culture is considered the most influential factor in KM and organizational learning (Akhavan, Sanjaghi, Rezaeenour, & Ojaghi, 2014). The literature concluded that organizational culture is one of KM's key success factors because culture affects learning, acquisition, sharing, and other related areas of knowledge (Alavi & Leidner, 2001; Akhavan, Sanjaghi, Rezaeenour, & Ojaghi, 2014; Renukappa et al., 2020).

Smart cities, Knowledge Management and Culture

City leaders should investigate how knowledge resources can be leveraged at the city and regional levels to build strong and sustainable social ecosystems where healthy organizations can flourish (Dameri & Ricciardi, 2015). Organizations implementing smart cities need to place great emphasis on the need to change organizational culture to pursue effective KM and successful implementation. However, cultural change management is a complicated task; its precise nature in smart-city development and the strategies to be adopted remain underspecified. Paterek (2017) noted that new project management methodologies adapted to complex and dynamically changing business environments and market competition are needed. The author states that introducing new project management methodologies results in organizational changes in technology, methodology, processes, strategy, and organizational culture. Hence, smart cities' development requires a complex and long-lasting number of organizational changes at all levels. Thus, smart cities necessitate organizational development in project management methodologies addressing several KM aspects, issues, and challenges.

Essawi and Tilchin (2013) noted that a favorable organizational environment is needed to realize effective KM. Such an environment can be created by changing organizational culture, which determines the new way of thinking and acting of employees. Organizational culture change is accomplished when the new results that an organization has to achieve are stated, actions of the employees providing attainment of the results are determined, the new organizational values guiding actions of employees are identified. The experiences that inspire new organizational values are formed. Since tacit knowledge, including mental models, expertise, cultural beliefs, and values is inseparable from organizational culture, KM culture that induces the employees' willingness to create, transfer, share, and use knowledge can promote the handling of tacit knowledge (Nonaka & Takeuchi, 1996; Essawi & Tilchin, 2013; Al Murawwi, Behery, Papanastassiou, & Ajmal, 2014).

According to Paterek (2017), the organizational learning process is necessary to continuously introduce innovations and keep pace with

organizational development. Organizational culture is the key determinant of both learning and technical innovation. Further, the author noted that a flexible, adhocracy culture supports organizational learning more than a hierarchy culture, especially for project organizations with many collaborating and interacting project teams. Smart cities aim to establish dense knowledge and information exchange environments by linking different stakeholders, such as local authorities, research universities, R&D units of large companies, and other individuals and institutions. Therefore, organizations implementing smart-city projects need to adopt a flexible culture to support organizational learning. Albino, Berardi, and Dangelico (2015) noted the importance of the organic integration of a city's various systems (transportation, energy, education, health care, buildings, physical infrastructure, food, water, and public safety) in creating a smart-city. The authors support this integrated view of a smart-city, which underlines that in a dense environment, like that of cities, no system operates in isolation (Vallicelli, 2018).

Smart-city initiatives are highly information-intensive and often use citizen-generated information, which raises many problems concerning how this information is actually collected and used (Mainka et al., 2016). Scuotto et al. (2016) noted that smart cities make innovation ecosystem, joining together different forces like knowledge-intensive activities, institutions for cooperation and learning, and web-based applications collective intelligence. In agreement with Kourtit and Nijkamp (2012), Albino, Berardi, and Dangelico (2015) noted that smart cities result from knowledge-intensive and creative strategies aimed at enhancing the socio-economic, ecological, logistic, and competitive performance of cities. Kourtit and Nijkamp (2012) noted the positive correlation between the presence of knowledge-intensive services and cities' innovative performance and "smartness."

According to Mainka et al. (2016), smart-city concepts follow the open innovation approach and involve all city stakeholders in decision-making processes. Organizations that want to benefit from this open-source innovation need to adapt their strategy and organizational model, and work long-term on culture change and openness from within and outside (North, Maier, & Haas (2018). Therefore, everyday learning through project team collaboration, experiments, problem solving, problem absorption, or lessons learned from issues and failures are necessary for knowledge creation. Paterek (2017) noted that learning by experience inside a collaborative group of people or among different project teams is a fundamental organizational learning enabler of a company's successful transformation.

North, Maier, and Haas (2018) noted that development towards digitized knowledge societies is taking place on a global scale. The move towards an increasingly digital world is rapidly changing the ways in which people and

organizations create, use and share data, information, and knowledge. The authors highlighted that a common definition of 'digital transformation' refers to 'the change associated with the application of digital technology in all aspects of human society.' The corresponding digitization of previously analog operations, tasks and managerial processes profoundly impact companies and organizations (Iansiti & Lakhani, 2014; Hess, Matt, Benlian, & Wiesböck, 2016).

North, Maier, and Haas (2018) noted that from an organizational perspective, researchers saw the way knowledge is handled as a source for competitive advantage advocated by the resource-based view (Grant, 1991) and the knowledge-based theory of the firm (Kogut & Zander, 1992). Organizations address the need for constant communication and acquisition of knowledge dispersed among employees by applying organizational and IT mechanisms to establish an environment supportive of knowledge work, also called KM systems (Alavi & Leidner, 2001; North, Maier, & Haas (2018). In a "digitized knowledge society," digital transformation strategies take on a different perspective and pursue different goals. From a business-centric perspective, they focus on transforming products, processes, business models, and organizational aspects due to new technologies (e.g., Internet of Things, Artificial Intelligence, and Big Data). From a human-centered perspective, KM focuses on the capturing and sharing of tacit and explicit knowledge. This includes connections between people and embracing social relations with their corresponding technology support, also called social knowledge environments (North, Maier, & Haas, 2018).

Increasingly high-performance data analytics enable the acquisition and analysis of vast volumes of data and its subsequent transformation into information as a basis for actionable insights (North, Maier, & Haas, 2018). For cities to select and develop appropriate citizen-focused technology, they must understand their citizens and develop appropriate technologies that will be well received. By providing citizens the access to information and the opportunity to participate, they may be more willing and able to develop initiatives and create solutions that are more "citizen centric." Moreover, smart-city, e-governance strategies are about creating a transparent and efficient exchange between the government and all city stakeholders (Albino, Berardi, & Dangelico, 2015; Holzer & Manoharan, 2016). It also incorporates the idea of creating an ecosystem of knowledge transfer and exchange (Albino, Berardi, & Dangelico, 2015). It creates a more robust dialogue between the government and its citizens, leading both sides to substantial knowledge gains. Their participation can create a stronger community feeling and spark the awareness, desire, and responsibility of citizens to promote an inclusive and equitable development of the city (Albino, Berardi, & Dangelico, 2015). Additionally, it can also positively contribute to the local entrepreneurial culture.

Warner and Wäger (2019) noted that dynamic capabilities are innovation-based and can create, extend, and modify a firm's resource base. Thus, building dynamic capabilities can help leverage digital knowledge inside the firm and connect an organization's workforce in unexpected ways across functions, hierarchies, and locations. Digital platforms and social media technology can also play a significant role in the ongoing refreshment of organizational culture (Bresciani, Ferraris, & Del Giudice, 2018; Warner & Wäger, 2019).

Crafting a digital mindset and culture throughout the entire organization is essential for building sensing capabilities that will allow organizations to seize on the latest unexpected trends (Warner & Wäger, 2019). A firm's business model, collaborative approach, and culture are the three broad forms of strategic renewal for digital transformation (Warner & Wäger, 2019). Therefore, organizations implementing a smart-city project need to retain and rebuild their competitive advantage by developing dynamic capabilities for digital renewal and learn how to create and implement digital business strategies. Karimi and Walter (2015) ascertain the role of dynamic capabilities in response to digital disruption. The authors concluded that dynamic capabilities are positively associated with building digital platform capabilities and that these capabilities impact the performance of a company's response to digital disruption. The development of dynamic capabilities is closely linked to learning and managing knowledge acquisition, creation and sharing within and across organizations. KM has to support a number of conflicting knowledge activities such as "exploitation" and "exploration, or "sharing" and "protection." An organization's ability to manage such seemingly contradictory processes and practices increasingly gains importance with digital transformation (North, Maier, & Haas, 2018).

Developing smart cities also necessitates considering organizational culture values. The most important element of changing organizational values is helping employees adopt the behaviors corresponding to the desired values by inspiring and rewarding them. Hanson (2012) described a process of changing organizational culture values involving determination of the desired values, and the development and implementation of a plan for changing employee behaviors based on these values. Pasher and Ronen (2011) affirm that successful knowledge creation and knowledge sharing in an organization result from a management style based on shared values of organizational culture. The authors concluded that trust, innovation, and respect for employees' knowledge are the most important values. Therefore, smart-city leaders and decision makers must focus on organizational culture that encourages learning and knowledge sharing.

According to Groysberg, Lee, Price, and Cheng (2018), leaders who are more focused on results and learning may find the combination of caring

and order stifling when they seek to drive entrepreneurship and change. Savvy leaders make use of existing cultural strengths and have a nuanced understanding of how to initiate change. They might rely on the participative nature of a culture focused on caring and order to engage team members and simultaneously identify a learning-oriented "insider" who has the trust of his or her peers to advocate for change through relationship networks.

Research methodology

The aim of this research is to investigate cultural transformation for managing knowledge in the context of smart cities. In order to achieve this aim, a robust methodology was considered essential. The methodological approach for this study was a systematic review, covering publications on smart cities, KM, and organizational culture. A literature review is a: "systematic, explicit, and reproducible method for identifying, evaluating, and synthesizing the existing body of completed and recorded work produced by researchers, scholars, and practitioners" (Castaneda, Manrique, & Cuellar (2018). A systematic review is a process that identifies, appraises, and analyses research evidence from primary studies to synthesize and map it. Although the systematic review has been primarily used in the medical sciences (Tranfield, Denyer, & Smart, 2003), this methodology is more widely applied and developed to review management literature. This method became one of the first explicitly recognized forms of literature reviews in the late 20th century and is now one of the most popular among scholars from various fields of research (Yigitcanlar, Desouza, Butler, & Roozkhosh, 2020). A systematic review aims at the common purpose of a literature review, including improving evidence-based decision making, identifying the synergies within the existing literature, and narrowing the gaps in the research field. However, its goal is distinctive, to the extent that it restricts the studied areas by setting inclusion and exclusion criteria and seeks to provide insights. It is essential that the literature reaches a certain level of maturity so that it can provide the most complete view for researchers and policymakers with a rigorous, transparent and reproducible process (Yigitcanlar, Desouza, Butler, & Roozkhosh, 2020).

In order to retrieve the group of articles to be included in the literature review, the study followed the principles for a systematic review originally proposed by Tranfield, Denyer, and Smart (2003). Indeed, as argued by various studies (e.g., Castaneda, Manrique, & Cuellar, 2018; Yigitcanlar, Desouza, Butler, & Roozkhosh, 2020), the systematic review can be considered as an analytical review scheme that is necessary to effectively evaluate the contributions of a given body of the literature, in that it entails the adoption of a clear and reproducible set of phases that allows scholars to improve the

overall quality of the review process. The method used in this study followed that proposed by Tranfield, Denyer, and Smart (2003) with three stages: planning the review, conducting the review, and reporting and disseminating the results. The current review differed from traditional narrative reviews by using more systematic, rigorous, explicit, and reproducible methods for the selection of articles.

According to the principles for a systematic review, we carried out the following steps, so as to implement a transparent and replicable methodology (Tranfield, Denyer, & Smart, 2003). The first stage is planning, involving developing a list of keywords and criteria for the inclusion of articles, as well as defining the search string to be given in input to the data source. A university's library search engine, which gives access to various databases including: Directory of Open Access Journals, Science Direct, Scopus, TRID, Web of Science, and Wiley Online Library, was used to complete an online search. To this aim, we identified and, then, combined three keywords, namely "smart cities," "knowledge management," and "organizational culture." Thereby, the resulting search string is ("smart cities" OR "smart city") AND ("knowledge management" OR "KM") AND ("organizational culture") to search the titles, abstracts, and keywords of available articles. That means other perspectives of "culture" are not included in this study as they are not the focus of the paper.

In reference to the inclusion criteria, a strict selection criterion for the inclusion of studies was developed in order to provide the best quality evidence. Articles were reviewed according to their relevant subject. In particular, the articles must be published in peer-reviewed journals that were available online within the time frame from 2010 to 2020 in English language and had relevance with respect to the research aim. According to Natalicchio, Ardito, Savino, and Albino (2017), these choices are justified by the fact that those inclusion criteria may assure the identification of the most relevant articles related to the topic under investigation (see Table 3 for the selected articles). The abstracts were then read, and if the article was considered to be relevant to the research aim, the full text was reviewed to decide whether it was suitable for inclusion in the final analysis.

The second stage involved carrying out the review of relevant articles. The full text of the selected articles was read to determine the relevance with respect to the aim of the study. A total number of 18 articles were reviewed, categorized, and analyzed. The third and final stage is reporting and dissemination. This stage involved critically documenting and presenting the results from the analysis of the selected articles. A discussion of the cultural transformation necessary for managing knowledge in the context of smart cities is outlined.

Table 3. Analysis of the reviewed literature

Reference	Title	Journal	Methodology	Perspective / focus	Discussion
Allameh, Zamani, and Davoodi (2011)	The relationship between organizational culture and knowledge management	Procedia Computer Science	Case study	The relationship between organizational culture and KM	Knowledge is considered as a valuable key in competition. Culture represents the main obstacle and also an empowering factor in KM activities.
Nguyen and Mohamed (2011)	Leadership behaviors, organizational culture and knowledge management practices.	Journal of Management Development	Questionnaire-based survey	The effect of culture on leadership and KM	Both transformational and transactional leadership are positively related to KM practices. Effective KM requires that attention be paid to the human and cultural aspects of business, particularly the experiences and tacit knowledge of employees.
Dameri and Ricciardi (2015)	Smart-city intellectual capital: an emerging view of territorial systems innovation management.	Journal of Intellectual Capital	Long-term, in-depth ethnographic exploration	SC from managerial point of view	It suggests that knowledge management is crucial to better supporting managerial practices in smart-city organizations. SC organization requires the development of specific, intertwined KM management and project portfolio management approaches, capabilities, and tools.
Lara, Da Costa, Furlani, and Yigitcanla (2016)	Smartness that matters towards a comprehensive and human-centered characterization of smart cities. Journal of Open Innovation:	Technology, Market, and Complexity	Systematic literature review	Cultural and human-centric approach of SC	Smart cities necessitate providing quality of life (e.g., income, health, education, mobility) in addition to promoting a lifestyle aligned with the values and other constituents of local culture.
Mainka et al. (2016)	Open innovation in smart cities: Civic participation and co-creation of public services.	Proceedings of the Association for Information Science and Technology	Panel discussion	SC as an open innovation platform	Smart-city concepts follow the open innovation approach and involve all city stakeholders in decision-making processes. User-centric personal data ecosystem is an enabling condition for citizens' participation in smart-city initiatives as information providers.
Appio, Lima, and Paroutis (2019)	Understanding Smart Cities: Innovation ecosystems, technological advancements, and societal challenges.	Technological Forecasting and Social Change	Systematic literature review	Physical infrastructure, innovation, and quality of life	Proposed a hybrid framework attempts to avoid infrastructure-centric view of smart cities by emphasizing the role of infrastructure as a means to achieving more collaborative innovation ecosystems and ultimately leading to a higher quality of citizens' life.
Ardito et al. (2019)	The role of universities in the knowledge management of smart-city projects	Technological Forecasting and Social Change	Multiple case study	Managerial dynamics rather than technological advancement	KM Governance and KM processes are the main issues for effective implementation of KM are smart-city projects. Knowledge can reside in different domains within and beyond projects boundaries.
Brandt, Andersson, and Kjellstrom (2019)	The future trip: a story of transformational change	Journal of Organizational Change Management.	Case study	Transformational change	Transformational change is described as a fundamental change in culture, practices, and underlying assumptions of the organization. When an organization is confronted with a major change, it calls for transformation of the organization and culture.

Reference	Title	Journal	Methodology	Perspective / focus	Discussion
Mora, Deakin, and Reid (2019)	Strategic principles for smart-city development: A multiple case study analysis of European best practices.	Technological Forecasting and Social Change	Multiple case study analysis	Strategic principles drive smart-city development	Smart-city strategic framework should look beyond technology and adopt an integrated vision. SC needs to boost the organizational culture and accelerate the development of digital innovation initiatives.
Osman (2019)	A novel big data analytics framework for smart cities.	Future Generation Computer Systems	Systematic literature review	KM frameworks	SC domains necessitate comprehensive analytics based on datasets generated from different domains.
Pham, Paille, and Halilem (2019)	Systematic review on environmental innovativeness: A knowledge-based resource view	Journal of Cleaner Production	Systematic literature review	Environmental innovativeness at a firm level	Organizational culture has a strong effect on driving organizational behavior and success. A strong organizational culture is reluctant to change and can, therefore, resist innovation. One challenge of the leaders is to innovate culture to make it compatible with their strategy of innovation.
Praharaj and Han (2019)	Cutting through the clutter of smart-city definitions: A reading into the smart-city perceptions in India	Culture and Society	Multiple case studies/ questionnaire survey	Various smart-cities perceptions	A city that promotes business and entrepreneurial culture and spearheads innovation. Smart cities should allow capacity for learning and innovation, which is built in the inventiveness of their population, their institutions of knowledge creation and their digital infrastructure for communication and knowledge management.
Sepasgozar, Hawken, Sargolzaei, and Foroozanfa (2019)	Implementing citizen-centric technology in developing smart cities: A model for predicting the acceptance of urban technologies.	Technological Forecasting and Social Change	Quantitative/ structured questionnaire survey	Citizen-centric developed technologies for SCs	Giving insights about the importance of local identity, knowledge, and a citizen-centric approach in developing smart-cities strategies. SC must invest in their "analog" or social infrastructure to ensure that their SC technologies promote the objectives of efficiency, inclusion, and innovation
Warner and Wäger (2019)	Building dynamic capabilities for digital transformation: An ongoing process of strategic renewal.	Long Range Planning	Multiple case studies	Building dynamic capabilities for digital transformation	Strategizing in a digital context must be based on crafting a strong digitally oriented culture. Firm's business model, collaborative approach, and culture are the three broad forms relating to the strategic renewal for digital transformation.
Wataya and Shaw (2019)	Measuring the value and the role of soft assets in smart-city development.	Cities	Co-value creation evaluation	Intangible and soft assets in SC development	SC development involves a combination of smart infrastructure, innovative technologies and the use of 'soft assets' to create more effective integration of the changes within each urban community. Outlines and analyses a framework to measure soft assets in SC implementation.
Mugge et al. (2020)	Patterns of Digitization: A Practical Guide to Digital Transformation	Research-Technology Management	Survey	Digital transformation	Transformation strategy establishes the foundations for success and defines the strategic initiatives needed to attain its future purpose. Transformation delivery addresses the mindset and organizational culture companies need to adopt, so they can implement the criteria established in transformation design.

Reference	Title	Journal	Methodology	Perspective / focus	Discussion
Yigitcanlar, Desouza, Butler, and Roozkhosh (2020)	Contributions and risks of artificial intelligence (AI) in building smarter cities: Insights from a systematic review of the literature.	Energies	Systematic literature review	Artificial intelligence and SC	Generate insights into forming a better understanding of how AI can contribute to the development of smarter cities using knowledge maps
Zheng et al. (2020)	From digital to sustainable: A scientometric review of smart-city literature between 1990 and 2019	Journal of Cleaner Production	Systematic literature review	Understanding of the fragmented nature and critical paths of SC development	SC is a city of knowledge where technological innovation and people's creativity are supported and encouraged, with strong institutional leadership and organizational capacity, creating the best possible conditions to increase competitiveness and sustainability. Future SCs are inextricably linked to organization knowledge capabilities.

FINDINGS AND DISCUSSION

General observations

The first step in the analysis of the selected articles was to classify them by date of publication. More than half of the reviewed articles were published in 2019 (n=10; 56%), around 17% of the articles (n=3) in 2020, and two articles (11%) in 2016, one article in 2015 (5%), and another two articles in 2011 (11%), which are the earliest articles included in the literature review. Regarding the academic journals, the articles published in Technological Forecasting and Social Change appear most often (n=4), followed by Journal of Cleaner Production (n=2), and then one article in Journal of Organizational Change Management, Energies, Research-Technology Management, Culture and Society, Future Generation Computer Systems, Procedia Computer Science, Journal of Management Development, Journal of Intellectual Capital, Technology, Market, and Complexity, Long Range Planning, Cities (n=1). Articles were categorized under five groups (Table.4). These groups were based on the main themes of the reviewed articles and the key considerations of the culture transformation needed for managing knowledge in the context of smart cities. Slightly less than half of the articles (45%, n=8) were in the organizational perspectives of smart cities, around a quarter 22% (n=4) in the organizational change, innovation and digital transformation, 11% were in the relationship between organizational culture and KM (n=2), 11% on smart cities as an open innovation platform (n=2), and 11% on the difference between organizational and urban culture in the development of smart cities (n=2).

Table 4. Categories revealed from reviewed literature

Category	Reference
Organizational perspectives of smart cities	Ardito et al. (2019); Appio, Lima, and Paroutis (2019); Osman (2019); Zheng et al. (2020); Praharaj and Han (2019); Yigitcanlar, Desouza, Butler, and Roozkhosh (2020); Mora, Deakin, and Reid (2019); Dameri and Ricciardi (2015).
Organizational change, innovation, and digital transformation	Mugge et al. (2020); Pham, Paille, and Halilem (2019); Brandt, Andersson, and Kjellstrom (2019); Warner and Wäger (2019).
The relationship between organizational culture and KM	Allameh, Zamani, and Davoodi (2011); Nguyen and Mohamed (2011).
Smart cities as an open innovation platform	Mainka et al. (2016); Wataya and Shaw (2019).
The difference between organizational and urban culture in the development of smart cities	Sepasgozar, Hawken, Sargolzaei, and Foroozanfa (2019); Lara, Da Costa, Furlani, and Yigitcanla, (2016).

Organizational perspectives and soft aspects of smart cities

Papers categorized under organizational perspectives of smart cities are those that provide insights into soft and managerial aspects of smart cities rather than technical and hard infrastructure aspects.

Research in this area focused predominately on the need to go beyond the "hard versus soft" infrastructure dichotomy and to also consider the "soft" strategies for smart-city projects. The contribution of organizational aspects of smart cities focused mainly on facilitating smart people and enabling innovation, supporting smart economy and promoting knowledge as a competitive advantage resource. Additionally, it focuses on managerial dynamics of managing smart cities and the associated organizational perspectives.

Developing unique innovation platforms for organizations implementing smart-city projects facilitates innovation and creativity by creating linkages among citizens, government, businesses, and educational institutions (Yigitcanlar, Desouza, Butler, & Roozkhosh, 2020). These innovative clusters foster the development of high added value activities of the "knowledge economy." Smart cities necessitate creating unique collaborative platforms in which citizens, prosumers, industries, universities and research centers may develop innovative products, services, and solutions. Contrary to traditional double-sided marketplaces in which only two types of stakeholders participate (supply and demand), a smart-city ecosystem involves many

actors engaged in public and private consumption, production, education, research, entertainment, and professional activities (Praharaj & Han, 2019). This collaboration demands high levels of both human and social capital, as the innovation process is based on knowledge and learning. Thus, knowledge creation and application are major facilitators for creativity and innovation that lead to more competitive and attractive local environments (Appio, Lima, & Paroutis, 2019; Ardito et al., 2019).

Social capital must be reinforced by carefully targeted public policies. By attracting talent and investment and providing high standards of living in terms of security, health and leisure infrastructure, cities become a natural environment for creative minds to gather, share and learn (Yigitcanlar et al., 2018; Praharaj & Han, 2019; Yigitcanlar, Desouza, Butler, & Roozkhosh, 2020). Mora, Deakin, and Reid (2019) noted that hard infrastructure, as well as facilitating knowledge creation and sharing, could develop more competitive business environments within the smart cities. It also enables a knowledge economy environment based on social networks of trust, sharing and learning by creating technology hubs to facilitate the sharing of knowledge in the forms of research centers, start-up incubators, and accelerators, as well as innovation parks (Appio, Lima, & Paroutis, 2019; Mora, Deakin, & Reid, 2019).

Smart cities integrate and combine knowledge about technology, people, and the private sector before actions to create smart economy, smart environment, smart people, and smart living initiatives can be formulated and implemented (Appio, Lima, & Paroutis, 2019; Osman, 2019; Zheng et al., 2020). Such integration efforts require smart-city projects to be composed of public and private players, academia, and the wider community. Thus, it enables an increasing pool of available knowledge and the possibility to address the development of smart-city initiatives from multiple and complementary perspectives. Consequently, this calls for a more substantial governance capacity to cope with the complex set of dynamics and conflicts among the various project partners and stakeholders, especially to enable effective cross-organizational knowledge integration and sharing (Ardito et al., 2019).

The knowledge needed for the development of smart cities can be driven by combining knowledge generated and owned by projects partners with knowledge that originates elsewhere (Ardito et al., 2019; Osman, 2019). Governments and citizens need to provide local knowledge to shape cities with respect to local resources, priorities, values, and needs. Likewise, firms and universities working on smart-city projects are asked to contribute with their technical and scientific know-how to the development of smart cities. Moreover, the acquisition of best practices from other successful smart-city projects may also be beneficial (Yigitcanlar et al., 2018; Mora, Deakin, & Reid, 2019; Osman, 2019). In order to complement the internal knowledge base

of project partners, attraction and retention of skilled human capital is an important managerial issue. On the other hand, managing external knowledge comes with modifying or establishing novel KM processes that can favor the acquisition, internalization, and retention of knowledge. However, the acquisition, internalization and retention of external knowledge may pose further complexities in the project governance. Thus, project partners have to mitigate and reconcile internal conflicts and relationships with external actors must be managed (Ardito et al., 2019; Appio, Lima, & Paroutis, 2019).

Implementing smart cities successfully necessitates analyzing projects at a holistic level that comply with organizational resources and capabilities that align with organization strategy. Smart-city organizations, while inescapably exist in an interdependent environment with external actors, need both important critical resource exchanges and control over the exchange of such resources to manage and avoid the dependence (Pham, Paille, & Halilem, 2019). In this regard, they need an internally based resource to limit the influence attempts of the external and be able to rely on this resource for its own sake. In this regard, the knowledge-based resource is perceived as an essential capacity that needs to be deployed and developed over time. From a resource-based view, people and their intellectual assets are considered a competitive advantage resource when rare, valuable, inimitable, and non-substitutable. From a resource-based view, people and their intellectual assets are considered a competitive advantage resource when it is rare, valuable, inimitable, and non-substitutable. Meanwhile, the knowledge-based view considers the firm's knowledge the "input–output combinations achievable with all possible mixes and levels of activities known to the firm (Pham, Paille, & Halilem, 2019).

Organizational transformation and strategic renewal for building a culture of innovation

Papers in this category provide insights into organizational transformation and the need for enabling creativity and innovation for organizations' differentiation and competitive advantage. Research in this area focused predominately on the impact of culture on an organization's performance and success, challenges for culture transformation, and the need for digital transformation.

To sustain their competitive advantage, smart-city organizations need to differ not only in values, resources and competence but also in their vision; thus, strategy focuses on making a future that requires continuous improvement and innovation (Pham, Paille, & Halilem, 2019). This requires putting humans at the center of strategy, treating strategy as a dynamic process, and having a social agenda. A unique idea and differentiation create

organizational competitive advantages. Therefore, facilitating creativity is becoming a core skill of organizational capabilities. In this regard, creativity deals with effective brainstorming and slow thinking that is uncomfortable (Pham, Paille, & Halilem, 2019).

Developing smart cities requires encouraging a culture where knowledge can be constantly created, transferred, and codified (Pham, Paille, & Halilem, 2019). Smart cities require enabling open innovation; by directing efforts towards searching for knowledge external to the organizational boundary; this can be via employing individuals, liaisons or technology license. From the knowledge-based view, the creation of the firm's knowledge necessarily involves both inflows and outflows for organizational learning and the evolution of knowledge. Hence, open innovation is a good tool to enhance smart cities' development provided that the organization knows the right actors and the right moment to exchange ideas (Pham, Paille, & Halilem, 2019).

Organizational culture has a significant effect on driving organizational behavior and success. However, strong organizational culture is reluctant to change and can, therefore, resist innovation. As such, innovating company culture represents significant challenges for smart-city organizations to make it compatible with their smart-city strategy (Pham, Paille, & Halilem, 2019). Transformational change is a lengthy process because it must include sense making and a gradual re-evaluation of practices and assumptions. Employees must be given time to adopt new ways of working and thinking to make change stick (Brandt, Andersson, & Kjellstrom, 2019). However, around 70%–80% of all change initiatives fail on numerous improvement projects. Precisely, in cultural transformation efforts, approximately 90% of these change efforts never reach their targets (Brandt, Andersson, & Kjellstrom, 2019). Among others, lack of attention to corporate culture, employee resistance to change, and the leader's lack of ability to drive change are the key causes of failure.

Among the types of changes an organization may have to handle, transformational change is the most challenging and lengthy one. Compared with less radical changes, transformational change affects the entire organization. It is described as a fundamental change in culture, practices, and underlying assumptions of the organization. Several perspectives have to be considered, and the balance between context, content, and process is crucial (Brandt, Andersson, & Kjellstrom, 2019). Smart cities must understand that major change takes time and the lack of long-term orientation can be identified as an explanation of failure in change efforts (Mugge et al., 2020).

Digital transformation has gained significant attention in consulting publications and management journals, illustrating a profound interest – if not an outright economic need – to better define, understand, and manage digital

transformation. Knowledge, tools, and the will to undergo change are the key factors in achieving digital transformation (Mugge et al., 2020). However, the rapid speed of disruptive innovation has been identified as a key strategic threat to organizations. Yet, organizations are concerned that new technologies will outpace their ability to keep up or remain competitive, and whether they are agile enough to respond to new business and market expectations (Mugge et al., 2020). Implementing a data-driven culture is one of the biggest challenges in digitally transforming one's business model. The need for culture change and associated behavioral changes are the major obstacles to digital effectiveness. Transformation delivery addresses the mindset and organizational culture companies need to adopt, so they can implement the criteria established in transformation design (Mugge et al., 2020).

Smart cities must invest in new technologies to build new businesses; not simply automating current business processes. Similarly, smart cities need breakthrough business models that include key stakeholders from outside the boundaries of the enterprise (Ardito et al., 2019; Mugge et al., 2020). Developing a breakthrough business model with external partners is by far, one of the hardest things for established firms to learn and do.

Developing capabilities for digital transformation is necessary for smart cities. The vision for digital transformation needs to be communicated across the organization. Communication is a vital feature of a change management process. Once a vision for change is created, leaders need to communicate the message frequently and powerfully. The message about digital transformation will likely compete with other day-to-day communications, so it needs to be embedded in everything leaders do (Mugge et al., 2020). Smart-city leaders need to foster timely, transparent, and open communications. Communications are the formal and informal rules and behaviors of how information is exchanged between individuals and/or organizations. Communications greatly influence the success and speed of digital transformation within an organization (Mugge et al., 2020).

The strategic renewal of organizational culture is more apparent at an advanced stage of digital transformation. Transforming the business model and/or collaborative approach serves as preconditions to trigger more profound corporate culture changes. Organizations can refresh their corporate culture with a wide range of digital initiatives. However, it is important to notice that digitalization should not replace historic values but should rather continue to refresh the roots of corporate culture (Warner & Wäger, 2019). Digital transformation also consists of a cultural orientation (e.g., a specific mindset) that recognizes the importance of fast and flexible decision making for competing in an uncertain context. Warner and Wäger (2019) also noted that strategizing in a digital context must be based on

crafting a strong, digitally oriented culture. The promotion of digital culture will accelerate the company's digital transformation.

The relationship between organizational culture and KM

How organizational culture can affect KM in an organization is the focus of this set of papers. Research in this area has focused predominately on the importance of KM as a strategic competitive advantage, the impact of culture on KM success and the effectiveness in an organization, and the challenges for cultural transformation to facilitate KM.

An increasing number of organizations are turning to KM as a key to leverage their distinctive core competencies in their pursuit of competitive advantage. KM goes beyond technology; organizational culture in which roles are defined has a critical role in knowledge creation and transfer (Nguyen & Mohamed, 2011). Effective KM depends not only on IT platforms, but more broadly on social ecology and the organizational culture of an organization. However, organizational culture is widely held to be a major barrier to creating and leveraging knowledge and is located at the top of a list of obstacles in knowledge transfer (Allameh, Zamani, & Davoodi, 2011). Therefore, in order to achieve effective KM in organizations implementing smart-city projects, attention must be paid to the human, environmental and cultural aspects of business, particularly the experiences and tacit knowledge of employees (Nguyen & Mohamed, 2011).

In addition to the capability to integrate the daily activities of employees to reach the planned goals, organizational culture can also help organizations adapt well to the external environment for rapid and appropriate responses (Nguyen & Mohamed, 2011). An organizational culture context conditions people actions, beliefs, and widely held values. Thus, culture determines a large part of what organizations do and how they do it. Therefore, promoting a supportive organizational culture is important to support KM and enhance organizational innovation (Allameh, Zamani, & Davoodi, 2011). However, smart cities need to understand that KM may be hindered by organizational culture that is highly formalized and heavily dependent on standard operating procedures, rules, and regulations. It is also important to recognize that secondary cultural embedding mechanisms and contextual factors such as organizational structures, existing systems and procedures, formal arrangement of works, and workspaces' physical arrangement are all essential parameters for managing knowledge effectively (Nguyen & Mohamed, 2011).

Organizational culture is considered the most influential factor in KM and organizational learning as it affects behaviors related to knowledge creating and sharing (Nguyen & Mohamed, 2011). 'Knowledge culture' is one of the specific

branches of organizational culture. It is an indication of an organizational life method that uses people to create and exchange information. Moreover, it uses its own as well as other's knowledge to accomplish organizational goals and attain success (Allameh, Zamani, & Davoodi, 2011).

Most of the added value that is gained through technical changes via KM was not the result of the technology used; rather, it was the result of the adopted culture and the organizational managing roles and also the people who used this technology in the most efficient manner. Thus, smart cities must understand that culture is an important as well as a complicated issue in KM. The presence of a specific culture in an organization is necessary for the effective performance of KM processes. Developing an efficient culture for managing smart-city related knowledge requires a culture that emphasizes knowledge exchange, trust in interactions, and creativity. Such knowledge would be successful in performing management processes.

Organizational values can result in various behaviors that impact KM processes. For example, a positive aspiration and motivation for exchanging knowledge, the dominance of a good context in an organization, and reciprocal trust between personal factors would affect knowledge management positively. However, negative competition and unwillingness for sharing knowledge are among factors that affect KM adversely. Shared values are a crucial part of organizational culture. Smart-city organizations need to encourage more supportive and open value tendencies that have more potential to show behaviors that enhance knowledge creation and sharing. The issue of knowledge possession depends on people's viewpoint about the possession of their personal knowledge. Here, shared organizational values would also affect personnel's perception of knowledge possession. An organization's social interaction is also greatly dependent on organizational culture, which can impact KM and creation. Culture also formulates some processes for knowledge production and selection. Personnel's perception of an organization's view about defeats and mistakes are among the important factors of this role (Allameh, Zamani, & Davoodi, 2011).

Smart cities as an open innovation platform

Smart-city development necessitates processes that aim to fulfill different areas of expertise/function and this requires broad cross-sectional collaboration to provide objective results. Such efforts encourage scaling-up the activities to meet higher outcomes. Therefore, open communications across different and similar levels of staff in a firm are important. This facilitates an open environment with a balanced top-down and bottom-up

culture. The process of creating values needs the involvement of all levels of stakeholders in an iterative process (Wataya & Shaw, 2019).

With the advent of the knowledge society, participation and co-creation of public services have become crucial in smart-city decision-making processes. The transfer of knowledge through face-to-face interaction and the transfer of information through digital networks are spurring the process of innovation. The combination of both dimensions needs particular attention in the field of information science to enable suitable methods of knowledge management at the city level (Mainka et al., 2016).

Smart-city initiatives are highly information-intensive and often use citizen-generated information, which raises many problems concerning how this information is collected and used (Mainka et al., 2016). Open innovation is understood to mean the free flow of knowledge and innovative ideas between different stakeholders. This term originates from economics and describes the flow of ideas from inside and outside of a company and from inside to the outside of a market. What is genuinely new is that the role of external ideas is acknowledged as being equally important as internal ideas. Smart-city concepts follow this approach and involve all city stakeholders in decision-making processes (Schaffers et al., 2011). Cities have become "collaborative innovation platforms" (Tukiainen, Leminen, & Westerlund, 2015). Innovation in cities can refer to creating something new, such as start-up businesses or to improving existing things and processes, e.g. through the use of information and communication technology (ICT). The idea of smart cities becoming an open innovation platform is rather new, and in only a few cases, this approach has been realized.

Cities that try to meet the needs of the knowledge society, e.g., through case studies to improve processes or establish new ideas, are "living laboratories" (living labs) (Tukiainen, Leminen, & Westerlund, 2015). Whether they are from public services, local firms, or the citizens, stakeholders of the city work together and spur each other on. Innovative ideas can come from each stakeholder. To implement open innovation at the city level is as difficult as in companies that are mostly deadlocked in hierarchical structures. Thus, open innovation approaches have mostly been implemented experimentally in different cases (e.g., the citizen relationship management system, which has been implemented in a few cities in the US) (Mainka et al., 2016).

The difference between urban culture and organizational culture in the development of smart cities

Local identity and knowledge are a fundamental source of value for cities and the practical base upon which smart-city plans must engage (Yigitcanlar,

Desouza, Butler, & Roozkhosh, 2020; Sepasgozar, Hawken, Sargolzaei, & Foroozanfa, 2019). Despite this, the smart-city has been presented as a global phenomenon with little attention to local contexts. Sepasgozar, Hawken, Sargolzaei, and Foroozanfa (2019) noted that current smart-city plans have tended to picture the city as a "blank canvas upon which powerful, sophisticated technology can simply be overlaid and made to work in straightforwardly useful, new ways."

According to Lara, Da Costa, Furlani, and Yigitcanla (2016), smart cities can be defined as "a city that gives inspiration, shares culture, knowledge, and life, a city that motivates its inhabitants to create and flourish in their own lives. Zhao (2011) also defined smart cities as "improving the quality of life in a city, including ecological, cultural, political, institutional, social, and economic components without leaving a burden on future generations." Hence, developing smart cities can be understood as promoting a lifestyle aligned with the values and other constituents of local culture as well as providing quality of life (e.g., levels of income, health, education, and mobility) (Lara, Da Costa, Furlani, & Yigitcanla, 2016). For cities to select and develop appropriate citizen-focused technology, they must understand their citizens and develop appropriate technologies that will be well received. Such smart-city research frameworks are described as "citizen centric" (Lara, Da Costa, Furlani, & Yigitcanla, 2016; Lee & Lee, 2014). The World Bank reinforces this view by suggesting that future smart cities must invest in their "analog" or social infrastructure to ensure that smart-city technologies promote the objectives of efficiency, inclusion, and innovation. The development of appropriate smart-city technologies can provide access to development and economic opportunities. One of the most well-known examples of a breakthrough, smart technology for developing contexts, is M-Pesa, the mobile phone-based money transfer, and microfinancing service. Such digital technologies have dramatically expanded access to finance, lowered transaction costs, and made a whole range of other industries more viable (World Bank, 2016).

CONCLUSION

The study reported in this paper offers a novel contribution to the literature by mapping out the scientific landscape of the understudied 'managing knowledge in the context of smart cities from an organizational culture perspective.' This study helps identify the current and potential contributions of the organizational perspectives of managing knowledge for the development of smart cities and in determining the gaps in the literature to bridge them in prospective studies. The study also gives a heads up for urban policymakers,

planners, and scholars to prepare for the challenges that organizations face in their efforts to manage and implement smart cities successfully.

This paper generates insight into forming a better understanding of the cultural transformation needed for managing knowledge in the context of smart cities by undertaking a systematic review of the literature. Table 3 lists the analysis highlights of the reviewed literature. The findings of our systematic literature review reveal that: (a) A smart-city is a city of knowledge where technological innovation and people's creativity are supported and encouraged to increase competitiveness and sustainability; (b) Smart cities emerge as a result of the knowledge economy highlighting the capacity to exploit ICTs for supporting human learning, technological advance, and innovation procedures in cities; (c) Organizational culture is a significant driver to organizational behavior and success and is the primary enabler of strategy implementation; (d) Cultural transformation establishes the foundations for success and defines the strategic initiatives needed to attain the company's future purpose; (e) Organizational cultural changes is a challenging task and efforts hardly reach their targets. Lack of attention to corporate culture is the key causes of failure; (f) Smart cities must promote digital transformation and an open innovation culture that facilitates efforts to search for knowledge external to the organizational boundary. Smart-city concepts follow the open innovation approach and involve all city stakeholders in decision-making processes. For example, the Manchester Smart City initiative includes many experiments with digital technologies such as using the Internet of Things in city lighting. The fourth and final form of collaborative innovation in cities views a city as a platform for creating new business opportunities. Helsinki's effort to open up public data is one example of a city stimulating innovation by creating new business opportunities (Tukiainen, Leminen, & Westerlund, 2015).

Knowledge is a fundamental source of value for cities and the practical base upon which smart-city plans must engage. Organizations developing smart-city projects have to become learning organizations, so as to improve their performance and enhance competitive advantage. However, knowledge management systems go beyond technology, as organizational culture, in which new roles are defined, has a critical role in knowledge creation and sharing. Therefore, smart cities must simultaneously consider culture styles and key organizational and market conditions in order to enhance their performance and competitiveness.

Organizations implementing smart-city projects need to build a knowledge culture. Therefore, they should transform, develop and nurture systems and processes to ensure knowledge creation, storing, codification and sharing in a meaningful way to expand tacit knowledge into explicit knowledge, which can

in turn, be used for continuous learning and enhance competitive advantage. It is also important for smart-city organizations to encourage employees to contribute their knowledge, and to promote interactions in order to foster knowledge creation, capture and sharing. The challenge for smart-city leaders is to develop an organizational culture encouraging the sharing of knowledge and where learning becomes the norm.

The move towards an increasingly digital world is rapidly changing the ways in which people and organizations create, use and share data, information and knowledge, which is specifically relevant in the context of smart-city development. For example, according to an iGov (2019) survey, in London and its outskirts, authorities identified the need to deliver better public services for citizens and connecting public services to support service integration (such as health and social care, and justice and emergency services) as the most significant drivers behind a digital strategy for their cities. Thinking about digital transformation, they also identified cost efficiencies and the need to increase citizen engagement and future-proof services as key factors (iGov, 2019).

Research findings have theoretical contributions, academic contributions, and practical implications. The theoretical contributions are twofold. First, from theoretical perspectives, the paper tried to provide an insightful understanding of organizational perspectives of managing knowledge in smart cities and the cultural transformation needed for successful implementation. Second, no study has ever synthesized the antecedents of culture transformation as an organizational prerequisite for knowledge management in the context of smart cites; this systematic review, therefore, fills this research gap. From an academic perspective, this paper contributes to education and organizational training by offering an overview of the importance of organizational culture in managing knowledge in the context of smart cites, as well as the roadmap to achieve along with the organizational preparedness for the necessary resources and capabilities. From a practical perspective, knowing the determinants and the facilitators of smart-city development from organizational and KM perspectives will keep city leaders and decision makers on the right track. This will enable them to plan for the challenges and obstacles and avoid unsuccessful implementation.

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Abstrakt

Inteligentne miasta (ang. smart cities) mają ambicje wykorzystywać w pełni możliwości, jakie przedstawia perspektywa „gospodarki i społeczeństwa opartego na wiedzy". Dlatego planiści i decydenci muszą rozwijać miasta, które wykorzystują lokalną wiedzę i kapitał intelektualny ludności. Kultura organizacyjna jest powszechnie uważana za główną przeszkodę w tworzeniu i wykorzystywaniu wiedzy. Skuteczne wdrożenie zarządzania wiedzą (KM) prawie zawsze wymaga zmiany kultury w celu promowania kultury dzielenia się wiedzą i współpracy. Stąd też organizacje wdrażające smart cities muszą kłaść duży nacisk na konieczność zmiany kultury organizacyjnej miasta. Jednak zarządzanie zmianą kulturową miasta stanowi wyzwanie. Dokładny charakter, strategia i kultura wspierająca rozwój inteligentnych miast, którą należy przyjąć pozostaje wciąż nieokreślona. Badanie przedstawione w niniejszym opracowaniu miało na celu zbadanie organizacyjnej transformacji kulturowej potrzebnej do zarządzania wiedzą w kontekście inteligentnych miast. Metodologiczne podejście do tego badania to systematyczny przegląd literatury, obejmujący publikacje dotyczące kultury organizacyjnej i kultury wiedzy inteligentnych miast. Metoda zastosowana w tym badaniu obejmowała trzy etapy: planowanie, przeprowadzenie oraz raportowanie i upowszechnianie wyników. W wyniku analizy literatury ujawniono trzy kluczowe tematy wymagające dalszej eksploracji: perspektywy organizacyjne inteligentnych miast; zmiany organizacyjne, innowacje i transformacja cyfrowa; oraz związek między kulturą organizacyjną a KM. Ustalono, że miejska transformacja kulturowa niezbędna do rozwoju inteligentnych miast powinna w efekcie ułatwić integrację, tworzenie i rekonfigurację kompetencji wewnętrznych i zewnętrznych do zarządzania wiedzą, która pochodzi z projektów miejskich i spoza nich. Sformułowane spostrzeżenia i zidentyfikowane kierunki badawcze dostarczają naukowcom, decydentom i planistom miejskim informacji, które pozwalają im przygotować się na wyzwania, przed

którymi stoją organizacje miejskie w swych wysiłkach na rzecz skutecznego zarządzania i wdrażania idei inteligentnych miast.
Słowa kluczowe: *kultura, inteligentne miasta, zarządzanie wiedzą, zmiana transformacyjna*

Biographical notes

Wala Abdalla is a Ph.D. researcher in managing knowledge in the context of smart cities at the Faculty of Science and Engineering, University of Wolverhampton. She holds an MSc in Civil Engineering management and is a Fellow of the UK Higher Education Academy. Her research interests include knowledge management, smart cities, business model innovation for smart cities, sustainability strategies, and competitiveness.

Subashini Suresh has over 19 years of experience in research, teaching, and practice in Project Management. She serves as Director of Postgraduate Research Programme at the Faculty of Science and Engineering, University of Wolverhampton. She holds a Ph.D. in knowledge management and has authored over 230 academic publications. Her research areas focus on Sustainable Development Goals (SDGs) in the area of affordable and clean energy (SDG 7), industry, innovation and infrastructure (SDG 9), sustainable cities and communities (SDG 11), and reducing inequalities (SDG 10).

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Conflicts of interest

The authors declare no conflict of interest.

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Does employer branding
beat head hunting?
The potential of company culture
to increase employer attractiveness

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Abstract

This paper aims to investigate the combined effort of the HR Department and the Marketing and Communication Department to define and implement employer-branding strategies. To obtain the aim, qualitative research was designed to establish the relationship between employer attractiveness, organizational attractiveness and company culture, and to identify to what extent company culture can be communicated through employer branding. Therefore, firstly, the study clarifies the links between employer branding, employer attractiveness, company culture, and the boundaries of these concepts. It then examines how employer branding works concerning company culture attributes, and, finally, the paper draws some conclusions that will address practical implications in the form of employer brand management. The research design was based on qualitative research methods (in-depth interviews and focus groups) applied to stakeholders, employees from the IT industry, and IT companies' representatives. Subsequently, the qualitative data were processed with Atlas.ti 8 that generated the results and the points under discussion. The data show that when recruiting strategies, respectively, employer-branding strategies are thought separately, as happens most of the time, their efficiency diminishes considerably, and the employer image does not have consistency and attractiveness. To conclude, this study highlights the following practical ideas: a)management teams must have a holistic approach of employer branding, organizational attractiveness, and company culture; b)employer branding, in order to become a useful tool for employees' retention and recruitment, must be managed by both the HR Department and the Marketing and Communication Department within a coordinated and coherent strategy and c) for employer branding to be efficient, there is a need to

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leverage HR as a strategic partner and, as a result, employees will be developed into strategic assets of the company.

Keywords: *employer branding, company culture, HR strategies, employer attractiveness*

INTRODUCTION AND KEY TERMS

There are currently numerous studies that draw attention to the impact of employer-branding and company-culture strategies on employees' retention and an organization's attractiveness. The rationale of this study is that although many authors have tried to deepen the impact of these fields, few applied studies analyze these fields' joint influence (employer branding, employer attractiveness, and company culture) in terms of perceptions about a company. To better understand how each domain operates, there has been an artificial division in terms of their impact. In other words, the image that an employee or a potential employee holds toward a company is an aggregated result of actions related to employer branding, HR strategies, and company culture. It is clear why it was necessary to draw distinct boundaries between these areas (for a better understanding of them, in order to be able to work concretely on some aspects), but an overall perspective is also needed. By firmly dividing and looking at these areas as separate, the efficiency and coherence of a company's image will be lost. Fortunately, the concept of employer branding is broad enough to incorporate some aspects of the other areas that generate the employer's image and provide the framework to see the big picture in terms of employer attractiveness.

Firstly, the paper intends to clarify the definitions and links between employer branding, employer attractiveness and organizational culture, and these domains' boundaries.

One of the most critical challenges in the recruitment process is to optimize the strategy for attracting candidates, since it implies how companies compete for often-limited, highly qualified, or very specifically qualified employees in the labor market, especially in the IT industry (Collins & Kanar, 2013; Fernandez-Araoz, Groysberg, & Noharia, 2009). In this context, companies aim to achieve a certain degree of differentiation and become more competitive in attracting talent through Employer Branding (EB) strategies. It is assumed that, through successfully communicating and promoting the employer's distinctive and positive qualities and the equivalent employment value proposition (EVB), EB strategies increase the employer attractiveness in the labor market as a whole and, more precisely, among potential skilled candidates that are targeted through the recruitment process.

An employer image, and subsequently, employer branding, is a complex mental construct, and there is a gap in reflecting this complexity. Most authors and studies show how the image is constructed from a certain perspective, but few studies reflect the construction of employer attractiveness as a whole. This paper tries to fill this gap by offering answers to research questions such as: What is the relationship between employer attractiveness and company culture? To what extent can company culture be communicated through employer branding? The study identifies the theoretical model of relations between organizational attractiveness–company culture–employer branding and tries to prove it empirically.

This paper refers to company culture as "the set of shared values, beliefs, and norms that influence the way employees think, feel, and behave in the workplace" (Schein, 1992). It is also useful for our research to take into account the following four functions of organizational culture: it gives members a sense of identity, increases their commitment, reinforces organizational values, and serves as a control mechanism for shaping organizational behavior (Nelson & Quick, 2011). Moreover, company culture determines actions and affects many important management areas such as performance and efficiency, knowledge management, corporate social responsibility (CSR), and innovativeness. A positive and attractive company culture might contribute to organizational attractiveness, and thus it will be a tool for employer-branding strategies.

All along with the study, there are references to Human Resources (HR), a concept that has experienced substantial changes in how it is perceived as a modern industry capability. Most of the time, HR was mainly an operative area within the organization, performing the necessary tasks to manage the human capital to maintain staffing levels and ensure the company's continuous operations. This was a traditional perspective of HR, but organizations and the market evolved from less production-driven to more employee-centric, and with this new perspective, there is a new role for HR in modern organizations. Consequently, the aim of HR has shifted from the mainly operative, functional role of human capital management to the more strategic role of developing and maintaining a dynamic, educated, and progressive career-oriented staff and inspiring company culture. Authors have operationalized this latter role as Human Resource Development (HRD) and, for the purposes of this study, this perspective will be used. Briefly, HRD is defined as "a series of organized activities conducted within a specified time and designated to produce behavioral change" (Nadler, 1970, p.3) and as "a set of systemic and planned activities designed by an organization to provide its members with the opportunities to learn the necessary skills to meet current and future job demands" (Desimone, Werner, & Harris, 2002, p.5). This research paper is

particularly interested in HRD because there are many studies that confirm the role of employees in shaping organizational culture and, implicitly, employer branding. Also, employees are the target and the "actors" of the company culture, which makes a circle of influences between company culture, HRD, and employer branding.

The paper includes four sections, besides this introduction. In the literature review section, the concepts of employer attractiveness, company culture and employer branding are defined, and the most significant research is reviewed. Next, the methodological approaches of the applied study are described. Then, the findings are presented and discussed. At the end, the limitations and conclusions, together with practical implications, are submitted.

Finally, the goal is to position this study at the crossroads of three fields: company culture, employer attractiveness and employer branding and to try to reveal an overview of how these three areas can be merged in order to get a more consistent and attractive organizational image with positive effects on employee retention and head hunting. To sum up, employer branding has joined two significant organizational fields, branding and human resources. Together, they provide a rounded view of attracting and retaining the best employees (Backhaus, & Tikoo, 2004). But it is more than branding and HR. In order to be authentic and convincing, employer branding has to bring in company culture, and this is the emphasis of this study.

LITERATURE REVIEW

This section reviews and discusses the literature considered relevant for the proposed research, namely the studies on employer branding and organizational culture and how the two interact to increase employer attractiveness and trigger positive results.

In the academic literature, the interest in people's organizational image assessments was initiated by HR and organizational studies scholars. The idea that motived this broad literature was that image perceptions might have an effect on applicants' attraction to companies (Lievens, 2007). One of the most influential conceptual articles was published in 2001 by Cable and Turban (2001). They determined a research trend on better understanding the image that job seekers have about employers, and the employer's image antecedents, dimensions, and consequences (Breaugh & Starke, 2000). During the same period, the academic interest in employer image was reflected by the development of employer branding as one of the main topics in HR practice.

While company culture and HRD have been discussed in the literature for a very long time, the notion of employer branding is relatively newer

(about 20 years of research in this area). The initial definition of Ambler and Barrow still captures the essence of employer branding, which is "the package of functional, economic and psychological benefits provided by employment and identified with the employing company" (Ambler & Barrow, 1996, p. 187). An employer brand should stand for an organization as a potential employer, and the organization should aim to position itself as an employer that provides a superior employment experience against competitors, to enable competitive advantage (Love & Singh, 2011). It has been identified that a powerful employer brand should consist of rewards, salary, benefits, career progression, and scope for added value (Jain & Bhatt, 2015), so it incorporates both instrumental and symbolic elements.

The academic community widely accepted that employer branding has the ability to retain the right individuals, and EB is particularly important to companies in regard to organizational success (Backhaus & Tikoo, 2004). There is an on-going interest in the topic and research supports the fact that a business's success can depend on its ability to attract and retain employees, thus acknowledging the growing value of employer branding (Gilliver, 2009; Sengupta, Bamel, & Singh, 2015). Other research findings have shown that the argument behind EB's strength and value comes from the advantages attained from a successful brand: differentiation and loyalty (Collins & Kanar, 2013). This means that an employer brand will be able to distinguish itself from the competitors and establish an emotional bond with potential candidates (Davies, 2008). Thus, the value of a brand is associated with its degree of awareness/recognition and the image it conveys to people (Holliday, 1997).

Studies point out that EB strategies and activities support the organization's attractiveness to the extent that they set up, communicate, and reinforce the company's positive attributes as an employer (Edwards, 2010). Moreover, EB is not only related to recruitment because "where traditional recruitment strategies are short-term, reactive, and subject to job openings, employment branding is a long-term strategy designed to maintain a steady flow of skills in the organization" (Srivastava & Bhatnagar, 2010, p. 26).

Nevertheless, despite this expanding visibility and relevance for companies, there are few academic studies on the subject of EB associated with company culture. Furthermore, literature has been mainly centered on concepts and results achieved through EB like better recruitment outcomes, more differentiation, stronger emotional bonds, and financial returns (Sokro, 2012). Research on company culture attractiveness dimensions used in EB strategies is still occasional and limited (Biswas & Suar, 2014). Thus, one of this paper's contributions is to investigate the role of company culture in relation to the employer attractiveness.

Studies have concluded that EB is an essential part of business success, but scholars are still trying to find the best ways to measure EB effects and to reach a common ground in understanding the EB processes and components (Berthon, Ewing, & Hah, 2005). The latter is a difficult goal because an organization's employer image is a blend of mental representations and correlations regarding that organization as an employer. This means that an employer's image is made up of precise attributes that a job seeker or a current employee associates with the organization. Collins and Kanar (2013) refer to these relations as complex associations because they are not unconscious and call for more cognitive processing. Although there were various formulated and tested categories of these attributes, the most well-known and longstanding categorization pertaining to marketing is the distinction between instrumental, symbolic, and experiential attributes (Keller, 1993). A lot of research effort was allocated to identify the role and different aspects of instrumental attributes related to employer branding and employer attractiveness. Instrumental attributes represent the job seekers' preferences for the more concrete advantages of an organization with functional, practical value (e.g., location, pay, benefits, or advancement opportunities). Even if instrumental attributes are an essential part of an employer brand's attractiveness, this study is focused more on symbolic attributes because they are related to company culture and allow us to draw some conclusions about the attractiveness of organizational cultures that can be projected through employer branding.

Research has already demonstrated the significance and the value of symbolic attributes, and HR scholars have developed various instrumental-symbolic frameworks (Lievens & Highhouse, 2003). The main assumption is that these attributes designate interpretations that describe the organization in terms of subjective and intangible attributes. They express the symbolic company information and people are attracted to these characteristics to state their values or to impress others (Highhouse, Zickar, Thorsteinson, Stierwalt, & Slaughter, 2007). For example, people might refer to some organizations as hip and others as prestigious or other subjective evaluations. These symbolic attributes are called 'organization personality trait inferences' in the specialized literature (Slaughter, Zickar, Highhouse, & Mohr, 2004). Slaughter et al. (2004, p. 86) proposed a definition of organization personality as "the set of human personality characteristics perceived to be associated with an organization." The biggest challenge is to measure or to capture these symbolic inferences. The present study tries to contribute to this body of literature and takes into account various scales used to measure symbolic attributes. A reference scale is the one developed by Lievens and Highhouse (2003), which aims to measure Innovativeness,

Competence, Sincerity, Prestige, and Ruggedness. Other renowned examples are Otto, Chater, and Stott's (2011) four-dimension scale (Honesty, Prestige, Innovation, and Power) and Davies, Chun, Vinhas da Silva, and Roper's (2004) five-dimension corporate character scale (Agreeableness, Enterprise, Chic, Competence, and Ruthlessness).

Most of the studies examined employer image measures of particular attributes that candidates or employees associate with the employer brand. In addition to the company's attributes approaches, some scholars have tried to understand EB from a more holistic perspective. Collins and Stevens (2002) argued that perceptions/evaluations regarding an employer could be divided into both perceived attributes and attitudes. Whereas the perceived attributes follow the instrumental perspective, Collins and Stevens outlined that attitudes are "general positive feelings that job seekers hold toward an organization" (Collins & Stevens, 2002, p.43). Following this idea, DelVecchio, Jarvis, Klink, and Dineen (2007) found that these associations are more automatic and thus described them as "surface" employer image associations.

From a conceptual perspective, it is important to stress that this holistic approach does not theorize employer image as consisting of a set of specific elements and knowledge structures. This perspective mostly aims to capture the common feelings, perceptions, and attitudes toward the organization (Gardner, Erhardt, & Martin-Rios, 2011; Kucharska & Kowalczyk, 2019). That is also the rationale why authors like Collins and Kanar (2013) equate these surface employer image associations with organizational attractiveness. In most studies that were based on the holistic aggregated view, employer image was operationalized as an indicator of overall organizational attractiveness (Highhouse et al., 2003), which served as a dependent variable. In contrast, the measures of particular attributes (salary, benefits, or advancement opportunities) were usually considered as independent variables.

As a distinct topic, employer attractiveness has received extensive research attention in the latest years (Aiman-Smith, Bauer, & Cable, 2001) and has focused on the benefits that potential candidates foresee they could obtain by working in a specific company (Pingle & Sharma, 2013). Hence, the main findings support the fact that employer attractiveness influences the recruitment processes and professionals' retention (Helm, 2013; Gatewood, Gowan, & Lautenschlager, 1993). Other studies argue that attractiveness concerns "an attitude or expressed general positive affect toward an organization, toward viewing the organization as a desirable entity with which to initiate some relationship" (Aiman-Smith, Bauer & Cable, 2001, p.221). The authors also point out that attractiveness is confirmed when people are looking for a chance to participate in the recruitment processes in a particular organization. This perspective emphasizes that fostering an

employer's attractiveness in the recruitment process is different from the employer attractiveness as an aggregated image (Breaugh & Starke, 2000). It means that, while in the primary stage of the recruitment process the aim is to attract candidates for specific available openings at a given time, organization attractiveness must be constantly worked on so that the company becomes a valued and attractive employer in the labor market; this will, in turn, enable the recruitment process (Collins & Stevens, 2002).

Organizational attractiveness, company culture and symbolic attributes

The literature review section synthesized the research on organizational attractiveness and employer branding. It is important for the objectives of this study to introduce the Employer Attractiveness Scale developed by Berthon and his colleagues (2005). The scale consists of five attractiveness attributes and it evaluates to what extent the organization supports these values: 1) Interest Value: a challenging and inspiring job, with innovative working practices and projects, in an environment that encourages creativity and innovation; 2) Social Value: a positive and enjoyable social and relational environment; 3) Economic Value: wages, benefits package, job security, and advancement opportunities; 4) Development Value: offers recognition, self-esteem and trust, skills development and career-enhancing opportunities; 5) Application Value: the prospect to apply expertise and pass on knowledge to others, in a customer-oriented and humanitarian workplace (Reis, 2016). Each attractiveness attribute can be further operationalized in specific indicators and then applied to specific organizational contexts.

The advantage of this scale is that it offers a complex, holistic, but also a measurable perspective of organizational attractiveness. This study is interested in symbolic attributes, or inferred traits, which constitute the second dimension of employer image attributes and allow employees "to maintain their self-identity, to enhance their self-image, or to express themselves" (Lievens & Highhouse, 2003, p.79). Symbolic attributes are included in the Social Value and Development Value of Berthon's scale. Moreover, company culture has been partly operationalized through what we call symbolic attributes. This is why, when we try to ascertain the relation between organizational attractiveness and company culture, we look at symbolic attributes and the way they are invoked and interpreted by job seekers and other stakeholders.
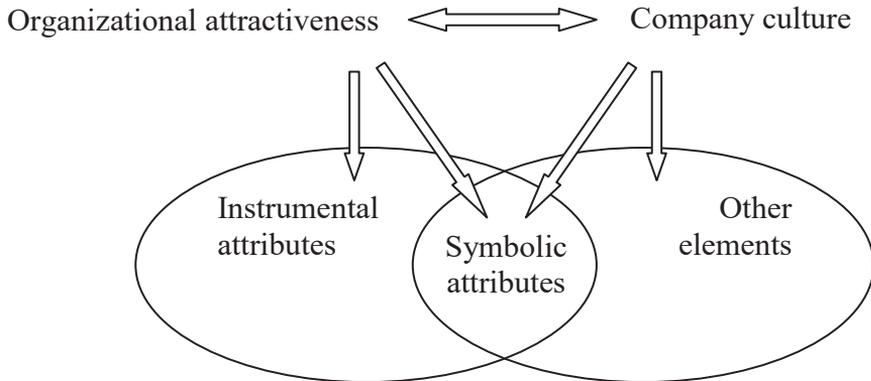
Figure 1. Symbolic attributes' relations

Source: own work, based on empirical research carried out in 2020.

Furthermore, studies have demonstrated that symbolic attributes may be particularly relevant and differentiate an employer more from its competitors than instrumental attributes do (Lievens & Highhouse, 2003; Srivastava & Bhatnagar, 2010). Our study complements this perspective, which is insufficiently empirically documented.

Recruitment (as a topic of HR studies) and organizational attractiveness research interconnects with employer-branding research but takes a broader perspective than the EB research does (Gardner, Erhardt, & Martin-Rios, 2011). Therefore, organizational attractiveness is facilitated by employer branding, which will partially valorize company culture. This is the theoretical model of the relation between the three concepts that we try to prove empirically throughout the proposed qualitative research. In order to do this, the study takes into account Lievens's perspective (2007), which states that EB requires three stages: 1) a powerful and distinctive employer value proposition (EVP), which includes attributes to be offered to future and current employees, is designed; 2) this EVP is communicated inside and outside the organization; 3) the implementation phase, that is, to actually carry out the promises made in the EVP, in terms of the attraction attributes.

RESEARCH METHODOLOGY

As it was previously stated, the aim is not to create new concepts. Rather, the study intends to increase clarity among the already existing constructs and to see how they can work together. First, the employer branding was defined and

differentiated from related concepts, also identifying the common grounds of these concepts. Next, in the literature review, it was examined how employer image can be measured, distinguishing between particular elements of the image and the overall image. The article then described the outcomes of employer image (i.e., what is the purpose of investing in employer image?) and what is employer attractiveness. Next, the article approaches qualitative research analysis. The aim is to highlight how the employer image is formed (processes, links between different elements of the company's image) and the share of company culture in a company's overall image. The study ends with practical suggestions (i.e., how can companies manage the images they project?) for employer brand management.

Within the specialized literature, the external employer brand can be mapped to the employer image (i.e., an outsider's perception of attributes related to an organization as an employer), whereas the internal employer brand (i.e., an insider's perception of attributes related to an organization as an employer) corresponds to the company's identity. External employer branding is then considered to be a synonym for employer image management. This study refers only to the external employer brand and the findings are relevant only for the external component of the employer branding. For a shorter expression, the paper refers to external employer brand as employer brand (employer branding).

The entire study tries to build arguments for the following research questions (RQ):

RQ1: *What is the relation between employer branding, organizational attractiveness, and company culture?*
RQ2: *To what extent can company culture be communicated through employer branding?*

In order to do that, the research propositions (RP) are:

RP1: *Employer branding beats head hunting.*
RP2: *The organizational culture of a company is also attractive for those outside the company.*
RP3: *The image of an employer is built primarily by the way employees talk about the company.*

This study uses qualitative methods because the research questions are primarily concerned with the process rather than the outcomes of the employer branding, company culture, and organizational attractiveness. Thus, qualitative methods have been chosen as the best answer for our RQs

because we were interested in identifying the meaning, in other words, how stakeholders make sense of the three concepts under scrutiny. Qualitative research has mostly a descriptive and inductive approach, which offers the researcher the opportunity to build abstractions, concepts, and theories from details. Our aim was specifically to establish a theoretical model of relations between EB, organizational attractiveness, and company culture.

Empirical research context

The qualitative research was conducted in Iasi, a city in Eastern Romania where the IT industry is experiencing accelerated development. In 2016, there were 786 IT&C companies in Iasi. In 2018 there were approximately 100 additional companies registered, and in 2019 over 950 companies. The total turnover has increased from 264 million euros (2016) to 339 million euros (2019). And the number of employees has increased significantly, from 8,800 (2016) to 12,000 (2019).

Iasi is the second-largest city in Romania and one of the largest university centers with approximately 60,000 students, and salaries in the IT industry below the average of the capital and the IT industry in Western Europe. These conditions led to the rapid development of the IT industry and the number of employees needed for the constantly expanding market. The demand for IT employees is higher than the supply of the profile faculties, and this determines fierce competition between the employers in the field. Given that instrumental attributes are almost similar, the competition moves to symbolic attributes; thus, employer branding and company culture become extremely relevant aspects.

The research context offers a perspective on how employer branding and company culture perform in developing cities in ex-communist European countries. Most studies that have correlated employer branding and company culture have been conducted in Western Europe or America, the conclusions being influenced by the context of consolidated capitalist economies. This study offers a perspective from Eastern Europe, where employer branding is still trying to consolidate its role.

Data collection and background of the interviewees

In order to pursue the research objective, i.e. the identification of a theoretical relation model between employer branding, organizational attractiveness, and company culture, a qualitative methodology with mixed methods of research using in-depth semi-structured interviews and focus groups was adopted. The reason for combining the two qualitative research methods is that we wanted

to have a more comprehensive perspective on how the subjects correlate the two elements – employer branding and company culture. In-depth interviews offer useful and relevant insights. They have the advantage of no potential distractions or peer-pressure dynamics that can sometimes emerge in focus groups. Because in-depth interviews can potentially be so insightful, it is possible to identify highly valuable findings quickly.

On the other hand, focus groups are a useful method to confirm the analysis with a wide variety of respondents' profiles. Also, focus groups are the best way to exchange viewpoints and discuss disagreements between stakeholders or target analyzed groups. These dynamics will not be captured in a face-to-face interview and that is the reason why we mixed the research methods.

The sample consisted of professionals who work mainly in the IT industry or close to this industry. The research team conducted six in-depth, semi-structured interviews with IT company representatives (from four firms), seven in-depth interviews with various IT stakeholders (one journalist specialized in the IT industry, one NGO representative with contacts and interests in the IT industry, three specialists in IT marketing and HR, one representative of the faculties that provide students trained for IT industry needs, one specialist in IT consultancy services). Also, the research team conducted four focus-groups with ten participants in each focus group (one group of students at the Faculty of Computer Science; one group of stakeholders; two groups of IT employees) to test the research propositions and to analyze the dynamics of opinions related to employer branding, organizational attractiveness, and company culture.

The in-depth, semi-structured interviews and focus groups (semi-structured interviews and observer-as-participant) were developed (protocols of questions and the interview schedule), tested and re-assessed before being applied. In addition, various documents (literature reviews, fact sheets about IT dynamics in Iasi, statistics about IT market in Iasi) were analyzed and used to record and cross-reference many aspects of the world under investigation. Each in-depth interview, on average, lasted 50 minutes. In addition to the interview process, the study selected 38 participants to participate in four focus groups. Each focus group lasted 90 minutes and used a semi-structured interview approach. All interviews with IT representatives and stakeholders were conducted within the work location of each participant. The focus groups were conducted in neutral spaces where the participants were invited after being informed about the purpose of the study. Given the nature of the study, access to various interviewees was agreed via a combination of purposive or snowballing sampling, referrals, or some form of the exchange process.

A methodological challenge was the selection of the interviewees and the participants in the focus groups. The criteria that described the

interviewees' background were established to offer the opportunity to select the most suitable participants in the study that can provide useful data regarding the research goal. For the IT representatives (n=6), the criteria were: a) management responsibilities within the firm; b) gender balance; c) responsibilities related to organizational attractiveness and employer branding. Thus, the research team selected a group of 6 interviewees aged between 30-45, with 6-10 years of experience in management and employer-branding areas, in companies with at least 100 employees.

For stakeholders of the IT industry (n=7), the criteria used to select the interviewees were: a) diversity of perspectives pertaining to different areas in which the stakeholders are active; b) direct and constant cooperation with the IT industry. As a result, the research team selected the group previously mentioned (one journalist specialized in the IT industry, one NGO representative with contacts and interests in the IT industry, three specialists in IT marketing and HR, one representative of the faculties that provide students trained for IT industry needs, one specialist in IT consultancy services), which complied with the selection criteria.

Another methodological challenge was to select the participants in the four focus groups. For the stakeholders' focus group (n=8), the research team used the same criteria as the ones for in-depth interviews with stakeholders. For the students' focus group (n=10), the selection criteria were gender balance, being students in the last year of computer engineering studies and job seekers. The last two focus groups (n=20) were composed of IT employees that met the following criteria: a) different levels of experience – three entry level, four middle level, three senior; b) gender balance.

To conduct the investigation, in-depth, semi-structured interviews and focus groups were considered appropriate tools to use in order to have a double perspective toward the research objective. On the one hand, the focus groups realized the perspective of those who benefit, evaluate or make professional choices as a result of employer-branding strategies developed by companies, i.e. IT employees and computer engineering/informatics students. On the other hand, the interviews disclosed the perspective of those who develop and implement employer-branding strategies to increase companies' organizational attractiveness. The study avoided the risk of a one-sided perspective in establishing the theoretical model of relations between employer attractiveness, organizational attractiveness, and company culture.

Protocols of questions and analytic techniques

For data interpretation, the study used Atlas.ti 8, which helps the researcher manage and structure the layers of analysis and facilitates connections across

the qualitative data gathered through in-depth, semi-structured interviews, and focus groups. The pieces of data interpreted both inductively and deductively were coded for a more complete understanding of the relations between employer branding, organizational attractiveness, and company culture. While a deductive approach is aimed at testing theory, the inductive approach is concerned with the generation of new theory emerging from the data, in this case the theoretical model of relations between the three concepts.

There are several methods used for managing and evaluating qualitative data circumscribed to two main approaches. Ryan and Bernard (2000) distinguish between the linguistic approach, which treats texts as an object of analysis itself, and the sociological approach, which treats text as a window into the human perceptions and experience. This study is focused on the sociological perspective, specifically. Thus, Ryan and Barnard (2000) argue that there are two categories of written texts, (a) words or phrases produced by techniques for systematic elicitation and (b) free-flowing texts such as narratives or responses to open-ended interview questions. Consequently, this study is concerned with the latter, part b, and the method used for analyzing the data gathered from the field research (interviews and focus groups) is keywords in context (KWIC). As Ryan and Barnard (2000) assert, this technique finds all the places in a text where a particular word or phrase appears and points it out in the context of some number of words before and after it. This method is based on coding qualitative data through tags or labels. The researchers convey units of meaning to the descriptive or inferential information gathered during the study. Therefore, codes were allocated to 'chunks' of the text of variable sizes in order to connect or un-connect keywords or phrases within specific research propositions.

The aim of using the codes presented in Table 1 is to describe the data, to retrieve code frequencies, but mostly we are interested in how the discourse enfolds in the data. It is also an actor-network analysis, which is a constructivist approach. In this respect, the actor-network theory tries to describe how material-semiotic networks come together to operate as a whole.

The coding categories were inspired by the Employer Attractiveness Scale (Berthon, 2005) described in the literature review section, particularly by the symbolic attributes that are included in the Social Value and Development Value of Berthon's scale. As mentioned, the dimensions included in this instrument were preferred because they have already been employed by various international studies, indicating good reliability (Arachchige & Robertson, 2011). Furthermore, Sivertzen, Nilsen, and Olafsen (2013) argued that the instrument involves employer attributes that affect a company's culture and this, in turn, effectively shapes employer attractiveness among candidates.

Table 1. Code list

Research Propositions (RP)	Code	Sub-code
RP1	Employer branding	Organizational image
		Organizational communication
	Recruitment process	Instrumental attributes
		Symbolic attributes
RP2	Company culture	Social value
		Developmental value
	Organizational attractiveness	Social value
		Developmental value
RP3	Employer branding	Word-of-mouth (WOM)
		Public events
		Corporate social responsibility (CSR)
		Company advertisements
	Sources of organizational attractiveness	Image of company's projects/ field of activity
		Company's culture image

The protocols of questions for in-depth, semi-structured interviews and focus groups proceeded through the following stages: a) apprehension (engendering trust, keeping the informant/s talking in order to get used to the conversation); b) exploration (informants need the opportunity to move through the stage of exploration without the pressure to fully cooperate, they need to get used to the researcher and the theme under scrutiny); c) cooperation (this stage involves complete cooperation based on mutual trust; the informants will no longer fear about offending each other or making mistakes in asking or answering questions).

Also, the protocols of questions encompassed three general categories of questions: a) descriptive questions that enable a person to collect an on-going sample of an informant's language at the beginning of the interview/ focus group; b) structural questions aimed at discovering information about domains, the basic units in an informant's cultural knowledge; they also allow us to find out how informants have organized their knowledge; c) contrast questions in order to discover the dimensions of meaning which informants employ to distinguish perceptions and ideas related to employer branding, organizational attractiveness and company culture in their world.

Table 2. Sample interview questions mapped to the research questions

Research Questions (RQ)	Interview Questions
RQ1: What is the relation between employer branding, organizational attractiveness, and company culture?	• Are you constantly looking for employment opportunities at a certain company? • Why would you want to be employed at that specific company? • Do you consider that the investment in the external employer branding of the companies leads to the constitution of a pool of potential employees without the need for head hunting? • Speaking about company culture, how much is this aspect important to you when choosing a new job?
RQ2: To what extent can company culture be communicated through employer branding?	• What makes you talk about a company? Do you follow the public communication of IT companies from Iași? • Are you aware of what each of them does? • When you intend to change your job, what criteria do you follow? • What makes you happy at work? • What makes you proud to work in a certain place? • When a company says, "we are investing in people" what do you think they mean by that? • Are you aware of events, campaigns, etc. that are happening in your community and are supported by IT companies?

FINDINGS

This study's research design did not involve testing theory but generating theory (through exploratory research) from data. This approach was implemented in order to produce insight and develop an understanding of the relation between company culture and organizational attractiveness from the perspective of IT industry representatives, stakeholders and employees. Assuming that the reality is socially constructed rather than objectively determined, working within such a pattern allowed much more complicated perceptions and subjective connections to be examined. As such, the chosen methodology offered an opportunity to interpret, understand and explain the different constructs and meanings each informant placed on his particular perception of the concepts involved in the theoretical model.

Research Proposition 1 (RP1): Employer branding beats head hunting

This research proposition aims to argue whether successful employer branding can be so effective that it immediately attracts potential candidates who want to be employed in a particular company. The data retrieved from in-depth interviews and focus groups do not support RP1. Employer branding and its results, that is, an attractive image of the organization, do not exceed the efficiency of a recruitment process targeted by HR departments. Most of the questions and discussions with the research subjects were organized around the following questions: Are you constantly looking for employment opportunities at a certain company? Why would you want to be employed at that company? Do you consider that the investment in the external employer branding of the companies leads to the constitution of a pool of potential employees without the need for head hunting? Subjects' responses were synthesized and organized with Atlas.ti resulting in the relations presented in Figure 2.
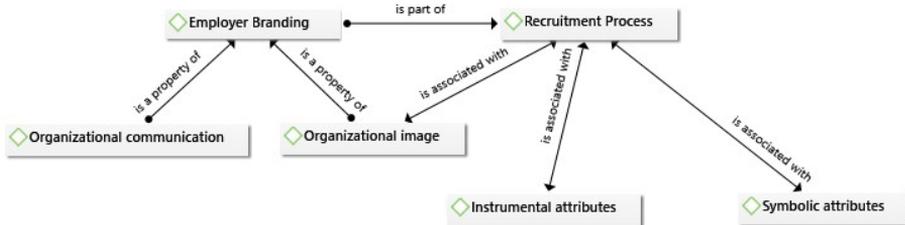
Figure 2. Employer Branding and Recruitment Process Relations
Source: own work, data processed with Atlas.ti 8.

Even if employer branding is not a sufficient condition to facilitate the recruitment process, the subjects' answers show that employer branding is still a necessary condition for an efficient recruitment process. Respondents associate the attention paid to recruiters with the presentation of instrumental attributes and symbolic attributes. However, it is noteworthy that when respondents analyze what attracts their attention in recruiters' offers and the attributes listed, they also talk about the company's overall organizational image. The latter is part of the employer-branding strategy and is brought to the attention of stakeholders and potential employees through organizational communication. As one of the respondents (a middle-level IT employee) remarked:

"We analyze, first of all, the offer and benefits offered, but the image that the company has in the market is also important. If it is a stable company, if

it has a good reputation in relation to the way it treats its employees, if it invests in employee training…"

So, even if employer branding cannot automatically ensure employees' flow, it greatly facilitates the recruitment process. In this RP case, more nuanced research would be necessary to distinguish between internal employer branding and external employer branding and the impact of each in recruitment and retention processes.

Research Proposition 2 (RP2) - The organizational culture of a company is also attractive for those outside the company

Company culture is primarily a topic of interest for the company's internal management as it ensures team cohesion, pursuing common goals, fulfilling the organization's mission, and cultivating common beliefs. By formulating this RP, the study tried to verify to what extent, beyond the internal utility that is already demonstrated, company culture attracts attention and facilitates organizational attractiveness. The RP2 is supported by the results of qualitative research.

Specifically, to test this proposition, we coded the answers using two of the five dimensions of the Employer Attractiveness Scale (Berthon, Ewing, & Hah, 2005). The Social Value Code includes references to having a good relationship with your colleagues, having a good relationship with your superiors, supporting and encouraging colleagues, and a happy work environment. The Development Value Code included references to feeling more self-confident as a result of working for a particular organization, feeling good about oneself as a result of working for a particular organization, and gaining career-enhancing experience. Both Social Value and Developmental Value are included in the notion of company culture according to the literature and, at the same time, the respondents invoked elements related to social value and developmental value in relation to organizational attractiveness. From here, it can be inferred that the company's attractiveness also depends on the company culture because the latter is a topic of interest for those outside the company. Figure 3 summarizes the relations created between the qualitative data obtained through interviews and focus groups.

Figure 3 displays information about groundedness (G) and density (D). Groundedness refers to the number of linked quotations, while density counts the number of linked codes. The higher the G-count for a node, the more grounded it is in the data. The higher the D-count for a node, the denser the surrounding network. In Figure 3, G-21 for Social Value and G-26 for Developmental Value suggest, firstly, that the two dimensions are often invoked in the analyzed data.
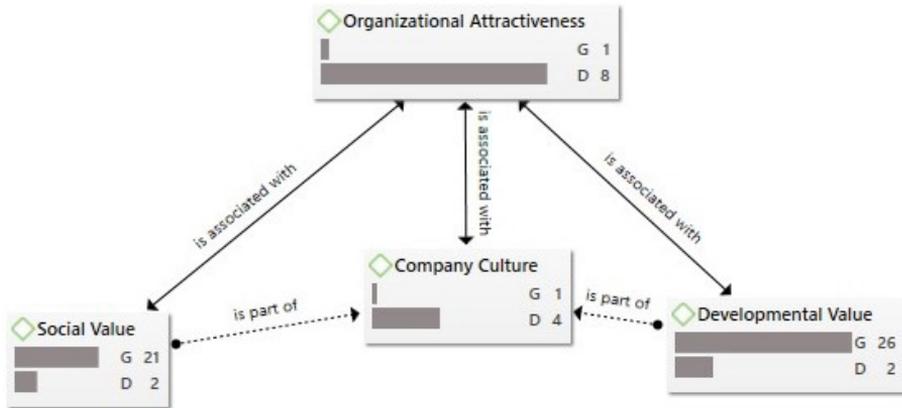
Figure 3. Organizational Attractiveness and Company Culture Relations

Source: own work, data processed with Atalas.ti 8.

Then, among the two dimensions of company culture, the Developmental Value seems to be more effective for job seekers. This aspect is relevant for designing employer-branding strategies that emphasize organizational culture elements focused on Developmental Value. The association between organizational attractiveness and developmental value is very well summarized by a respondent (senior IT employee):

"Working for an e-health software company gives me significant satisfaction. As a result of the projects we develop in the company, many people will live better, will monitor their health better and this gives me a sense of confidence in myself and in my professional contribution. I feel challenged to develop professionally as much as possible in this field".

Research Proposition 3 (RP3) - The image of an employer is built primarily by the way employees talk about the company

Company culture places people at the center of its efforts. This proposition raises the question of whether employees of a company are the most efficient vehicle through which organizational attractiveness is created. It is very important for external employer branding to understand what channels to use to strengthen a company's image. The RP3 is partially supported, in the sense that word-of-mouth (WOM) – the way employees talk about the company they work for – is important, but the image is strengthened as well by the contribution of other elements such as public events, company

advertisements, CSR, the company's projects or field of activity, and company culture as it is confirmed by H2.

One of the interviewed stakeholders summarizes very well the result of the analysis of this research proposal:

"In general, the opinion I have about a company is based less on the company's direct promotion. I listen to the opinions of its employees, I notice the projects that the company supports or sponsors in the community and the consistency that they have in terms of involvement in city events".

Figure 4 summarizes how respondents correlated the sources of organizational attractiveness.
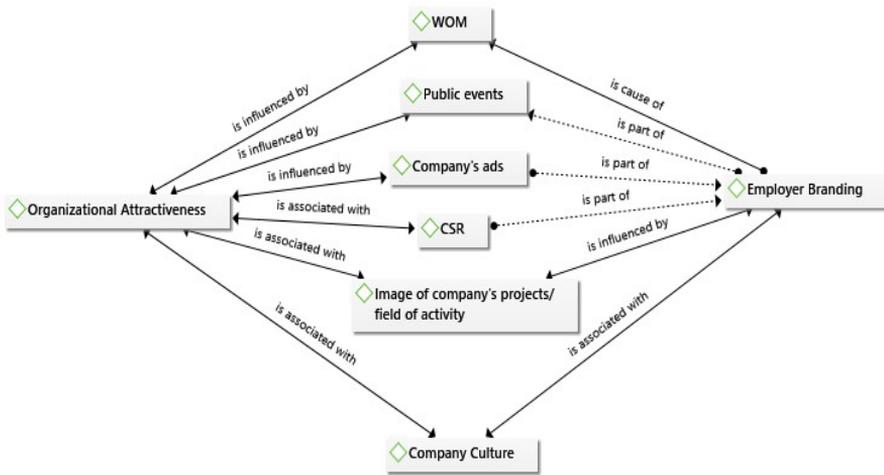
Figure 4. Sources of organizational attractiveness

Source: own work, data processed with Atlas.ti 8.

Although the RP3 was a simple one, the research results revealed a larger network of influences on organizational attractiveness that naturally led us back to employer branding. Given that WOM appears to be an important element (G-21) in shaping organizational attractiveness, the research team questioned how it is possible to shape the opinions transmitted through WOM. The answers can be found in internal employer branding and company culture that turn employees into company ambassadors. The purpose of this research is not to find out how employees can be transformed into employer-brand ambassadors. Still, the confirmed link between organizational attractiveness and WOM and employer branding and company culture creates a framework for an applied study on the influence of employer branding and company culture on WOM.

DISCUSSION ON THE PRACTICAL IMPLICATIONS AND CONCLUSIONS

These research propositions induce some practical implications for employer brand management. The first implication is that the HR Department and Marketing and Communication Department should implement the employer-branding process in a joint strategy. When we try to identify EB effects, we list advantages such as a favorable organizational image that attracts better recruitment outcomes, more differentiation, stronger emotional bonds, and financial returns. The results of EB strategies and the relations established by respondents between the attractiveness of a company and various elements included in EB, show that we have two EB approaches: internal EB and external EB, each managed separately by the HR and Marketing departments. But a company's image and organizational attractiveness imply a holistic, comprehensive perception, so the EB strategy must be coherently thought out and implemented, integrating internal EB (which will generate WOM, for example) and external EB (which will create visibility, differentiation, and so on).

Another practical implication could be a shift in the management perspective on employees. In general, employees are prioritized through company culture and EVP as part of internal employer branding. This study showed the relations between organizational attractiveness, company culture (emphasizing symbolic attributes), and external employer branding. WOM, social and developmental values (which are dimensions of company culture) place employees at the center of the discussion about external employer branding too. So, they are not just the focus of internal EB and company culture strategies. In order to optimize external EB, employees should be considered as strategic assets. Hence, the company's strategy in regard to positioning, differentiating from the competition, and strengthening organizational attractiveness, should be taking into account employees as resources or strategic assets.

This study sought to clarify the relation between employer branding, organizational attractiveness, and company culture. It highlighted the intersection points between these concepts and how they are associated with the reasoning of stakeholders, IT employees, and representatives of IT companies. To sum up, the article argues that internal employer branding is developed as a contribution to company culture, and company culture (in the form of symbolic attributes) must be communicated through external employer branding to increase organizational attractiveness. This paper was limited to the validation of these points of interaction between the domains. We did not operationalize in detail each concept to find connections and influences in more depth. Being a qualitative study, the findings reveal only

the in-depth, mental connections made by representatives of IT companies, industry stakeholders, and IT employees. Therefore, the study has no statistical or quantitative relevance. It only draws attention to a theoretical model of relations between employer branding, organizational attractiveness, and company culture that needs further empirical research.

Although the common areas of these domains were determined, it is still extremely important to conduct a far-reaching and integrative analysis of the current symbolic organizational personality inference to discover precise communalities and higher-order dimensions. This type of approach might point to some common meta-dimensions for EB, organizational attractiveness, and company culture. As symbolic, organizational, personality interpretations indicate social reputation rather than inner cognitions or self-perceptions of behavioral models it is more likely that these higher-order issues will imply central dimensions of social judgment than significant dimensions of human personality.

Most researchers (both recruitment and organizational-culture researchers) have focused on the instrumental and symbolic attributes related to employer image. This paper is also in line with this perspective, referring especially to symbolic attributes. In addition to these two types of attributes, there are also experiential attributes that describe the concrete experiences with the employer through past applications, recruitment events, or other interactions with a specific company. These attributes have received less attention, although they are part of many theories regarding the brand attributes in marketing. To add valuable research on such experiential attributes, recruitment, and organizational culture, scholars could draw on recent marketing advances. For example, researchers should get inspired by brand experience management's topics and methodologies and apply them to the study of experiential attributes related to company culture or employer branding.

Another conclusion concerns the practical implications of areas such as employer branding and company culture. Although significant advancement has been made in measuring employer image through researchers' work, there is still a challenge for practitioners to align employer image with its conceptualization. Construct clarity should prevail in developing future measures, both in academic papers and in practitioners' work. Similarly, measures used in third-party, employer-branding measurements and accreditations (e.g., Best Companies to Work For, Great Places to Work) should be constructed based on the best available data regarding the conceptualization of employer image. For instance, this entails that both instrumental and symbolic attributes should be added to the research and reliably assessed in order to avoid confusion between the reputation, image, and identity of an organization.

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Abstrakt

Niniejszy artykuł ma na celu zbadanie zasadności łączenia wysiłków działu HR oraz działu marketingu i komunikacji we wspólnym definiowaniu i wdrażaniu strategii budowania marki pracodawcy. Aby osiągnąć ten cel, zaprojektowano badania jakościowe, które pozwoliły na ustalenie relacji pomiędzy atrakcyjnością pracodawców, atrakcyjnością organizacyjną i kulturą firmy oraz na zidentyfikowanie, w jakim stopniu kultura przedsiębiorstwa może być komunikowana poprzez employer branding. W rezultacie, badanie wyjaśnia: po pierwsze, powiązania między budowaniem marki pracodawcy, atrakcyjnością pracodawcy, kulturą firmy i granicami tych koncepcji. Następnie przedstawia mechanizm oddziaływania employer branding w odniesieniu do atrybutów kultury firmy. Końcowe wnioski z badań dotyczą praktycznych implikacji dotyczących zarządzania marką pracodawcy. Całość opracowania oparto o jakościowe metody badawcze (wywiady pogłębione i grupy fokusowe) zastosowane wobec interesariuszy, pracowników branży IT oraz przedstawicieli firm IT. Następnie zebrane dane jakościowe zostały prze-

tworzone przy zastosowaniu oprogramowania Atlas.ti 8. Uzyskane wyniki wskazują, że kiedy strategie rekrutacyjne działu HR, i odpowiednio strategie employer brandingowe działu marketingu są zwykle rozważane osobno, w rezultacie ich efektywność znacznie spada, a wizerunek pracodawcy nie jest spójny i atrakcyjny. Podsumowując, wyniki badań implikują następujące rozwiązania praktyczne: a) zespoły zarządzające muszą mieć całościowe podejście do budowania marki pracodawcy, atrakcyjności organizacyjnej i kultury firmy; b) employer branding, aby stał się użytecznym narzędziem zatrzymywania i rekrutacji pracowników, musi być zarządzany zarówno przez działy HR, jak i działy marketingu i komunikacji w ramach skoordynowanej i spójnej strategii oraz c) aby employer branding był skuteczny, to potrzeba strategicznego wzmocnienia działu HR, w wyniku czego pracownicy staną się strategicznymi aktywami firmy.

Słowa kluczowe: *employer branding, kultura firmy, strategie HR, atrakcyjność pracodawcy*

Biographical note

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Conflicts of interest

The author declares no conflict of interest.

Citation (APA Style)

Designing a human resource scorecard: An empirical stakeholder-based study with a company culture perspective

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Abstract

Human resource management (HRM) in public organizations managed based on a balanced scorecard requires a different narrative on the map of strategic goals than in private organizations. However, this issue is not widely recognized and discussed. This study aims to identify strategic goals and outline an HRM strategy with a stakeholder approach from a corporate culture perspective based on a balanced scorecard by examining and highlighting areas that should be included in the revised narrative. This exploration was carried out through qualitative research, particularly a thematic analysis based on data from the Kish Free Zone Organization. Therefore, using the themes obtained, a human resources strategy map was presented based on a balanced scorecard. The six-step Clarke-Braun process and the three-step Attride-Stirling thematic classification method were combined into a thematic network, and a seven-step research process was created. Data was collected through interviews with stakeholders in the Human Resources (HR) unit. These stakeholders are (1) HR employees (2) employees of other entities (3) senior and middle management (4) family of employees (5) HR department of related companies (6) retirees, and (7) customers of this entity. To identify strategic goals and a human resource strategy map, 187 main topics, 39 organizational topics, and 12 global themes were identified after transcription

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of the interviews, including (1) the development of family policies (2) promoting the well-being, health, and well-being of employees (3) improving productivity HR department (4) promoting the human dignity of the staff (5) developing an organizational culture based on customer orientation and innovation (6) empowering employees (7) development HR information system (8) strategic recruitment and retention of employees (9) performance management and development employees (10) strategic transformation of HRM based on research and process reform (11) adjusting the allocation and use of the HR budget to the organization's strategy and (12) improving the accounting mechanism for the personnel budget. This study is innovative due to the proposed approach to redesign the strategy map and the balanced scorecard from a human resource management perspective, methodically, due to adopting a combined thematic analysis process and constructing related narratives and stakeholder approaches from a corporate culture perspective.

Keywords: *balanced scorecard, strategic human resource management, public organizations, stakeholder approach, strategy map*

INTRODUCTION

Free zone organizations are a very important sector for developing the economy and independent trade and strengthening international relations. However, as part of the government, this sector has also faced employee demotivation as well as the negative opinion of the public sector in the general population (Mendes, Santos, Perna, & Teixeira, 2012). Some CEOs and senior line managers are skeptical about the role of human resources in their companies' success. Meanwhile, many executives, despite the belief that "human resources are the most valuable asset of an organization," cannot understand how human resources functions play a role in making the envisioned organizations a reality. The problem is rooted in the fact that it is difficult to measure the impact of human resource functions on an organization's performance and success (Becker, Huselid, & Ulrich, 2001). People are the company (Kucharska & Kowalczyk, 2019; 2020) and employees are one of the key groups of stakeholders (Philips, 2003; Phillips, Freeman, & Wicks, 2003). Recently, Kianto, Vanhala, Ritala and Hussinki (2020) strongly highlighted the advantageous consequences of intellectual capital on various aspects of organizational performance. Moreover, Kucharska (2020) proved that employee commitment matters for a company's reputation and performance.

Nonetheless, strategic HRM in the public sector is now considered (Guo, Brown, Ashcraft, Yoshioka, & Dennis Dong, 2011) because the contemporary public management movement focuses on increasing accountability and efficiency. Besides, the growing recognition of the importance of human resources, innovation, cost control, organizational members' participation, and

human resources diversity is emphasized in the public sector (Lim, Wang, & Lee, 2017). Therefore, appropriate frameworks for strategic HRM are required to delineate its role in achieving organizational success in the public sector.

On the other hand, a balanced scorecard provides a clear and tangible framework for linking different performance measures to the strategic objectives of the organization (Wilson, 2006). The balanced scorecard translates an organization's strategies into performance objectives, measures, quantitative targets, and executive initiatives from four balanced perspectives, including financial, customer, internal processes, and learning and growth. In this way, a balance between retrospective indicators (financial indicators) and prospective indicators (the indicators of the three other perspectives) is created (Kaplan & Norton, 1996).

By applying the balanced scorecard model in the field of human resources, the new tool of HRM scorecard is provided for human capital management and measurement (Walker & McDonald, 2001). In the human resource scorecard, HRM as a strategic asset and the contribution of human resources to the organization's success is considered. HR scorecard helps to prioritize capabilities and provide an appropriate approach for managers and staff. The advantage of a balanced scorecard is to show the priorities of human resources and how they relate to each other. Besides, it enables managers to recognize the goals of human resources in future periods by communicating the priorities (Becker, Huselid, & Ulrich, 2001). Furthermore, the challenge of implementing the strategy and management of human resource performance has increased in recent decades in public sector organizations compared to private sector organizations (Newcomer, 2007). These organizations include a broader range of stakeholders who directly or indirectly influence the organization or are influenced by it (Zheng, Wang, Liu, & Mingers, 2018). In these organizations, the ultimate objective is not financial gains but to meet citizens and society's needs. Hence, when the human resource scoreboard is used in the public sector, the customer (citizens) perspective is at the top of the strategy map (Kaplan & Norton, 2001b).

Providing and maintaining effective staff, improving the employee's performance, and motivating and managing them, HRM has a special role in achieving the objectives and strategies pursued by public sector organizations from the company culture perspective. By aligning its strategy with the organization's overall strategy, it has a significant contribution to achieving the organization's grand strategy. Therefore, the first step in the implementation of the strategy is to identify and define strategic objectives that can be achieved through the definition of the strategy map. However, the review of theoretical foundations suggests the use of the human resource scorecard in the public sector has not been developed theoretically enough,

and much research has not been considered so far in this field. Therefore, our knowledge regarding it is limited and the vacancy of research that addresses the use of the human resource scorecard in the public sector is tangible.

According to the facts mentioned above, the purpose of this qualitative research is to identify the strategic objectives and strategy map of HRM in the Kish Free Zone Organization (KFZO) using a balanced scorecard approach based on the thematic analysis and from the company culture perspective. Note that KFZO's fundamental objectives are conducting the needed infrastructural works in the Kish Island (an island in Iran), helping to constructive development, improving economic development, generating helpful job opportunities, attracting both internal and international tourists and investors, setting both employment and commodity markets, facilitating active presence in the world market to develop non-petroleum exports, arranging condition for producing industrial products, launching processing industries, and finally, taking advantage of Kish Free Island special opportunities including general assembly, the board of the directors, managing director, chairman of the board of the directors, and legal inspectors. Accordingly, the cultural context of this organization encompasses all three aspects of economic, social, and political. Considering the main stakeholders of HRM in this organization, the data are first collected and then, using the objectives corresponding to the four perspectives of the balanced scorecard (financial, stakeholders, internal processes and functions, and employee development), the themes are identified by thematic analysis. Moreover, Hofstede and Minkov (2010) noted that national, cultural context might influence organizational studies results. Hence, this study may illustrate how the Iranian context of Kish Free Zone Organization may impact strategic human resource management by designing a human resource scorecard.

LITERATURE REVIEW

HRM in the public sector has major differences with the private sector (Boselie, Harten, & Veld, 2019). Although many HRM activities and processes are the same in both, the public sector issues always present challenges and contradictions concerning HRM (Berman, Bowman, West, & Van Wart, 2010; Knies, Boselie, Gould-Williams, & Vandenabeele, 2018). The concept of strategic HRM in the public sector gained high importance when the new public management appeared in the 1980s. New public management (NPM) theorists rose to progress a requirement for flexibility, innovation, managerialism, and responsiveness within the public sector, which challenged the essential principles of bureaucratic/mechanistic organizational forms

(Funck & Karlsson, 2019). With the advent of new public management, staff development is possible through advanced HRM techniques (Hajiagha, Akrami, Hashemi, & Amoozad, 2015; Hajiagha, Hashemi, Mahdiraji, & Azaddel 2015; Hood, 1995; Lapsley & Wright, 2004). Several factors in the public sector that may influence the adoption of a strategic HRM approach (Brunettov & Beattie, 2020).

- First, the multiplicity and diversity of its objectives, the complexity of performance measurement, and the tendency for conflicts between various goals and stakeholders make strategic management as well as the achievement of the vertical and horizontal integration more difficult (Arnaboldi, Lapsley, & Steccolini, 2015).
- Second, public management is subject to scrutiny or regulatory bodies created by the legislature (Biancone & Jafari-Sadeghi, 2016). Such a situation frequently limits executive and administrative autonomy in achieving a strategic approach.
- Third, the political environment may affect the implementation of strategic HRM because successful HRM in the public sector needs the support from top managers and political support (Rainey, 2009). Therefore, in countries with relatively high political instability and frequent political changes, the limited time horizons of political leaders can lead to strategic HR policies' failure.
- Another problem is the difference in HRM approaches at the level of central organizations and headquarters with operational centers. The strategic alignment between strategic HRM and the particular environment in which it is applied is important.

Taking everything into consideration, it can be said that the implementation of strategic HRM in a particular country is influenced by a set of political, social, economic, and cultural factors that are interconnected (Jarvalt & Randma-Liiv, 2010). Performance management in the public sector can lead to various political as well as managerial purposes that affect each other (Wang, Zhu, Mayson, & Chen, 2019).

- First, the definition of the missions and clear objectives help each employee understand what the organization desires and provides a concentration on the operations (communication purpose) (Niven, 2006).
- Second, by the measurement of performance considering the objectives, policymakers and public managers need to be able to explain to the public for what purposes their money has been used ("transparency/accountability purpose") (Hajiagha Razavi, Mahdiraji, Hashemi, & Turskis, 2015; Jafari-Sadeghi, Nkongolo-Bakenda, Anderson, & Dana, 2019; Moullin, 2017).
- Third, public sector organizations can use performance measurement to learn and improve performance (learning purpose) (Buick,

Blackman, O'Donnell, O'Flynn, & West, 2015; Hajiagha, Mahdiraji, Zavadskas, & Hashemi, 2014).

- Fourth, the performance measurement systems can provide a basis for the compensation of public officials (appraising purpose) (Armstrong, 2000; Jamalnia, Mahdiraji, Sadeghi, Hajiagha, & Feili, 2014).

The specification and intensive monitoring of performance, coupled with a set of incentives and sanctions, can be used to ensure the public sector managers continue to act in line with the interests of the society (Beheshti, Mahdiraji, & Zavadskas, 2016; Jafari-Sadeghi, 2019; Verbeeten, 2008). Considering what is said, the strategic HRM and employee performance management in the public sector needs to maintain a coherent and effective approach. Seeking to apply appropriate private sector models in the public sector, the new public management introduces the balanced scorecard model (Maran, Bracci, & Inglis, 2018). Although this model was first introduced for the private sector, Kaplan and Norton (2001a) presented a modified version of it for the public sector. Considering the four perspectives introduced, the given model appreciates the complexity of many public organizations and presents more measures. Moreover, this model is unlimited to the key perspectives provided by Kaplan and Norton (Arnaboldi, Lapsley, & Steccolini, 2015; Hansen & Schaltegger, 2016; Jafari-Sadeghi & Biancone, 2017b). The balanced scorecard is a strategic planning and management system that aligns business activities with the organization's vision and strategy, improves internal and external communications, and controls the organization's performance against the strategic objectives (Kaplan & Norton, 1996). The balanced scorecard can be used as a communication tool, measurement system, and strategic management system (Ahn, 2001; Becker & Huselid, 2006; Jia, Mahdiraji, Govindan, & Meidutė, 2013; Mahdiraji, Arabzadeh, & Ghaffari, 2012; Malina & Selto, 2001; Niven, 2006; Rezaei, Jafari-Sadeghi, & Bresciani, 2020).

Kaplan and Norton suggest an effective way to implement a balanced scorecard is to use a strategy map. The strategy map outlines the causal relationships between strategic objectives and serves as a starting point for balanced scorecard projects. The strategy map includes four perspectives, like a balanced scorecard (Kaplan & Norton, 2008). Niven (2006) emphasizes that the financial perspective is not the main target in the public sector, but a limited resource by which the mission is accomplished. Considering performance from different perspectives based on the various objectives and stakeholders (McAdam, Hazlett, & Casey, 2005; Messeghemv, Bakkali, Sammut, & Swalhi, 2018), a balanced scorecard in the public sector is assumed as a tool for linking the goals of the performance management and the public organization objectives (Bobe, Mihret, & Obo, 2017; Modell, 2004). Performance management is more difficult in the public sector than in the

private sector because the social and political environment is more complex (Brignall & Modell, 2000; Hoque, 2014; Mahdiraji, Govindan, Zavadskas, & Razavi Hajiagha, 2014) and meeting the needs of the community is of utmost importance. Therefore, the client/customer perspective is at the highest level (Aidemark, 2001; Kaplan & Norton, 2001b; Mahdiraji, Kazimieras, & Razavi, 2015). The public sector strategic map changes in a top-down, cause-effect hierarchy (Moullin et al., 2007) and is translated as follows. The financial perspective provides the necessary means for human capital growth, productivity, organizational capacity, and information in the learning and growth perspective. This, in turn, provides the work needed for the success of the critical factors in the internal processes perspective and ultimately, the client's perspective (Mahmoudi, Mahdiraji, Jafarnejad, & Safari, 2019; Mathys &Thompson, 2006; Mendes, Santos, Perna, & Teixeira, 2012).

Irwin (2002) argues that the customer perspective is determined by the definition of the organization stakeholders when the strategy map is drawn by the identification of the organization strategy. In public sector organizations; labels such as "customer," "consumer," "client," "user," "stakeholder," "citizen," "taxpayer," or "the public" are mostly used to describe this term (Cunningham, 2016). However, this perspective is not completely described only by the identification of a customer. Accordingly, depending on the nature of the activity, the customers/clients may be divided into several categories (Conaty & Robbins, 2018). The balanced scorecard in the public sector replaces the terms ''customer'' and ''internal processes'' with ''stakeholder '' and ''operational excellence,'' respectively. Moreover, growth is omitted in the innovation and learning perspective, since it may be misleading if it is simply considered as growth in physical or monetary terms. Besides, the term "growth" is eliminated in the learning and growth perspective, because it may be misleading and considered as growth in physical or monetary terms. Generally, the balanced scorecard model in nonprofit organizations seems to be unlimited to four main performance dimensions (Grigoroudis, Orfanoudaki, & Zopounidis, 2012; Mokhtarzadeh, Mahdiraji, Beheshti, & Zavadskas, 2018).

By employing the four-dimensional model of balanced scorecard in human resource management, the HR Scorecard model's perspectives and strategic objectives were developed and the strategic map was constructed. Both the HR scorecard and the balanced scorecard include objectives, measures, initiatives, action items, and strategy maps that are designed in both of them, including several perspectives. Generally, they are applied to describe a specific strategy and execute it. While for-profit organization scorecards traditionally place the financial perspective at the top of the strategy map, an HR scorecard usually does not, considering that the HR department's primary goal is not to make a profit but to support its

"customers," which are typically internal to the organization. Besides, since the balanced scorecard in HR is more likely to have an internal perspective that revolves around key strategic areas in which the department operates, the internal perspective themes in an HR scorecard are unique from traditional scorecards (Cunningham, 2016; Kaplan & Norton, 2006).

An HR balanced scorecard helps HRM to prioritize capabilities and provides an appropriate approach for managers and employees. The advantage of an HR balanced scorecard is to show the priorities of human resources and how they are connected. Besides, it enables managers to determine the goals of human resources in future periods by communicating the priorities (Balogh & Golea, 2015; Jafari-Sadeghi, Biancone, Giacoma, & Secinaro, 2018). The HR scorecard aligns business strategy with the objectives and outcomes desired and expected by the human resources to provide a statistical basis for measuring human resources efficiency and their impact on the implementation of organization strategy (Becker, Huselid, & Ulrich, 2001; Jafari-Sadeghi & Biancone, 2017a). To achieve the strategic objectives of the organization in the public sector, it is first necessary to define the client, financial, process, and learning and growth objectives and activities to implement them using the HR scorecard. Precisely, HR managers can ask which HRM practices, skills, and behaviors help line managers implement the organization's strategic objectives (Cunningham & Kempling, 2011; Jafari-Sadeghi & Biancone, 2018).

- **The customer or client perspective.** Internal and external clients are considered as customers. The external clients in public sector organizations include citizens, and the internal clients include groups who receive services in the organization (Jafari-Sadeghi, Kimiagari, & Biancone, 2020; Soysa, Jayamaha, & Grigg, 2019). Most of the HRM clients are internal ones in the organization and include line managers and employees who rely on HRM to perform their duties in response to external clients.
- **The financial perspective.** Timely and accurate financial data are always a priority because the financial objectives and measures are helpful in summarizing the outcomes of budgetary expenditures.
- **Internal processes perspective.** In the internal processes perspective, the managers identify the internal processes in which the organization needs to develop. These processes enable the organization to effectively provide its services (Cunningham & Kempling, 2011).
- **Learning and growth perspective.** There is a direct relationship between the effectiveness of HRM and the quality of the work of the HR staff. Hence, by the encouragement and continuous training of employees for learning and innovation, organizations can achieve long-term development. This perspective is mainly related to the training of

human resources staff, helping to meet customer needs, optimizing the internal processes, and achieving overall objectives (Qingwei, 2012).

To develop a human recourse scorecard in public sector organizations, customer objectives are first recognized; then, effective processes are considered, in addition to effective financing. The learning and growth perspective recognizes that these objectives rely on a human component – motivation, training, and the appropriate identification of competencies (Cunningham, 2016).

New public management principles have promoted a more flexible and responsive approach to recruitment, selection, retention, training, and development of public sector employees. The new models of HRM in the public sector introduced the concept of human resources to achieve performance outcomes in line with the strategic direction of the public sector organization (Brown, 2004). Along with the emergence of new public management, the changing structure and operations of the governments replaced the traditional Weberian model including centralized and bureaucratic practices with private-sector HRM systems. The new public management has led to a strategic approach to HRM in the public sector. A new concept of "best practices" has arisen, which is called a "high-performance work system" (El-Ghalayini, 2017). The core of HRM is to achieve the strategic objectives of the organization. Because of unprofitability, public sector organizations' ultimate objectives are the quality and effectiveness of the services. Therefore, in the HR scorecard, the client perspective is related to the internal customers; that is, the employees of the organization (Qingwei, 2012).

According to what is said so far, it follows that strategic HRM in the public sector needs significant concepts and means to illustrate the contribution of this unit to the value creation in the organization. It seems that the use of a balanced scorecard in the public sector HRM can effectively create responsivity and accountability to the performance of this unit. Additionally, by mapping strategic objectives and implementing them, the position of the HR unit can be promoted to the strategic partner of the organization. Here, some of the most important, relevant researches are reviewed.

Balogh and Golea (2015) presented an HR scorecard model and argued that the indicators in the scorecard are calculated as predetermined values versus the actual values to facilitate the identification of causes leading to differences. Also, it facilitates the decision-making process on how to eliminate the causes which influence the performance. Anwar, Djakfar, and Abdulhafidha (2012) and Jafari-Sadeghi, Jashnsaz and Honari Chobar (2014) analyzed the organization's performance with a balanced scorecard approach and developed the indicators accordingly to evaluate the employees' behavior, attitude, skills, and knowledge. Besides, Iveta (2012) presented the possibilities of using the modern balanced scorecard method in human

capital and identified that one of the organization's primary goals should be to have a manageable and sustainable HR scorecard with visible and measurable key performance indicators. This research's key performance indicators included all possible aspects – internal and external – of HR strategy, aiming to achieve a more significant organizational approach. Using a balanced scorecard and based on the Delphi method, Qingwei (2012) identified a set of indicators to evaluate HRM effectiveness in a hospital, combined with the hospital human resource characteristics.

Furthermore, Boada-Grau and Gil-Ripoll (2009) studied the performance indicators by the examination of the relationship between strategic HRM in organizations using the three perspectives (customer, financial, and process) of the balanced scorecard. They recognized the indicator of "values and culture" among strategic HRM indicators as acquiring the most predictive capability. Their research identified that the strategic HRM variables were more predictive for process and customer perspectives than the financial perspective. Fottler, Erickson and Rivers (2006) developed an HR scorecard in a clinic and presented a considerable number of internal and external indicators for the financial, customer, internal processes, and growth and learning perspectives. Considering their role in achieving the strategic objectives, the management team identified these indicators for each of the above perspectives by modeling. The four perspectives were identified for the clinic's mission.

Using the HR scorecard, Shankari and Suja (2008) analyzed the performance of strategic business units (luxury, business, and leisure) of the Taj Group of Hotels with a specific reference to the financial perspective. They aimed to maximize human capital and minimize HR costs. Cunningham and Kempling (2011) studied the promotion of organizational fit in the strategic HRM using the HR scorecard in two public sector organizations. Reviewing the relevant literature, it can be recognized that HRM researchers have sought to acknowledge the question as to whether HRM plays its role efficiently and effectively in the organization or not. Accordingly, the need for performance management is recognized and the need for a tool to determine the accordance of HRM with the organization's objectives and strategy becomes evident. The HR scorecard represents an approach that allows the accordance of the performance with the strategic objectives. The literature review recognized that the HR scorecard is used as a communication tool (Balogh & Golea, 2015; Phuong & Harima, 2019), as a system for measuring performance (Anwar, Djakfar, & Abdulhafidha, 2012; Jafari-Sadeghi & Biancone, 2019; Shankari & Suja, 2008), and as a system for implementing strategy (Bryl, 2018; Cunningham & Kempling, 2011; Qingwei, 2012; Reidolf & Graffenberger, 2019).

The role of the balanced scorecard in managing performance and helping to realize the organization strategy, especially in the public sector,

becomes evident by a review of the previous research conducted on HRM and employee performance management. Numerous studies examined the HR scorecard. However, little research has been performed on the use of HR scorecards in the public sector. Recognizing the lack of appropriate research can strengthen the value of similar research initiatives and add to the importance of such research. The way of achieving the concept of an HR scorecard in the public sector is illustrated in Figure 1.
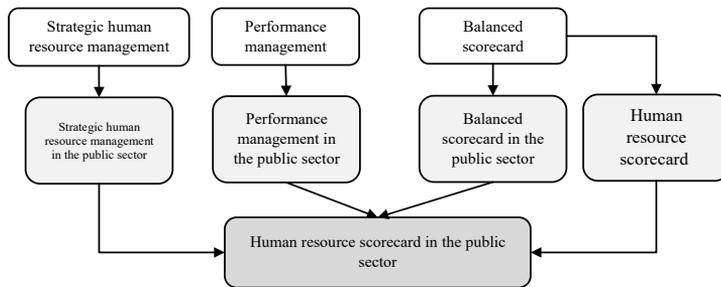
Figure 1. The process of the formation of HR scorecard in the public sector

In the present research, the balanced scorecard approach as a communication tool and content-based qualitative analysis is used to present the strategy map of the HR unit performance by the identification of the strategic objectives for four perspectives of the HR scorecard.
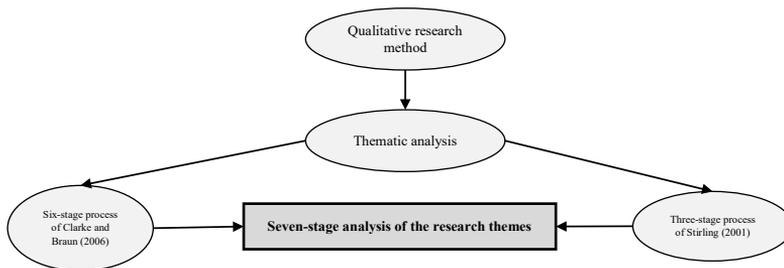
Figure 2. Study framework

METHODOLOGY

Using qualitative research, the present study seeks to create a map of HRM's strategic objectives, based on the balanced scorecard with the stakeholder

approach from the perspective of the company culture. The research participants included all the stakeholders of the HR unit of Kish Free Zone Organization, who were selected based on the researcher's judgment. The data were collected by a semi-structured interview. The stakeholders of this unit include (1) HR unit employees (2) employees of other units (3) senior and middle managers (4) family of employees (5) HR units of affiliated companies (6) retirees, and (7) the clients of this unit. The questions in the interview were formulated based on the four perspectives of the balanced scorecard. Given that all the stakeholder groups were unrelated to each of the four perspectives of the scorecard, a special interview pattern was considered for each group when the interview questions were prepared; in this manner, they only responded to the parts related to them as presented in Table 1. Eventually, in the process of collecting data from the seven stakeholder groups of this unit, 21 interviews were conducted during the period from 21 November 2017 to 13 December 2017. As a case in point, the family of employees as a group of stakeholders in this research were asked to only respond to the questions related to the customer perspective.

Table 1. The pattern of interview and data collection

Participant groups / HR scorecard perspectives	HR employees	Other units employees	Senior and middle managers	The family of employees	HR of affiliated companies	Retirees	Clients
financial	✓	●	✓	☒	☒	☒	☒
customer	✓	✓	✓	✓	✓	✓	✓
processes	✓	✓	✓	☒	●	☒	✓
Growth and learning	✓	✓	✓	☒	●	☒	☒

Notes:
✓ The given group has the necessary information from the corresponding perspective,
☒ The given group does not have the necessary information from the corresponding perspective,
● The given group may have the necessary information from the corresponding perspective.

To investigate the interpretive validity of the results, 14 of the 21 participants were asked about the conformity of their views with that of the interviewer after the completion of the interview and analysis of the data. Thereby, the accuracy of the research results was verified by the participants. There was collaboration between the researchers for reviewing the results and verifying them, receiving suggestions on how to conduct interviews, computer analysis, and categorization. Moreover, to provide confidence, how to follow the research processes was explained, and the detailed notes and reports on the results were prepared. Thus, the digital recording of collected data, the use of MAXQDA software, and the preparation of successive reports from each stage of the analysis were performed.

DATA ANALYSIS

To analyze the data in the present study, the six-stage process of Braun and Clarke (2006) and the three-stage thematic classification method of Attride-Stirling (2001) were combined to form the thematic network, and a seven-stage process was created. Thematic networks systematize the extraction of lowest-order premises evident in the text (Basic Themes); categories of basic themes grouped to summarize more abstract principles (Organizing Themes); and super-ordinate themes encapsulating the principal metaphors in the text as a whole (Global Themes). These were then represented as web-like maps depicting the salient themes at each of the three levels and illustrating the relationships between them. Considering the nature and questions of the research and due to the collection of data from the interview, the seven-stage process demonstrated in Figure 3 was followed. Firstly, the interviews recorded were listened to several times and transcribed to become aware of the interview atmosphere and collect the data. At this stage, a frequent review of the data was performed to search for meanings and patterns (first stage). After studying the data and understanding them, a preliminary list of the ideas contained in the data and the meaningful statements were prepared, called the basic themes. The basic themes indicate an important point in the text and by their combination; an organizing theme was created (Attride-Stirling, 2001). For instance, participant P_{12} said in his interview, "at least staff should think HR is a utopia to honor people. This skill doesn't exist at all. They have to be respected by everyone, both the managers and the personnel." The basic theme of "the need to honor the staff in the HR unit" was extracted accordingly. Participant P_{03} referred to the basic theme of the "lack of specialized training" as follows, "holding general and specialized training courses for each occupation, the education department can withdraw an effective step towards the development of human resources, while the general courses are now held mostly and there are no specialized courses for each occupation." Additionally, participant P_{07} indicated the special circumstances of the life of employees in Kish Island noting that "in Kish Island, a person becomes depressed unconsciously. Our staff suffer such a problem. Hence, it should be addressed, because depression affects the ability of a person to do his duties in an office. Every person who experiences some problems in his home may not properly do his work at the workplace. Therefore, internal, ethical, and psychological issues should also be addressed." By these statements, the basic theme of "attention to the mental conditions of the staff considering the restrictions on the island" is extracted. At the end of this stage, 187 basic themes were extracted (second stage).

Following the analysis of the basic themes, they were combined to create the general themes. The themes that have the most similarity and could indicate semantically a single meaning were placed in a category. Accordingly, the categories of themes were created, called the "organizing themes." All the basic themes were put in 39 categories, indicating the formation of 39 organizing themes (third stage). As a case in point, putting three basic themes under a category entitled "promoting the mental health of staff" is shown in Table 2.

Table 2. Promoting the mental health of staff

Organizing theme	Basic theme
	Dealing with the mental conditions of staff considering the restrictions on the island
	Lack of a proper mechanism for strengthening the staff's morale
	Dealing with the problems and concerns of the staff

The organizing themes obtained were categorized in similar and coherent groups, and the global themes were redeveloped in the following stage. Decisions on how to categorize the themes were made based on the content and, if necessary, based on theoretical foundations. In the present study, given that the purpose of preparing the thematic network is to draw the strategy map of HR performance, the global themes were developed based on the strategic objectives to be placed under the four perspectives of the balanced scorecard (fourth stage). The themes identified at this stage provided the primary source of the formation of the thematic network. The global themes and the organizing themes which form them are presented in Table 3.

The themes are narrated to describe the global themes and determine the nature of what a theme discussed about it. Given that the purpose of the research is to map the thematic network in the form of a strategy map, the narrative of themes is expanded to three levels as follows.

- **First level – The narrative of global themes.** At this level, the global themes are defined and described, and the themes composing them are analyzed (fifth stage).
- **Second level – The narrative of the strategic map perspectives.** After mapping the thematic network, based on the existing relationships between the global themes, each theme is placed as a strategic objective in one perspective of the HR scorecard. This led to preparing the strategy map. Each perspective of the map is explained at this level.
- **Third level – The overall narrative of the strategy map.** Considering the cause-effect nature of the strategic objectives and the perspectives of the strategy map, the relationships between the perspectives of the map are described in this level.

Table 3. Global themes

No.	Global theme	Organizing theme
1	developing family-centered policies	
		Creating a balance in the personal and work life of the staff
2	promoting the well-being, health, and livelihoods of staff	
		Creating various welfare facilities for the staff at different levels
		Identifying and addressing the material and spiritual needs of the staff
		Promoting the mental health of the staff
		Improving the psychological and physical conditions of the workplace
		Improving health and insurance services
3	improving the productivity of the HR unit	
		The need to measure the productivity of staff
		Promoting the effectiveness of staff
		Promoting the efficiency of the staff
		Improving the administrative discipline of staff
		Creating new mechanisms for material and spiritual rewards to the staff
		Inventing methods for motivating the staff
		Accelerating the process of serving the clients
4	promoting the human dignity of staff	
		Honoring the staff of the organization
		Addressing the affairs of retirees
5	developing an organizational culture based on customer orientation and innovation	
		Create an organizational atmosphere for creativity and innovation
		Creating a common organizational culture among the staff based on the organization's fundamental values
		Increasing the satisfaction of the stakeholders of the HR unit
6	empowering employees	
		Training human resources in line with the objectives of the organization
		Identify the capabilities of the staff and developing them in line with the organization strategy
		Extending the knowledge management process at the organization
		Promoting the teamwork spirit
		Delegating authority to the staff and their constructive participation
7	developing human resources information system	
		Designing HR processes based on the information technology

No.	Global theme	Organizing theme
8	employee strategic recruitment and maintenance	
		Recruiting from Kish Island with a focus on the relatives of retirees
		Designing a formal and scientific process for recruiting human resources
		Maintaining effective staff
9	performance management and staff development	
		Designing a strategic system for the assessment of staff performance
		Paying attention to the agreement between the occupation and the employed person
		Developing a modern and fair system for staff promotion
10	strategic transformation of HRM based on the research and process reform	
		formulating a strategy for the transformation of HR in line with the organization vision
		Supporting the research plans
		Reengineering HR business processes
		Making HR processes agile
11	alignment between the allocation and consumption of human resources budget and the organizational strategy	
		Improving effectiveness in the allocation and consumption of the budget
		The need to allocate sufficient budget to the activities of the HR unit
		The alignment between the HR budget and the organization objectives
12	improving the mechanism of the settlement of the human resources budget	
		Promoting the efficiency of the staff costs
		Increasing the effectiveness of the HR unit costs

First global theme – developing family-centered policies. The development of family-centered policies is concerned with the necessity of the development of strategies to address the needs of the families of staff. The purpose of the development of such policies is to reduce the conflicts between work-life and family life and provide facilities for families to consider the unique living conditions in Kish Island. Such as being far from the mainland, the high cost of family travel, and the low level of school and kindergarten services. Participant $P_{17,}$ from the family of employees group, referred to this issue "sometimes, when my husband comes home, for example, when we are eating food, his directors call repeatedly and this annoys us."

A part of the interview with participant P$_{07}$

"in Kish Island, a person becomes depressed unconsciously. Our employees suffer such a problem. So, it should be addressed, because depression affects the ability of a person to do his duties in an office. Every person who experiences some problems in his home may not do properly his work at the workplace. Therefore, the internal, ethical and psychological issues must also be addressed"

Second stage: Basic theme

Attention to the mental conditions of the staff considering the restrictions in the island

Third stage: Organizing theme, "promotion of the mental health of staff"

| Dealing with the mental conditions of staff considering the restrictions in the island | Lack of a proper mechanism for strengthening the staff's morale | Dealing with the problems and concerns of the staff |

Fourth stage: Global theme "promotion of the well-being, health, and livelihood of the staff"

| Promoting mental health of the staff | Identifying and addressing the material and spiritual needs of the staff | Improving the psychological and physical conditions of the workplace | Improving the health and insurance services | Creating various welfare facilities for the staff at the different levels |

Fifth stage: Global theme narrative, "promotion of the well-being, health, and livelihood of the staff"

This theme addresses the well-being issues, the physical and mental health of the staff and their livelihoods. The organization must provide facilities and conditions that enable staff to focus on their duties and responsibilities without any concerns and do them in the right way. The organization's HRM needs to develop some objectives in this regard and provide incentives for the staff.

Sixth stage: The stakeholder perspective in the strategy map

| Promoting the well-being, health, and livelihoods of staff | Developing family-centered policies | Promoting human dignity of staff | Improving the productivity of the HR unit |

Seventh stage: Overall narrative of the strategy map of HR

| First level: financial level; focus on the effective allocation and consumption of the budget | Second level: HR functions and processes; reforming and improving the processes | Third level: staff development; development of personal and organizational capabilities | Fourth level: stakeholders; meeting the needs and expectations of the stakeholders |

Figure 3. The data analysis process

Second global theme – promoting the well-being, health, and livelihoods of staff. This theme is concerned with paying attention to the welfare issues and improving the physical and mental health of the staff and their livelihoods. The organization must provide facilities and conditions that enable the staff to focus on their duties and responsibilities and perform them in the right way

with no concerns. The organization's HRM needs to develop some objectives in this regard and provide incentives for the staff. Regarding the exceptional conditions of the staff living in Kish Island, participant P_{07} stated that "in Kish Island, a person becomes depressed unconsciously. Our employees suffer such a problem. Hence, it should be addressed, because depression affects the ability of a person to do his duties in an office. Every person who experiences some problems in his home may not properly do his work at the workplace. Therefore, internal, ethical, and psychological issues should also be addressed."

Third global theme – improving the productivity of the HR unit. Increasing the productivity of the staff is one of the most critical objectives of the organization, which can be realized through joint plans of the senior managers of the organization and HR unit and is considered as a criterion to measure the performance of the HR unit. Developing a strategy to encourage and reward the staff and provoke them improves the administrative discipline of the staff and promotes their effectiveness and efficiency; thus, improving their productivity. Participant P_{05} stated one of the reasons for the ineffectiveness and inefficiency of the unit was as follows, "over the past 20 years, the organization has become, unfortunately, more and more similar to extremely big public agencies that are not efficient and effective. The high amount of the current works prevents the managers and experts to take any action."

Fourth global theme – promoting the human dignity of staff. Considering the staff of the organization as organizational capital is critically important. Honoring the staff and respecting them should be on the agenda of HRM and should be implemented at all levels of the organization. This objective should be considered at all stages of recruitment, maintenance, and the abandonment of the organization by the staff should be considered. This belief has to be created in the staff that the organization will not achieve its strategic objectives without their effective and efficient existence, and their efforts are valued and deserve appreciation. The staff must see the HR unit as a supporter of their interests and the decisions made in this unit in line with the improvement of their situation. For instance, participant P_{12} stated in his interview, "at least staff should think HR is a utopia to honor people. This skill doesn't exist at all. They have to be respected by everyone, both the managers and the personnel."

Fifth global theme – developing an organizational culture based on customer orientation and innovation. The organization's objectives must focus on the development of common ideas and beliefs among the members of the organization, concerned with meeting the needs of customers, satisfying them, and creating new innovative ideas. Creativity and innovation, adherence to the values of the organization, and increased satisfaction of the stakeholders are inferred collectively by the staff of the organization as valued issues. Participant

P_{01} pointed to the need to develop an organizational culture to support creativity as follows, "the whole organization should be a place involving new ideas and creativity. When no new idea or creativity is presented by human resources, I will naturally not present any idea and not show any creativity."

Sixth global theme – empowering employees. The theme of empowering employees in an organization indicates the objectives by which not only is it ensured that the employees demonstrate the necessary ability to carry out their duties but also the organization can entrust them the responsibility of making decisions on their certain duties. Participant P_{03} referred to the training of human resources in line with the organization's objectives as follows, "holding general and specialized training courses for each occupation the education department can take an effective step towards the development of human resources, while the general courses are now held mostly and there are no specialized courses for each occupation."

Seventh global theme – developing a human resources information system. A human resources information system is developed to create an integrated and comprehensive collection of information related to human resources based on the information technology that facilitates and accelerates decision making, planning, performing the tasks, and HRM processes. Participant P_{12} criticized the lack of an organization's progress in utilizing IT facilities as follows, "for example, one day, people wrote and posted letters. However, in today's society, it is not acceptable to send a letter by post and the Internet and cyberspace are used for this purpose. Anyway, I think that we still use the earlier method."

Eighth global theme – employee strategic recruitment and maintenance. One of the important and strategic objectives of the HR unit is to recruit the appropriate staff for the organization and maintain effective staff. Accordingly, considering the macro objectives of the organization, the HR unit should recruit staff from the indigenous people living on the island and maintain only productive and capable staff by the identification. Participant P_{05} opined on recruitment and staffing as follows, "we should have a rigorous process for recruiting human resources. The right person should be recruited for the right work. In many administrative systems when people enter into the system, they should read at least four books, such as the book of administrative rules. This process should lead to people taking a test. People should know where they are working, what the objectives of the organization are, and where the organization wants to reach."

Ninth global theme – performance management and staff development. Performance management is used to identify, measure and develop the performance of individuals and the team, and coordinate performance with the organization's strategic objectives and the staff development includes

activities that affect the individual and professional growth of the staff. Regarding the need for a performance evaluation system and providing feedback to staff, participant P_{12} explained the best performance evaluation model as follows, "using 360-degree feedback, you can evaluate your subordinates, colleagues, and supervisor(s) in terms of ethics, procedure, behavior, operation, effectiveness."

Tenth global theme – the strategic transformation of HRM based on the research and process reform. The strategic transformation of HRM provides solutions by the activities creating the change to improve the consistency between the staff and HR units and between HR units and other units. It is implemented to solve present problems. Regarding the lack of agility of processes, participant P_{11} pointed out the issue of it being time-consuming "another weakness is that some affairs related to some staff are followed up with a delay. For instance, the letter written by some people may be investigated with a delay of three or four months in this bureaucratic process, and this is a weakness."

The eleventh global theme – alignment between the allocation and consumption of human resources budget and the organizational strategy. In this theme, the necessity of allocating the budget to the objectives and strategies of the organization is referred to. The consumption of the budget will be effective when pursuing organizational objectives. Participant P_{13} expressed the economic constraints as the weakness of the function of this unit "it is related to such issues as lack of budget. For example, regarding the welfare, education and research affairs, it can be said that as long as the budget is not allocated to the welfare unit to hold sports competitions or sports classes or contract with other centers in this regard, the staff of that unit cannot do anything, even if they are the best and most specialist ones. It equally applies to education and research."

Twelfth global theme – improving the mechanism of the settlement of the human resources budget. The settlement of the human resources budget should be applied carefully and, the budget should be estimated rationally. It should be determined that each budget has been allocated for the achievement of which objective and the implementation of which plan and the budget allocated should be used exactly for the same objective or plan. Participant P_{01} believes that the allocation of the budget to some activities of the HR unit led to the reduction of many other costs "On the other hand if this budget is unallocated to education, several times of it will be spent in other areas, whether for overhead costs, including electricity costs, or the costs of additional work."

RESULTS AND DISCUSSION

After identifying and analyzing the relationships between the twelve global themes, the themes and the relationships between them are presented in the form of a graphical scheme called the thematic network. In the present study, global themes are considered as the strategic objectives of the HR unit. Therefore, by placing these themes within the framework of the HR scorecard, the proposed thematic network has been presented as the strategy map of HR in Figure 4. After drawing the strategy map of HR performance, the narratives related to each of the perspectives (second level of narratives description) are written. Ultimately, the cause-effect relationships between the different perspectives of the balanced scorecard are described as the comprehensive narrative of the strategy map (seventh stage).

The narrative of the first perspective – financial. Although financial objectives are not placed at the top of the strategy map in public sector organizations, they are useful in summarizing the outcomes of the budgetary expenditures. In the HR unit, the budget is allocated to the activities of this unit. The alignment of the allocation and consumption of the budget with the organization strategy as well as the improvement of the mechanism of the settlement of the budget, are the objectives placed in this perspective to ensure that the given budget enjoys the highest effectiveness and efficiency.

The narrative of the second perspective – HR functions and processes. In the HR processes perspective, the unit focuses on processes that their identification and improvement are associated with, the development of the unit and, consequently, the organization. Being a pioneer in these processes ensures the services provided are effective and efficient. Given the significant volume of information in the HR unit and the need for organizing them, the development of an HR information system is required. Because the appropriate human resources enter into the organization through the HR unit, paying attention to the strategic recruitment and maintenance of the staff is important. Exploiting the maximum potential of the staff and coordinating their performance with the strategic objectives of the organization are possible by the performance management and staff development. HR processes can meet the needs of the stakeholders only when they are transparent, agile, fast, and up-to-date, and are conducted without loss of resources in the least amount of time. For this purpose, the strategic transformation of HRM based on the research and process reform seems necessary.
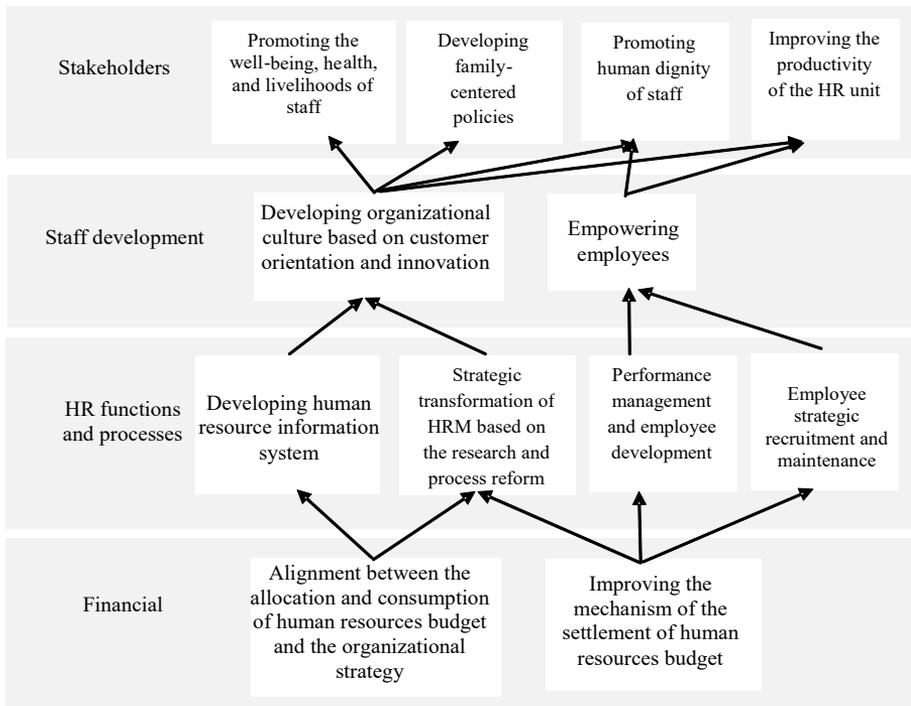
Figure 4. Strategic objectives map of the HR scorecard for the Kish Free Zone Organization

The narrative of the third perspective – staff development. To survive, an organization should focus on the growth and learning of employees and the development of their capabilities. The empowerment of employees is one of the goals of this perspective, concerned with the identification of the talents and capabilities of employees and their development in line with the organization's strategies to create a vibrant and dynamic organization and respond to the needs of the stakeholders more quickly and efficiently. In addition to the individual development of staff, paying attention to common culture is also important. By the common fundamental values and beliefs, the employees can collectively lead the organization to its ultimate objectives. Hence, staff development can be realized by developing an organizational culture based on customer orientation and innovation.

The narrative of the fourth perspective – stakeholders of the HR unit. Stakeholders of the HR unit includes seven different groups (HR unit employees, employees of other units, senior and middle managers, the family of employees, HR units of affiliated companies, retirees, and clients).

Identifying the needs and determining goals to encounter them are placed at the top of the objectives of the strategy map. The goals determined in this regard are typically related to the expectations of these seven groups. The expectations of the stakeholders in the group of staff are responded to by the promotion of their well-being, health, and livelihoods, and their family expectations can be responded to by developing family-centered policies. All groups of staff and retirees are taken into consideration by promoting the human dignity of the staff, and the improvement of the productivity of the HR unit can meet the expectations and needs of the staff of this unit and other related units, other staff, and clients.

Big narrative – strategy map of the HR unit. A third-level narrative or big narrative describes the strategic objectives map of the HR scorecard in the Kish Free Zone Organization. After finding global themes, the relationship between the themes is identified as a cause-effect relationship. At that point, these themes are embedded in the HR strategy map as strategic objectives of the strategy map for their relationship with the HR scorecard. On the map, the financial perspective, HR functions and processes, development of staff and stakeholders were placed from the bottom to the top, respectively. At the lowest level, the financial perspective, which focuses on the efficient allocation and consumption of the budget, was placed. In line with the improvement of the HR functions and processes, the allocation of budget leads to the development of individual and organizational capabilities. Therefore, the objectives related to the HR processed were placed at the second level, followed by the perspective of staff development at a higher level. The staff development, and the focus on what distinguishes them in the direction of achieving the strategic objectives, meets the needs and expectations of the stakeholders in this unit. In this fashion, the perspective of stakeholders was placed at the top of the map.

The results of this paper contribute to the literature by providing numerous theoretical and practical implications. Building on the cultural perspectives of organizations, this research contributes to HRM literature through redesigning a balanced scorecard and strategy map. In this regard, our paper employs the combined process of the thematic analysis and the construction of the related big narratives and with the stakeholder approach, in which 187 basic themes, 39 organizing themes, and 12 global themes have been synthesized. Therefore, the findings of this research highlight that the strategic objectives map of the HR scorecard consists of four pillars like financial motives, HR functions and processes, staff development, as well as stakeholders of the HR unit.

Regarding practical implications, the findings of this paper shed light on the importance of a staff development strategy through developing an

organizational culture based on customer orientation and innovation. This can be achieved by maximizing the value of customer feedback within the organization that requires strong communication with customers. This is an essential step to convert customer strategy to customer culture, where employees make the countermeasures against issues raised by customers. Clear communication to customer feedback leads to a more proper understanding of employees and how their roles and responsibilities impact the organization's performance. These customer-orientated behaviors shape the culture of the organization to a customer-oriented culture.

CONCLUSION

Recognizing the priorities of the Kish Free Zone Organization – concerning the staff (strategic objectives of HRM in the public sector) and mapping it into a capable framework (balanced scorecard strategy map) by qualitative research (seven-stage analysis of combined themes) based on the stakeholder approach and the company culture perspective – was the main purpose of the present research. Strategic themes of HRM have been identified in this research using a balanced scorecard approach based on the thematic qualitative analysis. Considering the key stakeholders of the HRM in the Kish Free Zone Organization, the stakeholders of the HRM unit expanded to internal and external ones. Internal stakeholders included senior and middle managers and the staff. External stakeholders included the employees' families, HR units of affiliated companies, retirees, and clients of this unit. The most important criteria of the strategic HRM have been identified by the present research. In this way, a connection between HRM and the main strategy of the organization can be created. Therefore, the importance of attention to strategic objectives in long-term plans can be recognized. They can assist the organization in achieving its mission.

The purpose of this research was to identify the strategic objectives to create a strategy map of the HR scorecard for the Kish Free Zone Organization based on the company culture perspective. For this purpose, a qualitative analysis of the themes was employed and, after finding global themes, the thematic network was presented within the framework of the HR scorecard. Therefore, the distinctive feature of the present research was that it used the thematic analysis to map the thematic network to create the strategic objectives map of the scorecard. Additionally, considering the thematic analysis methods presented by Braun and Clarke (2006) and Attride-Stirling (2001) as the fundamental methods, the researchers developed in this study a specific qualitative analysis method to identify the strategic objectives of

HR. Various organizations can practice this method to provide an HR scorecard by identifying the basic, organizing and global themes, mapping the thematic network, and creating the strategy map.

Free-trade industrial zone organizations and public sector organizations can enjoy the results of this research to develop HRM strategy. The performance objectives in the strategy map can present key performance indicators for companies and other organizations; hence, they can be a guide to determine the operational objectives and implement the strategy. Additionally, given that the present study led to drawing the strategy map of the HR unit of the organization, (a) its measures, operational objectives and executive initiatives can be determined in future research for the performance objectives identified, and (b) the HR balanced scorecard of the organization can be expanded using the strategy map drawn.

The limitation of this research relies on several dimensions. First, the sector of which we based our paper has been limited to the HR scorecard in the public sector. Second, the research has been conducted in the context of Iran, which limits the generalization of its findings to those high-context cultural societies. Therefore, forthcoming studies can analyze other sectors in a different context with distinct cultural characteristics. More importantly, the data gathered for the synthesis depends on self-announcing, which increases the probability of it being one-sided for social desirability answers. Hence, future studies can provide evidence to prove the findings of this study, using quantitative analysis.

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Abstrakt

Zarządzanie zasobami ludzkimi (ZZL) w organizacjach publicznych zarządzanych w oparciu o zrównoważoną kartę wyników wymaga innej narracji dla mapy celów strategicznych, niż w organizacjach prywatnych. Jednak kwestia ta nie jest szeroko dostrzegana i dyskutowana. Niniejsze opracowanie ma na celu identyfikację celów strategicznych i zaprojektowanie mapy strategii zarządzania zasobami ludzkimi z podejściem interesariuszy z perspektywy kultury firmy w oparciu o zrównoważoną kartę wyników, dzięki zgłębieniu i uwypukleniu obszarów, które powinny być w zmienionej narracji uwzględnione. Niniejsza eksploracja została przeprowadzona na drodze badań jakościowych, konkretnie poprzez analizę tematyczną dokonaną w oparciu o dane z Kish Free Zone Organization. W związku z tym, mapa strategii zasobów ludzkich oparta na zrównoważonej karcie wyników została przedstawiona przy użyciu uzyskanych tematów. Sześciostopniowy proces Clarke'a i Brauna oraz trzystopniowa metoda klasyfikacji tematycznej Attride-Stirlinga zostały połączone w sieć tematyczną, w rezultacie czego stworzono siedmiostopniowy proces badawczy. Dane zebrano na drodze wywiadów z interesariuszami jednostki ds. Zasobów Ludzkich (HR). Interesariuszami tymi są (1) pracownicy działu HR (2) pracownicy pozostałych komórek (3) kierownicy wyższego i średniego szczebla (4) rodzina pracowników (5) jednostki HR spółek powiązanych (6) emeryci i (7) klienci tej jednostki. Aby zidentyfikować cele strategiczne i mapę strategii zarządzania zasobami ludzkimi, po transkrypcji wywiadów zidentyfikowano 187 podstawowych tematów, 39 tematów organizacyjnych i 12 tematów globalnych, w tym (1) opracowanie polityk skoncentrowanych na rodzinie (2) promujących dobrostan, zdrowie i byt pracowników (3) poprawa produktywności działu HR (4) promowanie godności ludzkiej personelu (5) rozwój kultury organizacyjnej opartej na orientacji na klienta i innowacyjności (6) wzmocnienie pozycji pracowników (7) rozwój systemu informacji HR (8) strategiczna rekrutacja i utrzymanie pracowników (9) zarządzanie wydajnością i rozwój pracowników (10) strategiczna transformacja ZZL w oparciu o badania i reformę procesów (11) dostosowanie alokacji i wykorzystania budżetu HR do strategii organizacyjnej oraz (12) usprawnienie mechanizmu rozliczania budżetu kadrowego. Badanie to jest nowatorskie przedmiotowo poprzez proponowane podejście do przeprojektowania mapy strategii i zrównoważonej karty wyników z perspektywy zarządzania zasobami ludzkimi; metodycznie poprzez przyjęcie połączonego procesu analizy tematycznej i konstrukcji powiązanych narracji oraz podejścia interesariuszy z perspektywy kultury firmy.
Słowa kluczowe: zrównoważona karta wyników, strategiczne zarządzanie zasobami ludzkimi, organizacje publiczne, podejście interesariuszy, mapa strategii

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Conflicts of interest

The authors declare no conflict of interest.

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A person-organization fit model
of Generation Z: Preliminary studies

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Abstract

The study looks at developing a person-organization fit model based on the unique characteristics of the new generational cohort, Generation Z, now entering the workforce. Theory suggests competitive advantage may come to a firm based on its unique human capital, the human resources it employs and develops. Further, organizations will be more successful in attracting the valuable employees they seek if they can provide a workplace appealing to them in terms of organizational values, culture, and other aspects that may also include more familiar enticements such as pay and benefits. To address the gap, this pioneering study investigates the context of person-organizational culture for the Z Generation entering the labor market. The key questions answered by the authors when describing the Person-Organization Fit Framework for Generation Z include the differences in how organizational culture appeals to Gen Z men and Gen Z women. The research results are presented in three steps: an analysis of workplace environment elements for Gen Z, correlation analysis between the workplace environment elements required by Gen Z, and presentation of a Person-Organization Fit Framework for Gen Z. From a sample of 3393 students at technological secondary schools in the Wielkopolska Region, the survey results provided evidence of the workplace preferences for this cohort. In addition, results were further analyzed for differences in gender and intended profession. For this region, Generation Z has variable individual needs and wants, some of which can be easily identified (gender, profession) but some of which may be less clear. These research results may be used for designing appealing workplaces taking into account person-organization needs for young people. Based on this novel research, organizations employing the resulting work framework for Gen Z will be better prepared to consider the nature and communication of what they have to offer as well as how they can be flexible in adapting these offerings to unique individuals.

Keywords: *organizational culture, Generation Z, Gen Z, human resources*

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INTRODUCTION

With increasing global competition, building and sustaining competitive advantage has become a more complex and difficult challenge for business. Strategists have developed the idea that competitiveness may come from differentiation on the basis of unique resources, the resource-based view of the firm (Barney, 1991; Wernerfelt, 1984). Human resources may be one particularly relevant factor in establishing a firm's competitive viability, especially in a time of big challenges such as globalization, technological and communication change, and environmental sustainability. But in the realm of human resources, resource availability can be a key issue (Szafrański et al., 2017). Young people choose their workplace for different reasons (Spychala et al., 2017), including the attractiveness of the workplace and person-organization fit, taking into account their personal characteristics and preferences (Kristof, 1996). A number of researchers have explored this issue of individual/organizational fit, the match between employee and firm needs and wants (Utcomes et al., 2017; Afsar & Badir, 2016; Kristof et al., 2005; Kristof, 1996).

Companies need to understand how today's young people choose their workplace (Csiszárik-Kocsír & Garia-Fodor, 2018), taking into account factors such as career path, job choice, work adjustment, and organizational climate (O'Reilly III et al., 1991). Historically, every time a new generation enters the labor market, a mismatch in understanding can occur between employers used to a previous cohort and their young, prospective employees. In line with McCrindle and Wolfinger (2010) definition, a generation is a cohort of people born at a similar time, shaped by the same events and affected by similar social, economic, technical, and political circumstances. Three factors are vital to classifying such cohorts: a feeling of membership, common beliefs and behaviors, and common historical experiences and perspectives (Howe & Strauss, 1992). Identifying the tendencies of a new generation can be a challenge, including areas such as communication preferences, hierarchy of goals, workplace requirements, or ways of working and achieving goals. Creating an atmosphere to enhance motivation while encouraging innovation and great communication between employees of different age, culture, value systems, workplace, experience, social and professional competences can be difficult. Developing educational systems to prepare them for such workplaces is similarly challenging (Szafrański et al., 2019).

Previously identified generational cohorts include the Baby Boomers, Generation X, and Generation Y (Susanti & Natalia, 2018; Southgate, 2017). Now moving into the workforce is Generation Z, differing from other groups in the way they work and their work motivations.

Generation Z is a term suggested by Schroer (2008) to describe those born after the millennium (Amiama-Espaillat & Mayor-Ruiz, 2017). Also referred to as "postmillennials" or "centennials," more recent descriptions have included "pivotals" (Southgate, 2017) or "zappers" (Csiszárik-Kocsír & Garia-Fodor, 2018). Individuals in this generation have never known life without the Internet, part of their experience from an early age, and treated as an evident presence (Roblek et al., 2019). Ubiquitous use of the Internet was already recognized by Prensky in 2001 (2001a, 2001b), and those trends have only accelerated. This generation is constantly in touch with friends (Lazanyi & Bilan, 2017) and has a higher number of friends than in previous generations. They are capable of effectively multitasking yet find it difficult to focus on a single activity. They are materialistic, want everything, and want it immediately and yet are also realistic. They are creative and ambitious. They learn mainly from online sources, often creating ideas themselves without reference to traditional sources of existing knowledge. They share freely through digital media (Lazányi & Bilan, 2017). They also interact through online games (Perez, 2016). In terms of the workplace, Gen Z is comfortable with modern recruitment tools (Dalessandro, 2018; Derous & De Fruyt, 2016) and prefers flexible working arrangements (Lazányi & Bilan, 2017).

Organizational culture is a widely used term encompassing several different aspects of organizations, including how their members cohere and how organizations and members interact (Adler & Jelinek, 1986). One underlying assumption is that top management may drive and enhance the organizational culture, establishing a more effective and more appealing work environment (Schein & Night, 1993). Generally, organizational culture changes slowly, the result of the cumulative activities of many people. "Organization culture is the pattern of basic assumptions that a given group has invented, discovered or developed in learning to cope with its problems of external adaptation and internal integration, which have worked well enough to be considered valid, and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems" (Adler & Jelinek, 1986: 81, quoting Schein, 1984).

The key question is whether companies will force this younger generation to adapt to existing organizational cultures or whether managers will try to adapt organizational responses to this changing environment and Gen Z's preferences. Further, are there differences in how organizational cultures appeal to Gen Z men and Gen Z women or between different professions? Good organizational cultures tend to have strong foundations and stable rules but also need to be adaptable to changes in the nature of their employee pool, demonstrating flexibility based on knowledge gained from the process of problem solving and enhanced by lessons learned (Graczyk-Kucharska, et

al., 2018; Chang & Lee, 2007). This research looks more deeply into these questions, examining the person-organization fit regarding Generation Z as well as gender and profession differences through a preliminary study among young students from technical schools from the Wielkopolska Region.

LITERATURE REVIEW

Organizational Culture

During the past forty years, organizational culture has been a subject of growing interest among researchers and practitioners, analyzing the concept through the prism of several different perspectives (Kucharska & Kowalczyk, 2019). Organizational culture is described in the literature mostly in terms of its relationship with a variety of different factors, including conflict resolution and empowerment (Khan & Rasli, 2015), leadership (Masa'deh et al., 2017; Schein & Night, 1993), ethical challenges (Smith et al., 2018), motivation (Fernandes, 2018), knowledge (Kucharska & Wildowicz-Giegiel, 2017; Alattas & Kang, 2015; Rai, 2011), technology and innovation (Akhtar et al., 2018), Hofstede's international cultural dimensions (Kucharska & Kowalczyk, 2019; Štreimikienė, 2012) and others (Kangas et al., 2017).

The concept of organizational culture originates in cultural anthropology and is prominent within organizational behavior, management, and marketing literatures (Hogan & Coote, 2014). Organizational culture can be defined as attitudes and norms shaping staff behaviors and, consequently, the organization's performance. The concept of culture is seen as a kind of bridge between the individual and the organization. It will differ across enterprises. If positive, it can facilitate employee commitment and enhance system stability (Kim & Wang, 2016). Organizational culture can be crucial to companies' success (Alattas & Kang, 2015) and needs to overcome cultural barriers. Schein noted decades ago that organizational culture can be a major differentiator between entities and can be associated with different levels of effectiveness. He defined culture as: "A pattern of basic assumptions, invented, discovered, or developed by a given group, as it learns to cope with its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, is to be taught to new members as the correct way to perceive, think, and feel in relation to those problems" (1988:7). It can have a considerable impact on knowledge management and organizational effectiveness, perhaps more than strategy and structure. Nahapiet & Ghoshal (1999), for example, stressed the importance of what they termed social capital in facilitating the sharing of

knowledge across the firm. Fernandes (2018:1088) defined organizational culture "as the shared values that are embraced and how organizations and their members act against things associated with outside parties."

Organizational culture's impact on human resources is a growing question. To the extent that culture is a determinant factor in enhancing and achieving organizational objectives (Ramdhani, et al., 2017), it is tied to all the functions of the business, but particularly human resources. The culture can guide how organizations face environmental changes and use internal resources, including the workforce, to implement responses to those changes (Pool, 2000). A strong culture improves employee motivation and engagement, establishing a stronger identification, more positive feelings, and thus greater contributions toward the company's success as well as the individual's job fulfillment.

Motivational dynamics have changed dramatically to reflect new work requirements and worker expectations. Employers engaged with the process focus on cultural cohesion, going beyond employee happiness or satisfaction (Evangeline & Gopal Ragavan, 2016). Servant leadership has an impact on both organizational structure (Harwiki, 2016) and engagement, recognizing all employee needs, emphasizing positive aspects of the workplace, and supporting employee acceptance of environment change. Managers can go further and try to build a learning organization culture that could also support organizational innovativeness (Hussein et al., 2016). A learning organization culture encourages the acquisition of the skills and capabilities to produce and apply knowledge, transforming the individuals acquiring new knowledge and vision (Garvin, 1993). According to Simon (1991), an organization grows knowledge in only two ways: from learnings by its current members or bringing new members with new knowledge into the organization. Organizational systems and routines thus have a role in influencing individual and group learning by encouraging learning in pursuit of organizational goals (Ponnuswamy & Manohar, 2016). Organizations can motivate individual learning as well as attitudes toward knowledge sharing (Asrar-ul-Haq & Anwar, 2016). Knowledge acquisition and sharing helps to increase the efficiency of the business, achieve goals, improve the quality of work and final products, and strengthen relationships inside and outside the enterprise (Charband & Navimipour, 2016). Finally, multilevel structural equation modelling by Kangas, et al. (2017) showed that, at the individual level, perceptions of a strong, ethical organizational culture were associated with less sickness absences after controlling for background factors, further strengthening the motivational case.

One important recent extension of topics related to organizational culture is gender differences. Akgemci et al. (2016) raised the question of

female employees' careers and organizational barriers. Harwiki (2016) studied women's impact on servant leadership and organizational culture. Nonetheless, despite considerable attention on the topic of organizational culture, extant literature does not sufficiently explore gender, profession and generational cohort differences to uncover deeper insights and relationships An unanswered question worth studying is whether gender and profession, linked with specific competences, has an influence on the relationship of Gen Z with organizational culture.

Person-organization fit of Generation Z

A central aim of this paper is to contribute to the existing literature by providing a clearer understanding of the links between person-organization fit and an organization's culture. In doing so, we provide a more complete account of the key cultural characteristics and processes related to the new generation of young people, including motivation for work and long-term orientation towards a single company. We do so in the context of the individual knowledge, skills and attitudes emphasized in the strategic human capital literature as being key to employee contributions to organizational performance (Ployhart et al., 2014), more specifically how needs-based employee education and training programs (Szafrański, 2015) fit with organizational strategic directions (Agustriyana et al., 2019).

Person-organization (PO) fit concerns the antecedents and consequences of compatibility between people and the organizations in which they work. A strong PO fit may be achieved by well-organized processes of hiring and socialization (Kristof, 1996). PO fit theory posits that there are characteristics of organizations with the potential to be congruent with the needs and wants of their workforce. Those individual employees' attitudes and behaviors will be influenced by the perceived degree of congruence or "fit" between themselves and their organizations (Afsar & Badir, 2016; Chatman, 1989). These conditions may influence a variety of important outcomes, including job satisfaction, organizational citizenship behavior, turnover intentions, and organizational commitment and performance. Job satisfaction is of particular interest to employers as it reflects the extent to which people find gratification or fulfillment in their work. Extensive research in job satisfaction indicates personal factors such as how an individual's needs and aspirations determine attitude, along with group and organizational factors such as work conditions, relationships, work policies and compensation (Pool, 2000).

Much of the recent interest in the concept of PO fit can be traced to the attraction–selection–attrition (ASA) framework, suggesting individuals and organizations are attracted to each other based on similar values and goals.

The model, described by Schneider (1987), includes the difficulty of bringing about organizational change, the utility of personality and interest measures for understanding organizational behavior, the genesis of organizational climate and culture, the importance of recruitment, and the need for individual-based theories of leadership and job attitudes. Further research has shown that job applicants self-select into organizations based on perceived PO fit and that interviewers use PO fit when evaluating and hiring job applicants (Cable & Parsons, 2001). PO fit may evolve also through socialization. Effective socialization can build commitment to the organization, making employees less likely to quit. In this case, companies can proactively work on PO fit, gaining returns from investments in effective recruitment, selection and training.

Cattell (1943) suggested that personality can be measured by observation and defined personality can predict behavior in a given situation. In real life, personality can be difficult to assess and use as a predictor, e.g. job choices based on personality traits (Judge & Cable, 1997; Cable & Judge, 1996;). Even so, a positive significant relationship exists between HRM practices and organizational culture (Kim & Wang, 2016). Indeed, researchers have found that human resources and organizational culture are inseparable (Smith, et al., 2018). Organizations need to focus on developing and maintaining an ethical cultural aligning of employee development with organizational strategy while also taking into account the unique needs of this new generational cohort. Young Generation Z will choose employers on the basis of their perceived fit with jobs and the organization itself (Cable & Parsons, 2001). Generation Z is used to communicating and working with new information technology solutions. Use of information technology allows any individual or organization to carry out a variety of activities that are more accurate, timely and of high quality. Information technology also helps organizations in empowering human resources and makes data, information and knowledge available throughout the enterprise (Fernandes, 2018). New technologies are often strongly related to innovation and are of interest to Gen Z, enhancing their professional motivation and engagement.

Members of Generation Z aspire to pursue successful careers, immediately and effortlessly, and do not accept a vision of long-term career building based on small steps. They are characterized by mobility and knowledge of foreign languages, making them look for jobs not just close to where they live but further afield, including options in foreign countries. They quickly adapt to new countries and new conditions. Generation Z is accepting of high risk. Its members do not necessarily care about work stability. They desire diversity and avoid routine. They are eager to learn about and discover new things, manifested, among others, by a willingness to communicate with other cultures, take on foreign internships, apply new work methods and

improve established processes (Graczyk-Kucharska, 2019; Lazányi & Bilan, 2017; Żarczyńska-Dobiesz & Chomątowska, 2016).

RESEARCH METHODOLOGY AND METHODS

Methodology

The research results are presented in three steps. Initially, we provide an analysis of workplace environment elements for Generation Z, further delineated by gender and profession (IT, Logistics, Economics and Mechatronics). Each is one of the most representative professions pursued in the Wielkopolska Region (Table 1) where the research was done. The second step is a correlation analysis between workplace environmental elements required by Gen Z, again further divided by profession and gender. The third and last step presents a Person-Organization Fit Framework for Generation Z as seen in this specific region.

An empirical study was conducted among young students from technical secondary schools in the Wielkopolska Region. Validated survey items from the literature, discussed above, enabled a large-sample, quantitative approach to the research questions, appropriate to the substantial population of students available for study. Even though not a technically random sample, access to the full population enabled results accurately reflecting these students, but extending the findings beyond these specific circumstances should be done with care. The data were gathered between April 2017 and March 2019, totaling 3393 students. A survey was distributed to all students participating in classes in laboratories within the project "Time for Professionals BIS – Professional Wielkopolska" carried out by the local government of the Wielkopolska Region in partnership with Poznań University of Technology and including the technical secondary schools mentioned above. The target group included students 16–18 years of age, enrolled in their last or next-to-last year prior to secondary school leaving exams and possible tertiary level education. By definition, all respondents were members of Generation Z. Respondent numbers are reflective of their participation in particular occupations in the Wielkopolska Region program. There were 1377 women and 2016 men in the sample. Descriptive results are presented in Table 1.

Table 1. The statistical sample specification

Group description	Number of respondents	Percentage of the research sample	Percentage of learning students in technical secondary schools at the research time
All respondents	3393	100	
Gender-related division			
Females	1377	40.1	
Males	2016	59.9	
Division due to the field of study			
Economics technician	859	24.5	18
IT technician	832	25.3	11
Logistics technician	650	19.2	13
Mechatronics technician	276	8.1	11
Advertising technician	173	5.1	9
Trading technician	121	3.6	16
Electronics technician	116	3.4	12
Forwarding technician	104	3.1	13
ICT technician	103	3.0	17
Mechanical technician	83	2.4	8
Digital graphic processes technician	53	1.6	13
Electrical technician	23	0.7	2

The research questionnaire was composed of two main parts. The first reflected information on the sample respondents (gender, age, profession, localization of secondary technical school, year of graduating). The second included preference questions concerning work environment, based on a five-point Likert Scale. Questions included:

- Q1. Prefer individual work (1) – Prefer group work (5).
- Q2. Prefer to work with a Polish group (1) – Prefer work with an international group (5).
- Q3. Prefer to work in the enterprise's office (1) – Prefer remote work (5).
- Q4. Prefer a structured eight-hour workday schedule (1) – Prefer a task-based work schedule (5).
- Q5. Prefer a good atmosphere at work (1) – Prefer higher pay (5).
- Q6. I am passionate about my work (1) – I just put my time in at work (5).
- Q7. Prefer to work in an innovative enterprise (1) – Prefer to work in a traditional enterprise (5).

The questions were drawn from the literature discussed earlier, specifically addressing the critical requirements of Generation Z as well as the work environment. Generation Z, for example, likes new technologies (Roblek et al., 2019), and this is reflected in the innovative or traditional company item. Similarly, the young cohort's work atmosphere vs. salary preference (Kodithuwakku et al., 2018) is also included. Other factors have more to do with work adjustment and organizational environment.

STUDY RESULTS

The study results are presented in several steps, both here and in the discussion. We first show the summary statistics, looking for differences between genders and the intended professions (IT, logistics, economics, and mechatronics). We then consider the correlation matrix for each group, and, finally, suggest a person-organizational fit model based on the context of these results (Polish secondary school students). The results from the overall analysis showed a linear correlation coefficient $p<0.05$, Cronbach's Alpha index of 0.645, and standardized Alpha of 0.609.

Step 1: Mean values by group

As noted, we initially studied the summary statistics from the questionnaire results, broken down by gender and the four professions. The intention was to identify clearly visible differences in the responses of these groups, enhancing the later analysis.

The results are graphically presented in the spiderweb diagram in figure 1, illustrating the average values of each workplace characteristic, overall and divided by group. We can see some readily apparent differences between the professions, the most obvious between IT professionals (Computer Technicians) and Economics. The biggest disparity is seen in work location. Here, the results show that Economics students have a stronger preference for working in the enterprise's office, while IT students are more open to working remotely. The second clear difference is between 8-hour work and task-based work, with Economics students preferring the former and IT students the latter. Further, IT students are more comfortable with an international workgroup, while Economists more prefer to work with domestic colleagues. Slightly smaller differences are seen in the other results between IT workers and Economists, and the preferences of the other professions fit somewhere in between and are not as dramatically different.

Gender differences are also visible. Women have a stronger preference for a good atmosphere and domestic colleagues. Women also have a preference for onsite work and eight-hour days. Men's preferences have apparent differences specifically in terms of salary, individual work, and international colleagues. As indicated, they also have a stronger preference for remote work and task-based schedules. These differences provide initial guidance for the person-organization fit recommendations.
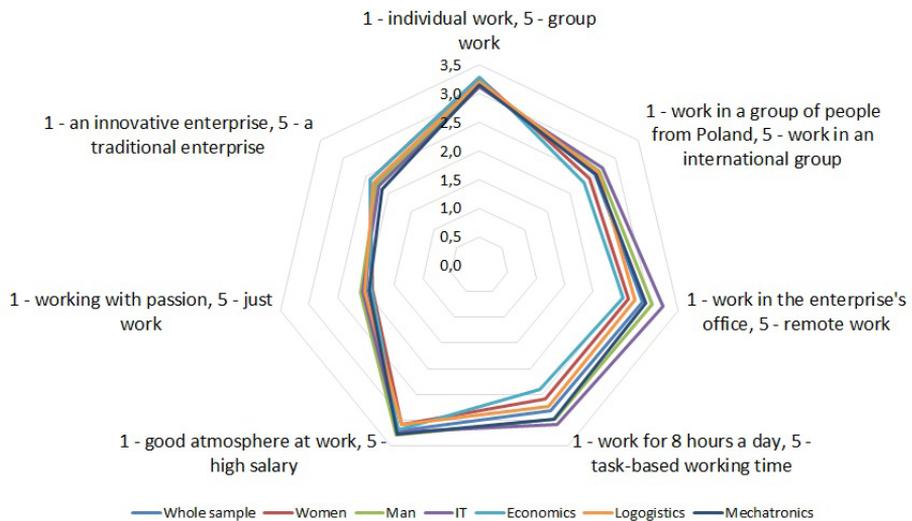

Figure 1. Generation Z mean workplace results, overall and by group

Step 2: Analysis of correlation

Next, we conducted a correlation analysis between the seven questionnaire items, again broken down by gender and intended profession. Table 1 presents the overall Gen Z correlation matrix as well as the results for males and females. Table 2 shows the results for the four courses of study: computer technician, economist, logistics technician, and mechatronics technician. As can be seen, the analysis can provide guidance on differences in workplace preferences between all these groups. Relationships significant at the 95% confidence level ($p < .05$) are identified with an asterisk. The significant correlations with values above 0,200 are further summarized in Figures 2 and 3.

Table 2. Correlation matrix general for Generation Z, man and women

Group analysis	Question no.	Standard deviation	Q1	Q2	Q3	Q4	Q5	Q6	Q7
GENERAL FOR	**Q1**	1.2953	1.0000						
GENERATION Z	**Q2**	1.3359	0.0752*	1.0000					
	Q3	1.3407	-0.0044	0.2741*	1.0000				
	Q4	1.4718	0.0318	0.2934*	0.4210*	1.0000			
	Q5	1.2892	0.0317	0.1840*	0.2199*	0.1774*	1.0000		
	Q6	1.2692	0.1214*	0.2054*	0.2192*	0.2279*	0.3491*	1.0000	
	Q7	1.2446	0.1321*	0.0513*	0.1321*	0.0969*	0.1447	0.4342	1.0000
MEN	**Q1**	1.2408	1.0000						
	Q2	1.2992	0.0925*	1.0000					
	Q3	1.2655	-0.0077	0.2351*	1.0000				
	Q4	1.4131	0.0172	0.2750*	0.3844*	1.0000			
	Q5	1.2057	0.0383	0.1689*	0.1916*	0.1185*	1.0000		
	Q6	1.2517	0.1087*	0.1773*	0.1382*	0.1525*	0.3202*	1.0000	
	Q7	1.1775	0.1118*	0.0732*	0.1264*	0.0910*	0.1230*	0.4665*	1.0000
WOMEN	**Q1**	1.3692	1.0000						
	Q2	1.3791	0.0612*	1.0000					
	Q3	1.4084	0.0130	0.3055*	1.0000				
	Q4	1.5257	0.0621*	0.3020*	0.4405*	1.0000			
	Q5	1.3938	0.0312	0.1916*	0.2333*	0.2290*	1.0000		
	Q6	1.2843	0.1470*	0.2314*	0.3020*	0.3091*	0.3765*	1.0000	
	Q7	1.3327	0.1516*	0.0346	0.1609*	0.1219*	0.1796*	0.4100*	1.0000

Note: * Coefficients with an asterisk are significant from $p < 0.05$.

Table 3. Correlation matrix for computer, economics, logistics, and mechatronics technician

Group analysis	Question no.	Standard deviation	Q1	Q2	Q3	Q4	Q5	Q6	Q7
COMPUTER TECHNICIAN	**Q1**	1.2130	1.0000						
	Q2	1.2730	0.0466	1.0000					
	Q3	1.2032	-0.0869*	0.2169*	1.0000				
	Q4	1.3770	-0.0566	0.2597*	0.3831*	1.0000			
	Q5	1.1668	-0.0191	0.1993*	0.1554*	0.0832*	1.0000		
	Q6	1.1921	0.0963*	0.1472*	0.1032*	0.1000*	0.2664*	1.0000	
	Q7	1.1230	0.1000*	0.0213	0.0987*	0.0152	0.1135*	0.4766*	1.0000
ECONOMICS TECHNICIAN	**Q1**	1.3238	1.0000						

Group analysis	Question no.	Standard deviation	Q1	Q2	Q3	Q4	Q5	Q6	Q7
	Q2	1.3143	0.0384	1.0000					
	Q3	1.3491	0.0607	0.2827*	1.0000				
	Q4	1.4511	0.0871*	0.2845*	0.4761*	1.0000			
	Q5	1.3610	0.0339	0.1959*	0.2200*	0.2240*	1.0000		
	Q6	1.2578	0.1062*	0.2247*	0.3022*	0.3031*	0.3598*	1.0000	
	Q7	1.2793	0.0990*	0.0500	0.1514*	0.1466*	0.1030*	0.3408*	1.0000
LOGISTICS TECHNICIAN	Q1	1.3722	1.0000						
	Q2	1.3875	0.0861*	1.0000					
	Q3	1.4353	0.0435	0.3200*	1.0000				
	Q4	1.5413	0.0334	0.2949*	0.3799*	1.0000			
	Q5	1.3811	0.0428	0.1404*	0.2603*	0.2094*	1.0000		
	Q6	1.3222	0.1245*	0.1728*	0.2067*	0.2236*	0.3339*	1.0000	
	Q7	1.3084	0.1533*	0.0313	0.1773*	0.1177*	0.1624*	0.4744*	1.0000
MECHATRONICS	Q1	1.1749	1.0000						
TECHNICIAN	Q2	1.2905	0.0250	1.0000					
	Q3	1.1856	0.0575	0.1741*	1.0000				
	Q4	1.3055	-0.0015	0.2354*	0.3344*	1.0000			
	Q5	1.1292	0.1250*	0.1569*	0.3027*	0.1984*	1.0000		
	Q6	1.1155	0.1617*	0.2133*	0.2280*	0.1786*	0.3005*	1.0000	
	Q7	1.1262	0.0143	0.1593*	0.0729	0.1515*	0.0877	0.4604*	1.0000

Note: * Coefficients with an asterisk are significant from $p < 0.05$.
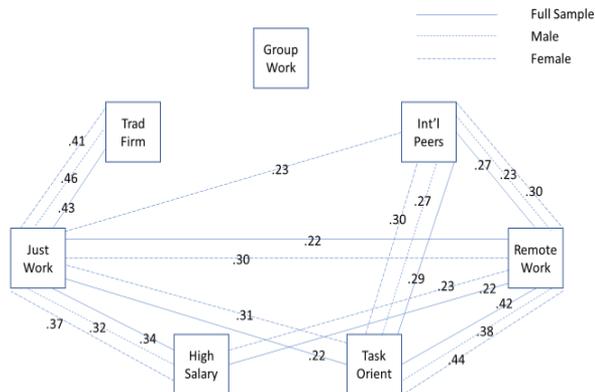

Figure 2. Correlation of Generation Z students' workplace preferences, by gender

As illustrated (Figure 2), numerous significant correlations are apparent between preferred workplace environment for all of Generation Z respondents and for both genders. All of the significant correlations are positive. The most significant correlation for the full sample is seen between passion (Q6) and innovative firm (Q7) and is somewhat isolated. A slightly lower correlation is then found between remote work (Q3) and task-based work (Q4), a result that makes up something of a pod with nearly as high correlations with each variable and prefer international (Q2). Similarly, task-based is moderately correlated with high salary (Q5) and slightly less with just work (Q6), though the latter two are only weakly related. The core takeaway is that passion/just work (Q6) is correlated with a number of the other items (though not always in the expected way) as is remote work (Q3).

The results are much the same for the different genders. Male respondents are similar in the main results, with the strongest correlation between innovative firm (Q7) and passion (Q6), and then a slightly less apparent relationship between remote work (Q3) and task orientation (Q4). There is again something of a pod with interrelationships between remote, task, and international (Q2, Q3, Q4), but not as evident as a full grouping between task, high salary and just work (Q4, Q5, Q6) For the female respondents, the main correlations are even more similar to those of the full sample, with the same relationships and groupings. What is different is that the level of correlation tends to be a little higher in many of the relationships and noticeably higher than the male respondents in almost all instances. There is also an additional correlation between international coworkers (Q2) and just work (Q6) that is not substantive enough to report in the full sample or with the males.

Unsurprisingly, the correlation patterns are similar for the sub-samples by intended profession although, once again there are some apparent differences between the groups. Table 3 shows the correlation matrix while Figure 3 illustrates the most substantive significant relationships. As noted earlier, these programs of study are the most popular in the Wielkopolska Region technical schools. For Computer Technicians, like the overall sample, the most significant correlation is between passion (Q6) and innovative firm (Q7). There is also a similar pod of related items amongst international colleagues (Q2), remote work (Q3) and task orientation (Q4), especially between the latter two. The only other apparent relationship, at a low level (.26) is seen between atmosphere (Q5) and passion (Q6).

For the Economists, on the other hand, considerably more substantive correlations are apparent. Here, the highest correlation is between remote work (Q3) and task orientation (Q4) which again form a clear pod in their relationships with international colleagues (Q2). Passion (Q6) and innovative firm (Q7) are correlated though not to the same degree as in all the other professions, the

genders, or the full sample. The economists do have the second pod apparent, with noticeable interrelationships between task orientation (Q4), high pay (Q5), and just work (Q6). There is also a slight correlation between remote and just work that is not noticeable in most of the other subsets.

Logistics Technicians follow the standard pattern. The highest correlation is between passion (Q6) and innovative firm (Q7). The international (Q2), remote (Q3), and task orientation (Q4) pod is apparent, with moderate correlations between all three variables, as is the task orientation (Q4), good atmosphere (Q5), and just pay (Q6) pod though with lower correlations.

Mechatronics Technicians also adhere to the pattern though generally at lower correlations, with some not high enough to be included. Again, the obvious connection is with passion (Q6) and innovative firm (Q7). The international (Q2), remote (Q3), and task orientation (Q4) pod does not quite present itself as the Q2/Q4 correlation is lower than what we have been including. The other pod does not really form at all, with only the good atmosphere (Q5) and just pay (Q6) apparent. There are a couple of unique correlations, though at relatively low levels, between remote work (Q3) and atmosphere (Q5), as well as remote and just work (Q6).
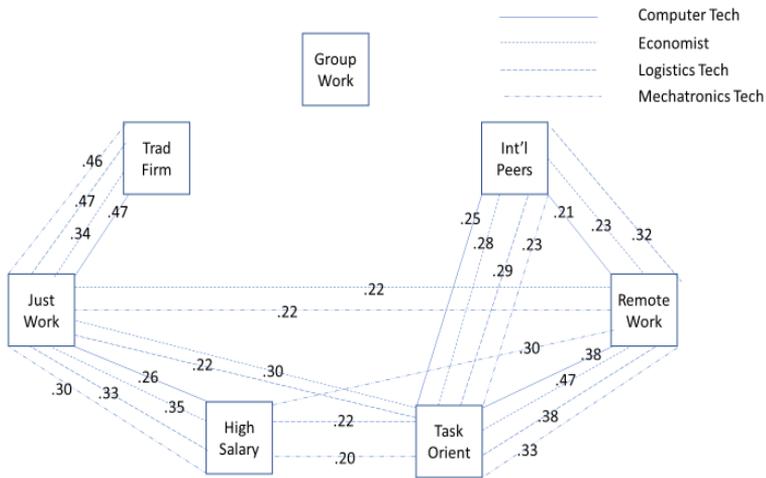

Figure 3. Correlation of Generation Z students'
workplace preferences, by profession

Generally, there is a clear overall pattern in the data, with strong preferences in the expected direction for all variables. Gen Z students desire group work and international colleagues, and strongly desire remote work,

task-based work, a high salary, working at something they are passionate about, and working at an innovative firm. This pattern does not vary much by gender or professions sub-groups.

The correlations apparent in the data suggest a more complicated story. At the full sample level, there is a relatively high correlation between pursuing a passion and working at an innovative firm. There is also an apparent connection between working with international colleagues, in a remote manner, and with task orientation. At a lesser level, there are some relationships between just putting in time at work, a high salary, and task orientation. Within these general patterns, there are clear distinctions among gender and among the four intended professions. Some have stronger or weaker correlations but still mirror the general pattern. Others have weaker correlations, weak enough that we do not include them in the discussion and so the relationships essentially disappear. Others have stronger correlations, enabling some relationships to appear that are not visible in other sub-groups or in the overall sample.

DISCUSSION OF RESULTS

Step 3: Designing a person-organization fit framework for Generation Z

These findings can be incorporated as we construct a person-organization fit model for Generation Z. In Figure 4, a suggested model is presented, including items from the literature and previous studies (*How to communicate to motivate the generation of Millennials*, 2018) and as informed by the study. It includes two groups of factors, on the organizational side and on the personal side.

This entire study is based on the evidence that the Gen Z cohort may be very different from its predecessors, the Baby Boomers, Gen X, and Gen Y. The results confirm some of the unique tendencies of Gen Z detailed in the literature (e.g. Southgate, 2017) including in identified areas of interest such as knowledge, skills, and attitudes (Ployhart et al., 2014). This new generation entering the workforce will have different characteristics, attitudes, behaviors, motivators, and other tendencies including but not limited to those included in this study. As demonstrated in this research, there will also be differences in terms of gender (male, female, and perhaps groups not identifying with either) and intended profession, which can be further described as the set of knowledge, skills, and attitudes acquired during education. As illustrated, for example, women have a stronger preference for a good atmosphere, work they feel passionate about, and with colleagues from their own country. The

men rate somewhat higher on desire for a high salary, task-orientation, more individual work, and collaborating with international colleagues. Similarly, the relationship between task orientation and remote work is apparent for all professions but is considerably stronger for Economists, particularly so when compared to Mechatronics Technicians. Or there is a weak correlation between remote work and just getting work done for the Logistics and Mechatronic Technicians but that correlation does not appear for the Computer Technicians and Economists.

Other factors, some apparent in the survey and some related, include motivators, individuality, and work environment. Gen Z appears to be motivated, at least to some degree by salary and other compensation, as shown in the results. Beyond monetary compensation, we know that pursuing passions can be a motivator for some, and finding opportunities to support causes such as environmental sustainability is important for large groups of this cohort. In terms of individuality, although Gen Z is comfortable with working in groups, there are those that prefer remote work and/or the opportunity to complete tasks on their own schedule and in their own manner. As with motivators, they want the opportunities to pursue their passions in the workplace. Moreover, the correlation results show that the inter-relationships between these variables are complex, so that those pursuing passions may or may not be those preferring remote work or group work assignments. The workplace environment is also a factor, including the work atmosphere, the nature of colleagues (local/international, etc.) and whether tied to an office or not. Other factors include communication preferences, as the Gen Z cohort has grown up with new communication technologies, including digital media, which did not exist for prior generations. Indeed, communicating with Gen Z using traditional technologies may be ineffective. Finally, working environments may be more or less stable, including large or small workforces and traditional or innovative companies. Again, our results indicate variations in what appeals to Gen Z and complex correlations about which groups prefer which conditions. While some are drawn to stable, traditional companies with reliable compensation, others are more prone to innovative firms with less stable environments and outcomes.

On the organizational side, firms need to be true to their mission and values but will also want to adapt their processes and culture to attract Gen Z employees. As in the figure, these aspects can fall into several areas. Initially, in terms of the organizational environment, processes need to be geared to fit the new cohort's tendencies, as do work atmosphere and motivators/demotivators.

In the first case, organizational processes should be reviewed with an eye to Gen Z tendencies and preferences. This could include operations or

marketing and sales, support activities such as human resources or finance and accounting, or other aspects of the business. In recruitment and selection, for example, transparency and appropriate communication can be important. Workplaces need to be accurately described, the value proposition of the work communicated, and recruiting requests delivered in attention-grabbing (social media) and engaging (recruitment games) ways (Szafrański, 2017). Interviews still remain critical, as is timely and supportive feedback for both successful and unsuccessful candidates. A relevant and stakeholder-oriented mission with associated values would be necessary to attract the attention of these candidates.

The work atmosphere may also need attention in order to appeal to Gen Z. The rigidity of the organization (partly reflected in the traditional/innovative firm scores) could be softened, and these workers may be less interested in the stability of a particular job or even holding an ongoing position in the company. Gen Z has explicit preferences for a more diverse and inclusive work environment (again, partially reflected in the results showing the appeal of international colleagues). And recognizing individual differences in background such as gender, ethnicity, and so forth are obviously a required organizational competency made clear in the survey results. On the other hand, the survey responses demonstrated that a desire for a "good atmosphere" could be overcome by a higher salary, so some traditionally valued aspects of work life might not be as desired by this new generational cohort. Which means that in terms of motivators and demotivators for Gen Z the level of salary seems important, as do similar aspects of compensation including benefits, availability of loans, access to in-kind benefits (e.g. wellness programs), and so forth. Even so, it is also important to understand Gen Z values compensation as a means to achieving dreams rather than as an objective measuring stick.

A related aspect of the organization that matters in the person-organization fit is its tolerance of a worker's desire for flexibility in their work assignments and lives. Very clear from the results is a general but not universal desire for group work vs. individual as well as for task-oriented assignments rather than standardized eight-hour workdays and for remote work rather than an office environment. The high result for questions 3 and 4, and the strong correlation of these items (remote, task) with other Gen Z associated variables points to the strength of this factor.
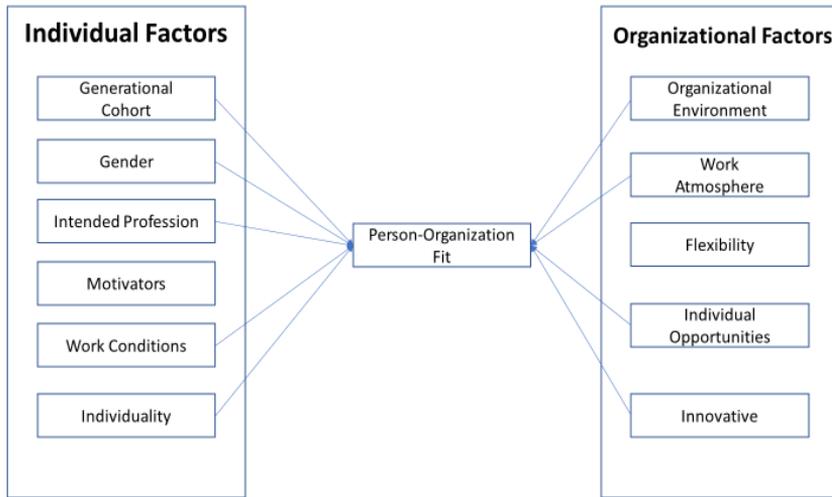
Figure 4. Person-Organization Fit Framework for Generation Z

A fourth aspect of the organization to be considered in relation to Generation Z is the opportunity for individual contributions. This can be related to group/individual work preferences but not necessarily. Even individuals who like and excel in working in groups can look for opportunities to get ahead. From the literature, we know Gen Z values situations lending themselves to individual growth. From the literature and also implicit in a number of the survey items are characteristics related to entrepreneurship, finding creative solutions to business problems. Organizations that can provide opportunities for personal growth, mentoring to help with the process, transparency in terms of progress, and similar characteristics will better appeal to Gen Z.

Finally, the survey responses show a very clear preference for innovative firms rather than traditional. As throughout this discussion, this result is related to those previously covered, being an aspect of hierarchy, processes, flexibility, and such. Different ways of doing things, including innovation, processes, communication, and related aspects of the firm appeal to Gen Z and, again, come out in many of the ways already discussed.

In short, the survey confirms, explains, and extends much of what we know from the literature about the Generation Z cohort. There are clear generational differences, including the cultural and lifestyle factors associated with growing up today. But these differences are not universal and vary by gender and intended profession as well as by individual characteristics. In order to appeal to this diverse generation, organizations need to think about the structure, culture, and atmosphere of the entity. Probably most

importantly, firms will need to provide considerable flexibility in what they offer to this diverse generation with diverse needs and wants.

CONCLUSIONS

Person-organization (PO) fit models have a lengthy history dating to O'Reilly III et al. (1991). The topic remains relevant today as the subject of continued scholarly attention (Lau, et al., 2017; Afsar & Badir, 2015; Cable & DeRue, 2002; Cable & Judge, 1996). Employee competencies can be a competitive advantage for companies, particularly in the geographical region covered by this paper (Goliński & Miądowicz, 2019), and those advantages will be more sustainable if employee and organization fit well together, if employees are satisfied and organization see enhanced returns.

Schneider's (1987) Attraction–Selection–Attrition Framework relates hiring to organizational goals, themselves affected by organizational culture aspects such as values, norms, behavior patterns, symbols, rituals, artefacts, rites, and rewards (Kirill, 2013). Ethical hiring practices (Smith et al., 2018) would be in line with the organizational culture as well as financial, legal, social and personal variables, and other environmental factors. Appropriate consideration of these factors can improve the fit from the organizational side but does fail to include other potential variables such as generational differences, gender, and profession.

Our results, of course, are limited to their context, Poland and the Wielkopolska region. While perhaps applicable to other locations, the actual fit of this model to other circumstances would need to be confirmed by additional research. Further, the individual and organizational factors in this PO Fit model may not be the only important aspects in relation to Gen Z. These were the preliminary areas for study identified in previous literature and so were included in this study, but this limited framework may be incomplete. Again, future research may uncover other pertinent values on the employee side and important competencies on which organizations may need to focus.

Similar work has also been done on the match between knowledge management and organizational culture (Rai, 2011). Employees individually possess unique knowledge, sometimes referred to in the literature as knowledge, skills, and abilities. How the firm configures work routines, relationships and formal exchanges, provides openings for using employee insights, and encourages knowledge sharing, teamwork, collaboration, empowerment, and participative decision-making can have a considerable impact on whether employees feel their knowledge is valued or not. Employee motivation to share their knowledge for the benefit of the firm is critical to

knowledge management success (Asrar-ul-Haq & Anwar, 2016) and can lead to higher levels of organizational performance (Charband & Navimipour, 2016).

Finally, the human resources function itself must fit the needs of both the organization and the individual (Kim & Wang, 2016). Hiring and retaining the right employees will strengthen the organizational culture and increase job satisfaction. Consequently, HR tasks such as recruitment and selection, training and development, performance evaluation, and compensation also need to be part of the PO fit. These aspects should also take generation, gender, and profession into account.

Putting all of these pieces together into this research project enabled us to study PO fit in a specific context and include the sometimes-overlooked variables. The Wielkopolska Region has 3.5 million inhabitants and a low unemployment rate of only 3%. Workers are in high demand and hiring is extremely competitive. While uniquely suited to this type of research, the results could be different in other economic, geographic, and social conditions. Consequently, there are clear limitations to the research results but also considerable opportunities for further research.

This study of almost 3400 technical students sheds light on a specific application of the Person-Organization Fit model with particular attention to the young Generation Z cohort now moving into the workforce. The study confirmed many of the expected preferences of Gen Z, including group work, remote work, task-based work, high salary, working at something for which one has a passion, and working for an innovative firm. We were also able to identify differences in these preferences based on gender (male/female) and profession (computer technician, economist, logistics technician, mechatronics technician). In addition, the study established correlations between sets of preferences. A preference for international colleagues, remote work, and task-based work, for example, was a clear relationship in the results though the strength of the correlations and, in some cases, whether a correlation was significant at all again varied noticeably by gender and profession.

The conclusion, in terms of the PO Fit framework, is that Gen Z expects different things from organizations and, further, displays variety in its desire for those things. Fortunately, some differ by variables that can be identified. But organizations and HR departments in particular need to be able to engineer some flexibility into their appeals to younger workers while still fulfilling expectations about speed and type of communication, transparency, organizational values, and so forth. Consequently, our adaptation of the PO Fit model illustrates some of the pertinent individual variables from our study and the literature matched with the corporate capabilities that will be important in creating the required fit expected by the new generational cohort.

Acknowledgment

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Abstrakt

Publikowane wyniki badań odnoszą się do modelu dopasowania osoby do organizacji opracowanego w oparciu o unikalne cechy nowej grupy pokoleniowej, Generacji Z, wchodzącej obecnie na rynek pracy. Źródła literaturowe wskazują, że przewaga konkurencyjna może być budowana w oparciu o unikalny w danej organizacji kapitał ludzki, który zatrudnia i rozwija. Wyniki pionierskich badań pozwalają na wypełnienie luki badawczej i wnioskowanie w kontekście kultury osobowo-organizacyjnej pokolenia Z wchodzącego na rynek pracy. Kluczowe pytania, na które autorzy artykułu odpowiadają, opisując model dopasowania osoby z pokolenia Z do organizacji, to między innymi atrakcyjność kultury organizacyjnej dla mężczyzn i kobiet z młodego pokolenia. Wyniki badań przeprowadzono w trzech etapach: analiza czynników środowiska pracy dla pokolenia Z wpływających na kulturę organizacyjną, analiza korelacji między czynnikami środowiska pracy wymaganymi przez przedstawicieli młodego pokolenia Z, prezentacja struktury dopasowania osoby reprezentującej pokolenie

Z do organizacji. Na podstawie próby 3393 uczniów szkół średnich w Wielkopolsce i wyników zebranych z kwestionariusza ankiet dostarczono dowodów preferencji miejsca pracy dla tej grupy. W Wielkopolsce pokolenie Z ma różne indywidualne potrzeby, z których niektóre można łatwo zidentyfikować (płeć, zawód), ale niektóre mogą być mniej jasne. Wyniki badań mogą posłużyć w praktyce do projektowania atrakcyjnych miejsc pracy z uwzględnieniem potrzeb organizacyjnych młodych osób. W oparciu o te nowatorskie badania, organizacje zatrudniające osoby z pokolenia Z będą lepiej przygotowane do budowania długotrwałej relacji współpracy z młodymi osobami, prezentacji tego, co mają do zaoferowania oraz elastyczności dopasowywania warunków pracy do wyróżniających się osób z pokolenia Z.
Słowa kluczowe: *kultura organizacji, pokolenie Z, gen Z, zasoby ludzkie*

Biographical notes

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Conflicts of interest

The authors declare no conflict of interest.

Citation (APA Style)

The managerial role in organizational culture as perceived by management students

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Abstract

This paper aims at illustrating the multidimensional role of the manager and its mutual influence on organizational culture from a management students' perspective. The main part of the text was based on own qualitative research – interviews, a questionnaire, and a narrative collage – which was conducted over a 10 year period among management students. Ninety-seven students from the Jagiellonian University and the Gdańsk University of Technology took part in the research. In order to gather, analyze and interpret the data, and to achieve reliable results, we followed the thematic analysis rules. We investigated the empirical material, provided by the management students responses to the research questions posed in the questionnaire, in the search for interesting threads, seeking a definition and an understanding of the term "manager" and the specifics of a manager's work. We also presented several quotes from the data in accordance with the principles of data analysis in qualitative research methodology. Four different prisms were identified: gender, relational, constant learning and professional, described as the areas of managerial duties, features, and expectations. The article's key value is the focus on students' perception – an idealized construct of the managerial role, which states a benchmark for their own actual and prospect managerial performance. Such a perspective is very important for practice as well as for education. From a practical point of view, some management students will manage teams or organizations in the future. They should be aware of managerial duties' elaborate character and the multiple demands on the role's performance. They will shape the role by themselves. On the other hand, from an educational point of view, it is essential to give students some insight into their prospective role, understand the elaborate organizational relations, and the activities that appear in organizational culture that always influence management.
Keywords: manager, managerial role, organizational culture, culture, leadership

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INTRODUCTION

The word 'culture'[3] is one of the most frequently used nowadays. It became a keyword for several organizational problems. Both academic and day-to-day worlds are filled with various definitions of the notion. Thus, it seems irrational to compare them. The most important issue is to understand the change that has been seen in the perception of culture. According to Wright (1998), the crucial differences between older and modern perspectives are:

- the older perspectives claim that culture is constant, usually in balance, static, the communities are homogeneous, and it is possible to prepare a checklist for each culture;
- the modern perspectives perceive culture as an active process of creation of meanings (Krzyworzeka, 2008, p. 185), culture is hegemonic, places are not frozen, people use their relations on different levels with different groups.

Several studies on organizational culture relate to its different aspects and contexts. These issues often appear in reference to leadership roles and the mutual influence of organizational culture and leadership. Schein (1992) as well as Kavanagh and Ashkanasy (2006) assume that organizational leaders are the key source of influence on organizational culture. In this approach, those are the behaviors of leaders that shape people's reaction to changes and innovations in organizational cultures (Fishman & Kavanagh, 1989; Lundberg, 1988), support creativity and innovation within the organization (Ogbeibu et al., 2018) and promote and consolidate preferred attitudes and practices, e.g. corporate social responsibility (Castro-González & Bande, 2019; Chen, 2011). The issue of organizational culture has always been a multidimensional and complex matter that requires further exploration from various perspectives (Amiri et al., 2014).

The purpose of the paper is to illustrate how management students perceive the managerial role and its dominant impact on organizational culture. The research questions that we tried to answer are whether management students are aware of the complexity of the role, what qualities do they expect from managers, and how they imagine the construction of their own managerial role (if they become managers). To formulate the conclusions, we analyzed existing theoretical investigations and conducted our own qualitative research, exploring student opinions. In order to interpret the accumulated empirical material, we used thematic coding and categorization

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3 Some issues described in the article were inspired by the unpublished Ph.D. thesis of Marta Szeluga-Romanska titled "The role of the manager in the process of communication", that was defended in 2014 at the Faculty of Management and Economics of the Gdansk University of Technology.

procedures based on the inspiration of the organization's ethnography (c.f., Angrosino, 2010; Kostera & Krzyworzeka, 2012; Glinka, 2013). The 'ideal' managerial role that appeared from the research material is presented in the context of submerging all the roles in each organizational culture and in connection to the several possibilities of cultural understanding. The gathered knowledge seems valuable for several parties: for any organization that is always a unique culture with a wide array of organizational roles, including embedded managerial ones; for managerial education institutions to understand changing expectations towards managers; for all the organization participants, who either manage or are managed, to understand the influence they have on management.

LITERATURE BACKGROUND

Organization and its culture

Koźmiński and Latusek-Jurczak (2011) claim that the character of organizations is: intentional (they are used to gain established aims), social (they consist of people, their emotions, relations, etc.), to some extent formalized (some are based on law, others on customs or informal social agreements), economic (to survive they have to gather material resources from the background). It should be added here that those organization features appear with different intensity in different kinds of organizations. But some of them just do not show up, e.g. in the whole social world there are plenty of informal organizations that are not intentional, formalized, or economic.

According to a simplified definition, an organization is a social group created to achieve a goal (c.f., Koźmiński & Piotrowski, 1996; Griffin, 2017; Nierenberg, 2011) that would be unattainable for the individual (Malinowski, 2001). As Koźmiński and Obłój (1989) notice, interest in the topic of linking organizations and organizational culture emerged in the late 1970s and early 1980s, and was associated with an attempt to explain the successes of Japanese companies and their relative advantage over American businesses, which resulted in the need for practice to explain this phenomenon.

Hatch (2002) notices that modern organizations can be presented as inter-imposing spheres of culture, physical structures, technology, and social structures that function in particular background and create that background at the same time. All those four elements not only shape the organization and its background but also have common spheres. It means obviously that they are inter-connected but, more widely, that there are no issues, ideas, theories that have no connection to other issues, ideas, or theories; that

come from an intellectual vacuum. That multidimensional perspective allows for a better understanding of the rich and elaborate world of organizations.

It is clearly visible that an increasing number of areas of our lives become organized more and more – starting with jobs and concluding with spare time, e.g. holidays (c.f., Kostera, 2003; Ritzer, 2003). We become the members of several organizations, playing there very different and sometimes excluding roles, sacrificing our time, engaging our competences or health. The American sociologist Amitai Etzioni (1964) thinks that we are born in some organizations, and then we are educated within organizations and, finally, leave a significant part of our professional life there. Other sociologists (c.f., Smith & Preston, 1977) think that people organize themselves (cooperate in groups) to gain some goals. It needs to be financial profit and help those in need or provide environment protection (c.f., Jemielniak, 2019; Jemielniak, 2020). What differentiates organizations is their goal, but also the size or ownership (Kostera, 2003). That means we can distinguish between organizations based on obligation and voluntary ones, with the latter being able to be divided into *formal* and *informal* organizations. *Formal organizations* are based on norms and regulations. The relations that appear within them are rather formal, official, and instrumental. They can be separated into *public* (their main goal is common good), *private* (their goal is to generate profit), and non-*governmental* (their goal is to realize their statutes) (Ibidem).

Irrespectively of the kind of organization, people, who are an absolutely crucial part of organizations, create their own very unique culture. It appears through intentional and non-intentional activities in formal and informal situations. The broad span of organizations' perspectives as metaphors was already well described in the 1980s by Morgan (1986/2006). Hatch (2002), after a detailed analysis of several definitions of culture since the 1950s, concluded that anthropology, which has always been interested in culture, tried initially to understand what was typically human and what made people different from other creatures, and subsequently tried to connect specific cultures to specific groups, compare them, and finally treat them as if the people were the cultures (Hatch, 2002, p. 208). Such attitude enabled researching *organizational* cultures (as being obviously the groups in sociological meaning). The professional studies of some organizational aspects (like industrial human relations) appeared at the beginning of the 20th century (e.g., Mayo, 1945). But deeper and more popular studies were developed in the 1980s (e.g., Hofstede, 1980; Schein, 1985; Deal & Kennedy, 1982), treating organizations as local communities that create and retain their own specific cultures. As Kucharska & Kowalczyk (2018, p. 454) claim: "[c]ompany culture shapes social structures and attitudes, morale, and motivation of employees." Smircich (1983, p. 342-353), on the other hand, analyzed the

managerial and organization theory literature and perceived the existence of three different meanings of culture as: an *independent variable*, an *internal variable,* and a *root metaphor.* The perspective of the independent variable means understanding that the national culture and cultural context influence several elements of the managerial process – in this perspective, various phenomena observed in the organization can be explained using culture, e.g. national (Ajiferuke & Boddewyn, 1970; Kostera, 2003). The perspective of culture as an internal variable means that organization's internal culture influences efficiency; it can be shaped or even manipulated, and managed to achieve goals (c.f., Kostera, 2003). Culture as a root metaphor states that the organizations are different cultures; the organization is seen as a form of human expression, subjectively but with some common patterns that enable organized activities). The last one is of an anthropological character.

As Kostera (2003) notes, culture seems to be a medium that helps people perceive and understand the world and – due to symbols – enables communicational processes. Hofstede pointed out that culture is a collective mind programming that distinguishes one social group from another. For this reason, the national culture within which the organization operates is so essential for organizational culture because it determines fundamental values characteristic of specific states and nations. According to Hofstede (1980; 1984; 2001; 2010), the main differences between national cultures follow key dichotomies:

- individualism – collectivism;
- power distance (small or large),
- degree of uncertainty avoidance (small or large);
- masculinity – femininity;
- long-term orientation – short-term orientation;
- indulgence–restraint orientation.

Effectively influencing people requires knowing the specifics of the cultures in which they are rooted in the sense of national, regional, professional, and even caste culture. Norms and values are respectively prescriptive and affective dimensions of declarative and procedural structures and practices of cultural knowledge, enabling filtering of certain pragmatic changes. Schein (1992) pointed out that norms and values are partially visible and made aware of participants in a given culture. Activation of cultural knowledge generates practical second-order knowledge aimed at the most effective and socially pragmatic ways to implement well-established cultural knowledge depending on contextual factors, such as the situation or environmental signals (Patterson, 2014).

Suppose each organization is a distinct culture, usually non-monolithical and ambiguous. In that case, it possesses its specific features that make it so

different – they are the assumptions, values, symbols, rituals, tales, taboos, patterns of communication, and other visible artifacts (Hatch, 2002; Schein, 1985). It is very difficult to analyze them and conclude about the hidden core of each culture. But they can be described through qualitative research, and mid-range generalizations can be made. People always build their own group (and its culture) through symbols. They can move and act freely within the group and also emphasize its unique character. Many influential researchers of organizational culture construct their definitions based on such attitudes – e.g. Czarniawska-Joerges (1992, p. 60) treats it as a 'bubble of meaning' and Geertz (1973, p. 5) defines culture as 'the nets of meaning' created by the human who remains outstretched inside. It is worth recalling the processual and dynamic character of culture.

The manager's influence on shaping organizational culture

For the purposes of this article, we adopt an approach to organizational culture consistent with the assumptions of the interpretive paradigm. We perceive culture as a network of meanings, values and norms, which are reflected in diverse groups, subcultures, and organizational actors (Kostera, 2003; Sinclair, 1993; Schein, 1992). This approach is the opposite of the functionalist approach to culture as a real being and a coherent subsystem of the organization (c.f., Sułkowski, 2013). Some system models take into account organizational culture as one of the components of the system (Peters & Waterman, 2004; Sulkowski, 2002; Morgan, 1986/2006), but some researchers ignore the importance of culture for the functioning of the system (Leavitt, 1965; Koźmiński, 1996). The perception of the manager's roles and his influence on the organization's culture is consistent with the adopted epistemological and ontological assumptions, i.e. the selected paradigm.

The classical theory of management says that it is 'the process of organizing and directing human and physical resources within an organization so as to meet defined objectives' (Hyman, 1999, p. 377). Key managerial roles are planning, coordination, controlling, and motivation. Generally, they represented the rational side of the enterprise 'concerned with establishing routines and procedures for administering the work' (Ibidem, p. 378). But the expectations towards modern managers have changed and even increased over the last 50 or 100 years. The area of managerialism and leadership is a very popular subject of research. Ciuk (2008) pointed out that 35 thousand definitions of leadership exist in the field of management sciences. Many studies concerned the attempt to identify the characteristics of an ideal manager (e.g., Galton, 1892; Bass & Bass, 2008), the roles performed in the organization (e.g., Mintzberg, 1975), or the adaptation of management style

to a specific situation (e.g., Fiedler, 1967). However, according to Weber (1947), the assumptions of the Ideal Type assume that it is only an analytical construct, consisting of the characteristics of a given phenomenon, which does not occur in nature. Similarly, Koźmiński (1996) points out that each organization has its own specificity of functioning, so one can only talk about the desirable characteristics of the manager (e.g. appropriate psychophysical features) that can contribute to their success. As Mostovicz (2009, p. 570) mentioned: "Hence, 'ideal' does not try to describe a particular behavior but looks to capture the logic of reality we use meaningfully as an inspirational benchmark." Our times are filled with 'best' recipes or solutions for shared problems. But – as many practitioners would say – the best recipe, the best solution is the one that works in your particular case, tailor-made just for you. Achieving these effects, however, requires the manager to be familiar with organizational culture. Knowledge of organizational culture also has other benefits for managers, to mention just some (Kostera & Kownacki, 1996; Sułkowski, 2002; Koźmiński & Jemielniak, 2011; Griffin, 2017):

- including informal means of creating organized activities, such as language, social norms, folklore, ceremonies;
- better understanding of the nature of relations between the company and its environment, which depend on the interpretation of the environment by employees;
- explanation of the essence of organizational changes that consist not only in changing the technology, organizational structure, or skills of employees;
- paying attention to the symbolic meaning of even the most rational aspects of organizational life, which allows one to get to know and understand them better;
- enabling participants to understand the mission and strategy of the organization and to identify the primary goal of the organization by the participants, integration of participants; integration around the measures adopted to achieve the goals of the company, and increasing employee involvement, the use of uniform measurement methods and criteria for assessing effects, the improvement of ways of working and reformulation of goals if a change is needed, forming boundaries between groups;
- offering a common language and conceptual apparatus;
- defining group boundaries, acceptance and rejection criteria;
- determining power rules and status criteria, enabling avoidance of conflicts over power, negative emotions, and aggressive actions, how to achieve a position of authority, how and when you can criticize those in power, their decisions, and proposals.

Organizational culture is inculcated by members of the organization in the acculturation process. In this process, the manager played an essential

role who, by their own behavior and reactions to others' behaviors, promotes or eliminates specific activities within the organization. Moreover, organizational culture helps in understanding the specifics of common problems, giving organization participants common norms and values. Knowledge of organizational culture also improves communication and evokes similar levels of interest in reality and homogenous reaction to changes. In this way, employees' behavior is standardized, which reduces the need for management control (c.f., Koźmiński & Jemielniak, 2011). Organizational culture is characterized by a high degree of inference and most often follows three possible change scenarios, indicated by Gagliardi (1986) as evolution (slow, natural change), revolution (sudden and drastic), and a "vicious circle" (change occurring spontaneously, without management control).

In considering the mutual relations between change processes, leadership, and organizational culture, Latta (2009) underlines that organizational culture influences and is influenced by several organizational processes. He bases his well-recognized OC Model on two crucial assumptions: that '[d]ifferent dimensions of organizational culture influence change implementation at each stage of the process' (Ibidem, p. 6) and that '[a] leader's degree of cultural awareness will determine his or her effectiveness in facilitating organizational change' (Ibidem, p. 7).

The manager can promote a new culture through, among others, being a model through their own conduct, a system of prizes and penalties, training and workshops, or in the most difficult variant, even by exchanging staff. However, the manager must understand organizational culture and act as a cultural spokesperson, cultural assessor, and facilitator of cultural modification to develop culturally sensitive and competent organizations (Lundberg & Woods, 1990).

Despite the current tendency to view management as a limited activity aimed at the maximization of shareholders' profit – a view characteristic of the ideology known as managerialism (for presentation and critique, see Parker, 2002), management has been regarded as a much broader social role. Mintzberg (2009) famously defines this role as based on practice and in which art, craft, and science contribute different essential qualities to the whole process. The reference to art means that there is a need for creativity and going off the beaten path in management. Such activities may induce others to follow a manager. Craft is strongly linked to own professional mastery, the specific experience that is gained individually. Science provides some technical knowledge and tools that can be of use for more repetitive activities. Mintzberg's practical perspective of managing is consistent with Czarniawska's (1991; 2010) view, emphasizing that management always happens in a specified cultural context, which in turn means it is influenced

strongly and permanently by all the collective fears, expectations, choices reflected also in national and international economics and politics.

The managerial role, seen this way, is complex and multidimensional. Managers are key characters whose task is to react to social issues that appear both in the internal and external environments. Management should not strive to reduce differences but to draw from them and learn how to better interact with the environment and its dynamics (Ackoff, 2010). Kostera (1996), following the ideas of both Ackoff and Czarniawska, proposes that the managerial social role consists of three dimensions: the professional, the organizational, and the societal (see Figure 1). Management is a process developing and emerging in and through these three dimensions, with each containing a different set of expectations and challenges. The professional dimension concerns the expectations referred to managerial efficiency at work and also the expectations referring to the manager's education, experience, and ethical standards. These expectations are expressed towards the manager by the professional community. The organizational dimension consists of the expectations referring to the ways of the manager's behavior towards co-workers (where management style is also included) and expectations related to the manager's reaction to employee behaviors. The societal dimension includes the expectations referring to the influence of the managed organization on the surrounding environment and also the expectations referring to the reaction of the manager on the environmental influence on the organization (Kostera, 1996).
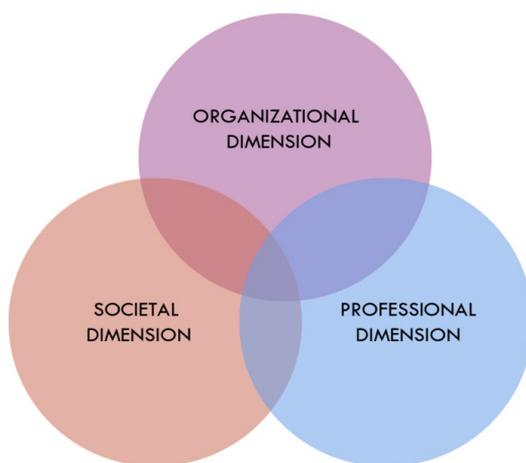

Figure 1. The three dimensions of social managerial role

Source: Kostera (1996).

As Figure 1 illustrates, the dimensions overlap and thus generate new quality in the common spheres, making the role even more complicated. Peter Drucker, who never officially embraced the label of "humanistic management", claims nonetheless: *management is about human beings. Its task is to make people capable of joint performance, to make their strengths effective and their weaknesses irrelevant. This is what organization is about, and it is the reason that management is the critical, determining factor* (Drucker, 1990, p. 221, in Loza Adaul & Habisch, 2013, p. 196).

In 1991, Barbara Czarniawska and Rolf Wolff published a work in which they correctly predicted the future sequence of three powerful roles in organizations: leaders[4], managers, and entrepreneurs[5] (Czarniawska, 2010). They observed that the sequence of their appearing in the organizational context was supposed to be connected with the tides of "collective fears and hopes, performed at the organizational stage" (Ibidem). Each organization functions in a particular economic, political, and cultural background. In other words, all of those emotions within and around organizations shape the organizational managerial role. The researchers asked the crucial question, "Who sets the order of the roles' appearance?" (Ibidem, p. 73). To give a more complex view of the 'idea storms' that people had to face through years, the prediction also included some of the most important of those factors. In 2010, Czarniawska supplemented the prediction for the next years.

The author suggests that after the global financial crisis in 2008/2009 there will be the era of managers (Table 1).

Table 1. The organizational roles through the years

XX Century	XXI Century
1920s – entrepreneurs	2000 – dot.coms' death
1929 – economic crisis (depression)	**2000s – entrepreneurial leaders with high bonuses**
1930s – leaders	2008/2009 – financial crisis
1939-1945 – II World War (political crisis)	
1940s – managers	**2010s – managers?**
1950s – entrepreneurs	**2020s – Covid crisis**
1960s – leaders	
1968 – war in Vietnam and youth movements (political crisis)	
1970s – managers	
1973-1975 – oil crisis	
1980s – leaders	
Increasing leadership medialization and organizational practice standardization	
1990s – entrepreneurs	

Source: Czarniawska (2010, p. 79) and 2020s own concept.

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4 The **leadership** can be defined as 'the process of influencing others to achieve certain goals' (Hyman, 1999, p. 358).

5 We could define **entrepreneur** as 'a person who undertakes the risks of establishing and running a new business. Entrepreneurs are characterized by their initiative and enterprise in seeking out new business opportunities; inventing and commercializing new goods and services and methods of production' (Ibidem, p.224). Also 'Their aim is to create new worlds, although the financial aspect is often hidden there' (Czarniawska, 2010, p. 85).

Those multidimensional perspectives show a wide variety of possibilities to influence organizational culture by the manager. He is usually at the intersection of several flows, both internal and external. The same as culture undergoes permanent processes. The manager is also influenced by those – on the one hand, he is its reproducer. Alvesson (2002) even claims that managers are better understood in organizations, as they are transmitters of the culture than those who make changes in it. But as communication is a permanent part of the culture, also in this sphere, the manager becomes the most influential person in the organization. Using the informative function of all communicational tools, he shares with his subordinates the rules and norms, established by the top management (or owners/shareholders). He has to introduce and implement established strategy or organizational politics. He is also obliged to inform the subordinates about the aims to follow and the means of strategy realization. In that case, excellent communication skills are necessary, e.g. fluency in interpreting and explaining precise and difficult information.

On the other hand, the manager is also a creator of organizational culture elements (and some communicational patterns). He performs not only the patterns of communication, but also the patterns of behavior – e.g. he sets the border between the formal and informal sphere, to a limited degree he/she dictates his/her ways of building relationships and creates their different kinds. Such a way of communication usage shows that it is a part of creating and evaluating enterprise strategy; its role is to overcome the crises and enable the regular updating of enterprise activity (Ollivier, 2010).

METHODOLOGY AND RESEARCH METHODS

We carried out research in the years 2011–2020 involving 97 students from the management faculties of the Jagiellonian University and Gdansk University of Technology. The selection of the sample for research was purposeful in accordance with the principles of conducting qualitative research (Flick, 2010). Our goals were a reconstruction of the respondents' point of view, describing mechanisms of constructing social situations, which is also associated with social constructivism and ethnomethodology. The study was conducted by students of management, who already had knowledge in the field of management supported by passing exercises and passing exams in management basics. In addition, they were students for whom we conducted classes and we had systematic contact with them, reading recommended articles, and taking discussions during classes. It is worth pointing out that most

of the students who participated in the study declared that they intended to perform work in accordance with the undertaken field of study in the future.

The way we perceive organizations depends on the underlying paradigm, which is a reflection of ontological and epistemological assumptions (Kostera, 2003). The interpretative paradigm was selected for the purpose of this study; it is focused on the intersubjective perspective of individuals (Burrell & Morgan, 1979, p. 28). But, as Corbin and Strauss (2015) noted, qualitative research (of inductive character) is carried out for more reasons, e.g. 'to explore how meanings are formed and transformed, to explore areas not yet thoroughly researched, […], to take a holistic and comprehensive approach to the study of phenomena' (Ibidem, p. 27). Connected with the interpretative paradigm is the cultural metaphor that implies that 'the social world is constructed by the people who live within' (Burrell & Morgan, 1979, p. 15) and the organization is a 'special form of human expression' (Smircich, 1983, p. 353). According to Whetten (2002), each theory should provide answers to three crucial questions – **what** it takes into consideration, **how** its parts are connected, **how** the research was made, what methods were used, and **why** those links are so important and interesting.

What was considered?

The authors sought the answer to the question of how management students of two Polish universities, Gdansk University of Technology and Jagiellonian University, perceive the managerial role in organizations and its influence on the shape of organizational culture.

How was it made?

The researchers carried out qualitative research, inspired by organizational ethnography, over the years 2011–2020.

A) *Procedure:* the first part was a semi-structured questionnaire survey in the form of an open-ended question. It was made in January 2011. The students received one open question during their final test – "what should the definition of a modern manager be?." Some students wrote just a few, most important words, mainly adjectives, but others gave half-page descriptions. All the materials were anonymized, coded, and divided into thematic categories. *Participants:* two groups of management and economics students were subject to this research. Altogether, 47 respondents replied.

B) The second part was an in-depth interview (open, unstructured, non-standardized) – conducted in May 2016. The interviews were carried out on a group of 30 students in the field of culture and media management as part of the subject of management. Such interviews give the interlocutors the opportunity to express themselves freely and the researcher a fuller insight into the analyzed issues (Gudkova, 2012). The interviews were then transcribed and all the subjects' data were anonymized. After completing

the course, students were asked to describe what a manager is to them, what they associate with this concept. Most often, students referred to the manager's most adequate metaphor, explaining how they understood it.

C)   The third part was a narrative collage – in January 2020. As part of using the narrative collage, a narrative method to study a collective organizational imagination, 20 students of humanities management were asked to write a fictional story about a day in a manager's life, which was to illustrate the specifics and scope of his work. The authors played the role of an active editor, which involved arranging, combining, preparing connections, and interpreting the collected research material (Kostera, 2015, p. 81) On the basis of fictional stories, they depicted, in their opinion, real problems concerning the specifics of contemporary management.

The study was based on three data collection procedures using interviews, questionnaires, and a narrative collage. Then the material was subject to coding procedures. We used the coding traditionally, which consisted of sharing, analyzing, comparing, conceptualizing, and categorizing data. For the purposes of this article, we adopted procedures for the analysis of empirical material taken from the organization's ethnography research (Kostera, 2003; Angrosino, 2010). We used descriptive analysis, which is the process of separating components from a continuous data stream, i.e. separating topics and certain regularities from the data set (Angrosino, 2010). We analyzed the collected research material, and based on this, we created codes, then a list of codes, and again we analyzed the material based on this list of codes (see Kostera & Krzyworzeka, 2012; Glinka, 2013). Interviews, collages, and questionnaire responses were coded sentence-by-sentence, and in vivo, i.e. fragments of the text (quotes) were characterized to the extent that they themselves could serve as codes symbolically denoting the interlocutor's statements. After establishing and verifying the codes' list, they were combined into thematic categories organizing the research material. The codes were not quantitative but were used to analyze the qualitative relationship between the data.

As the research has been conducted gradually and consequently, for almost 10 years, the following parts were analyzed individually at first. The data generated by the questionnaire, in-depth interviews and a narrative collage were subject to thematic analysis that led to our final categories. The crucial aim in our methodological sub-chapter is to explain "how researchers might conduct theoretically and methodologically sound thematic analysis research that aims to create sensitive, insightful, rich, and trustworthy research findings" (Nowell et al., 2017, p. 1). To reach it, we will illustrate the whole process of the thematic analysis according to the following steps (Ibidem, p.4): at first, we tried to **familiarize with our data** – the materials we gathered from a questionnaire, the stories that were written according

to a narrative collage methodological requirements and the transcribed interviews were read and re-read by both of us so as to find similarities, some repeatable ideas. There was a researcher's triangulation introduced within the first step. All of those activities led us to **generate initial codes**. They were found by marking parts of the students' statements colorfully in the Word files. There was no need to use a more complicated tool as we had the main theme (managerial role) fixed in advance. The next step was **searching for themes** that started to emerge while connecting pieces – initial codes – together. Still, within the researcher's triangulation, we were **reviewing themes**, **defining and naming them** ultimately. The result was a description of an elaborate, multidimensional managerial role in organizations that always performs within a particular organizational culture (Figure 2). It can be called **producing a report** on the whole, long-term research.

DISCUSSION OF THE RESULTS

In the article, we adopted the ethnographic convention for presenting empirical material, which is why data obtained in the course of research is presented by thematic categories. As part of the descriptive analysis, we searched for relationships between data (c.f., Angrosino, 2010; Kostera, 2003). In this way, we were looking for common patterns, threads and regularities in the form in which they are perceived by the members of a given group. We paid special attention to both consistent elements and discrepancies in the information obtained. The following are key categories extracted from empirical material from interviews, questionnaires, and narrative collage**.** Currently, our reality is so structured and so susceptible to change that the role of a manager must follow the permanent changes, try to adjust to them, or, if possible, possess such a set of features, skills, and abilities that enable one to predict some areas of potential change. Based on students' responses, the set of perspectives presented here shows the complicated, multisided character of the managerial role.
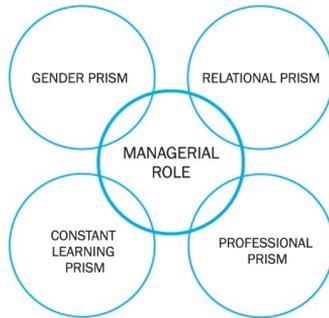
Figure 2. The dimensions of a managerial role
– from the students' perspective

Each of the following paragraphs focuses on different aspects of the managerial role and is a result of the whole, three-level research. The first paragraph describes a manager's personal features and skills perceived by the prism of gender; the second considers their functioning in groups, teams of co-workers and, generally, in the organization; the third underlines the dynamics expected from the modern manager in their education and development; the fourth focuses on the imaginative assets.

The empirical part includes quotes from interviews, narrative collages and surveys, which make it possible to convey the specificity of the complex social reality constructed by the participants (Kostera, 2003; Krzyworzeka, 2015). As Kostera emphasizes, quotations are the key evidence in qualitative research and perform the same methodological role as numerous in quantitative research.

1. Gender prism: Strict as a father, caring as a mother

The first scene where the modern manager is presented refers to their personal characteristics. The title of this chapter is a paraphrase of one student's sentence, and it sounds archetypical. It could be useful to analyze the personal features listed by students in a great number through the lens of archetypes, particularly through the main personality archetype – anima and animus. Archetypes – as Karl Gustav Jung described them – are shared by the whole of humankind (Kostera, 2010). They exist in the collective unconscious in two dimensions simultaneously: intersubjective one (common for all the people) and individual one (as our own). Because, generally, they are empty and open to accept content, we can place there our own interpretations of the existing world. They inspire our creativity and spirituality to find new

solutions, unprecedented experiences. Anima is the feminine side of human personality and contains all the roles that women can play. The other side is animus, the masculine part of personality, which contains potential man's roles. Jung believed that women also possess animus features in their unconscious domain and men possess anima features but their presence and potential appear only in particular contexts. And both domains are not identical to biological genders. But 'good managers are able to shift the activity from Anima ethos to Animus ethos, and conversely, depending on situational demands' (Ibidem, p. 87). One student described a woman manager in her collage, assigning her the role of a caring, but also rebuking mother:

> *Ania is a management graduate, laureate of numerous awards in the field of management and marketing. Employees feel authority from her, but they know that she will listen to them. Ania's responsibilities include distributing work, motivating, and coaching as well as applying penalties, helping the team at work and resolving conflicts. [...] A manager's work is not easy, but it gives a great sense of control* [Katarzyna].

According to the respondent, it is important for the manager to have appropriate management education. The researched students seemed to notice the above necessity independently, without deepened knowledge of the archetypes' theory. Their 'ideal type' of the modern manager should consist of the male and female's features and change their management style according to the situations encountered. Students marked the features, popularly assigned to men, such as being assertive and authoritative. In other words – they thought that a modern manager should show their power: have their own opinions and have no fear of making independent decisions. They also ought to be entrepreneurial – search for new assignments and solutions treating them as the Promised Land. The manager must be demanding and consistent (like a father), expect permanent excellence in everyday tasks from themselves and from others. Being self-confident and methodical enables them to fulfill their role(s) fluently.

During interviews, there were often comparisons between organizations and families, where everyone was assigned a specific social role. Six students saw the analogy between a manager and a father, about which one of the respondents said as follows:

> *[t]he father influences the upbringing of his children, just like the manager shapes the behavior of employees. He must take care of his family, make everyone feel good in the family and build the authority to be listened to. The father's relationship is incredibly extensive and applies to many levels.*

A good manager should approach their subordinates with goodness, but when it is needed – they must be strict and consistent, because such behavior is educational [Michal].

This approach was also associated with paternal authority, which almost like in the ideal type of Weber, a manager should have. According to another student:

Authority, knowledge, willingness to help, justice, dedication to work and people are the most important features. This should be adapted to the current needs and situation [Agnieszka].

Considering the features that could be said to be rather feminine, students mentioned, firstly, having great empathy with other workers. Most of the group members perceived this ability as the most important. They wanted the manager to understand workers' problems, be helpful and supportive. Through their eyes, they should be also nice and cultural. Those features must be reflected in their appearance. The modern manager should be presentable, which means looking good and neat and modest. But also, like a mother, should take good care of friendly relationships with co-workers; should give rewards or punishments depending on the situation to bring up their 'children' properly.

The modern manager in this first scene seems to be androgynous (Ibidem, p. 102), which means that they integrate both male and female elements. But this portrait was enriched also by features that cannot be traditionally attached only to one gender but can be possessed by both – intelligence, precision, and hard work.

2. Relational prism: Human among people

The most important concerns in the second scene are a manager's relations with other workers. Students strongly emphasized that the manager should be open to their subordinates – know their qualifications and skills really well, as well as recognize problems and needs. And also ought to know how to discover and develop their strengths and minimalize their weaknesses. One of their crucial tasks should be building an efficient team, motivating, and encouraging particular actions, especially under difficult conditions. One student described the imaginary day in the manager's life in his narrative collage:

The morning begins quite intensively by checking that all work is done on a regular basis, there is no backlog. Employees report any problems

that require consultation with the manager, and also resolve conflicts that arise between people at work. [...] In the afternoon the manager works in the field – they will meet clients regarding new orders. They spend the afternoon on paperwork, checking documents, transfers, and invoices. The manager's day does not end with business hours. In the evening they go to a conference about new trends in management [Ewa].

This image indicates the importance of maintaining good contacts in the organization and conflict prevention, as well as care for relations with stakeholders. Also, the manager should not just assign the tasks but help their team with them and be able to cope with stress, crisis or any other problematic situations. Also, appreciation is really important. Praising the team when the results are at a high level can be understood as showing respect (also as parental care – see the section above). It may be particularly important when the teams are multicultural. Students thought that the manager should be objective in assessments and identically fair to all of the workers. In interviews, there were references to a team leader in various types of team games. In this approach, students emphasized that motivating the team is an important role of a manager. One of the respondents associated it with the captain of a football team:

The captain is a good team spirit, who motivates and drives to action [Marek].

Another student indicated:

They lead the team and lead to victory [Remigiusz].

Another important matter – using students' opinions – is communication. They expect a modern manager to pay great attention to dialogue – to talk, agree, and negotiate solutions, solve problems democratically through discussions and analysis with the team, and listen to what people propose. The manager should also be really precise and clear in their orders, goals, and demands towards subordinates. The staff has to know exactly what they are supposed to do and that they are able to do it. Threads of communication both within the organization and with the environment, appeared in many interviews. One student illustrated this imaginary story in her narrative collage:

As soon as they arrive at work, the manager greets the employees they meet in the corridor. They share company-related news for a while. The manager goes to their office, taking with them the correspondence that was waiting for them at the reception. Sitting in the office making the

calls they planned. Viewing mail. [...] On this day they scheduled a short interview with a website journalist writing about plans for the development of the facility [...] After work they return home, work-related telephone calls still come, which the manager tries not to ignore [Malgorzata].

This statement indicates the manager's perception as a link in communication within the organization and with the environment. Students expect the manager to plan and create their development paths and provide the necessary training. When they are adjusted to workers' abilities and needs, they would also improve efficiency, which could be profitable for the company.

The manager is perceived as the most important person responsible for the atmosphere at work. Students' opinions vary in how they should build it. Some think that all the workers, including the boss, ought to integrate also after work, during informal meetings; a good superior 'should be firstly for the subordinates, secondly for themselves[6].' The others want the manager not to be a friend, but a supervisor. Even while speaking, they should be official and give orders formally. One respondent would even like the manager not to have the 'predisposition of expanded intimate or social contacts with the subordinates[7]'.

Some students perceive the managers a bit less materialistically, more magically, or better – non-humanly. It usually leads to positive results:

A manager can be a good spirit who always appears at the right moment to motivate their staff to act. Because of this, they are not an obtrusive person whose instructions subordinates have enough of. The manager– apparition is a subtle person in proceedings and economical in judgment, they try to be always where they are needed, always at the time when they are needed. [...] However, let us not be fooled, where in space, the invisible, watches over the efficient operation of the organization. They give a lot of autonomy to subordinates, but do not get along with them. Although, sometimes they can be a demon and act destructively [Laura].

The manager initially treats their lower-ranking colleagues in a polite and pleasant manner. They seem to be a real "sheep" that would not hurt any person. However, at the right time, this manager sheds this skin and shows their true face. They transform into a formidable "wolf" that is just waiting for the slightest mistake of their colleague. Then they show no mercy for him, criticizing him for every mistake [Leon].

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6 Taken from own research.
7 Ibidem.

But sometimes, anagerial actions are perceived as "the goal justifies the means" attitude:

The manager has to be something of a magician. The position of a manager in practice is often associated with various types of manipulation, just as a magician diverts our attention to get a certain "magical" desired effect, so the manager properly manages their employees [Aleksander].

To sum up some important ideas of the section, we could use the considerations of Robert I. Sutton: "Good bosses shield their employees from distress and distraction in diverse ways, whether behind the scenes or publicly. They work day after day to enhance their self-awareness; stay in tune with followers' worries, hot buttons, and quirks; and foster a climate of comfort and safety. They also learn to identify which battles their people consider crucial to fight, and which they see as unimportant. When bosses can't protect people – for example, from layoffs, pay cuts, or tough assignments – the best ones convey compassion, do small things to allay fears, and find ways to blunt negative consequences" (Sutton, 2010, p.109).

3. Professional prism: The specialist

Barbara Czarniawska compiled a typology of four different activities at managerial positions in professional organizations (Czarniawska, 2010, pp. 91-92):
- the managers who support the professionals – "it means that one profession helps the other" (Ibidem, p. 91);
- the managers who do not disturb the professionals at their work – they tolerate the second profession to the extent which is absolutely necessary;
- the managers who disturb the professionals at work – they usually think they can improve professionals' performance;
- the managers who think they are the leaders in the army – they use patterns of leadership from computer games.

According to one student, a good manager

is decisive and full of understanding for their employees. They work with them, help them, exist in the organization, and try to understand its needs [Barbara].

Apparently, the statements also appeared in other interviews. For example, another student identified key areas of managerial activities:

[they] manage resources, allocate tasks, wisely select colleagues, are a voice of reason, work according to plan, head a group [Andrzej].

After the research, we could say that students' idea of the professional face of the manager is very elaborate. They would like the manager to cooperate smoothly with other workers, of varying professions, but also to be professional in their own work duties. The manager should have an extended knowledge in their field, should be the professional authority. It was marked by a great part of students. They ought to be not only experienced but should also develop actively and dynamically. The manager is expected to be well educated in their profession and know foreign languages to communicate easily with other cultures. They should also possess several soft skills like psychological, sociotechnical, and negotiational, that are helpful for managing people.

The last idea is the skills we could call organizational. Students perceived the technical side of organizing work as extremely important. Their opinions seem to be similar to the idea of treating management as a 'service' (Ibidem, p. 94). It means that a manger's service should be organizing the work **for** the employees, instead of organizing the work **of** them.

4. Constant learning prism: Creative leader for our times

The last perspective that has not been mentioned yet is spirituality and creativity (Hatch et al., 2010), which also seem to be a necessary managerial attitude. Several researches (e.g. Ibidem) showed that apart from the rational, technical skills, modern managers – business leaders, should inspire to release the creativity, follow deep values, and ensure subordinates that changes are unavoidable but profitable (c.f., Kostera, 2013) In other words, the manager ought to focus also on ethics and aesthetics. According to this fact, contemporary business leadership can be divided into three faces of the same organizational role: manager, artist, priest (Hatch et al., 2010).

Concerning students' responses, we have to say that they reflect and correspond with the theory mentioned above. Most of the features and skills of the rational manager were already described in the article. We could add good knowledge of the company's mission, vision and goals, and self-discipline in setting goals.

As far as the artistic face is concerned – students underlined strongly that the manager should be creative, think and act innovatively. They ought to have their own passion and be open to the environment to follow the changes. One of the students made associations with a curator in an art gallery, who cares about the harmonious development of employees also in the field of aesthetics, as well as perceives the beauty and value in employees:

If we compared the organization to an art gallery, then of course the manager would be the gallery curator – exhibition supervisor, who ensures that the contents of their collection of works have something to convey and can please the eyes of every visitor. [...] Each employee would be an individual, a separate image – a work of art having its own value and special content. If the paintings from the room were hung up, however separately, each of the works would appear to be something separate, which could constitute oneself. However, this combination of works in one space gives the whole group a unique character and shows that the group concept emerges from the images and the best features [Beata].

Another student associates the role of a manager with the work of a conductor:

The manager can be metaphorically described as a conductor in an orchestra. The entire crew awaits their instructions and carries them out in accordance with the intentions of the manager. This can lead to harmony, but also a lack of it, if the leader does not have the appropriate competence [Zbigniew].

Another student associated the manager with the magical function and the apparent possession of supernatural forces that can be used to achieve specific goals in a creative way:

A manager reminds me of a magician in a circus – the position of a manager in practice is often associated with various types of manipulation, just as a magician diverts our attention to get a certain "magical" desired effect, so the manager manages their employees in the right way [Sebastian].

To describe the spiritual face of the manager we could use some other students' opinions – they should be charismatic, have a vision of the future, and something that seems to be particularly important. They must be honest and scrupulous. Spirituality also refers to sense making of the surrounding phenomena, which students also pointed out:

The manager is an initiated priest. By virtue of their position, the manager controls employees by means of rules that they set themselves and which the staff cannot influence. Their words are indisputable, and their deeds are protected by increasingly new legal acts. They do not take responsibility, and their conduct is justified by their high position [Mateusz].

Several researchers (c.f., Kostera, 1996; Alvesson, 2002; Kucharska, 2017) claim that each organizational role is deeply submerged in organizational culture: both are mutually influencing and constructing of each other. The students seem to realize those connections. The aim of the investigation was to learn and understand the students' 'bubble of meaning' (Czarniawska-Joerges, 1992, p. 60), Weberian *Ideal Type* of the managerial role. The crucial findings of the study are a wide span of students' expectations towards the managerial role. On the one hand, a perspective of a multidimensional, elaborate managerial role is neither new nor surprising after the theoretical investigations. On the other hand, it was really surprising how much management students know and expect from the manager's role.

The research conducted at different universities, with different students, with the usage of qualitative methods, showed a common, very dynamic construction of the managerial role. We categorized them into four unique, very detailed prisms. Generally, the interviewees would like the manager to have a 'natural' ability to be the leader, to be the multidimensional leader, who uses their different faces to plan and foresee the future, who is always ready for the changes and easily adapts to them. At the same time, a manager does not forget that people are crucial for each organization. Each set of characteristics (as presented in the article) is a different set of expectations, rather impossible to be fully achieved.

Why do we find the students' opinions so precious? Firstly, some of the researched students had already attended their last term in management studies. What is worth mentioning – those were part-time studies and full-time students. It means that a greater part of students have both studied and worked. All of them had at least a few years of work experience. And it was visible in their replies. Their vision of the modern manager was based not only on university theories, but also on their personal experiences – either good or bad (or both simultaneously). They had worked with particular managers; some of them had worked as managers themselves, so they were comparing theory with practice during the research. Secondly, if we educate prospective managers, business leaders (Hatch, 2010), the matter of how they define this organizational role or whom they perceive as a good manager, should be a priority. Students' definitions could help us also in understanding labor market demands and – taking a step forward – in adjusting or shaping them.

LIMITATIONS AND FURTHER RESEARCH

The research was of inductive character, which means that the research sample was relatively narrow, and results cannot be generalized. As the

other qualitative research investigations, it was also aimed at illustrating some fragments of the social reality. It would certainly be worth repeating similar research on the same group of students after a period of a few years when they have performed on the labor market and confront their previous expectations with the organizational reality. The other possibility of developing the research could focus on the leadership characteristics that the organizations will face during and after the COVID pandemic. Considering the concept of Czarniawska (2010), where surrounding emotions and incidents create the managerial/leadership roles, it will be very interesting to see which one will dominate. Due to the global COVID crisis, we have focused on a few perspectives: it seems that the demand for charismatic individuals with an attractive vision can increase. On the other hand, when the economies and private businesses became weakened or even destroyed, maybe it will be necessary to build a new world from scratch, so the traditional entrepreneur will be needed the most. Certainly, the future will show who will be trusted after that enormous collapse of mutual human trust, and that could be an interesting area for further research.

CONCLUSION

It is worth emphasizing the application possibilities of our research in organizations because they can help better understand the perceptions and fears of management students in relation to a modern manager's challenges and roles. On the one hand, managers should be aware of young employees' fears and expectations towards managers. On the other hand, the conducted research indicates the key problems and concerns of management students, the knowledge of which can contribute to better adaptation in the workplace. Research results also indicate the important role of organizational culture in the management process and better adaptation to working conditions.

What is the most valuable is that the respondents perceive the manager as an organizational role that gives sense to organizational reality. It also means that the manager undoubtedly aims to introduce order and reduce uncertainty. Weick (2016) writes that people give meaning to the unknown and put stimuli in a frame of reference that they know, making it easier for them to understand certain phenomena. For this reason, when describing the manager's multidimensional role, respondents referred to metaphors that allowed them to emphasize the most characteristic features of the phenomena in question. As Gareth Morgan (1997) argued, metaphors allow us to better understand the surrounding social reality by referring to another fragment of it. Metaphorical thinking prefers the common features of the

phenomena studied but disregards the differences between them, which are the limitations of metaphorical thinking (Kostera, 2003; Hatch, 2010). Apart from that, the use of metaphor in scientific research serves to describe and translate the organizational world, which Hatch (2010) considers as a valuable activity serving to show many perspectives.

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Abstrakt

Artykuł ma na celu przedstawienie wielowymiarowej roli menedżera i jego wzajemnego wpływu na kulturę organizacyjną z perspektywy studentów zarządzania. Główna część tekstu została oparta na badaniach jakościowych - wywiadach, kwestionariuszu i kolażu narracyjnym, które zostały przeprowadzone na przestrzeni 10 lat wśród studentów zarządzania. W badaniach wzięło udział 97 studentów z Uniwersytetu Jagiellońskiego i Politechniki Gdańskiej. W celu zgromadzenia, analizy i interpretacji danych empirycznych oraz rzetelnego ich przedstawienia zastosowano zasady analizy tematycznej. Zgromadzony materiał empiryczny poddano analizie w poszukiwaniu istotnych wątków, definicji pojęcia „menadżer" i zrozumienia specyfiki pracy kierowniczej z perspektywy studentów zarządzania, odpowiadając jednocześnie na postawione pytania badawcze. W pracy zawarto cytaty z wypowiedzi badanych zgodnie z zasadami prowadzenia badań jakościowych. Zidentyfikowano cztery pryzmaty: płci, relacji, nieustannego uczenia się oraz profesjonalny, opisane jako obszary obowiąz-

ków, cech i oczekiwań wobec kierowników. Nadrzędną wartością artykułu jest sku-pienie się na percepcji studentów - idealistycznej konstrukcji roli kierowniczej, która stanowi punkt odniesienia dla ich rzeczywistych i przyszłych działań menadżerskich. Taka perspektywa jest istotna zarówno dla praktyki zarządzania, jak i edukacji mena-dżerskiej. Z praktycznego punktu widzenia niektórzy z badanych studentów zarządza-nia będą w przyszłości zarządzać zespołami lub organizacjami. Powinni mieć zatem świadomość rozbudowanego charakteru obowiązków kierowniczych i zwielokrotnio-nych wymagań wobec pełnionej roli, którą sami będą kształtować. Z drugiej strony, z edukacyjnego punktu widzenia jest istotne, aby dać studentom pewien wgląd w ich przyszłą rolę oraz zrozumienie skomplikowanych działań i relacji organizacyjnych, które pojawiają się w kulturze organizacyjnej i oddziałują na proces zarządzania.
Słowa kluczowe: *menedżer, rola kierownicza, kultura organizacyjna, kultura, przywództwo*

Biographical notes

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Conflicts of interest

The authors declare no conflict of interest.

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