Employee Creativity in Coworking Spaces:
Towards a Conceptual Framework

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Abstract

Creative performance of knowledge workers outside the traditional office setting has become highly relevant during the COVID-19 pandemic. The pre-pandemic trend of corporate coworking: companies using coworking spaces as an alternative workplace solution, is predicted to grow further. This study aims to fill a research gap by identifying how corporate coworking may foster employee creativity, crucial to company's innovation and competitiveness. A systematic review of the coworking literature is conducted to critically evaluate employee creativity in coworking spaces. Structural, relational, and cognitive social capital along with an individual and contextual view of creativity are utilised as the theoretical foundation for analysis and synthesis. A conceptual framework is proposed for empirical examination of creative performance in a corporate coworking context. The findings suggest thirteen factors influencing creativity in corporate coworking settings. The most prominent factors identified are social interaction and knowledge sharing. Moreover, we argue that corporate coworking corresponds with key dimensions of the Workplace Innovation concept. The literature review indicates a common assumption that creativity and innovation are consistently outcomes of coworking. Nonetheless, our study highlights that fostering employee creativity in shared office environments involves a complex social process, worth closer scholarly attention. Theoretical and practical implications are discussed, and future research avenues are proposed.

Keywords: Alternative workplace solutions; Corporate coworking; Coworking spaces; Employee creativity; Knowledge sharing; Social capital theory; Workplace Innovation

Introduction

The COVID-19 pandemic has brought about ground-breaking changes in the world of work. A paradigm shift, in how, when and where knowledge work is being performed, seems to be taking place (Baert et al., 2020). Alternative workplace solutions have evolved since long before the pandemic, including the practice of employees working outside employers´ spatial premises, enabled by information and communication technologies (Kojo & Nenonen, 2014; Morgan, 2004). Key drivers are globalisation, emergence of the sharing economy, and a growing need of flexibility and autonomy (Bouncken & Reuschl, 2016; Ross & Ressia, 2015; Spurk & Straub, 2020). Responding to these streams, the shared office concept of coworking spaces (CWS) has increased its popularity among entrepreneurs, freelancers, and corporates (Tremblay & Scaillerez, 2020).

Simultaneously, the Workplace Innovation movement has emerged in Europe as a policy and instrumental approach (Oeij & Dhondt, 2017; Pot et al., 2016; Totterdill, 2018). The concept of Workplace Innovation (WPI) emphasises work environment factors which can enhance creativity and quality of working life, and subsequently improve organisational performance and innovation (Kibowski et al., 2019). WPI aims to reconcile the rational organisation of work driven by new technologies with the creative and serendipitous social interactions that can stimulate innovation (Totterdill, 2018). The promotion of a working culture characterised by openness and sharing of ideas (Totterdill & Exton, 2014) corresponds with the core values of the coworking movement (Capdevila, 2013).

Research on CWS is still at an early and conceptual stage (Bouncken et al., 2017) and several issues have been largely ignored (Leclercq-Vandelannoitte & Isaac, 2016). One concern is that a major part of the literature uncritically presumes that coworking improves creativity and innovation (Botsman & Rogers, 2011). Nonetheless, creative and innovative outcomes of coworking practices are insufficiently explored (Schmidt & Brinks, 2017). Moreover, the idea of CWS as communities exclusively for independents "working alone, together" (Spinuzzi, 2012) still dominates the scholarly discussion. Josef and Back (2018) argue that new user groups should lead to a more profound debate. Mature companies have recently taken interest in coworking (Fuzi et al., 2018; Orel & Almeida, 2019). In this study, corporate coworking is understood as employees working remotely from a CWS, and whose activity is done on behalf of a company based outside the CWS (Leclercq-Vandelannoitte & Isaac, 2016; Parrino, 2015). To explore the novel phenomenon of corporate coworking, the current study takes on a contextual perspective by evaluating coworking as an alternative workplace solution for stimulating creativity in organisations.

The relation between corporate coworking and employee creativity (EC) is barely studied. However, research on individual creativity in alternative work practices is important due to the digital transformation and new workplace demands in the COVID-19 era. Creativity scholars acknowledge the importance of both individual, contextual, and social factors for creativity (Amabile et al., 1996; Dul & Ceylan, 2011; Woodman et al., 1993). Moreover, WPI encourages an organisation of work that enhances the development of "soft skills" including

flexibility, collaboration, creative thinking and problem solving to meet the challenges of the 21st century (Pot et al., 2020). Corporate coworking may potentially be a way to meet these challenges.

Considering the research gap on EC in a corporate coworking context, the research question of the present study is how coworking spaces can foster employee creativity. To build a knowledge base for exploring the research question, a systematic literature review (SLR) focusing on EC in CWS is conducted. Very few thorough SLRs of the CWS literature have been conducted to date. Ivaldi (2017) includes a comprehensive review in her PhD thesis, while the coworking literature review by Gandini (2015) is related to the knowledge labour market. To our knowledge, Josef and Back (2018) present the only review specifically focusing on coworking from companies´ perspective. Furthermore, literature on EC in CWS is still in its infancy and yet not systematically reviewed (Rese et al., 2020).

The rest of this paper is structured as followed: In Section 2, the research context is more thoroughly explained. Section 3 is dedicated to the theoretical background. The method and procedures are presented in Section 4. Section 5 presents the study findings, the proposed conceptual framework, and the research model. Finally, conclusions, implications, limitations, and future research directions are addressed in Section 6.

The research context

Coworking spaces (CWS)

The coworking movement arose in San Francisco in 2005, promoting shared office space for independent knowledge workers, mainly to avoid social isolation (Brown, 2017; Lumley, 2014). Coworking is initially based on the core values of openness, accessibility, sustainability, community, and collaboration (Kwiatkowski & Buczynski, 2011). CWS can be understood as a "third place" in between traditional office and home office (Oldenburg, 1989). Bouncken and Reuschl (2016, p. 322) describe CWS as office and social spaces that ease the direct personal interaction among users for social, learning, cultural and business-related interests. CWS are often distinguished by a sense of community (Garrett, 2017) where members are open to share knowledge and ideas (Rus & Orel, 2015). Typically, the sharing culture is facilitated by a community manager who connects people and promotes a vibrant and creative work environment (Cabral & Winden, 2016). CWS have seen a remarkable growth (Merkel, 2015). In 2019 there were 2,2 million coworkers spread in more than 22,400 CWS around the globe (Foertsch, 2019). Despite social distancing rules during the pandemic, CWS are expected to grow further (Appel-Meulenbroek et al., 2020).

Corporate coworking

Companies are constantly looking for new ways to learn from startups and potential clients (Fuzi et al., 2018) and to support creativity to drive innovation (Dul & Ceylan, 2011). Partnering up with CWS is one way to inject creativity and innovation into old work routines, habits and processes (Bouncken & Aslam, 2019). Consequently, an increasing number of corporations have started to integrate coworking into their business strategy (Fuzi et al., 2018). Big companies such as Google, Facebook and Bosch have established internal spaces (Bouncken et al., 2017). Other firms locate employees in external CWS with the expectation of innovation outcomes (Raffaele & Connell, 2016).

Despite the temporary social distancing measures in response to the COVID-19 pandemic, the corporate coworking trend is suggested to continue (Heinzel et al., 2021). Due to the profound changes in the world of work, many companies will require flexible and cost effective office solutions (Gusain, 2020). Moreover, organisations need to focus more on employee flexibility and wellbeing, alongside with breaking down silos and building competence through creative collaboration (Totterdill, 2015). In the post-pandemic era corporate coworking can be perceived as a remote work model solving the isolation issues associated with working from home (Görmar et al., 2020). In that way employees working remotely from a CWS may increase job satisfaction and subsequently stimulate creativity and innovation (Appel-Meulenbroek et al., 2020; Marchegiani & Arcese, 2018).

Theoretical background

Social capital theory (SCT)

In an organisational context, social capital (SC) can be understood as the resources employees obtain through their social networks (Coleman, 1988; Lin, 2002). Social capital theory (SCT) suggests that social relationships among colleagues and those with external actors embody vital resources such as knowledge and ideas (Chen & Kaufmann, 2008). According to Nahapiet and Ghoshal (1998) the fundamental proposition of SCT is that social network ties provide access to these resources. Weak ties between persons can be useful for information retrieval (Granovetter, 1983), while strong ties are more accessible and may involve willingness to help colleagues and peers (Krackhardt et al., 2003). Although network relations may have both positive and negative effects on creativity (Soda & Bizzi, 2012), it is commonly assumed that ideas flow between individuals through weak ties rather than strong ties in social networks (Granovetter, 1973; Perry-Smith & Shalley, 2003).

The main justifications behind utilising SCT as a theoretical lens in the present paper are as follows: (a) Two major creativity models suggest that creativity is partly a social process (Amabile, 1988; Woodman et al., 1993). Hence, SCT has become a frequently used framework to better understand EC, and seminal literature proposes SC as a critical facilitator of creativity

in workplaces (Chen et al., 2008; Jain & Jain, 2017; Liu, 2013; Soda et al., 2019); (b) Several CWS scholars have drawn on SCT in their research (Bilandzic & Foth, 2013; Bouncken & Reuschl, 2016; Cabral & Winden, 2016). CWS can be examined as social networks with a sense of community (Parrino, 2015). Rese et al. (2020) incorporate "community commitment" referring to members´ attitudes regarding the CWS community, comprising SCT concepts including affective commitment, togetherness, and belonging (Chiu et al., 2006).

In the present study, SC is conceptualised following the framework by Nahapiet and Ghoshal (1998). The scholars identified three distinct dimensions of SC, namely structural (e.g., social interaction), relational (e.g., trust), and cognitive (e.g., shared values). These dimensions promote interactions and community building in CWS (Cabral & Winden, 2016) and encourage members to act collectively and share knowledge and ideas (Lee, 2018).

Employee creativity (EC)

In line with the research question, employee creativity (EC) is the main output which this study aims to investigate. Following Gong et al. (2009), EC relates to overall job performance, with obvious implications for the innovative performance of an organisation. When employees perform creatively, they "suggest useful products, ideas, or procedures that provide an organisation important raw material for subsequent development and possible implementation" (Oldham & Cummings, 1996, p. 607). In the present paper, "employee" refers to a person fulltime employed in a large or medium sized corporation. It does not include contractors or hired consultants.

Influential creativity theories (Amabile, 1996; Woodman et al., 1993), as well as several empirical studies (e.g. Dul & Ceylan, 2011; Perry-Smith, 2006), support that EC is affected by both individual and contextual factors. Individual factors include personality dimensions (e.g. Kaufman et al., 2013), cognitive characteristics (e.g. Woodman et al., 1993), knowledge (e.g. Ford, 1996), autonomy (West & Farr, 1990) and intrinsic motivation (e.g. Amabile et al., 1996). Contextual factors refer to work environment dimensions that potentially influence creativity (Shalley et al., 2004). Amabile et al. (1996, p. 249) advocate that "physical environments that are engineered to be cognitively and perceptually stimulating can enhance creativity". Shalley and Gilson (2004) suggest that future research should address the effect of design and the physical layout of the workspace on EC. Some scholars also integrate technological infrastructure and digital platforms (Cai et al., 2020; Lee, 2018) as contextual factors influencing creativity. Golden and Raghuram (2010) found that extensive use of digital tools will provide more information crucial for EC.

Several CWS scholars have adopted a combined individual and contextual view of creativity. The autonomy of coworkers is suggested to increase motivation and EC, while the CWS context provides infrastructure, spatiality and atmosphere which is assumed to stimulate KS (Appel-Meulenbroek et al., 2020; Bouncken et al., 2017; Merkel, 2015). Following this

research stream, both individual and contextual factors are included in the present study.

Method

To build a solid knowledge base for exploring the research question and developing a conceptual framework, a SLR focusing on EC in CWS is conducted. Denyer and Tranfield (2009) suggest that a SLR is a process of using a comprehensive pre-planned strategy to locate existing literature, evaluate the contribution, analyse, and synthesise the findings and report the evidence to allow conclusions to be reached about what is known and what is not known. Following this, the purpose of the SLR in this paper is to identify, select, examine, and analyse relevant research on EC in CWS.

Searching

Digital databases were used for the search process, which was conducted during December 2020. Scopus was selected as the first database, as it is claimed to contain the largest citation and abstract source of multidisciplinary literature which is continually expanded and updated (Aghaei Chadegani et al., 2013). Later in the process, Web of Science, Ebsco and Google Scholar were used to identify new unduplicated articles.

First, corporate coworking studies were identified. Various search terms were used for the distinct shared office concept ("coworking", "co-working", "coworking space", "co-working space", "collaborative space", "shared space", "shared workspace", "flexible workspace" and "shared office"). "Coworker" and "co-worker" were not included because they are commonly used as a synonym for a colleague. Additionally, corporate coworking was searched for using different terms ("corporate", "employee", "enterprise", "company", "firm"). Second, the creativity dimension was searched for within the identified corporate coworking studies. Terms used were "creativity", "creative", "innovation" and "innovative". The rationale behind the inclusion of "innovation" is that creativity and innovation are quite often used interchangeably (Sarri Katerina et al., 2010).

The time frame was 2005 – 2020 since contemporary coworking originated in 2005 (Gandini, 2015). Later in the search process, studies from 2016 onwards became the main focus, since internal and external corporate coworking was developed extensively in this period (Bouncken et al., 2017). Language was limited to English, but the geographical area was not bounded, as CWS is a global phenomenon (Orel & Almeida, 2019). No scientific discipline was specified because of the multidisciplinary nature of coworking research (Waters-Lynch et al., 2016). The search concentrated on peer reviewed articles published in scientific journals. However, book chapters, conference proceedings and thesis were included to shed further light on the novel phenomenon.

Number of hits related to EC in CWS was 121. The screening process of examining titles, keywords and abstracts was conducted utilising the following inclusion and exclusion criteria: (a) 1. CWS with community aspect, with ordinary shared offices; (b) Open independent CWS with a diversity of users, not with "closed" spaces exclusively for company employees; (c) Creativity as generation and sharing of ideas, not innovation as implementation of ideas; (d) EC on the individual level, not the organisational level. Studies focusing entirely on creative industries, creative cities and the creative class are excluded, as they do not represent the individual creative performance across sectors and disciplines, which are particularly being searched for.

The screening resulted in 46 qualified studies. A critical and comprehensive examination was performed following three criteria: (a) Relevance to the research question; (b) Empirical research due to the aim of a SLR to identify empirical evidence responding to the research question (Snyder, 2019); (c) peer reviewed work to ensure the scientific quality and integrity. Both qualitative and quantitative studies are included to expand and strengthen the foundation for investigating the phenomenon of EC in CWS. The process of searching, screening, and selecting studies are visualised in Figure 1.
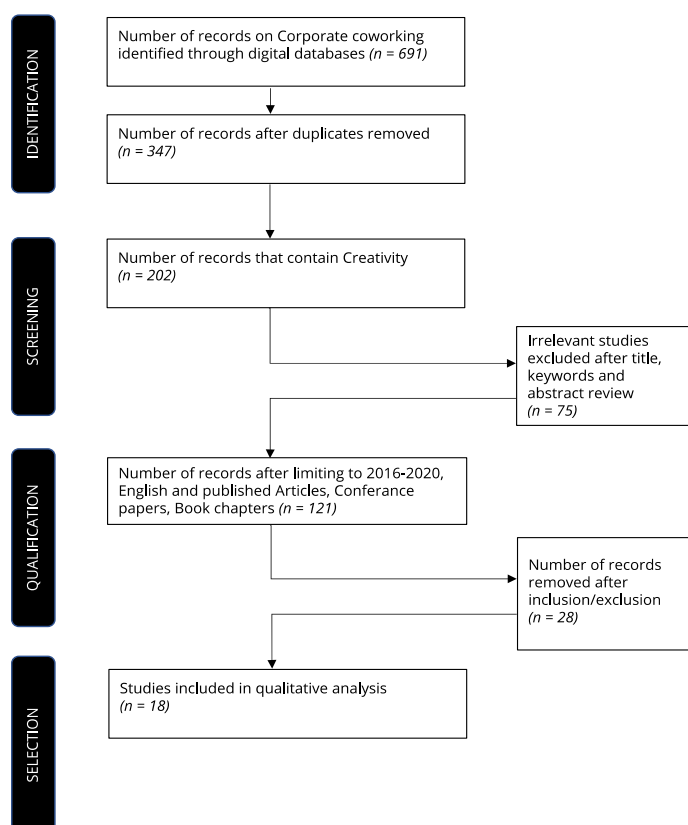

Figure 1. The study selection process of the systematic literature review

Selecting and analysing

A critical assessment concluded that exclusively 18 studies met all the above criteria and delimitations. These scientific works are considered to provide valuable insights for responding to the research question. Accordingly, the 18 studies were selected for the qualitative synthesis and analysis. Table 1 provides a detailed overview (see Appendix for Table 1. Overview of the selected studies).

EC in CWS is a novel and ambiguous phenomenon which require an explorative approach. In the present study, a qualitative approach is used to assess the articles and analyse the findings related to the research question (Grant & Booth, 2009). Content analysis is used to interpret and present insights from the respective literature. The method is commonly used to understand the context underlying a large body of textual data (Hsieh & Shannon, 2005). According to Palvia et al. (2007) content analysis involves identification, grouping, coding, and classification into different categories. The categories are derived from SCT and the individual and contextual view of creativity. The 18 selected studies are examined to extract relevant insights in line with the theoretical perspective, conceptual framework, and proposed variables (see Appendix for Table 2. Corporate coworking review).

Findings

Coworking from a company view

To investigate how CWS can foster EC the concept of corporate coworking needs to be more clarified. Table 2 provides an overview of company views of corporate coworking in the selected studies.

The analysis reveals a lack of definition regarding corporate coworking. However, various sources provide different classifications of CWS in general (e.g. Kojo & Nenonen, 2016; Salovaara, 2015; Waters-Lynch et al., 2016). Three of the selected studies provide typologies which include corporate coworking (Bouncken et al., 2017; Jakonen et al., 2017; Schmidt & Brinks, 2017). A common distinction is between internal spaces operated by the company and external independent CWS. Bouncken et al. (2017) identify four prototypes of corporate CWS: (a) Internal corporate CWS for employees only; (b) Open internal corporate CWS for both employees and outside actors; (c) External CWS operated by an external consultancy; (d) External independent CWS open for public memberships.

The latter prototype represents the main context of the present study of employees working outside their employers´ spatial premises in an independent and diverse coworking community. The analysis unveils that coworking from a company view, especially external arrangements, is insufficiently explored. Despite the suggestions in the selected studies (see Table 3), there are no mapping of motivations nor evidence of benefits or outputs.

Corporate coworking and creativity

The analysis exposes that CWS are commonly characterised by a dynamic and creative atmosphere (Orel & Almeida, 2019) where ideas are being created and shared through the social interaction between members of the coworking community (Jakonen et al., 2017). Rese et al. (2020) suggest that the unique sharing culture and KS behaviour in CWS improve EC. However, the scale of novel ideas and whether they are being successfully implemented has not yet been exhaustively studied (Schmidt & Brinks, 2017). Table 3 illustrates how the creativity dimension from a corporate coworking standpoint are being evaluated. (See Appendix for Table 3. Employee creativity view)

Several of the selected studies emphasise the function of CWS as communities designed to stimulate creativity and sharing of ideas (e.g. Bouncken et al., 2020; Tremblay & Scaillerez, 2020). Scholars suggest that corporate coworking potentially stimulate EC, but not necessarily (Tremblay & Scaillerez, 2020). Interestingly, Josef (2017, p. 269) notes in her study of IT company employees in Switzerland that "participants rated the corporate office followed by the home office as the location where they were most creative, coworking only ranked as third". Although the interviewees reported elements of creative impulses when coworking, it indicates that corporate coworking fostering EC is not a matter of course.

The relevant findings from the selected studies are synthesised using six categories with associated subcategories (factors). These factors are suggested to influence EC in CWS. All categories are derived from the theoretical foundation of the present paper. The first two categories with related factors relates to the individual and contextual view of EC (Amabile, 1996; Woodman et al., 1993). Individual factors are employees´ flexibility, autonomy, and motivation. Contextual factors are design, layout and atmosphere, and digital platforms in CWS. The next three categories follow the dimensions of SC (Nahapiet & Ghoshal, 1998). Structural factors are task-oriented diversity and network ties. Relational factors are trust among members and social support, while cognitive factors are shared values and identification focused on the community aspect of CWS. The final category represents the KS factor. Table 4 presents an overview of categories, factors, article hits and content examples.

Categories (dimensions)	Subcategories (factors)	Article hits	Content examples
INDIVIDUAL	Flexibility	11	Coworking offers attractive opportunities from a boundary management perspective, where the benefit of individual flexibility is more important than mingling with others (Josef, 2017)
	Autonomy	6	Big companies develop corporate CWS to allow their members greater autonomy to improve creativity and innovation (Bouncken et al., 2017)
	Motivation	7	Participants may have a mix of individual and collective motivations to join innovative activities (Capdevila, 2019)
CONTEXTUAL	Design	11	Interior design and architecture incorporate emotional and social values that may benefit companies and make employees more motivated and inspired (Bouncken et al. 2020)
	Digital platforms	8	Some CWS apply digital networking tools which aim at stimulating creativity and innovativeness through exploration of knowledge connections (Kopplin, 2020)
STRUCTURAL	Diversity	9	By using CWS, corporates have access to ideas external to their firm, which can be a source of innovation because of the diversity of knowledge they can provide (Tremblay & Scaillerez, 2020)
	Network ties	8	CWS aim to build quality social network ties which may increase opportunities for collaboration among members (Cheah & Ho, 2019)
	Social interaction	18	Face-to-face interaction strengthen community identity and facilitate peer-to-peer learning (Capdevila, 2019)
RELATIONAL	Trust	10	Trust is a central value for the concept of community and crucial for KS (Rese et al., 2020)
	Social support	11	Coworking activities result in outputs of interaction and mutual support, i.e., feedback and moral support (Clifton et al., 2019)

COGNITIVE	Shared values	11	Values of openness, collaboration, and community enable users to find the solution of their problem through interaction with diverse professionals who have relevant domain specific knowledge (Bouncken et al., 2017)
	Identification	8	CWS can provide essential platforms for networking, knowledge exchange, and identification (Blagoev et al., 2019)
MEDIATOR	Knowledge sharing	18	An ideology of KS, creativity and innovation are embedded into CWS (Jakonen et al., 2017)
OUTCOME	Employee creativity	18	The attitude towards knowledge sharing and actual sharing behaviour in CWS improve coworkers´ creativity (Rese et al., 2020)

Table 4: Categories and factors

In the selected studies, the most prominent factors influencing EC in CWS are social interaction and knowledge sharing. Below, each of the factors are evaluated based on content analysis and theoretical views.

Individual factors

Flexibility
Two thirds of the selected studies emphasise flexibility as a primary characteristic of corporate coworking. Tremblay and Scaillerez (2020) suggest that employees have new aspirations related to more freedom of choosing the physical place to work and their own flexible working schedule. Flexibility is inherent to CWS, as tenants can rent an office or a desk for a shorter period of time (Cheah & Ho, 2019). Capdevila (2019) highlights that the flexibility in the CWS workstyle may benefit EC. This is supported by seminal creativity research demonstrating that flexibility is one of the factors critical to individual creative performance (Guilford, 1950; Jain & Jain, 2017).

Autonomy
Creativity scholars have concluded that EC is fostered when individuals and teams have relatively high autonomy and a sense of ownership and control over their own activities and ideas (Amabile et al., 1996). In terms of corporate coworking, companies allow employees greater autonomy to improve creativity and innovation (Bouncken et al., 2017). Kopplin (2020) suggests that different degrees of autonomy moderate creative behaviour in CWS.

Motivation

Motivation is an essential factor in most prominent creativity theories (Amabile, 1988; Ford, 1996; Woodman et al., 1993). Individuals are expected to be most creative when they have a high level of intrinsic motivation (Oldham & Cummings, 1996). Bouncken et al. (2020) found that employees profit foremost on intangible levels, including greater job satisfaction and increased intrinsic motivation. In CWS, other members are sources of extrinsic motivation for corporates. However, pure extrinsic motivation might inhibit creativity (Capdevila, 2019).

Contextual factors

Design

Previous studies have suggested that the design of a work place, including architecture and layout, can motivate and inspire people to be creative (Kopplin, 2020). The physical design of a CWS is found to play a role in not only encouraging creative thinking, but also generating ideas of higher quality (Cheah & Ho, 2019). The purposeful design of the social and work zones in CWS can improve communication (Bouncken et al., 2020), and more stylish settings may promote inspiration and creativity (Marchegiani & Arcese, 2018). Shalley and Gilson (2004) suggest that future research should address the effect of the physical layout of the workspace on creative performance.

Digital platforms

According to Marchegiani and Arcese (2018), CWS are a demonstration of how the symbiosis between technology and community is facilitated by the evolution of digital technologies. Bouncken et al. (2020) suggest that digital platforms are used to support space functions, e.g., booking of meeting rooms, and to support communication among CWS users, e.g., social networking forums. Hofeditz et al. (2020) demonstrate how digital tools can be applied to increase motivation, interaction, and creativity in CWS.

Structural factors

Diversity

It is generally assumed that diversity is positively related to EC (Jain & Jain, 2017; Kurtzberg, 2005). Previous research has distinguished between task-oriented and relations-oriented aspects of diversity (Jackson et al., 1995). The latter include gender, age, and ethnicity. However, the task-oriented diversity in the present CWS study include education, skills, and expertise (Kurtzberg, 2005). The SLR shows a scholarly consensus that corporates working with people from different professional backgrounds will be exposed to new ideas (Bouncken & Aslam, 2019; Weijs-Perrée et al., 2018). However, Weijs-Perrée et al. (2018) suggest that diversity may also negatively impact both KS and EC. A "culture clash" between entrepreneurs and corporates may cause undesirable effects and too much diversity may obstruct KS.

Network ties

Castilho and Quandt (2017) suggest that CWS are shaped by people with both strong and weak social ties. Social relations and network ties are the fundamental proposition of SCT

(Nahapiet & Ghoshal, 1998), a commonly accepted concept in creativity research (Perry-Smith & Shalley, 2003), and a highly relevant factor when examining EC in CWS (Bouncken et al., 2018; Cabral & Winden, 2016). CWS comprising stronger and weaker ties between diverse members are characterised by informal interpersonal communication and KS (Orel & Almeida, 2019). The quality and strength of social ties are important for corporates to identify innovative opportunities in CWS (Cheah & Ho, 2019). In extended CWS networks, more distant acquaintances are sources of knowledge, and ideas that may not be available within a strong ties network of company colleagues (Granovetter, 1973).

Social interaction

Social interaction is a precondition for building network ties between CWS members, and to stimulate creative work (Jakonen et al., 2017). Interpersonal interaction is one of the most prominent characteristics of coworking (Weijs-Perrée et al., 2018), and a widespread motivation behind corporate coworking (Orel & Almeida, 2019). Social interactions in CWS may come in various forms (Gerdenitsch et al., 2016). Members may engage in casual conversations, but also participate in events, seek and obtain feedback, and share ideas (Spinuzzi, 2012). WPI literature suggest that people who otherwise would not meet, are mixed together, and can generate a pool of dialogue and creativity (Totterdill & Exton, 2014). However, interaction in CWS bears the risk of opportunistic behaviours (Bouncken et al., 2018). Moreover, conflicts may arise when interaction entails interruptions and distractions (Tremblay & Scaillerez, 2020). Nevertheless, Cheah and Ho (2019) underline that social interaction in CWS provides a variety of innovative inputs, and Chen et al. (2009) suggest that social interaction has a significant positive impact on creativity.

Relational factors

Trust

Nahapiet and Ghoshal (1998) suggest that a high level of social interaction strengthens the willingness to share resources and information in networks, consequently mutual trust is being built. CWS can be studied as a foundation for relationship building between independent workers and employees (Orel & Almeida, 2019). The coworking community facilitates the formation of informal networks by a trust based social environment which supports learning and KS (Cheah & Ho, 2019; Fuzi, 2015). When there is overlapping knowledge, a positive social atmosphere and sense of trust enhance the capabilities of coworkers to adopt other members´ ideas and views (Cheah & Ho, 2019). Hence, quality relationships in terms of mutual trust serve to promote EC (Gong et al., 2009; Liu, 2013)

Social support

Social support can be understood as social interactions that are beneficial to one or both parties (Shinn et al., 1984). Mutual support is also one of the primary reasons for joining a CWS (Fuzi et al., 2014; Rese et al., 2020). Being part of the same community promotes supportive behaviour, and makes it easier to ask coworkers to listen to job-related as well as personal problems (Bouncken et al., 2020). Scholars propose that a supportive and non-

hierarchical environment fosters KS (Bouncken & Reuschl, 2016) and EC (Perry-Smith & Shalley, 2003). However, Gerdenitsch et al. (2016) emphasise that it is still unclear whether social interaction in a CWS takes the form of social support, as it often does between colleagues in traditional work places.

Cognitive factors

Shared values

In SCT shared values are seen as antecedents of trusting relationships (Tsai & Ghoshal, 1998). Chen et al. (2008) suggest that shared value systems can facilitate EC. CWS provide not only a community of likeminded others, but also organisational elements such as shared values, rituals and routines (Blagoev et al., 2019) The coworking values have been a guiding star for the global coworking movement (Rus & Orel, 2015). Rese et al. (2020) argue that the distinct shared values in CWS increase KS possibilities by diminishing miscommunications.

Identification

Employees with a high level of identification are more loyal towards organisations, and show willingness to maintain committed relationships and supportive behaviours (Lee, 2018). Nahapiet and Ghoshal (1998) indicated that social identification is a SC resource that can enhance members´ motivation to share knowledge. In their study of millennial employees, Hui Li et al. (2020) suggest that identification significantly influences EC positively. The community dimension of CWS provides a sense of social belongingness to their diverse members (Jakonen et al., 2017). Social interactions, mutual trust, shared values and supportive behaviour are essential for the users to identify with the coworking community (Orel & Almeida, 2019). This illustrates how factors from the three dimensions of SC relate, and how they impact the facilitation of KS and EC in CWS.

Mediating factor

Knowledge sharing (KS)

KS refers to activities involved in transferring knowledge among individuals (Lee, 2001). Scholars argue that employees are more likely to generate novel ideas if they can access diverse information, by interacting with people who have a variety of knowledge (Perry-Smith & Mannucci, 2017; Sosa, 2011). Seminal literature on KS has found that both internal and external KS lead to increased creativity and innovation (Carmeli et al., 2013; Damanpour, 1991).

Findings in the present study suggest that social network ties in CWS allow KS (Bouncken et al., 2017) and contribute significantly to creative ideas (Rese et al., 2020). Corporates and entrepreneurs building network ties in CWS can spark the exchange of tacit (intuitive) knowledge and promote cross-domain learning (Bouncken & Aslam, 2019). KS is expected to be influenced by the interaction and collaboration culture in the individual CWS (Orel & Almeida, 2019). The other way around, KS may increase social interaction (Cabrera & Cabrera, 2005). Although these concepts are interconnected in a CWS, the SLR indicates that the

correlation is complex and unclear (Josef, 2017). Nonetheless, prior coworking literature suggest that social interaction and KS predict EC in CWS (Bouncken et al., 2017; Capdevila, 2014a).

An integrated framework

In this proposed framework, the dimensions of creativity (individual and contextual) and SC (structural, relational, and cognitive) are integrated as independent variables. Interrelations between the different constructs are ignored in this paper for the sake of simplification of the proposed research model. KS serve as mediator variable, while EC is the dependent (output) variable. Following prior literature, the proposed independent variables may influence KS, as well as EC. Seminal research demonstrates the distinct impact of the three SC dimensions on KS (Nahapiet & Ghoshal, 1998; Tsai & Ghoshal, 1998; Wasko & Faraj, 2005). Scholars have also suggested that KS is affected by individual factors (Cabrera et al., 2006) and contextual factors, such as physical work environment (Weijs-Perrée et al., 2018). Hence, the rationale behind our proposed framework is that the individual variables are related to both KS and EC, although KS directly relates to EC. Based on this outline, the following conceptual model (Figure 2) is proposed for investigating EC in CWS:
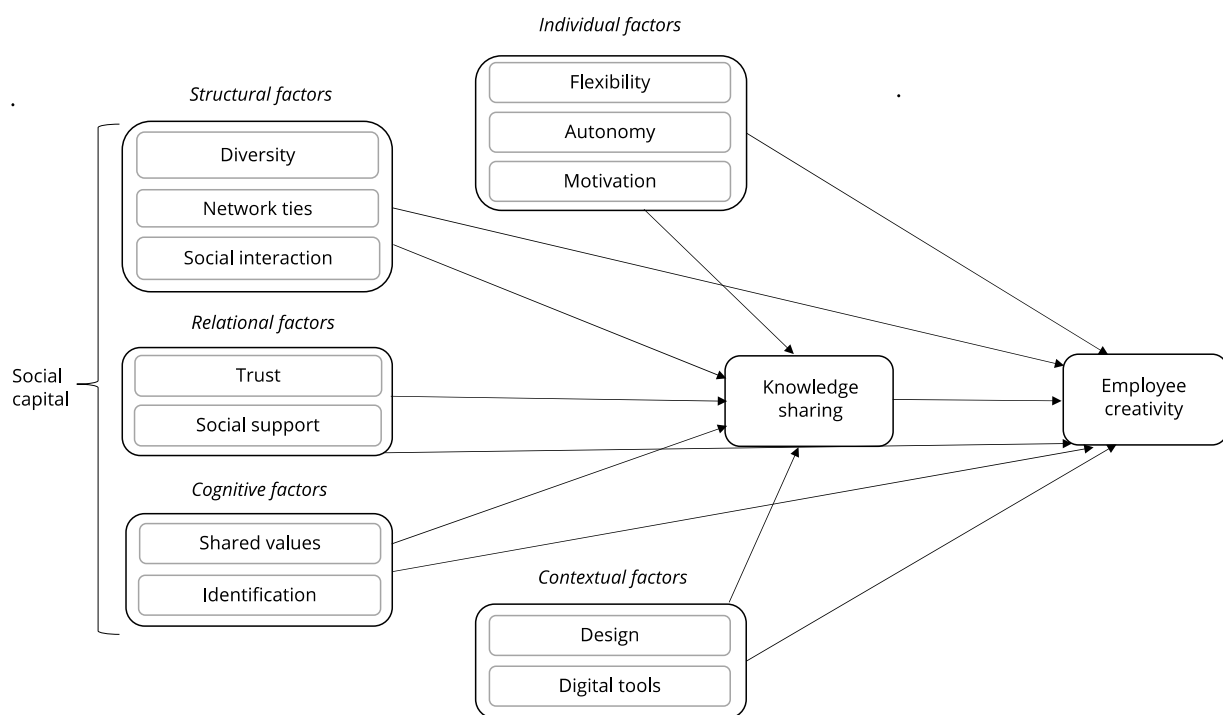

Figure 2. A conceptual model of employee creativity in coworking spaces

It must be underlined that the proposed model is considered a preliminary outline to systemise the SLR findings, integrate theoretical constructs, and illustrate a potential research path. However, the novelty and complexity of the phenomena indicate an initial exploratory research approach to derive meaning from employees´ own experiences, feelings, and

opinions, and to gain a deeper understanding of how EC takes place in shared work environments.

Conclusion

In this paper we have systematically reviewed the coworking literature focusing on EC in CWS. Constructs from SCT and creativity theory have been utilised to develop a conceptual framework. The study findings suggest that the two most crucial factors influencing EC in CWS are social interaction and KS. Moreover, we argue that corporate coworking corresponds with the Workplace Innovation concept in the sense of breaking down silos and facilitating creative collaboration. The SLR indicates a common assumption that creativity and innovation are consistently outcomes of coworking. Nonetheless, our study highlights that fostering EC in shared office environments is an ambiguous phenomenon, which involves a complex social process. A conceptual framework is proposed to further develop research questions and hypothesis and to guide future empirical studies. Based on the SLR and theoretical viewpoint thirteen factors are identified to influence EC in CWS.

Theoretical contributions

The SLR of EC in CWS enables scholars to better understand corporate coworking and to critically evaluate creativity outcomes of such work arrangements. Secondly, the paper contributes to the emerging research streams of coworking and remote work in shared office environments. Specifically, it adds to the currently limited research on corporate coworking by reviewing the literature and clarifying the phenomenon. Finally, the focus on EC in CWS adds to the creativity literature by suggesting an individual and contextual view of creativity utilised in a novel research context.

Implications for practice

The study has implications for companies revisiting work policies and crafting short-term and long-term work practices due to the COVID-19 disruptions. Managers may benefit from the study considering EC and corporate coworking models when designing and implementing flexible work arrangements. Secondly, the findings offer insights to CWS operators into the corporate market and may inspire promotion of creative collaboration across boundaries. Thirdly, by suggesting thirteen factors for enhancing EC in CWS, the study may provide knowledge to corporations, CWS, real estate developers and policymakers relevant to strategic decision-making processes. Additionally, the study may contribute insights relevant to the WPI approach to organisational redesign.

Limitations and future work

The inclusion process of the SLR is limited to English language and a short period of time. Relevant studies may also have been ignored because of the exclusion of internal corporate coworking. In addition, an important limitation is that the study does not consider the profound changes in work practices and attitudes due to the COVID-19 pandemic. Only one

of the selected studies mentions that the results may be less relevant, or even invalid, because of permanent changes caused by the pandemic (Appel-Meulenbroek et al., 2020).

The insufficient scholarly attention drawn to EC in CWS requires future research. The growing phenomenon of corporate coworking needs to be further clarified, defined, and categorised. A deeper understanding is necessary, including creativity outcomes. Future research can take different theoretical approaches, e.g., open innovation, corporate entrepreneurship, knowledge management and organisational behaviour. One pathway is to examine how corporates working from various CWS perform creatively in communities with different practices and user profiles. A potential research question is to what extent corporate coworking impacts real idea production and problem solving, beyond inspiration from a creative environment. Scholars should also examine the innovation processes, evaluate employers´ support and investigate the implementation of new ideas at the organisational level. In conclusion, this study illuminates the need to better understand companies´ challenges and opportunities in facilitating creativity and innovation in the new world of work.

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Appendix

Table 1. Overview of the selected studies

Year	Author(s)	Journal	Methodology	Theory	Relevance
2017	Bouncken, Laudien, Fredrich & Görmar	*Review of Managerial Science*	Qualitative	Institutional theory	Typology: 4 CWS prototypes Benefits for employees
2017	Jakonen, Kivinen, Salovaara & Hirkman	*Scandinavian Journal of Management*	Qualitative	Affect theory	Typology: 3 CWS prototypes Benefits of corporate coworking
2017	Josef	*BLED Proceedings at AIS Electronic Library*	Qualitative	Sociomaterial theory Boundary Management	Benefits and obstacles
2017	Schmidt & Brinks	*Creativity and Innovation Management*	Qualitative	Situated Learning	4 CWS prototypes ("open creative labs") Relation between communities and spaces
2018	Marchegiani and Arcese	*Learning and Innovation in Hybrid Organization (Book)*	Qualitative	Open innovation	CWS as organisational hybrids Impact on learning and innovation
2018	Weijs-Perrée, van de Koevering, Appel-Meulenbroek & Arentze	*Building Research & Information*	Quantitative	Preference theory	Preferences of CWS users Motivations to work at a CWS
2019	Blagoev, Costas & Kärreman	*Organization*	Qualitative	Organisation theory	Conceptualisation of the social order in CWS by theorizing the organisational dimension Organising outside traditional organisations
2019	Bounchen & Aslam	*Journal of Knowledge Management*	Qualitative	Practice theory	Role of spatial co-location in KS and idea generation

Year	Author	Journal	Method	Theory	Themes
				Knowledge management theory	Synthesising the KS processes
2019	Capdevila	*Journal of Business Strategy*	Qualitative	Open innovation	External sources of creativity Motivations to participate in collective creativity
2019	Clifton, Fuzi & Loudon	*Futures*	Quantitative	Knowledge management theory	Conceptualising community, collaboration and KS Facilitate outcomes of innovation and increased productivity Individual motivations
2019	Orel & Almeida	*Journal of Corporate Real Estate*	Qualitative	Social network theory	Coworking ambience Architecture and design
2019	Cheah & Ho	*Sustainability*	Quantitative	Spatial theory	Relationship between space creativity and company innovation
2020	Appel-Meulenbroek, Weijs-Perrée, Orel, Gauger & Pfnür	*Review of Managerial Science*	Quantitative	Institutional theory Spatial theory	User preferences CWS attributes Motivations
2020	Bouncken, Aslam & Qiu	*Business Horizons*	Qualitative	Sociomaterial theory	Matchmaking tools
2020	Kopplin	*Review of Managerial Science*	Quantitative	Game theory Technology acceptance model	Digital tools for networking and collaboration Integrating the role of personal innovativeness

2020	Paje, Boco, Gloria & Go	*Journal of Physics: Conference Series*	Quantitative	Motivation-hygiene theory Yerkes-Dodson theory	Employee engagement Collaborative capability
2020	Rese, Kopplin & Nielebock	*Journal of Knowledge Management*	Quantitative	Knowledge management theory Social capital theory	Factors influencing KS and creative performance in CWS
2020	Tremblay & Scaillerez	*Journal of Innovation Economics & Management*	Qualitative	Open innovation	Corporate strategies Source of external knowledge

Table 2. Corporate coworking review

Author(s)	Corporate view	Motivations	Outcomes	Interferences
Bouncken et al. (2017)	Internal types (open and closed) External types in independent CWS	Creative atmosphere Open and flexible collaboration Architecture and design	Job satisfaction Motivation Autonomy Knowledge sharing Idea creation	Opportunistic behaviour Undermining competition IP rights and regulations
Jakonen et al. (2017)	Internal	Flexibility	Internal corporate coworking lacks employee freedom Serendipitous encounters Social support	Ignorance of contemporary work
Josef (2017)	Third work location	Flexibility Boundary management	New impulses Signal for change and trust Networking, serendipity, and knowledge sharing	Possibility of retreat Data protection and privacy Employers' coordination Challenging work and leadership

			Productivity and creativity	culture No measures of outcomes
Schmidt and Brinks (2017)	Boundaryless work	Idea testing Alternative business models Flexible cooperative structure	Develop new ideas Interdisciplinary collaboration	Challenging facilitation of interdisciplinary collaboration Limited research on innovation processes in CWS
Marchegiani and Arcese (2018)	Distributed organisational practice	Design and atmosphere Teleworking facilities Collaboration opportunity Physical and digital social interaction	Interorganisational relationships Increase employees´ well-being, motivation, and productivity	Learning difficulties in a hybrid and distributed work context
Weijs-Perrée et al. (2018)	Real-estate development	Cross-team work	Fresh talent Promote innovation Raise productivity	Too much diversity may obstruct knowledge sharing Users frequently change Change of user characteristics and preferences
Blagoev et al. (2019)	Commercially oriented CWS	Work-leisure Flexibility	Interplay of formal and informal relationships	CWS can become "organisational" to varying degrees at different times
Bounchen and Aslam (2019)	Spatial co-locations	Support projects Diversity Teams with internal members and external partners Shared resources	Short distance, easy exchange, trust, openness, cooperation, tacit knowledge sharing Enhance the knowledge base for innovative projects	Negative interpersonal relationships Challenges in the knowledge sharing processes Challenges of collaboration–competition "coopetition" Managerial

				challenges
Capdevila (2019)	Corporate social innovation	Social innovation possibilities Attraction for local communities	External sources of creativity Extrinsic motivation Co-developed knowledge Economic benefits	Solely extrinsic motivation might inhibit creativity
Cheah & Ho (2019)	Young companies	Support operations Flexibility Physical design	Ideas of higher quality Economic value creation	CWS operators struggle to configure the social climate to meaningful support
Clifton et al. (2019)	Independent Serviced Franchise based	Expand social and professional network Creative environment Flexibility Cost-effectivity	New business opportunities New products or services Increased productivity	Blurring distinctions between CWS and "corporate coworking" in franchise-based serviced offices
Orel and Almeida (2019)	SMEs and employees of large firms as new target groups	Inspiring and dynamic atmosphere Affordability Design Flexibility	Knowledge sharing Efficiency and productivity Spontaneous and moderated social interaction	Optimised comfort levels for diverse users Users´ identification with both community and the CWS itself
Appel-Meulenbroek et al. (2020)	Alternative form of space provision	Support Flexibility Affordability Creative atmosphere	Access to necessary resources Knowledge sharing Generate new ideas	Too much diversity may obstruct knowledge sharing Frequent replacement of members

Bouncken et al. (2020)	Internal CWS External corporate coworking	Interior design and architecture Motivate and inspire Expose employees to external talent and expertise	Serendipitous environment boost creativity and imagination Feedback on new ideas	Struggle to understand and adapt the socio-emotional effects of CWS Challenging to focus on one idea at a time Non-availability of shared resources
Kopplin (2020)	Employees sited at same or different CWS	Infrastructure providing both online and offline environments for achieving goals	Help with challenges Learning Connecting with collaboration partners	No evidence of an impact of personal innovativeness Coordination problems
Paje et al. (2020)	New creative workspace	Flexible workplace design Learning and networking opportunities	Autonomy Multiplied connections with talents Easy flow of ideas and knowledge Social support Maximise skills	Employees may hesitate in initiating interaction with other coworkers
Rese et al. (2020)	SMEs and large enterprises	Interaction Mutual support Inspiration and exploration Flexibility	Knowledge sharing Stimulation of creativity Collaboration	Exchange relationships may suffer from opportunistic behaviour Risk of misuse of information
Tremblay & Scaillerez (2020)	Employees from companies of all sizes	Networking possibilities and access to external knowledge Flexibility Cost reductions	Improve quality of life Reduce commuting time Increased knowledge exchange Fuel creativity and innovation	Noise and distractions

Table 3. Employee creativity view

Author(s)	Creativity view	Key findings

Bouncken et al. (2017)	Creativity and innovation possibilities	Creativity and innovation emerge from the open and flexible collaboration Stimulating architecture and design
Jakonen et al. (2017)	Ideology of creativity and innovation embedded into CWS CWS as creative spaces	Creative work can be accomplished only through social interaction
Josef (2017)	Innovation management perspective Individual creativity	Surprisingly, the majority of the corporates did not prefer CWS for creative work Some employees got new impulses and ideas
Schmidt and Brinks (2017)	Communities of practice as drivers of creativity and innovation	Design and layout foster creativity Communities are perceived a fertile ground for creative processes
Marchegiani and Arcese (2018)	Organisational design and office layout to foster creativity	Layout, community, and digital support foster creativity Simultaneous physical and digital interactions lead to innovative outcome
Weijs-Perrée et al. (2018)	Creative workflow by spontaneous communication and interaction	Enterprises try out CWS to promote innovation by optimising cross-team work
Blagoev et al. (2019)	Place for spontaneous sharing of ideas Focus on creative workers	Sense of both community and individuality foster creative spirit
Bounchen and Aslam (2019)	Co-location that ignites the social disembodiment of ideas	Co-location can synthesise domain-related knowledge sharing and promote inter-domain learning Combination and recombination of ideas open new creative horizons
Capdevila (2019)	Collaborative spaces that motivate individuals to participate in collective creative dynamics	Companies benefit from external sources of creativity Flexibility and improvisation in CWS may foster creativity
Cheah & Ho (2019)	Space creativity of CWS	CWS designed for creativity generate better ideas Creativity in CWS can have significant impacts on business model innovation of tenant firms
Clifton et al. (2019)	Encourages idea development and idea evaluation	Mechanisms for developing new ideas Creativity through fair and constructive idea evaluation

Orel and Almeida (2019)	Vibrant and creative atmosphere for sharing ideas	Knowledge sharing attitude and behaviour improve coworkers' creativity The outcome depends on collaboration orientation
Appel-Meulenbroek et al. (2020)	Vibrant and creative atmosphere	Most important CWS attribute is the creative atmosphere
Bouncken et al. (2020)	CWS aim to inspire and enhance creativity	CWS may use colour themes, casual furniture, and multiple lighting arrangements to foster creativity CWS should provide infrastructure, resources, and technology for idea development
Kopplin (2020)	Creativity as a process of combining knowledge Aim at stimulating creativity and innovativeness	Degree of autonomy moderate creative behaviour CWS may encourage collaborative work groups with diverse skills and norms sharing ideas and knowledge
Paje et al. (2020)	CWS as creative hubs	CWS is an opportunity for HR to redefine traditional workspaces to infuse diversity and knowledge flow
Rese et al. (2020)	Creativity as an individual-level construct	Knowledge sharing attitude and behaviour improve coworkers´ creativity The outcome depends on the collaboration orientation
Tremblay & Scaillerez (2020)	CWS designed to stimulate creativity and innovative spirit Access to ideas from outside the company	Spatial planning, meeting possibilities, conviviality, facilitators and human recourses are crucial for knowledge sharing and creativity Shared values promote trust, exchange, and creativity CWS may stimulate creativity but not necessarily