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COWORKING SPACES: PLACES THAT STIMULATE SOCIAL CAPITAL FOR ENTREPRENEURS

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Abstract

This study examines how social networking facilitated by coworking spaces help entrepreneurs. Drawing on previous research in the different social science disciplines, a conceptual model is proposed that links coworking space interventions to social capital, and performance benefits. The model distinguishes three coworking interventions, i.e. design of the physical space, facilitative tools, and community management. Furthermore, the model differentiates bridging and bonding social capital. Nineteen interviews were conducted with entrepreneurs who work in three coworking spaces. The findings confirm the relationship between coworking space interventions, bridging and bonding social capital, and performance benefits. Theoretically, this study contributes in developing further knowledge about the increasing social value of coworking spaces. Managerially, this study highlights how the curation of collaborative workspaces can help promoting social capital as well as better conditions for individuals who seek to work in social environments.

Keywords Bridging social capital, Bonding social capital, Social networks, Coworking spaces, Performance

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Introduction

The importance of the role of social networks for entrepreneurs is highly acknowledged (e.g. Elfring and Hulsink, 2003, 2007). Various studies show that a network is one of the most powerful assets that entrepreneurs can possess, as it provides access to information, power and capital, as well as to other supplementary networks (e.g. Burt, 2004). The overall assumption is that a more developed network, in terms of the number and quality of the ties, is more beneficial to an entrepreneur than a less developed network (Oviatt and McDougall, 2005; Kiss and Danis, 2010).

To foster social network development of location-independent entrepreneurs, there has been a rise in the number of coworking spaces in many cities around the world (Deskmag, 2019). In this paper, coworking is defined as individual work done in curated office spaces that are shared by unaffiliated entrepreneurs (Spinuzzi, 2012). Coworking seems to be a response to the rise of start-ups and self-employed workers who want to work in social settings, and also reflects the shift towards flexible work approaches by firms in modern knowledge economies. According to coworking space managers, coworking spaces are interesting workspaces because they provide “coworking communities” which, in turn, provide benefits for their users (Spinuzzi et al., 2019).

From the point of view of social capital theory, coworking spaces are relevant cases because they have the potential to accommodate social interaction; specifically, the collaboration that takes place within such coworking communities (Gerdenitsch et al., 2016; Balakrishnan et al., 2016). The social networks of people in coworking spaces can consist of various individuals with whom one has different types of contact, varying from low frequency/intensity to high frequency/intensity. These ties, defined by Granovetter (1973) as either weak or strong, can subsequently lead to so-called bridging and/or bonding social capital (Putnam, 2000). Entrepreneurs using coworking spaces might need a combination of both forms of social capital, yet, for different reasons and at different times (Davidsson and Honig, 2003).

Although there has been an increase in the number of studies describing coworking spaces (Spinuzzi, 2012; Cabral and van Winden, 2016; Fuzi, 2016) and how they can function as a source for social networking, increased productivity, and value creation (Gerdenitsch et al.,

2016; Balakrishnan et al, 2016, Bueno et al, 2018, Bouncken et al., 2018), there is no published empirical work that explores social capital in coworking spaces and whether this can act as a resource for its users. This study contributes to research in this area in two ways. Firstly, management interventions in coworking spaces are analyzed in order to examine if and how these interventions foster social capital. Thus, the existing field of research on coworking environments as new emerging work environments that may promote social capital (e.g. Johnson, 2012, Smith et. al, 2017) is extended. Secondly, social capital dynamics and their value for individuals using coworking environments are explored. Hence, this study contributes to research on the value of social capital by investigating its presence in a new context: the coworking space.

In this paper, a model is proposed that aims connecting coworking contexts to social capital and associated performance. There are three aspects to the model. First, the coworking space context is analyzed as a facilitator of social capital. Three coworking interventions are identified that might affect social capital formation in a positive or negative way, i.e. *physical design for interaction, facilitative tools, and community management* (e.g. Fuzi, 2016). Second, bridging and bonding social capital are distinguished from each other; each one contributing in a unique way to the entrepreneurial process (Putnam, 2000). Finally, the focus is on performance benefits for entrepreneurs as a result of social capital (Elfring and Hulsink, 2003).

This paper takes an embedded case study approach. The main unit of analysis in this study is the coworking space, and emerging ventures within such spaces are analyzed. Data was collected by interviewing entrepreneurs at three different coworking spaces. The focal point of interest was how entrepreneurs use personal networks, business networks, and the coworking space to develop and create the conditions for optimum business performance. In this paper, the main research question is “*How do coworking spaces stimulate entrepreneurs through bridging and/or bonding social capital?*”

The paper is organized as follows: Initially, relevant literature is reviewed and three coworking space interventions that can promote social capital are identified. Next, the effects and benefits of coworking interventions on bridging and bonding social capital of entrepreneurs are explored. This is based on nineteen interviews with entrepreneurs who work in three coworking spaces. The paper concludes with a discussion based on data collected from the interviews.

Literature review

What are coworking spaces?

In the past two decades there has been a rise in the number of coworking spaces: new workspaces which facilitate productive activity alongside social interactions (Gandini, 2015, Deskmag, 2019). Coworking spaces can be defined as “open-plan office environments where workers work next to other unaffiliated professionals for a fee” (Spinuzzi, 2012). The practice of coworking is rapidly rising in many cities, especially in “creative cities” (Florida, 2004). Coworking seems to be a response to a change in the structure of labor where firms take more flexible approaches to where work can be performed, also referred to by several scholars as boundaryless work, remote working, or distant working (e.g. Felstead et al., 2003). At the same time there is a rise in the number of “digital workers” such as self-employed, micro-enterprises, or freelancers who are not bounded by constraints of the traditional office or factory-based work thanks to new mobile technologies. For many of these workers there is the need to be inserted in social networks since this brings benefits for their business performance (Burt, 2000, 2017). To stimulate the exchange of knowledge, sharing of resources, and to alleviate the relative isolation of running a business from home, urban planners increasingly consider establishing spaces for meeting and coworking (Folmer and Kloosterman, 2017). Freedom, both in space and time of work, and at the same time securing the basic needs of a worker, a sense of connectedness, and acceptance from peers, as well as acquiring more structured daily schedules, makes coworking an attractive form of organization of work.

Coworking space interventions for networking behavior

The management of coworking spaces can deploy an array of interventions to foster interaction and networking behavior amongst their users. This paper examines three interventions: the design of the coworking space, facilitative tools, and community management.

The first intervention relates to the physical design of coworking spaces. There is a vast body of literature that suggests a relationship between interaction, networking behavior and physical proximity (Feldman, 1994; Oksanen and Stahle, 2013; Pancholi et al, 2015). Sailer and Penn (2007) show that the spatial configuration of an office shapes the formation and structure of intra-organizational networks, i.e. different office layouts corresponded with distinct network

structures. In an academic environment, research shows that network structures are highly influenced by the physical proximity of individual workers to each other, as well as by the location of individuals' workspaces in relation to the entire office space (Wineman et al., 2009). Other studies focus on how spatial design influences interactive human behavior. Williams (2013) introduced the 'engage/disengage' model. 'Engage' relates to engaging with people, information, and ideas by actively looking for them as well as by having serendipitous situations. Physical environments that enhance engagement are communal areas, lounge corners, canteens, coffee corners. 'Disengage' relates to distancing from others to stimulate thinking and focus through silent and private solo-work. Spaces for disengagement are private booths with small single-user tables in corridors, or quiet relax areas.

The second intervention relates to facilitative tools. Facilitative tools are curated coworking mechanisms that promote opportunities to network or even "push" interaction and collaboration among members (Capdevila 2013; Parrino 2015). Some studies focus on the role of facilitators, moderators, and/or community managers in coordinating members and connecting them to each other for the purpose of new product or service generation (Cabral and Van Winden, 2016). Others have focused on tools such as networking events, corporate presentations, and business pitches (e.g. Parrino 2015). Such tools encourage participants to interact, network, share knowledge, and learn from each other.

The third intervention relates to community management. Studies on network management suggest that the management of users in organizations, influences interaction practices which in turn can enable business performance and contribution to cross-fertilization (Parrino, 2015). Management of the community is often curated by coworking spaces by having selection procedures, admission processes, and promoting related or unrelated industry variety amongst users (Moriset, 2013, Fuzi, 2016; Frenken et al. 2007). Since many coworking spaces want to help in achieving successful communication and learning amongst users, the curation of the community is used to assure that the cognitive bases of actors are close to each other (Boschma and Lambooy, 1999). People with similar knowledge or expertise may learn from each other in an efficient way and at the same time they can extend their cognitive scopes (Nooteboom, 2000). Careful selection of users facilitates community-building and the sense of belonging (Spinuzzi,

2012). Against this background, one of the sub questions in this study is *through which management interventions do coworking spaces foster social capital?*

Coworking spaces and social capital

Coworking spaces often promote themselves as community-enhancing spaces (Spinuzzi, 2012; Spinuzzi et al., 2018). Typically, coworking spaces help users in their business process by creating social conditions in which people can see and share each other's work processes. Consequently, people interact and share opinions. Implicitly, the social environments in coworking spaces help entrepreneurs in their social network needs and stimulate social capital (e.g. Olma, 2012).

Social capital is described by Bourdieu (1986) as all resources owned by an individual because of his or her social contacts. While researchers give different views as to what exactly social capital consists of (Adler and Kwon, 2002), there is a broad consensus that its' value stems from access to resources attained through social relationships, networks, and memberships (Coleman; 1988; Portes, 1998). Social capital can help to create value for entrepreneurs in the sense that individuals can take advantage of 'strong ties', such as family and friends, and 'weak ties' such as acquaintances, customers, suppliers, or colleagues (Granovetter, 1973). Granovetter (1973) mentions that strong ties are important because they often create strong trust, are more accessible, and are willing to be helpful. Weak ties, on the other hand, can be particularly useful to retrieve information which cannot be accessed through strong ties. Though social capital is generally seen as a good asset, there are downsides to social capital for entrepreneurial activity, such as free-riding of network members, opportunistic behavior (Portes, 1998), and the formation of market bubbles in which communities are excluded from social and economic benefits (Waldinger, 1997; Portes, 2014).

Putnam (2000) made the distinction between bridging and bonding social capital. According to Putnam (2000), "bridging" social capital is inclusive and entails heterogeneous networks that often have traversing characteristics (e.g. communities that bring people in contact with people from other sections/segments of societies). Bridging social capital occurs when individuals from different backgrounds have interactions between social networks. As such, bridging social capital is associated with spanning social networks through having contact with weak ties and

this often results in generating positive externalities such as broadening social horizons, or creating opportunities for information or new resources. A disadvantage of bridging social capital is little emotional support and mobilization of resources. Weak ties in coworking spaces are important for entrepreneurs because they may provide access to various sources of new information and offer opportunities to meet new people. In turn, these connections may open the door to new entrepreneurial options (Granovetter, 1973). Several scholars have outlined various ways of weak tie development in coworking spaces that in turn can stimulate bridging social capital, e.g. network development by temporary co-location (Parrino, 2015), access to mentors, coaches, and external industry specialists (Cohen and Hochberg, 2014), participation in social events (Cabral and Van Winden, 2016), and community managers who connect users (Merkel, 2015).

Conversely, “bonding” social capital is associated with closed (homogeneous) networks. Bonding social capital is often associated with isolated communities or networks that intensify inward-focused behavior, reduce exposure to new ideas, and exacerbate existing social cleavages (Paxton, 2002). According to Putnam (2000) bonding social capital is therefore exclusive. It occurs when strongly tied individuals provide emotional or substantial support to one another. A downside of bonding social capital is insularity and out-group antagonism. Strong ties are also important for entrepreneurs and emerging firms since they provide access or reduce the search for critical resources. Aldrich et al. (1998) discuss the importance of family socialization, as well as the delivery of personal networks that provide valuable resources. Various studies have discussed characteristics of coworking space that can stimulate strong tie development which in turn favors bonding social capital, e.g. the aim to build tight communities (Capdevila, 2013, Moriset, 2014), long-term co-residency leading to intensified interaction and trust (Fuzi, 2016), and industry- specialization to stimulate “like-mindedness” (Spinuzzi, 2012). These studies show that there are characteristics of coworking spaces that promote interaction amongst entrepreneurs which increases the likelihood of emotional support, access to scarce or limited resources, and the potential to mobilize solidarity (Williams, 2013).

Williams (2006) conceptualized bridging and bonding social capital. He developed social capital scales to measure both types of social capital in online and offline contexts. In his work bridging social capital consists of four components: (1) outward looking attitude, (2) contact

with a broader range of people with different backgrounds, (3) viewing oneself as part of a larger group, and (4) diffusing reciprocity with a broader community. Conversely, bonding social capital is less focused on including people from other backgrounds. The effect of bonding social capital is more relevant to emotional support and access to scarce resources. In conceptualizing this, Williams (2006) determined the following components of bonding social capital: (1) emotional support, (2) access to scarce or limited resources, (3) ability to mobilize solidarity, and (4) out-group-antagonism. In this vein, another aim of this study is to answer the sub question *how do entrepreneurs benefit from bridging and bonding social capital in coworking spaces?*

Conceptual framework

The focus of this study is on how coworking spaces stimulate entrepreneurs through social capital. There is an array of spaces that provide coworking space characteristics, such as accelerators, incubators, coworking spaces, and FabLabs (Schmidt et al., 2014). However, to understand the social capital potential of coworking spaces, the focus is not on spaces that are being used by entrepreneurs who are affiliated through corporate or university programs. This is often the case with incubators. In addition, the focus is not on spaces that are being used by entrepreneurs who are following fixed-term or cohort-based programs. This is often the case with accelerators (e.g. Cohen and Hochberg, 2014). Thus, the specific focus of this study is on public coworking spaces. In this study, public coworking spaces are defined as curated office environments where entrepreneurs and small-sized firms work next to other unaffiliated professionals (Spinuzzi, 2012). Regarding the coworking context, three types of interventions are distinguished from each other, i.e. physical characteristics, facilitative tools, and community management (Cabral and Van Winden, 2016; Fuzi, 2016). Two forms of social capital are differentiated: bridging and bonding. These follow from Putnam's (2000) description and William's (2006) conceptualization. Finally, the focus is on performance benefits for entrepreneurs as a result of social capital (Elfring and Hulsink, 2003). Burt (1992) describes that bridging social capital affects entrepreneurial performance through the exploitation of new opportunities by bridging between disconnected contacts. Alternatively, bonding social capital amongst customers and suppliers may facilitate revenue growth because these ties are more motivated to interact and are more available for instrumental cooperation (Granovetter, 1982). Against this background, this study focuses on objective performance, i.e. growth in sales, new projects, new clients, new investments as well as

subjective performance, i.e. new business contacts, new knowledge or ideas (Franco, 2011). Figure 1 shows the conceptual framework.

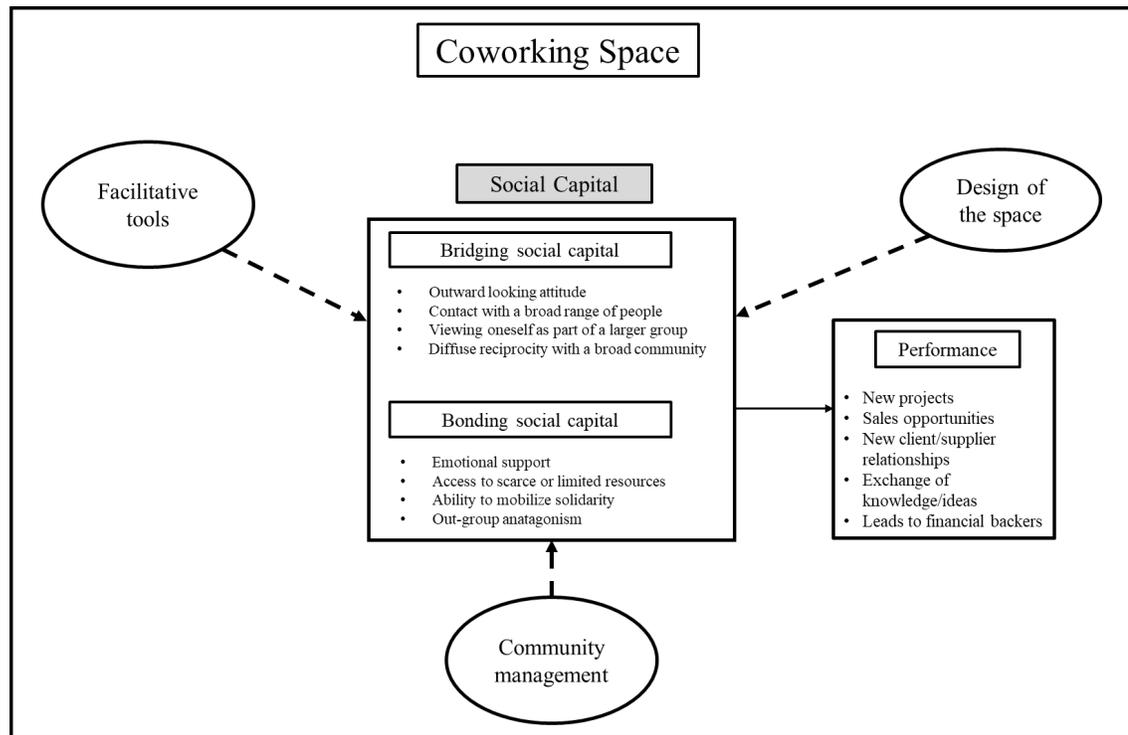


Figure 1: Conceptual framework

Methods

The objective of this exploratory study is to contribute to theory-building regarding the causal linkages between coworking contexts, bridging and bonding social capital formation, and performance benefits for the entrepreneurs who use coworking spaces. A qualitative approach was taken in order to explore how coworking spaces function, how coworkers experience such spaces, and how the interactions shape their relationships in a manner as real as possible (Dey, 2003; Robson, 2002; Bogdan and Biklen, 2006). By taking this approach, the aim is to contribute to our understanding of human social behavior, experiences, and cultures within coworking spaces (Saunders et. al, 2009)

In order to have a broad representation of coworking contexts, three coworking spaces were selected and visited in Amsterdam (the Netherlands): A-Lab, Broedplaats de Vlucht, and Prodock. Three different spaces were selected in order to assure a variety in the coworking resources related to physical design, facilitative tools, and community focus (Saunders and

Lewis, 2012). All three spaces met the criteria of offering shared workspace and having an explicit curative platform to entice social interaction. The spaces that are subject of this study are not meant to provide statistical cause/effect relationships between the different constructs in the model but will present opportunities for future research directions and questions (Lauer and Asher, 1988). The characteristics of the three coworking spaces are synthesized in Table 1.

Table 1: Coworking space characteristics

	Physical Characteristics	Facilitative tools	Community Management	Impressions	
A-lab	<ul style="list-style-type: none"> -Public internal coffee house -Converging hallways to foster encounters -Communal areas for socializing -Individual and shared offices -Visual information about tenants 	<ul style="list-style-type: none"> -Themed presentations and workshops -Sport and Social events -Social media platform -Meet-ups 	<ul style="list-style-type: none"> - Industry related clusters - Diversity of industries - Entry and exit policy 	 <p>Shared offices</p>	 <p>Coffee House</p>
Broedplaats de Vlucht	<ul style="list-style-type: none"> -Public internal coffee house -Visual information about tenants -External area for socializing 	<ul style="list-style-type: none"> -Open days -Social events 	<ul style="list-style-type: none"> -Entry and exit policy -Focus on creative industries/art 	 <p>External area</p>	 <p>Creative industries/Galleries</p>
Prodock	<ul style="list-style-type: none"> - Communal coffee area - Individual and shared offices -Large industrial workshop area -Visual information about tenants 	<ul style="list-style-type: none"> -Open days -Community manager -Social media platform 	<ul style="list-style-type: none"> -Entry and exit policy -Focus on maritime industry 	 <p>Open Day</p>	 <p>Industrial workshop area</p>

Next, nineteen semi-structured interviews were conducted with entrepreneurs or owners of companies. In selecting participants, priority was given to heterogeneity in the respondents' professional profiles, time spent at the coworking space, and age of the company. The community managers at each of the sites provided assistance with this process. However, concretely, in choosing the nineteen respondents a reconciliation had to be made by the people present and willing to assist. The interviews were conducted between March 2019 and July 2019 by the researcher and lasted between 20 and 60 minutes. Table 2 displays the respondent characteristics.

Table 2: Overview of respondent attributes

Entrepreneur	Industry	Age of the company	Time at the coworking space	Nr. of employees	Type of space hired	Nr. of days/week at the coworking space
Entrepreneur 1	Transportation services	1 year	10 months	0	Private office	5
Entrepreneur 2	Vertical Farming	2 years	18 months	3	Shared office	5
Entrepreneur 3	Maritime technology	1 year	10 months	0	Private office	5
Entrepreneur 4	Robotics	2 years	18 months	0	Private office	5
Entrepreneur 5	Data analytics	2 months	2 months	0	Desk	5
Entrepreneur 6	Vertical Farming	4 years	3 years	9	Shared office	3
Entrepreneur 7	Transportation services	1 year	12 months	0	Private office	5
Entrepreneur 8	Composite solutions	1 year	12 months	3	Private office	5
Entrepreneur 9	Internet services	10 years	4 years	3	Private office	3
Entrepreneur 10	Internet services	8 years	5 years	0	Desk	3
Entrepreneur 11	Audio Visual	9 years	5 years	3	Private office	3
Entrepreneur 12	Music production	9 years	6 years	4	Private office	4
Entrepreneur 13	Video services	7 years	5 years	8	Private office	5
Entrepreneur 14	Content Marketing	5 years	2 years	1	Desk	3
Entrepreneur 15	Video services	7 years	3 years	4	Desk	4
Entrepreneur 16	Video services	15 years	4 years	0	Desk	4
Entrepreneur 17	Chemicals	7 years	2 years	20	Private office	5
Entrepreneur 18	Office rental	8 years	2 years	30	Private office	5
Entrepreneur 19	E-commerce	6 years	2 years	0	Desk	5

The different elements of the research framework were incorporated into the interview protocol and analyzed as follows. First, to find out how the coworking space specifically helped in the formation of bridging and bonding social capital of the respondents, interview questions were asked that were adapted from bridging and bonding constructs (Putnam, 2000; Williams, 2006). For instance, related to the bridging social capital construct 'outward-looking attitude' respondents were asked "Does talking to people inside this

coworking space make you curious about other business activities?”. Related to the bonding social capital construct ‘emotional support’ respondents were asked “Are there any people inside the coworking space that you trust to help solve your (personal or business) problems? Next, respondents were asked to evaluate coworking space characteristics, i.e. physical space, organized group activities, and/or if the coworking community contributed to their social networking process. As an example, respondents were asked “How does the coworking space community contribute to create an environment of trust and support?”. Finally, the respondents were asked to describe how they felt the firm had performed since being present at the coworking space, and specifically how the space and community contributed to the performance. For example, respondents were asked “Have you gained new knowledge/ideas as a result from working in the coworking space?”

Next, interviews were transcribed and analyzed by using Atlas.ti. This analytical tool was chosen since it allows for the uncovering and systematically analyzing complex phenomena hidden in text (audio, multimedia, and geospatial) (Silver and Lewins, 2014). This seemed particularly relevant when analyzing the coworking space context from the perspective of physical characteristics, facilitative tools, and community dynamics. In this process the first step was to analyze the quotations of respondents that were related to each social capital construct. Network views were created for each of the social capital elements and key words and quotations were subtracted that corresponded with the bridging and bonding elements. Next, in order to answer the first sub question, it was important to understand the context in which respondents spoke about bridging and bonding social capital elements. The context was analyzed by creating co-occurrence tables that revealed quotations that combined bridging and bonding social capital codes with codes related to the coworking interventions (i.e. physical characteristics, facilitative tools, community management). For instance, the following quotation combined the code “Facilitative Tool: Community Manager” with the Bridging social capital code “Contact with a broad range of people”: *The role of X (the community manager) is really important. She brings in many people and companies from outside into the coworking space. This way you get in touch with so many different companies.* Afterwards, in order to analyze the second sub question, it was important to get an understanding of the performance outcomes that

respondents got from being in coworking spaces. This was also done by creating co-occurrence tables that revealed quotations that combined bridging and bonding social capital codes with codes related to performance. For instance the following quotation combined the code “Performance: leads to financial backing” with the Bridging social capital code “Contact with a broad range of people”: *“I meet so many different people here at the canteen (contact with broad range of people) and one of them gave me an email address of a potential investor (leads to financial backing)”*. In all tables, codes that co-occurred more than 10 times were highlighted and considered as relevant. Finally, in order to visualize how the codes were linked semantically, network views of semantic linkages were created related to each research question.

Results

Results revealed that coworking spaces provide access to both bridging and bonding social capital. However, they are not mutually exclusive and were expressed in a rather oblique way.

The coworking space and bridging social capital

Regarding bridging social capital, most respondents mentioned that they feel part of a larger group: the coworking community. The coworking space plays an important role in promoting social interaction within the coworking community and stimulates an outward looking attitude. The outward looking attitude translates itself into individuals having contact with a broad range of people, such as: other coworkers, potential investors, industry specialists, and external corporations. Most of the coworkers are introduced to coworking individuals through coworking space interventions. Mostly through the organization of social and formal events. Being physically close to others also creates possibilities to observe and understand what others are doing. Often, this leads to social interaction, exchange of knowledge, and business development opportunities (e.g. finding new suppliers, new customers, new projects). Results showed that this is particularly interesting for firms that are in early business phases.

Interestingly, some respondents owning relatively mature businesses and who had spent more time in the coworking space mentioned that, as time progressed, the outward-looking

attitude extended beyond the coworking space. The longer that entrepreneurs stay in a coworking space, the more likely they are to be aware of which coworking ties are valuable for both social and business purposes. Experience of what others are capable of leads to entrepreneurs making selections in who can be sustainable partners and/or suppliers of resources.

“In the beginning when you are starting up your business and you choose to work in a coworking space, you focus on the people inside this coworking space. Why should I spend time looking for a web designer, when there is just one at the end of the hallway? But as you grow as a business, you basically need to start making money and pay off your debts. Then you go for the better and cheaper options and the coworking network becomes a plan B.” Owner of an audio-visual firm.

Regarding the diffusion of reciprocity, being around other entrepreneurs (irrespective of the industry), generates a feeling of “togetherness”. Various respondents described this as mutual understanding of commonalities in business issues that many entrepreneurs go through, which in turn leads to sympathy and willingness to help each other out whenever needed. Most of the respondents perceive this exchange as an ongoing business networking process, and in general did not have direct expectations for help in return.

When analyzing the management interventions in relationship to bridging social capital, it is noteworthy that the outward-looking attitude and its’ associated connection with a broad range of people is actively promoted through facilitative tools. The results revealed that community managers play an active bridging role. For instance, one of the activities of one specific community manager was to invite companies from outside the coworking space and to connect these companies with the in-house entrepreneurs. This is valuable for entrepreneurs who must fine-tune their business models, need potential partners, and/or are looking for leads to financial backers. Open days also promote an outward-looking attitude and connect entrepreneurs with a broad range of people. One coworking space organizes such days regularly attracting investors, external corporations, and other regional stakeholders. The outward-looking attitude is also stimulated through social and formal events organized by the coworking space. Often, at these events external firms are invited to mingle with the coworking community. This mingling/exchange can lead to

entrepreneurs becoming more open minded, and more comfortable challenging one's precepts. In addition, the outward-looking attitude is also stimulated by physical design of the space, such as having open spaces, and communal lunch- and coffee areas. Finally, having a diverse mix of entrepreneurs from various industries also promotes an outward-looking attitude and the feeling of being part of a larger group. The following quote exemplifies how a combination of physical space and the mix of entrepreneurs promoted an outward-looking attitude:

"I met X at the coffee house. His company provides all types of products made with their composites. I have been talking to him to see if I can use their material to strengthen my underwater drones. I also met Y there who makes e-scooters. I've been talking to him to see if I can use his shock absorption technology for my underwater drones." Start-up in maritime technology.

However, there were also instances of entrepreneurs who did not embrace the outward looking attitude. Several entrepreneurs either wanted (or already had) personal office space. This was mostly the case for entrepreneurs who needed space that enabled concentration and/or needed space to manage business growth. Personal office space generally hinders contact with others, because it creates physical barriers. The level of interaction then depends on spatial and personal levels of openness and accessibility.

Figure 2 synthesizes the semantic linkages between the codes related to bridging social capital and coworking space interventions.

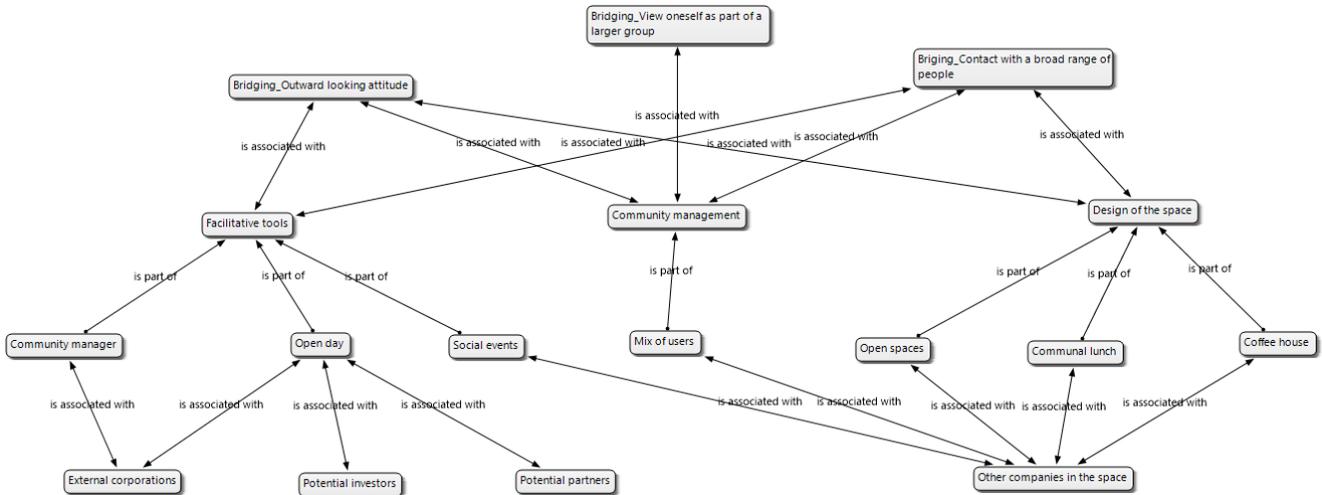


Figure 2: Semantic linkages between bridging social capital constructs and coworking space interventions

The coworking space and bonding social capital

With respect to bonding social capital, the interviews revealed that emotional support is highly important for entrepreneurs. Most of the times entrepreneurs need people they can trust to help them solve problems, give advice, and offer support in personal issues. Entrepreneurs who were in early stages of their business development feel that family and friends are crucial. Some entrepreneurs stated that without the support from friends and family they would not have become an entrepreneur, and that on a frequent basis, business issues are discussed with them. Inside coworking spaces, interacting with weak ties (i.e. other entrepreneurs) who deal with recognizable business issues is also seen as a great form of support. This supportive feeling is created by a sense of solidarity and mutual understanding between entrepreneurs regarding typical “entrepreneurial issues”.

“It is very nice to be surrounded by other start-ups who are also struggling and trying to make it work. Everybody here is very understanding and supportive and whenever I can, I try to help other people as well.” Start-up in robotics.

Self-employed workers and entrepreneurs who were further along in the business-development stage communicated a need for very specific support and knowledge. Access to ties providing these resources were often found outside coworking spaces.

Several respondents mentioned that, generally, ties inside coworking spaces become stronger on a personal level and, and as time passes, less so on a business-functional level. Simultaneously, negative aspects of being part of coworking communities is experienced. Working in coworking communities may lead to affect-based conflicts (e.g. conflicts about hygienic principles, being loud, respecting privacy) and can even lead to departures of members from the coworking space if difficult situations are not managed effectively by coworking space managers.

Regarding the mobilization of solidarity for entrepreneurs, results show that those who have not yet established themselves solidly in coworking networks have more problems in mobilizing solidarity. In these cases, the management of the coworking space is needed to facilitate this. As an example, one entrepreneur stated that in their coworking space were many start-ups in need of information about how to setup an online shop. With the help of the coworking space management, a tailor-made workshop was organized. When it comes to access to resources, most entrepreneurs expressed not to expect additional resources besides a basic social place to work, build, and test products. They do believe that being in coworking communities will facilitate finding leads to new employees, partners, or funding. For instance, several entrepreneurs mentioned to have received referrals from either the coworking community or coworking staff to potential investors, potential employees, and new projects.

As far as management interventions that stimulate bonding social capital, the interviews revealed that emotional support is facilitated through access to a broad mix of individuals. Several entrepreneurs mentioned that the curation of the coworking community leads to a broad mix of people, which, in turn, is very beneficial because it often leads to useful and supportive conversations about commonly experienced problems.

“Some time ago I met a guy here who was making earphone plugs. Completely unrelated to what I do. I did not know how to file for a patent, and he completely helped me out because he had done it before. He told me what the cheapest way was and how to do it step by step. He had no interest in my business and just wanted to help me.” Start-up in transportation services.

In all coworking spaces, the coworking staff also provided emotional support. One of the coworking space founders applies an open-door policy and welcomes entrepreneurs to walk in with any type of question. In other cases, coworking staff works amongst the coworking community, which generates a feeling of trust and assurance that there are people to help solve problems or to turn to for advice.

It is noteworthy that emotional support is also promoted through interventions that cross the boundaries of the coworking space. In one instance, a respondent expressed that the coworking space provided a reoccurring event called “office hours” in which personalized project management support was given by external specialists. Sharing of such knowledge and support also occurs when coworking staff members have links to corporate networks or other personal networks and display supportive attitudes. In the interviews respondents also mentioned that some coworking spaces facilitate access to specialized online platforms where entrepreneurs can turn to for help or advice.

Figure 3 displays the semantic linkages between the codes related to bonding social capital and coworking space interventions.

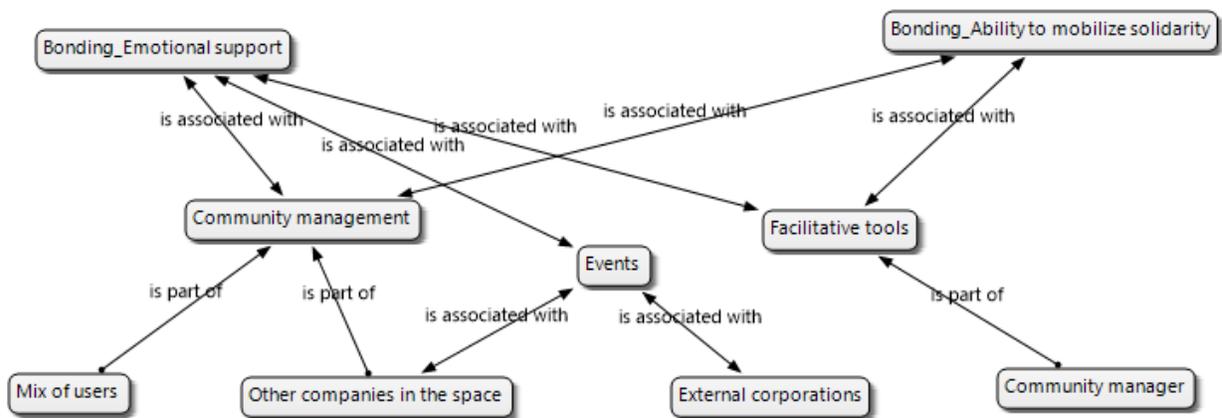


Figure 3: Semantic linkages between bonding social capital constructs and coworking space interventions

Social capital and performance

Entrepreneurs that use coworking spaces can expect a range of network performance benefits from being part of coworking communities. Most respondents mentioned performance results related to both bridging and bonding social capital. The performance benefits that occurred most were: exchanging knowledge, getting trusted feedback, discussing new ideas, getting leads to potential financial backers, and providing access to suppliers.

Having contact with entrepreneurs from different backgrounds stood out as potential moments to get new ideas, learn new things, or for refining business ideas. One entrepreneur who had vast experience in building data labs but did not have a clear business direction yet, took a turn to building data systems for vertical farming. He had done this because of discussing mutual opportunities with an in-house vertical farmer. Generally, entrepreneurs did not mind discussing opportunities, sharing knowledge, or giving feedback to others.

“When somebody helps me, I also want to give something back. In human relations there is an exchange of favors. I would love to say that I only help people because it makes me feel good and because I like it, but to be honest, I also expect that if I ever need something that that person would help me out. I know that if I help people as good as I can, that eventually it will come back to me.” Start-up in vertical farming

Additionally, entrepreneurs that play an active role in the coworking community (e.g. by being responsive in a timely and helpful manner to questions or requests) make a positive impression on coworking management and other firms. This leads to an overall feeling of good-will, emotional support and reciprocity from coworkers towards active members, should they request feedback or assistance.

For entrepreneurs that find themselves in early business development phases, a main concern is the need for financial backing. Regarding the search and acquisition of funds, none of the respondents had received financial investments from any party within a coworking space. However, most of them mentioned having received suggestions or leads to potential investors by the coworking space management staff. Self-employed workers

or entrepreneurs in other business stages stated that there are many opportunities to exchange knowledge about how to manage growth. Even though firms in later business stages often have established their own external business and consultancy networks (both on and offline), coworking environments provide good additions to such networks.

When entrepreneurs have spent considerable time in a coworking space, the feeling of having access to emotional support increases. Several entrepreneurs revealed that by being surrounded by other firms that have shown business success provides a feeling of trust and confidence when discussing growth issues (e.g. hiring staff, diversifying business, patent requests). Additionally, coworking spaces staffed by experienced management professionals who are willing to share knowledge provides growth firms potential access to emotional and practical support.

“X and Y are part of the management team of this coworking space and every time I have a question about my business, I search for them. I almost see them as my mentors. That’s what happens here. There are many people approaching them for help and advice. It is not their job, but they do it with pleasure.” Owner of an internet services firm

Providing entrepreneurs with access to a potential network of suppliers is an important contribution of coworking environments. However, the interviews revealed that such networks seem to play a more prominent role for start-ups than for more established firms or self-employed workers. In start-up stages, entrepreneurs rarely have the knowledge or experience about which suppliers to collaborate with. In such cases, coworking networks facilitate the search for and access to suppliers. However, for self-employed workers or mature firms, the focus goes further than just coworking communities. Coworking communities then become a “back-up” network of potential suppliers, which one can access with relative ease.

“I’m part of a national network that includes around 75 entrepreneurs. For instance, whenever I need an accountant, I mention that in the group. That works phenomenally. But if there is somebody within this coworking space that can help me out with something for a fair price, I will definitely make use of that.” Owner of a video services firm.

Figure 4 displays the semantic linkages between the codes related to bridging /bonding social capital and performance indicators.

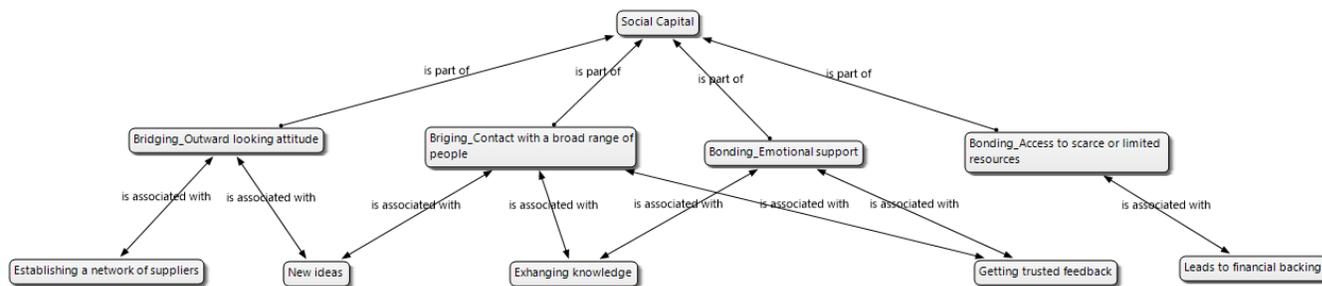


Figure 4: Semantic linkages between social capital and performance

Discussion

Coworking spaces are social office environments for entrepreneurs and the numbers of such spaces is showing a rapid increase across the world (Deskmag, 2019). One main reason why entrepreneurs choose to work in such spaces is the opportunity to have access to social networks (Spinuzzi, 2012). This study explored if and how these spaces stimulate entrepreneurs through social capital.

In keeping with previous studies on coworking space descriptions (Spinuzzi, 2012; Cabral and van Winden, 2016; Fuzi, 2016), this study included three management interventions that can explain the formation of social capital: physical characteristics, facilitative tools, and community management. In line with research on spatial design for interaction (e.g. Oksanen and Stahle, 2013; Pancholi et. al, 2015), the results confirmed that open workspaces and communal areas in coworking spaces stimulate social networking behavior. However, this study also revealed that within coworking communities, there are many entrepreneurs who have relatively low need for social space. Mostly, because they need to focus and/or are experiencing business growth and therefore need private space. It seems that if coworking spaces want to meet the wishes of these entrepreneurs, but at the same want to stimulate the sense of being part of the community, a careful design is paramount that promotes both space for production as well as space for social engagement (Williams, 2013).

Furthermore, studies on strategic management tools for interaction and collaboration amongst coworkers conducted by Capdevila (2013), Parrino (2013), Fuzi (2016), explain that facilitative tools are useful in promoting social structures within coworking contexts. The findings in this study are consistent with this view and demonstrate how facilitative tools contribute to social capital. Specifically, coworking spaces that issue regular invitations to firms and other stakeholders (in the form of open days, events, workshops) and organize social events involving management/community members, promote having contact with a broad range of people (bridging social capital). In addition, coworking spaces that can provide specialized workshops/consultation moments for self-employed workers or entrepreneurs who are in mature business stages, contribute in stimulating bonding social capital. Such tools in combination with involved coworking space staff create a form of emotional support that many entrepreneurs need.

Similarly, this research shows that the curation of communities fosters successful communication and community building (Boschma and Lambooy, 1999; Nooteboom, 2000; Spinuzzi, 2012). Regarding social capital formation, this study demonstrates that having a diverse pool of coworkers promotes bridging social capital by stimulating entrepreneurs to have contact with a broad range of people. Interestingly, having entrepreneurs that are in similar business stages favors ties getting stronger (bonding social capital). Such weak ties are beneficial and show bonding characteristics because of the ability to exchange knowledge on shared experiences that traverse product or industry. This seems to be in line with the literature on homophily in social structures (McPherson et al., 2001).

The research model of this study analyzed performance benefits resulting from social structures in coworking spaces. Existing research on coworking spaces thus far has mostly focused on coworking spaces as a source for social interaction, increased productivity, and value creation (Gerdenitsch et al., 2016; Balakrishnan et al, 2016, Bueno et al, 2018, Bouncken et al., 2018). The findings of this study contribute to prior studies by demonstrating how social capital affects the performance of the entrepreneurs who are working in such environments. For entrepreneurs in start-up stages, coworking spaces provide settings that enhance knowledge exchange on how to build a business and where

to find leads to investment opportunities. Noteworthy is that high levels of community involvement were associated with high levels of knowledge exchange. For self-employed workers and relatively mature firms, being part of coworking communities benefits them with respect to the exchange of knowledge on how to manage growth. However, for most of them no direct objective returns were expected. More importantly, the coworking community provided a pleasant work environment (often including strong ties), and access to supplemental back-up networks.

In addition, this study confirmed the indications provided by Davidsson and Honig (2003), who stated that as ventures progress there are different types of social capital needed. Entrepreneurs who were in start-up stages disclosed that family and friends play an important bonding role for entrepreneurs (Lerner and Malmendier, 2013). This study provides a new perspective by showing that in coworking environments, weak ties (such as other start-ups/firms in later stages/coworking management members) also have the potential to provide bonding roles. In coworking spaces such ties provide possibilities to exchange knowledge, give feedback on business ideas, and trusted feedback. In part, this is because coworking spaces offer conditions that stimulate learning, validating opportunities, and a “we are in this together” feeling amongst members. For entrepreneurs/SMEs in mature business stages there is a higher need for contractual and strategic relationships with suppliers and partners (Van de Ven et al., 1984). Mostly, these ties were sought for and found outside the coworking space.

The results of this study also provide indications that there are downsides to social capital (Waldinger, 1997; Portes, 2014). Social ties within coworking spaces that have yielded social capital in the past may not necessarily provide social capital in the future. Leenders and Gabbay (1999) call this “social liability”. Within coworking spaces, social capital translates into social liability in at least two ways. First, establishing business ties with other coworkers may restrain an entrepreneur by limiting their resources to that specific tie, potentially discouraging that entrepreneur to form ties with alternative ties (Leenders and Gabbay, 1999). For example, a firm that has had a long-term relationship with a supplier within the same coworking space might be inhibited to search for alternative suppliers. Second, entrepreneurs sharing the same space with “negative ties”, might be

unfavorably affected in their opportunities. For instance, coworkers who share space with other individuals who do not comply with basic coworking standards (e.g. hygienic principles, noise management, (dis)respecting privacy), might as a result be negatively affected by being affiliated with such negative ties. This seems to be in line with the idea that there is a dark side of entrepreneurship in coworking spaces (Bouncken et al., 2018).

Some other over-all patterns that emerged from the results are the following. Firstly, there is a perceivable link between actual time spent in the coworking space and the number of weak ties. In short, more time spent by workers in the coworking space results in a higher number of weak ties. Additionally, having active curation platforms in coworking spaces helps individual workers in expanding the number of weak ties more rapidly. Secondly, the longer individuals stay within a coworking space that includes curative platforms, the more coworking groups become cohesive. In such cases, weak ties tend to transform into strong ties, creating trust and its' associated bonding social capital.

This research has several implications. From a theoretical perspective, it contributes to the development of knowledge about the increasing value of coworking spaces. In addition, this study lays a foundation for research on the value of social capital in a relatively new context, namely, the coworking space. From a managerial perspective, this study highlights how the curation of spaces and application of management interventions can help to promote social capital and better conditions for people using or considering using coworking spaces.

Limitations and future lines of research

The focus of this study was on the value of social capital dynamics within coworking spaces as one of the many resources for the performance of entrepreneurs. However, other forms of capital (financial, information, human, intellectual, etc.) are equally indispensable for entrepreneurs to thrive with their businesses. Therefore, it is encouraged to further investigate how coworking spaces stimulate the development of other forms of capital for its users.

In addition, this study looked at objective and subjective performance as a result of being involved in social structures in coworking spaces. The performance benefits that were

analyzed ranged from growth in sales; new projects; new employees, to new business contacts; new knowledge and/or ideas. However, for many socially- and sustainably driven firms there are alternative views on benefits. Such firms mostly strive to create social rather than financial value (Weber and Kratzer, 2010). Further research could consider measuring social and sustainability performance indicators in the context of coworking space environments.

Future studies should consider validating the conceptual model in order to improve the empirical reliability and validity. In addition, future studies should consider expanding the number of coworking spaces and sample size, in order to generalize the results.

Concluding remarks

Exploring the value of coworking spaces as work environments that stimulate social capital is a relevant and current topic. However, to date, no research has been found that has specifically looked at coworking spaces in this context. This study has been an attempt to contribute to this field of knowledge. To explore how coworking spaces provide benefits to its users, this study proposed a framework that distinguished three types of interventions, i.e. physical characteristics, facilitative tools, and community management. The model also differentiated two types of social capital: bridging and bonding social capital.

The findings provide useful information for revealing how coworking spaces stimulate social interaction and social capital formation. Overall, this study confirms that coworking spaces are suitable places that ignite social interaction, stimulate exchange of knowledge, and provide leads to new opportunities. In this respect, coworking space managers, start-ups, self-employed workers, and SMEs can benefit from these findings and curate coworking spaces in such a way that promotes social capital formation.

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