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Getting by with a little help from my friends: the impact of the pandemic on the collaboration of small Finnish food and beverage ventures

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Abstract: Ventures' social ties are important enablers of value creation. Particularly during crises, the value of relationships is highlighted as scale-limited ventures can draw from their partners' resources to find opportunities for survival and renewal. Crises also shape ventures' collaboration opportunities by disrupting networks and changing ways of engagement. Yet, longitudinal research on the impact of crises on ventures' collaboration remains limited. In the current study, we combine pre and

during-pandemic interviews with social media data from 14 packaged food and beverage ventures to explore the impact of the crisis on venture collaboration. The data illustrates four distinct approaches to collaboration during the pandemic, differing in terms of scope of collaborations, variety of different partner types, proportion of developmental collaborations, and engagement in collaboration due to or despite the crisis. The findings show that the crisis significantly shaped ventures' collaborations, which may shape their social capital beyond the crisis.

Keywords: collaboration; entrepreneurs; COVID-19 pandemic; social media; social capital; bonding ties; bridging ties; small business; crisis response; social tie management.

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1 Introduction

Value creation increasingly depends on ventures' connections and relationships with others (Inkpen and Tsang, 2005; Stam et al., 2014; Gedaljovic et al., 2013). The concept of 'social capital' represents the value embedded within these connections and relationships (Nahapiet and Ghoshal, 1998), and is a crucial success factor for ventures, providing valuable resources, information, support and access to new opportunities

(Gedaljovic et al., 2013). The value of relationships and the social capital embedded within them is especially apparent in small ventures during crises, when social ties provide vital access to resources for survival as well as psychological and emotional support (Giones et al., 2020; Kuckertz et al., 2020; Pollack et al., 2012). Indeed, social capital is a critical part of resilience (Lengnick-Hall et al., 2011), and therefore, social support facilitates recovery and rebuilding post-crisis (Giones et al., 2020; Martinelli et al., 2018). Furthermore, social ties are often reciprocal in that ventures contribute to the survival and renewal of their partners (Grube and Storr, 2018). Past research has shown this at the community level, demonstrating how ventures contribute to community-level disaster responses through supplying needed resources, drawing upon their social ties to mitigate and navigate uncertainty, and taking a pioneering role in community rebuilding (e.g., Grube and Storr, 2018; Linnenluecke and McKnight, 2017). More recent studies exploring the rapid responses of ventures to the COVID-19 pandemic have found that ventures leaned on their social networks to draw upon resources such as the goodwill of partners, access to new connections intermediated by existing ones, and benefits from mutual and prosocial support within their respective communities and industries (Giones et al., 2020; Kuckertz et al., 2020), in addition to offering help to others (Björklund et al., 2020a). Despite the clear impact of crises on small ventures, research on how crises shape and change their social networks and collaborative behaviours remains scarce, especially in terms of longitudinal studies drawing on comparisons between pre-crisis and during-crisis situations (Devece et al., 2016; Doern et al., 2019).

In addition to requiring crisis responses drawing on social ties and social capital, crises act as critical episodes that shape ventures' networks, and hence, collaboration opportunities (Giones et al., 2020; Kahn et al., 2013). On one hand, crises, presenting a shared challenge, can encourage the creation of new connections and ties (Kahn et al., 2013; Bacq et al., 2020). On the other hand, crises can hinder collaborations by damaging communities and encouraging isolating behaviour (Muñoz et al., 2020). Furthermore, the pandemic has been a unique crisis, fundamentally changing ways of interaction and challenging established social ties and networks (Bacq et al., 2020; Bacq and Lumpkin, 2021). Lockdowns, social distancing and other restrictions on face-to-face interactions have heightened online dependency, requiring ventures to rethink the ways they connect and collaborate (Giones et al., 2020). Emerging studies have highlighted an increased need for and increased use of virtual platforms, particularly in the case of various social media channels for venture collaboration (Byrnes et al., 2021; Yates and Paquette, 2011; Olanrewaju et al., 2020). During crises, social media can be used to identify the needs of a crisis-stricken community, communicating venture actions and relaying community reactions to those actions (Georgescu and Popescul, 2015; Keim and Noji, 2011). The openness and connectivity of social media and the malleability of online communities have the potential to enable a variety of collaborative and communal crisis responses (Olanrewaju et al., 2020; Meurer et al., 2022). Indeed, emergent research on the use of social media during the pandemic has demonstrated how entrepreneurs leverage their online social ties for collaborations ranging from straightforward problem-solving to more elaborate sensemaking (Meurer et al., 2022; Giones et al., 2020). Yet, despite the potential of social media as an efficient crisis response tool, studies exploring the use of online social networks during crises, especially in combination with offline networks, remain limited.

As such, the purpose of this paper is to answer calls for a more in-depth understanding of the impact of crises on entrepreneurial collaborations, social ties and social capital (Bacq and Lumpkin, 2021; Meurer et al., 2022). Building on insights from social capital theory (e.g., Adler and Kwon, 2002; Nahapiet and Ghoshal, 1998), past research on entrepreneurial crisis responses (e.g., Grube and Storr, 2018; Salvato et al., 2020) and studies on the use of social media during a crisis (e.g., Byrnes et al., 2021; Yates and Paquette, 2011), we assess ventures' collaborations during the COVID-19 pandemic with two specific research questions:

- 1 how do during-pandemic collaborative actions of ventures compare to those occurring pre-pandemic
- 2 how are these actions reflected in the social media activities of the ventures.

2 Social capital as a resource during crises

Entrepreneurship is a socially embedded activity, meaning that the ability of ventures to recognise and leverage opportunities is based on their social connections, and more specifically, the social capital embedded in these connections (Stam et al., 2014). Social capital can be defined as “the goodwill that is engendered by the fabric of social relations and that can be mobilised to facilitate action” (Adler and Kwon, 2002). Past literature has shown social capital to be crucial in providing ventures with access to resources (Nordstrom and Steier, 2015; Stam et al., 2014) and knowledge (Adler and Kwon, 2002; Nahapiet and Ghoshal, 1998; Pittaway et al., 2004), as well as facilitating the discovery of new opportunities (Lengnick-Hall et al., 2011; Salvato et al., 2020). In addition to social capital, social ties can provide benefits such as high levels of trust, collective cohesiveness and shared norms that facilitate the pursuit of common goals, the exchange of resources and monitoring and guiding common behaviour (Nahapiet and Ghoshal, 1998; Nordstrom and Steier, 2015).

Social capital is especially relevant during times of crises, as it contributes to organisational resilience (Lengnick-Hall et al., 2011; Herbane, 2019) through facilitating and creating opportunities for rebuilding and recovery (Giones et al., 2020; Martinelli et al., 2018). Entrepreneurs with a cohesive and flexible network of connections before crises are able to lean on these relationships during and after crises (Kahn et al., 2013; Martinelli et al., 2018). Williams et al. (2017) found that in response to adversity caused by a crisis, small ventures relied first and foremost on their relational capabilities. They leveraged these in a purposeful bricolage combining internal resources of their own and external resources from their network (Williams et al., 2017). Furthermore, different types of ties enable ventures to leverage diverse benefits: some ties provide emotional support while others facilitate access to recovery opportunities (Salvato et al., 2020). Indeed, resources and knowledge acquired through social networks stimulate innovation beyond mere reactive actions to crises by extending the solution space of feasible actions (Lengnick-Hall and Beck, 2005). This can be particularly beneficial, as innovation and opportunity recognition are, at times, more important and relevant as determinants of success during periods of economic uncertainty compared to necessity-driven actions (Devece et al., 2016). As such, social ties appear to contribute to both survival and renewal of small ventures.

However, the COVID-19 pandemic has challenged and disrupted usual avenues of building, corroborating and expending social capital (Bacq et al., 2020; Giones et al., 2020; Syaifullah et al., 2021). Indeed, the demand for online collaboration and communication tools has increased in response to social distancing regulations (Byrnes et al., 2021). Social media can facilitate interconnectivity and collaboration by enabling quick and efficient, yet physically dispersed, interactions with diverse stakeholders (Georgescu and Popescul, 2015; Jones et al., 2015). This occurs, for example, through building positive brand equity (Hanaysha, 2016), empowering consumer engagement (de Vries et al., 2018), identifying and reaching out to experts (Kuhn et al., 2016) and facilitating engagement with various stakeholders more generally (Olanrewaju et al., 2020). Furthermore, ventures are able to draw diverse benefits from their online social capital through malleable online communities depending on their needs (Meurer et al., 2022). Not surprisingly, emerging studies on venture actions during the COVID-19 pandemic have demonstrated an increased reliance on social media for actions beyond mere promotion: ventures use it to share information to combat uncertainty and support resilience and renewal (Syaifullah et al., 2021) and to create, enlarge and strengthen their networks (Olanrewaju et al., 2020). It is also used by ventures to leverage their online community for emotional support (Giones et al., 2020). As social capital is claimed to be context-specific, online social capital differs from offline social capital – the online context can enable ventures to maintain and build a broader and more complex network (Smith et al., 2017), whereas the offline context fosters deeper relationships and emotional and psychological support (Klyver et al., 2018). Yet, studies exploring the interplay of online and offline social connections, particularly in terms of leveraging and building social capital in these different contexts, remain scarce. The boundaries between online and offline contexts may also have blended during COVID-19 through collaborative and emotion-awakening movements such as #supportyourlocal on social media which influenced offline behaviours. As such, exploring how offline venture collaborations compare to those evidenced in online behaviour during the crisis presents an added illustrative dimension for the present study.

3 Data and methodology

In order to explore the impact of the pandemic on small venture collaborations, the study combined longitudinal social media data of 14 packaged food and beverage ventures in Finland with data from two interview rounds involving the same ventures before and during the pandemic (see Table 1). Data was collected as part of the DesignBites research project of Aalto Design Factory. With the study design of the current article, we were able to create a detailed and rich dataset for a multiple case study (see Appendix 1 for information on the ventures).

3.1 Context of the study

The global COVID-19 pandemic introduced several changes to the operations and collaboration opportunities available in the Finnish food and beverage industry (Björklund et al., 2020a, 2020b). Interview data from the DesignBites research project reveals that prior to the pandemic, many interactions took place in face-to-face settings

such as tastings in supermarkets, and were carried out with partners from the larger food ecosystem. For this reason, the resulting COVID-19 restrictions and closures hit the industry hard. Restrictions on gatherings and enforcing social distancing measures led to the cancellation of various events and closure of customer businesses in the hospitality sector, drastically reducing demand and sales (ETL, 2020). Furthermore, restrictions on travel disrupted and complicated global supply chains and halted international sales initiatives (Tammivuori, 2020). Despite these challenges, the pandemic also created new opportunities and interactions, such as the co-creation of products or services and engagement in prosocial activities ranging from helping out critical and at-risk groups to supporting fellow food and beverage entrepreneurs (Björklund et al., 2020a, 2020b).

Table 1 Description of data

<i>Data characteristics</i>	<i>Interview data</i>	<i>Social media data</i>
Description of data	In-depth semi-structured thematic interviews discussing themes ranging from ventures' product development to stakeholder interactions and collaborations in the pre-pandemic interviews, and from ventures' sensemaking and responding to the pandemic to their plans for the future in the during-pandemic interviews	Instagram grid posts and corresponding captions related to developmental news updates, marketing promotions and co-branding with other ventures (visual analysis of photos was not done)
Role in analysis	Primary data in analysis	Secondary data in analysis
Timing	Pre-pandemic: Feb. 2018–Mar. 2020 During-pandemic: Mar. 2020–Nov. 2020	Pre-pandemic: Jan. 2019–Feb. 2020 During-pandemic: Mar. 2020–Dec. 2020

3.2 Interview data collection and analysis

Interviews served as the primary source of data for the present study and were used to provide an in-depth understanding of the influence the pandemic had on the collaborations of Finnish food and beverage ventures. This data consisted of two interview rounds, one done pre-pandemic between February 2018 and March 2020, and the other during the crisis between March 2020 and November 2020. Both of the interview rounds are part of a larger research project that includes interviews with approximately 50 food and beverage founders (see DesignBites research project credits). The during-pandemic interview round was not originally planned as part of the larger project but was a serendipitous opportunity to expand the existing dataset and served as an inspiration for the current study. We only included ventures that were interviewed both before and during the crisis within the current study to enable temporal comparison of collaboration and identification of the impact of the pandemic. Consequently, the final sample of the current study consists of 14 ventures, with 23 pre-pandemic interviews and 19 during-pandemic interviews.

All interviews were in-depth semi-structured thematic interviews and were conducted using a critical incident approach (Flanagan, 1954; Klein et al., 1989), prompting interviewees to discuss meaningful events in order to capture their emotions, motivations, and other underlying issues affecting collaboration. All of the interviews were

audio-recorded and transcribed verbatim for analysis. In the pre-pandemic interviews, the question themes ranged from ventures' product development to stakeholder interactions and collaborations. The themes of the during-pandemic interviews included making sense of and responding to the crisis situation and the ventures' plans for going forward.

The interview data was analysed by combining a multiple case study approach (Yin, 1989) and thematic analysis (Braun and Clarke, 2006), with the current study focused on the nature of reported collaboration. First, all mentions of collaborative activities for each venture were identified and separated into pre-pandemic collaborations and during-pandemic collaborations. Each of these instances was then thematically coded to identify the descriptive content of the collaboration: its type of focus (product, service, brand, business, package, process, sales or other), the type of partner (food industry, supply and sales chain, end users, other industries, public sector, and personal networks; see Appendix 2 for more detailed breakdown), and developmental orientation (developmental or promotional). In order to clarify the third dimension, developmental collaborations included actions such as co-creating a product, whereas promotional collaboration included actions such as collaborative marketing campaigns. These descriptive contents or dimensions were chosen due to their provision of a clear and comprehensive description of the collaborations to answer the core questions under investigation, in addition to them being attainable from the data for all collaboration instances. To examine how these might relate to social ties and the crisis, two additional dimensions were coded for during-COVID collaborations: familiarity with partner (existing partner or new partner), and the nature of the activity relative to the pandemic (collaboration because of the pandemic or collaboration despite the pandemic).

Next, the types and distributions of pre-pandemic and during-pandemic collaborations were qualitatively and quantitatively compared on a venture-by-venture basis to examine how the pandemic had influenced ventures' collaborations. Notably, the absolute number of pre-COVID collaborations was significantly higher than during-COVID collaborations, as pre-pandemic collaborations could include any collaboration occurring from the founding of the venture until the time of the pre-COVID interview, whereas the during-pandemic collaborations were restricted to collaborations begun only after the March 2020 lockdown (240 pre-COVID collaborations vs. 71 during-COVID collaborations). The primary emphasis of the analysis was on examining qualitative patterns in the types of reported collaboration, which was supplemented through a descriptive quantitative analysis. As a result of the small dataset and uneven division, this quantitative comparison was restricted to a descriptive comparison of portions rather than absolute quantities or statistical significance.

As a result of the comparison, we divided the ventures into four groups based on the change in their collaborative behaviour during the pandemic. The four groups are described in further detail in the results section.

3.3 Social media data collection and analysis

We chose to utilise data from Instagram in order to investigate the social media activities of the included ventures, as it was their most commonly used social media platform; for the majority of the sample cases it was the only one used. Social media activity was examined for the same 14 ventures included in the interview dataset, with grid posts collected and analysed from the venture's activity for a pre-pandemic period spanning

from January 2019 to February 2020 and a during-pandemic period covering March to December 2020. We tracked the ventures' activity on Instagram, accounting for grid posts, which represent ventures' permanent collection of images and corresponding captions. This approach enabled a non-obtrusive empirical data collection and longitudinal analysis of collaborations before and during the pandemic as well as a comparison between the two without the potential pitfalls of interviews affected by false recall and hindsight rationalisation (Roux-Dufort, 2016). As a result, we examined a total of 1,912 Instagram posts (1,000 pre-COVID and 912 during-COVID posts). Of these, 289 were found to relate to collaboration and were more closely analysed for their content (representing 14% pre-COVID vs. 16% during-COVID posts).

We noted all collaboration references within the posts to capture whether the collaboration included developmental efforts (developmental or promotional) and with whom the collaboration occurred (see Appendix 2 for list of partner types). Posts capturing developmental collaborations included, for example, the introduction of a new product developed with a partner or co-development of business. Promotional collaborations, in turn, included activities such as online or offline events facilitated with partners, donations to non-profit organisations, or sharing customer recipes. The pre-pandemic and during-pandemic posts including collaborations were then compared on a venture-by-venture basis and referenced with the interview data analysis to assess differences and similarities in what the ventures expressed about collaborations and what they showcased through social media. Again, the focus was on qualitative comparison, but this was supplemented by a descriptive quantitative comparison of the different types of activities.

4 Results

The pandemic and the infection control measures set in place affected, in one way or another, all of the studied food and beverage ventures: on one hand, increasing uncertainty and encountering new challenges while, on the other hand, creating shared goals and a shared sense of community also visible on social media through the frequently used #supportyourlocal and #supportsmallbusinesses hashtags. Despite forcing many players to first and foremost focus on mitigating the immediate negative effects caused by the pandemic and ensuring the capacity to stay afloat throughout the crisis, many ventures reported considering the pandemic a valuable learning opportunity and an opening for new collaborations. We saw four types of collaboration patterns emerge, with different tendencies in five dimensions:

- 1 expanding or narrowing the focus areas of collaborations
- 2 expanding or narrowing the variety of partners worked with
- 3 increasing or decreasing the proportion of the developmentally-oriented collaborations compared to pre-pandemic times
- 4 working with familiar or unfamiliar partners during the pandemic
- 5 engaging in collaborations due to or despite of the pandemic (Table 2).

These collaboration groups were named as follows: the expanders, the proactive narrowers, the reactive narrowers and the halters.

Table 2 Four approaches to collaboration during the pandemic

<i>Collaboration dimensions</i>	<i>Expanders</i>	<i>Proactive narrowers</i>	<i>Reactive narrowers</i>	<i>Halters</i>
Change from pre-pandemic to during-pandemic	<p>Expanding the scope of collaborations</p> <p>Either retaining or expanding the variety of different types of partners</p> <p>No clear pattern across ventures</p>	<p>Either retaining or narrowing down the scope of collaborations</p> <p>Either retaining or narrowing down the variety of different types of partners</p> <p>Increase in the relative amount of developmental collaborations</p> <p>Increase in posts featuring collaborations and active leveraging of social media in branding</p> <p>No overall pattern across ventures, yet distinct case-by-case differences</p> <p>Relatively even mixture of collaborations driven by and despite of the pandemic</p>	<p>Either retaining or narrowing down the scope of collaborations</p> <p>Narrowing down the variety of different types of partners</p> <p>Mostly decrease in the relative amount of developmental collaborations</p> <p>Increase in posts featuring collaborations and decrease in the variety of different types of partners featured</p> <p>No overall pattern across ventures, yet distinct case-by-case differences</p> <p>Most collaborations driven by the pandemic</p>	<p>No collaborations self-reported during the pandemic</p> <p>Increase in posts featuring promotional collaborations</p> <p>No collaborations self-reported during the pandemic</p>
During the pandemic	<p>Focus of collaborations</p> <p>Collaboration partners</p> <p>Developmental orientation of collaborations</p> <p>Representation of collaborations in social media</p> <p>Familiarity with collaboration partners</p> <p>Driver of collaborations</p>	<p>Expanding the scope of collaborations</p> <p>Either retaining or expanding the variety of different types of partners</p> <p>No clear pattern across ventures</p> <p>Increase in posts featuring collaborations and increase in the variety of different types of partners featured</p> <p>No overall pattern across ventures, yet distinct case-by-case differences</p> <p>Relatively even mixture of collaborations driven by and despite of the pandemic</p>	<p>Either retaining or narrowing down the scope of collaborations</p> <p>Narrowing down the variety of different types of partners</p> <p>Mostly decrease in the relative amount of developmental collaborations</p> <p>Increase in posts featuring collaborations and decrease in the variety of different types of partners featured</p> <p>No overall pattern across ventures, yet distinct case-by-case differences</p> <p>Most collaborations driven by the pandemic</p>	<p>No collaborations self-reported during the pandemic</p> <p>Increase in posts featuring promotional collaborations</p> <p>No collaborations self-reported during the pandemic</p>

4.1 *The expanders: expanding the scope of collaborations and/or the variety of collaboration partner types*

Two of the 14 studied ventures (Table 3), Emily's Desserts and Ellie's Health Snacks, expanded their collaborations during the pandemic either in terms of having a larger scope of more diverse collaborations, as in the case of Emily's venture, or having both a larger scope of more diverse collaborations and working with a greater variety of partners, as in the case of Ellie's venture. Before the crisis, Ellie's venture had a collaborative focus on services, business, processes and varied areas, such as helping other small ventures. On the other hand, during the crisis this venture's collaborations continued in services and business, but processes and varied collaborations turned into products, brand, and sales collaborations. In their social media activity, brand-focused collaborations were especially visible with posts highlighting collaborations with a loungewear designer and a yoga teacher among others, all contributing to expanding Ellie's venture's brand beyond food toward lifestyle. Yet, food-related product-focused collaborations were also prevalent, an example of which is highlighted in the quote below where the founder discusses sourcing ingredients for their breakfast sets from other small local entrepreneurs.

“We created the breakfast with [food venture partner], the bagels are from them. The almond croissants and sweets are from a small French bakery. I'm looking for some new food to include. [...] I purchase everything from other small entrepreneurs and friends.” (Ellie's Health Snacks)

Emily's venture, on the other hand, had focused on products, brand, business and packages in their collaborations pre-crisis, which then expanded to include collaborations with a focus on processes and other areas such as prosocial actions. For example, they delivered sweets to the frontline workers at a COVID-19 hospital inspired by their customers' ideas shared on their social media during the pandemic. Emily's venture also expanded their collaborations in terms of working with a wider range of different types of partners during the pandemic. The new types of partners included investors and influencers. In general, Emily's venture collaborated mainly with new, non-familiar partners during the crisis, though they continued to partner with some familiar collaborators such as retail stores with whom they organised raffles to replace cancelled tastings. Yet, other partner types that had been prevalent within pre-pandemic collaborations were not collaborated with during the pandemic, including restaurants and cafes, experts, and designers. As such, in addition to expanding collaborations, Emily's venture also shifted their partner base. Ellie's venture, on the other hand, had approximately the same number of different types of partners and maintained the same main partner types of other food companies from before the crisis, but all of their actual partners were new. Both of the companies within the expanders group also had investors as new partners joining their ventures during the COVID-19 crisis, which brought additional resources.

“Now that we have investors backing us up, we have more resources to make changes that I have wished and planned for a long time. Before, I've been alone and hadn't had enough money, time or energy to make big changes.” (Emily's Desserts)

There was no clear pattern in terms of the developmental orientation of the collaborations. In the case of Ellie's venture, the mixture across developmental and

promotional collaborations was similar before and during the pandemic. Emily's venture, in turn, increased the relative amount of promotional collaborations during the pandemic, as demonstrated in the examples of raffles with retail stores and delivering sweets to a hospital. Such promotional collaborations were also frequently featured in their social media posts. Both ventures engaged in collaboration both due to and despite the pandemic, with slightly more instances of collaboration due to the pandemic.

Table 3 Expander ventures' collaborations pre and during-pandemic

<i>Collaboration dimensions</i>		<i>Emily's desserts</i>	<i>Ellie's health snacks</i>
Change from pre-pandemic to during-pandemic	Focus of collaborations	Expanding the scope of collaborations from products, brand, business, and packages to also processes and prosocial actions	Expanding the scope of collaborations from services, business and processes to also products, brand and sales
	Collaboration partners	Expanding the variety of different types of partners from other food companies and non-food companies to also investors and distributors	Retaining the variety of different types of partners but shifting the partner base from food industry and food supply chain to end users and other industries
	Developmental orientation of collaborations	Decrease in the relative amount of developmental collaborations	Most collaborations developmental both pre and during-pandemic
	Representation of collaborations in social media	Increase in posts featuring collaborations, increased engagement with customers through social media and increase in the variety of different types of partners featured	Increase in posts featuring collaborations, particularly branding collaborations, and increase in the variety of different types of partners featured
During the pandemic	Familiarity with collaboration partners	Most collaborations partners new	All collaboration partners new
	Driver of collaborations	Relatively even mixture of collaborations driven by and despite of the pandemic	Relatively even mixture of collaborations driven by and despite of the pandemic

In terms of social media, the expanders increased posts about both developmental and promotional collaborations as well as featuring an increased variety of different types of partners. The collaborations described in the interviews were reflected in social media posts in a visual and communicative format. For example, Emily's venture posted a picture taken on the way to the hospital to donate the sweets. The social media postings of Ellie's venture were particularly reflective of the increased variety of different types of partners: Ellie actively posted about her venture's new services offered in collaboration with new partners such as yoga classes and clothing brand pop-ups. Furthermore, both ventures frequently partnered with other local businesses and cultivated the hashtags #supportyourlocal and #supportsmallbusinesses in their collaboration posts. Overall, the expanders appeared to use social media not only to communicate or deliver company

news, but to expand their boundaries of collaboration online and leverage their business with new partners.

4.2 The proactive narrowers: narrowing the scope of collaborations and/or the variety of collaboration partner types but increasing developmental orientation

All seven ventures in the proactive narrowers group (Table 4) were narrowing either the scope of collaborations, the variety of different types of partners, or both. Furthermore, the proactive narrowers increased the relative amount of developmental collaborations relative to pre-pandemic times. These new developmental collaborations led directly to developing or establishing new products or new distribution channels, improving existing products or existing distribution channels, or sharing key learnings or advice with partners. For example, Philip's venture used the governmental support funding it received to engage in developing new technology for their focal industry with an external expert.

"I can't yet talk about [the development project] much. It can lead to either new technology to be licensed for the whole industry or to the development of a completely new type of [product]. We've been planning the collaboration for almost two years. When we got the governmental support funding, we thought that now was the time to kick it off." (Philip's Beverages)

Preston's venture and Peter's venture were clear examples of narrowing down the scope of collaboration foci. Both narrowed down their collaboration areas during the pandemic, leaving both ventures collaborating on products, business and processes with no collaborations reported regarding brand or packages during the pandemic; in the case of Peter's venture, this narrowing also occurred in terms of prosocial actions. On the other hand, narrowing down the variety of different partner types was done by all of the proactive narrowers. For instance, Penelope's and Penny's ventures narrowed down their partner bases and worked mostly with partners familiar from previous collaborations: the former relied heavily on a familiar mentor, involving her in the development of a new offering, whereas the latter worked mostly with familiar partners from either the food industry or from the owner's personal network. For example, Penny's venture helped a food company by using their excess produce (usually sold to restaurants but backlogged due to the lockdown) to develop a new flavour, a collaboration also featured on their social media.

"They usually sell [their produce] to the restaurants and they couldn't sell now. And I told them, 'if you have something you cannot sell, I can invent something'. He said he had some herbs. I took them and I made a small batch of products with them." (Penny's Snacks)

All ventures did, however, form some new partnerships despite narrowing down the variety of their partners. In contrast to Penelope and Penny, all of the collaboration partners of Paul's and Philips' ventures during the crisis were new partners, and for Peter's venture, around two thirds of partners were new. In the cases of Peter's and Philip's ventures, new partners were mainly experts with whom the ventures worked to either improve production and related processes or develop new business models.

Table 4 Proactive narrower ventures' collaborations pre and during-pandemic

Collaboration dimensions		Paul's Snacks	Preston's Snacks	Peter's Health Snacks	Pia's Health Snacks	Philip's Beverages	Penelope's Health Snacks	Penny's Snacks
Change from pre-pandemic to during-pandemic	Focus of collaborations	Narrowing down the scope of collaborations from products, brand, business, packages, processes and sales to only products, processes and sales	Narrowing down the scope of collaborations from products, brand, business, packages, processes and sales to only products, business and processes	Narrowing down the scope of collaborations from products, services, brand, business, packages and processes to only products, business, processes and prosocial actions	Narrowing down the scope of collaborations from products, brand, processes and sales to only brand and sales	Narrowing down the scope of collaborations from all areas to only business and processes	Retaining the scope of collaborations but shifting it from business and prosocial actions to products and services	Retaining the scope of collaborations on products, brand, prosocial action and sales
	Collaboration partners	Narrowing down the variety of different types of partners from food industry, supply and sales chain, end user and other industry partners to mostly food industry and supply and sales chain partners	Narrowing down the variety of different types of partners from food industry, supply and sales chain, personal network and other industry partners to mostly supply and sales chain, food industry and other industry partners	Narrowing down the variety of different types of partners from food industry, supply and sales chain and other industry partners to mostly food industry and other industry partners	Narrowing down the variety of different types of partners from food industry, supply and sales chain, other industry and public sector partners to mostly supply and sales chain and end user partners	Narrowing down the variety of different types of partners from food industry, supply and sales chain and other industry partners to mostly food industry and personal network partners	Narrowing down the variety of different types of partners from food industry, other sector partners to mostly food industry and personal network partners	Narrowing down the variety of different types of partners from food industry, sales and supply chain and end user partners to mostly food industry and other industry partners
During the pandemic	Developmental orientation of collaborations	Most collaborations developmental both pre and during-pandemic	Most collaborations developmental both pre and during-pandemic	Most collaborations developmental both pre and during-pandemic	About one-third of collaborations developmental both pre-pandemic and during-pandemic	Increase in the relative amount of developmental collaborations	All collaborations developmental both pre- and during-pandemic	Increase in the relative amount of developmental collaborations
	Representation of collaborations in social media	Hardly any Instagram posts pre or during-pandemic	Hardly any Instagram posts pre or during-pandemic	Decrease in posts featuring developmental collaborations and most collaboration posts promotional in nature	Increase in posts featuring non-developmental collaborations, particularly focus on brand	Decrease in posts featuring collaborations and most collaboration posts promotional in nature	New Instagram account created during the pandemic to highlight the shifted focus of the brand	Increase in posts featuring non-developmental collaborations, particularly focus on brand
During the pandemic	Familiarity with collaboration partners	All collaboration partners new	Half of collaboration partners familiar	Most collaboration partners new	All collaboration partners new	All collaboration partners new	Most collaboration partners familiar	Most collaboration partners familiar
	Driver of collaborations	Most collaborations despite pandemic	All collaborations despite pandemic	Most collaborations despite pandemic	Most collaborations despite pandemic	All collaborations driven by pandemic	All collaborations despite pandemic	Most collaborations despite pandemic

Furthermore, all but one proactive narrower venture started the majority of their during-pandemic collaborations despite the pandemic, meaning that the pandemic was usually not the driving force or catalyst for collaborating. Rather, the interviews suggest that the proactive narrowers had many of their collaborations planned or even already agreed upon pre-pandemic, then carrying out these previous plans during the crisis. All ventures also extended their view to the future beyond the pandemic at least to some degree, and initiated collaborations for longer-term development rather than as responses to the pandemic. For example, Paul's venture explored new offerings-related collaboration with a competitor from the Nordics.

“I've been in touch also with the Norwegian company because they had an interesting product that we would like to develop. It's usually based on meat, yet there have been some tests of doing the same product plant-based.” (Paul's Snacks)

In contrast to the interviews showcasing either continued or increased developmental collaborations, the social media postings of the proactive narrowers showed a decrease in developmental collaborations and an increase in promotional collaborations. Four out of the seven proactive narrowers strongly focused on either strengthening or shifting their brand identity through their collaborative postings. For example, Penelope's venture rebranded themselves with a wellbeing focus, starting a new Instagram account with content and collaborations to build and promote the new brand identity. Philip's venture, in turn, previously used their social media mainly to promote products, but during the pandemic began to post about their new podcast created with other local entrepreneurs. In general, the ventures narrowed down the diversity of different types of partners featured in the collaboration posts to those partners sharing similar values or business goals, such as other food industry actors, distributors and local ventures.

4.3 The reactive narrowers: narrowing the variety of collaboration partner types and decreasing developmental orientation

The second group of narrowers, the reactive narrowers, consisted of four ventures (Table 5) that narrowed down their collaborations during the pandemic in terms of the diversity of partners. This narrowing down of the partner base was a common trait among the group members, but otherwise their partnering choices differed in terms of the types and familiarity of the partners. For example, Ryan's venture worked mainly with familiar food industry players including competitors, food companies and restaurants during the pandemic, yet less frequently than the pre-pandemic period. During the pandemic, their collaborations with competitors (also highlighted in social media) focused on helping each other out in various ways such as co-creating products.

“They [another brewery] visited us to create the product. We used our machines. They are a sort of vagabond brewery without their own production facilities or machines. They travel across Finland and visit other breweries to collaborate and produce their beers.” (Ryan's Beverages)

Table 5 Reactive narrower ventures' collaborations pre and during-pandemic

<i>Collaboration dimensions</i>		<i>Ryan's Beverages</i>	<i>Rachel's Desserts</i>	<i>Ruth's Health Snacks</i>	<i>Robert's Health Snacks</i>
Change from pre-pandemic to during-pandemic	Focus of collaborations	Narrowing down the scope of collaborations from products, brand, business, prosocial action and processes to only products, business and sales	Retaining the scope of collaborations on products, business and brand	Narrowing down the scope of collaborations from products, brand, business, prosocial action and processes to only products and brand	Narrowing down the scope of collaborations from all areas to only products, brand and prosocial actions
	Collaboration partners	Narrowing down the variety of different types of partners from food industry, other industry and personal network partners to mostly food industry partners	Narrowing down the variety of different types of partners from food industry, supply and sales chain and other industry partners to mostly food industry partners	Narrowing down the variety of different types of partners from food industry, supply and sales chain, end user, public sector and personal network partners to mostly food industry and other industry partners	Narrowing down the variety of different types of partners from food industry, supply and sales chain, end user, other industry and public sector partners to mostly food industry, supply and sales chain, end user and public sector partners
During the pandemic	Developmental orientation of collaborations	Most collaborations developmental both pre and during-pandemic	Decrease in the relative amount of developmental collaborations	All collaborations developmental both pre and during-pandemic	Decrease in the relative amount of developmental collaborations
	Representation of collaborations in social media	Decrease in posts featuring collaborations and decrease in variety of different types of partners featured	Decrease in posts featuring collaborations and collaboration posts mostly promotional in nature	Hardly any Instagram posts pre or during-pandemic	Decrease in posts featuring collaborations and collaboration posts mostly promotional in nature
	Familiarity with collaboration partners	Most collaboration partners familiar	Half of collaboration partners familiar	All collaboration partners new	Most collaboration partners new
	Driver of collaborations	Most collaborations driven by the pandemic	Half of collaborations driven by the pandemic	Half of collaborations driven by the pandemic	All collaborations driven by the pandemic

Robert's venture also worked with partners of similar types during the pandemic, but less frequently and with mainly new partners. Rachel's venture, in turn, had a fairly equal mix of familiar and new partners during the pandemic, typically collaborating with influencers and media as well as a large food company partner. Lastly, Ruth's venture collaborated with completely new partners, yet with fewer partner types during the pandemic compared to pre-pandemic times. For example, they began exploring the applicability of their product for the food service sector through a collaborative experiment with a restaurant.

“We are attempting to make a proof of concept to sell the product in the food service sector. We will start small-scale with one restaurant here in [a Finnish city], they will introduce our products in their dishes.” (Ruth's Health Snacks)

Three out of the four reactive narrowers narrowed down the different focus areas of collaborations in addition to narrowing down their partner bases. For example, Ryan's venture had collaborated on products, brand, business, processes and other areas such as sharing advice among fellow small breweries pre-pandemic, but during the pandemic narrowed their areas of focus down to products, business and sales. In a similar fashion, Robert's and Ruth's ventures narrowed down their foci of collaborations during the pandemic, the former engaging only in products, brand and prosocial collaborations and the latter focusing only on products and business. The remaining venture, Rachel's, retained its focus on products, brand and business, but shifted from process collaborations to prosocial actions.

Furthermore, Rachel's and Robert's ventures increased promotional collaborations, and Ryan's and Ruth's ventures maintained their pre-pandemic proportions of development and promotion-oriented collaborations, reflecting their more reactive orientation during-pandemic. Promotional collaborations were frequently featured in their social media, with for example Robert's venture sharing their ecosystem sustainability campaign done in collaboration with primary producers and influencers and Rachel's venture reposting the promotional posts of their three Finnish brand influencers.

In general, however, the reactive narrowers decreased both developmental and promotional collaboration posts on social media, in contrast to the increase in promotional collaborations reported in the interviews of this group. This was the only group of ventures that decreased their overall number of posts during the pandemic compared to pre-pandemic levels. In line with the interviews, the variety of different types of partners featured in the Instagram posts also generally decreased. For example, Ryan's venture and Robert's venture featured a wide range of partners in their posts pre-pandemic, but during the crisis mainly distributor partners were visible on social media.

4.4 The halters: halting collaborations

Lastly, there was one venture among the 14 studied ventures, Hanna's Snacks, that halted collaborations altogether during the pandemic despite having been an avid collaborator pre-pandemic. Their pre-pandemic collaborations had focused mostly on products and business together with other food industry and supply and sales chain actors, as well as public sector actors. Hanna's venture did display actions during the pandemic but did not report engaging in collaborations in the during-pandemic interview. Instead, they launched a new product during the early stretch of the pandemic that required focus and

resources, particularly as the product launch event was turned into a virtual one. The launch was also visible on social media, where it was showcased in a collaborative manner; for example, Hanna's venture highlighted the stores stocking the new product and engaged with customers for feedback on the product. Furthermore, Hanna's venture leveraged the trending hashtags of #supportyourlocal and #supportsmallbusinesses to gain visibility for their online promotion of the new product.

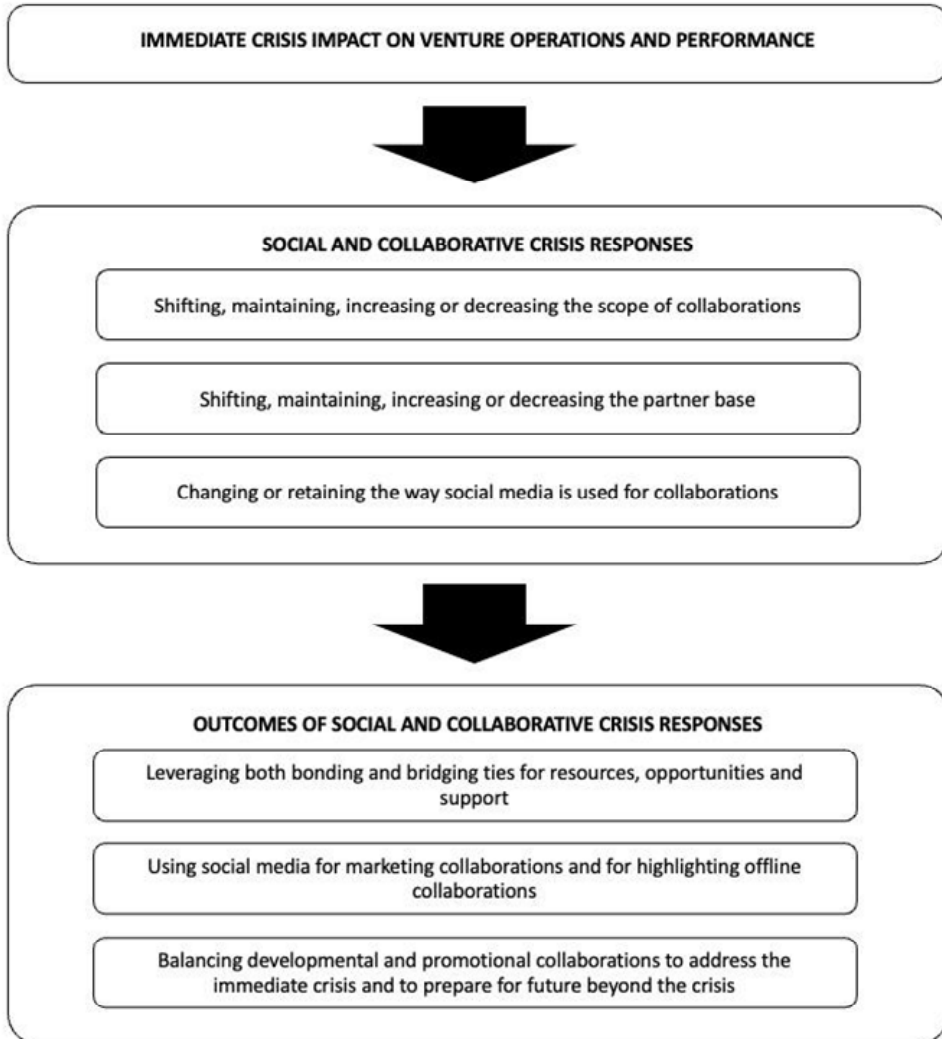
5 Discussion

Past research has demonstrated the importance of a venture's ties with other actors for sustained value creation during times of calm and crisis (Adler and Kwon, 2002; Inkpen and Tsang, 2005). Based on a longitudinal study of the collaboration patterns of 14 small packaged food and beverage companies, the current study extends the understanding of different types of collaborative responses to the COVID-19 crisis. The four response patterns – namely expanders, proactive narrowers, reactive narrowers and halters – varied in scope, developmental orientation and types of partners engaged with during the pandemic. These response patterns reflect ventures' active management of collaborative ties and associated costs and benefits under duress, particularly in terms of what forms of action are considered most suitable and whether to engage in bonding or bridging behaviours (Bordieu, 1986). Bonding ties were evident through trust, collective cohesion and shared norms (Nahapiet and Ghoshal, 1998; Nordstrom and Steier, 2015), shaping crisis response through social support embedded within a venture's relationships with familiar others (Gittel et al., 2006). In turn, bridging ties were present through access to new information and resources linked to new opportunities (Adler and Kwon, 2002; Nordstrom and Steier, 2015). As such, the response patterns of the current study reflect general tendencies that can be used to frame the collaborative elements at play within a given venture's behaviour, offering four contributions to examining collaboration and social resource management during crises.

First, the results shed light on how bridging and bonding ties are leveraged and changed during crises. This social tie balancing and therefore social capital resource management in challenging times is evident in past research as well, but with conflicting dynamics, as crises have been shown to both encourage and enhance collaborations (Doern et al., 2019; Salvato et al., 2020) while also stimulating isolation rather than collaborative behaviours (Muñoz et al., 2020). The management of ties can be deeply affected by crises, as a systemic shock can represent a common cause for ventures to address within the affected community, encouraging collaborations to help community recovery (Grube and Storr, 2018). Here, the pandemic brought struggling ventures together to battle pandemic effects through collaborating, supporting the local community and using networks to access new resources and knowledge. In some cases, previously familiar partners were prevalent in access to knowledge or resources as bonding ties of an established in-group of known others. Collaborations with other food industry and food value chain actors were particularly prevalent during the pandemic, as these players were impacted similarly, and thus, needed to engage in similar crisis responses as the studied ventures. Notably, the pandemic-forced impact response shared by previously familiar and unfamiliar collaborative partners acted as a bonding element for some ventures, leading to a capacity to draw on one another's resources that past studies have

demonstrated to be crucial in resilient crisis responses (Herbane, 2019; Lengnick-Hall et al., 2011; Lengnick-Hall and Beck, 2005). Here, the boundaries between bonding and bridging ties can become blurred due to a shared crisis that can broaden ventures' conception of the in-group resulting in bridging tie social capital sources shifting to provide bonding tie resources and support. This enhanced bonding was also evident in ventures making the deliberate choice to work with other small and local actors, aligning with past research demonstrating how collaborative ties with a group of similar others act as vital sources of support in crises (Gittell et al., 2006; Shepherd and Williams, 2014).

Figure 1 Social capital management crisis responses of ventures



Second, the crisis responses in the current study highlight the role of new ties in relation to old ones. The familiarity with these similar and dissimilar partners varied, implying that food and beverage ventures were leveraging bonding and bridging ties to access

different kinds of resources, namely managing diverse forms of social capital toward improved outcomes (Salvato et al., 2020). In observing individual ventures, there was great variation in terms of the proportion of familiar versus unfamiliar collaborators during the pandemic: at one extreme, there were ventures with all partners being unfamiliar, and at the other extreme, one venture with all partners being familiar from before the pandemic. Here, the emphasis on seeking support from existing social capital versus chasing new opportunities is key. Overall, forming new ties was more common compared to leveraging existing ties – only a third of partners during the crisis were familiar ones – indicating that access to new resources through bridging ties was prevalent among the ventures. This highlights the significance of ties bridging access to new partners, and consequently, new resources, as ventures capitalised on new opportunities by developing partnerships during the crisis. Furthermore, as discussed previously, the external pressure of the crisis itself may very well have created a bonding effect even in the case of bridging ties, encouraging entrepreneurial action founded on shared and previously unforeseen needs.

Third, the differences in developmental orientation among response patterns also yield insight into efforts beyond the crisis as developmental orientation is one of the most important determinants of success during and after a crisis (Devece et al., 2016). Ventures within both groups of narrowers lessened either the scope of collaborations, the variety of different types of partners or both during the pandemic. However, the orientation of the collaborations differed between the two groups. The reactive narrowers decreased the proportion of developmental collaborations, namely collaborations aiming at developing new or improving existing value offering and value creation architecture. They reacted to the pandemic by increasing promotional collaborations to mitigate adverse circumstances. On the other hand, the proactive narrowers increased developmental collaborations, prioritising the implementation of pre-pandemic development intentions to build longer-term value. Perhaps, reactive narrower ventures shifted effort away from bridging social capital to ensure core functioning of operations, while proactive narrower ventures sought to leverage the crisis by creating new bridging opportunities that might yield benefits beyond the crisis. This approach may also benefit from strengthening bonding elements within bridging ties due to shared experience during the crisis. As such, the results suggest different dominant temporal orientations in both collaborative and developmental tendencies across the two types of narrowing ventures.

Finally, the results suggest that social media may bring opportunities for a more passive type of bonding tie creation beyond active collaboration in ventures' during-crisis social capital management. Social media was primarily used to showcase the collaborations done offline, rather than for the advancement of collaborations. This result aligns with past studies that have highlighted the role of social media as an efficient tool for communicating and showcasing actions taken by ventures (Georgescu and Popescul, 2015; Keim and Noji, 2011), but contradicts past studies that have demonstrated a more strategic use of social media to actively engage and co-create value with the community (Olanrewaju et al., 2020; Meurer et al., 2022). This may be due to limited resources during the crisis, where responses demanding time and energy were invested in offline bonding and bridging partnerships to keep operations moving forward. On the other hand, a more passive form of engagement with the community was visible in the ventures' use of social media by cultivating the trending hashtags and communicating the feeling of

being in the same boat amidst the turmoil. This is in line with past research that has demonstrated that interconnectivity built online can contribute to social capital and support resilience and renewal (Keim and Noji, 2011; Syaifullah et al., 2021), and illustrates the aforementioned bonding effect that a crisis experience can bring, resulting from expansion and emphasis on in-group characteristics. The results show that part of leveraging a crisis is recognising the bonding effect of shared experience, which can bring about a beneficial shift in in-group dynamics for flexible but scale-challenged ventures to lean on one another in new ways. Here, merely existing in the social network as an active visible participant becomes a social capital resource for ventures, as the crisis can enhance in-group bonding efforts in offline collaboration and signalling efforts online through social media. Figure 1 summarises the contributions of the study.

5.1 Limitations and future research

The current study is based on a small sample limited to a single industry that may self-select for certain characteristics and as such the results are not generalisable. More research is needed to examine the prevalence of these response patterns, social capital management biases and social tie emphases in other cultural and industry contexts. In addition, while the current data sample was both longitudinal and multimodal, capturing social media and interview data at different points of time, all data focused on the entrepreneurs' communications. Further data on, for example, venture performance and the collaborators' perspectives on joint activities may reveal additional variation and salient dimensions in response patterns and how they affect firm performance in crisis. While the current study demonstrates four different approaches to collaborating during the pandemic, it does not offer reliable insights on which type of response should be preferred and when. Thus, subsequent research might shed light on the longer-term financial and wellbeing impacts of the different response pattern types.

Additional entrepreneur-provided data might also reveal more nuance and provide more representative data on the frequency of collaborative endeavours, especially in the case of social media activity, which may overrepresent marketing and product-focused collaborations as ventures are less likely to post about collaborations without a tangible outcome. Interview data, in turn, is subject to retrospective bias. As such, diary studies may provide further insights, particularly to the temporal dimension of collaborations during crises. The current study suggests that some collaborative actions are in direct response to the crisis, whereas others span before and after the pandemic in planning or intended duration. Diary studies might provide further information on the formation of collaboration intentions, as well as how entrepreneurs monitor and evaluate collaborations.

In addition, exploring how the collaborative actions of ventures evolve in different crisis phases offers a promising avenue for further research. Such studies might explore, for example, whether ventures settle on proven and tested ways to collaborate amidst the pandemic or continue to expand or narrow their collaborations, as well as which changes in collaborations become more permanent and which are omitted. Here, expanding from social media posts to a wider range of activities, such as temporarily available Instagram stories and comments and likes, could also provide further insight on entrepreneurial behaviour as well as partner engagement online. An awareness of response pattern classification regarding collaborator scope, developmental orientation and partner type

can set the stage for a deeper understanding of ventures' core values in terms of what is expendable and what will be protected in terms of their social capital portfolio.

6 Conclusions

Exploring how the COVID-19 crisis shaped and changed the collaboration behaviours and opportunities of 14 Finnish packaged food and beverage ventures, we demonstrate four overall approaches to collaborating during the pandemic. The approaches ranged from expanding the collaboration foci to narrowing the scope of collaboration but increasing social media activity and development-oriented collaboration despite the pandemic, or then narrowing the type of partners engaged with and focusing mainly on direct crisis responses in collaboration. In a single case, pre-pandemic active engagement in a variety of collaborations was ceased except for online promotional collaborations. Changes in collaboration foci, partners and types suggest that external crises such as the current pandemic actively shape how ventures collaborate and manage social capital and how ventures bridge or bond with familiar and unfamiliar partners in the pursuit of self-interest and in-group wellbeing. Overall, the findings show that crisis creates shifts in priorities and behaviours linked to collaborations, and that these shifts need further research-based insights in order to better understand the effects of collaborative action taken in the highly dynamic and inescapably social context of entrepreneurship.

Data availability

The social media dataset generated and analysed during the current study are available from the corresponding author on reasonable request. The interview dataset generated and analysed during the current study cannot be meaningfully anonymised or transferred outside of the EU due to the GDPR notices of the data, and thus, cannot be shared.

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References

- Adler, P.S. and Kwon, S.W. (2002) ‘Social capital: prospects for a new concept’, *Academy of Management Review*, Vol. 27, No. 1, pp.17–40.
- Bacq, S. and Lumpkin, G.T. (2021) ‘Social entrepreneurship and COVID-19’, *Journal of Management Studies*, Vol. 58, No. 1, pp.285–288.
- Bacq, S., Geoghegan, W., Josefy, M., Stevenson, R. and Williams, T.A. (2020) ‘The COVID-19 virtual idea blitz: marshalling social entrepreneurship to rapidly respond to urgent grand challenges’, *Business Horizons*, Vol. 63, No. 6, pp.705–723.
- Björklund, T.A., Mikkonen, M., Mattila, P. and van der Marel, F. (2020a) ‘Expanding entrepreneurial solution spaces in times of crisis: Business model experimentation amongst packaged food and beverage ventures’, *Journal of Business Venturing Insights*, November, Vol. 14, p.e00197.
- Björklund, T.A., Mikkonen, M., Perttunen, E. and Kuukka, A. (Eds.) (2020b) *From Crisis to Creativity: Entrepreneurial Action in Finnish Packaged Food & Beverage Products*, Aalto University, Espoo, ISBN: 978-952-60-3787-5.
- Bourdieu, P. (1986) ‘The forms of capital’, in Richardson, J. (Ed.): *Handbook of Theory and Research for the Sociology of Education*, pp.241–258, Greenwood, New York, NY.
- Braun, V. and Clarke, V. (2006) ‘Using thematic analysis in psychology’, *Qualitative Research in Psychology*, Vol. 3, No. 2, pp.77–101.
- Byrnes, K.G., Kiely, P.A., Dunne, C.P., McDermott, K.W. and Coffey, J.C. (2021) ‘Communication, collaboration and contagion: “virtualisation” of anatomy during COVID-19’, *Clinical Anatomy*, Vol. 34, No. 1, pp.82–89.
- de Vries, H.P., Veer, E. and de Vries, K.V. (2018) ‘An examination of SME social media use in the food industry’, *Small Enterprise Research*, Vol. 25, No. 3, pp.227–238.
- Devece, C., Peris-Ortiz, M. and Rueda-Armengot, C. (2016) ‘Entrepreneurship during economic crisis: success factors and paths to failure’, *Journal of Business Research*, Vol. 69, No. 11, pp.5366–5370.
- Doern, R., Williams, N. and Vorley, T. (2019) ‘Special issue on entrepreneurship and crises: business as usual? An introduction and review of the literature’, *Entrepreneurship & Regional Development*, Vol. 31, Nos. 5–6, pp.400–412.
- Elintarviketeollisuusliitto (ETL) (2020) *Koronaviruksen vaikutukset elintarvikealalla kahtiajakoiset*, Elintarviketeollisuusliitto [online] <https://www.etl.fi/ajankohtaista/tiedotteet/koronaviruksen-vaikutukset-elintarvikealalla-kahtiajakoiset.html> (accessed 10 December 2021).
- Flanagan, J.C. (1954) ‘The critical incident technique’, *Psychological Bulletin*, Vol. 51, No. 4, pp.327–357.
- Gedaljovic, E., Honig, B., Moore, C.B., Payne, G.T. and Wright, M. (2013) ‘Social capital and entrepreneurship: a schema and research agenda’, *Entrepreneurship Theory and Practice*, Vol. 37, No. 3, pp.455–478.
- Georgescu, M. and Popescu, D. (2015) ‘Social media – the new paradigm of collaboration and communication for business environment’, *Procedia Economics and Finance*, Vol. 20, pp.277–282.

- Giones, F., Brem, A., Pollack, J.M., Michaelis, T.L., Klyver, K. and Brinckmann, J. (2020) 'Revising entrepreneurial action in response to exogenous shocks: considering the COVID-19 pandemic', *Journal of Business Venturing Insights*, November, Vol. 14, p.e00186.
- Gittell, J.H., Cameron, K., Lim, S. and Rivas, V. (2006) 'Relationships, layoffs, and organizational resilience: airline industry responses to September 11', *The Journal of Applied Behavioral Science*, Vol. 42, No. 3, pp.300–329.
- Grube, L.E. and Storr, V.H. (2018) 'Embedded entrepreneurs and post-disaster community recovery', *Entrepreneurship & Regional Development*, Vol. 30, Nos. 7–8, pp.800–821.
- Hanaysha, J. (2016) 'The importance of social media advertisements in enhancing brand equity: a study on fast food restaurant industry in Malaysia', *International Journal of Innovation, Management and Technology*, Vol. 7, No. 2, p.46.
- Herbane, B. (2019) 'Rethinking organizational resilience and strategic renewal in SMEs', *Entrepreneurship & Regional Development*, Vol. 31, Nos. 5–6, pp.476–495.
- Inkpen, A.C. and Tsang, E.W. (2005) 'Social capital, networks, and knowledge transfer', *Academy of Management Review*, Vol. 30, No. 1, pp.146–165.
- Jones, N., Borgman, R. and Ulusoy, E. (2015) 'Impact of social media on small businesses', *Journal of Small Business and Enterprise Development*, Vol. 22, No. 4, pp.611–632.
- Kahn, W.A., Barton, M.A. and Fellows, S. (2013) 'Organizational crises and the disturbance of relational systems', *Academy of Management Review*, Vol. 38, No. 3, pp.377–396.
- Keim, M.E. and Noji, E. (2011) 'Emergent use of social media: a new age of opportunity for disaster resilience', *American Journal of Disaster Medicine*, Vol. 6, No. 1, pp.47–54.
- Klein, G.A., Calderwood, R. and Macgregor, D. (1989) 'Critical decision method for eliciting knowledge', *IEEE Transactions on Systems, Man, and Cybernetics*, Vol. 19, No. 3, pp.462–472.
- Klyver, K., Honig, B. and Steffens, P. (2018) 'Social support timing and persistence in nascent entrepreneurship: exploring when instrumental and emotional support is most effective', *Small Business Economics*, Vol. 51, No. 3, pp.709–734.
- Kuckertz, A., Brändle, L., Gaudig, A., Hinderer, S., Reyes, C.A.M., Prochotta, A., Berger, E.S. et al. (2020) 'Startups in times of crisis – a rapid response to the COVID-19 pandemic', *Journal of Business Venturing Insights*, June, Vol. 13, p.e00169.
- Kuhn, K., Galloway, T., and Collins-Williams, M. (2016) 'Near, far, and online: Small business owners' advice-seeking from peers', *Journal of Small Business and Enterprise Development*, Vol. 23, No. 1, pp.189–206.
- Lengnick-Hall, C.A. and Beck, T.E. (2005) 'Adaptive fit versus robust transformation: how organizations respond to environmental change', *Journal of Management*, Vol. 31, No. 5, pp.738–757.
- Lengnick-Hall, C.A., Beck, T.E. and Lengnick-Hall, M.L. (2011) 'Developing a capacity for organizational resilience through strategic human resource management', *Human Resource Management Review*, Vol. 21, No. 3, pp.243–255.
- Linnenluecke, M.K. and McKnight, B. (2017) 'Community resilience to natural disasters: the role of disaster entrepreneurship', *Journal of Enterprising Communities: People and Places in the Global Economy*, Vol. 11, No. 1, pp.166–185.
- Martinelli, E., Tagliazucchi, G. and Marchi, G. (2018) 'The resilient retail entrepreneur: dynamic capabilities for facing natural disasters', *International Journal of Entrepreneurial Behavior & Research*, Vol. 24, No. 7, pp.1222–1243.
- Meurer, M.M., Waldkirch, M., Schou, P.K., Bucher, E.L. and Burmeister-Lamp, K. (2022) 'Digital affordances: how entrepreneurs access support in online communities during the COVID-19 pandemic', *Small Business Economics*, Vol. 58, No. 2, pp.637–663.
- Muñoz, P., Naudé, W., Williams, N., Williams, T. and Frias, R. (2020) 'Reorienting entrepreneurial support infrastructure to tackle a social crisis: a rapid response', *Journal of Business Venturing Insights*, November, Vol. 14, p.e00181.

- Nahapiet, J. and Ghoshal, S. (1998) 'Social capital, intellectual capital, and the organizational advantage', *Academy of Management Review*, Vol. 23, No. 2, pp.242–266.
- Nordstrom, O.A. and Steier, L. (2015) 'Social capital: a review of its dimensions and promise for future family enterprise research', *International Journal of Entrepreneurial Behavior & Research*, Vol. 21, No. 6, pp.801–813.
- Olanrewaju, A.S.T., Hossain, M.A., Whiteside, N. and Mercieca, P. (2020) 'Social media and entrepreneurship research: a literature review', *International Journal of Information Management*, February, Vol. 50, pp.90–110.
- Pittaway, L., Robertson, M., Munir, K., Denyer, D. and Neely, A. (2004) 'Networking and innovation: a systematic review of the evidence', *International Journal of Management Reviews*, Vol. 5, Nos. 3–4, pp.137–168.
- Pollack, J.M., Vanepps, E.M. and Hayes, A.F. (2012) 'The moderating role of social ties on entrepreneurs' depressed affect and withdrawal intentions in response to economic stress', *Journal of Organizational Behavior*, Vol. 33, No. 6, pp.789–810.
- Roux-Dufort, C. (2016) 'Delving into the roots of crises: the genealogy of surprise', in Schwarz, A., Seeger, M.W. and Auer, C. (Eds.): *The Handbook of International Crisis Communication Research*, pp.24–33, Wiley, West Sussex, UK.
- Salvato, C., Sargiacomo, M., Amore, M.D. and Minichilli, A. (2020) 'Natural disasters as a source of entrepreneurial opportunity: family business resilience after an earthquake', *Strategic Entrepreneurship Journal*, Vol. 14, No. 4, pp.594–615.
- Shepherd, D.A. and Williams, T.A. (2014) 'Local venturing as compassion organizing in the aftermath of a natural disaster: the role of localness and community in reducing suffering', *Journal of Management Studies*, Vol. 51, No. 6, pp.952–994.
- Smith, C., Smith, J.B. and Shaw, E. (2017) 'Embracing digital networks: entrepreneurs' social capital online', *Journal of Business Venturing*, Vol. 32, No. 1, pp.18–34.
- Stam, W., Arzlanian, S. and Elfring, T. (2014) 'Social capital of entrepreneurs and small firm performance: a meta-analysis of contextual and methodological moderators', *Journal of Business Venturing*, Vol. 29, No. 1, pp.152–173.
- Syaifullah, J., Syaifudin, M., Sukendar, M.U. and Junaedi, J. (2021) 'Social media marketing and business performance of MSMEs during the COVID-19 pandemic', *The Journal of Asian Finance, Economics, and Business*, Vol. 8, No. 2, pp.523–531.
- Tammivuori, H. (2020) *Analyysi: Korona saa koko elintarvikeketjun yskimään*, Elintarviketeollisuusliitto [online] <https://www.etl.fi/ajankohtaista/artikkelit/2020/analyysi-korona-saa-koko-elintarvikeketjun-yskimaan.html> (accessed 10 December 2021).
- Williams, T.A., Gruber, D.A., Sutcliffe, K.M., Shepherd, D.A. and Zhao, E.Y. (2017) 'Organizational response to adversity: fusing crisis management and resilience research streams', *Academy of Management Annals*, Vol. 11, No. 2, pp.733–769.
- Yates, D. and Paquette, S. (2011) 'Emergency knowledge management and social media technologies: a case study of the 2010 Haitian earthquake', *International Journal of Information Management*, Vol. 31, No. 1, pp.6–13.
- Yin, R.K. (1981) 'The case study as a serious research strategy', *Knowledge*, Vol. 3, No. 1, pp.97–114.

Appendix 1

Studied ventures, their collaboration groups and their interview dates

<i>Group</i>	<i>Type of offering</i>	<i>Pseudonym</i>	<i>Pre-pandemic interview time</i>	<i>During-pandemic interview time</i>
Expanders	Desserts	Emily	Spring 2019	Spring and Fall 2020
	Health snacks	Ellie	Fall 2019	Spring and Fall 2020
Proactive narrowers	Beverages	Philip	Spring and Winter 2018	Spring and Fall 2020
	Health snacks	Penelope	Fall 2019	Spring 2020
	Snacks	Penny	Fall 2019	Summer 2020
	Snacks	Paul	Fall 2018 and Fall 2019	Fall 2020
	Snacks	Preston	Fall 2019	Fall 2020
	Health snacks	Peter	Spring and Fall 2019	Spring and Fall 2020
	Health snacks	Pia	Fall 2019	Fall 2020
Reactive narrowers	Beverages	Ryan	Fall 2019	Spring 2020
	Health snacks	Robert	Fall 2018 and Summer 2019	Spring 2020
	Desserts	Rachel	Summer 2019	Spring and Fall 2020
	Health snacks	Ruth	Fall 2019	Spring 2020
Halters	Snacks	Hanna	Summer and Fall 2019	Spring 2020

Appendix 2

Collaboration partner types in interview and social media data analysis

<i>General partner types</i>	<i>Detailed partner types</i>
Food industry	Food company
	Expert
Supply and sales chain	Restaurant, cafe, bar
	Competitor
	Retail chain
	Speciality sales channel
	Contractor
End users	Distributor
	Supplier
	Exporter
	Customer
	User community
	Influencer

*Collaboration partner types in interview and social media data analysis
(continued)*

<i>General partner types</i>	<i>Detailed partner types</i>
Other industry	Accelerator, incubator, start-up hub Non-food company Designer Investor Artist Event
Public sector	Non-profit organisation Governmental organisation Media Educational institution Regional organisation
Personal network	Mentor Personal network