

# Knowledge creation in facing change: community resilience through resources and capacities in microbusinesses internationalization

Journal of  
Documentation

273

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Received 9 December 2024

Revised 8 May 2025

Accepted 12 May 2025

## Abstract

**Purpose** – This article examines the connections between knowledge creation (KC) and resources and capacities as dimensions of community resilience (CR) in the internationalization of microbusinesses in Finland. For microbusinesses, which are firms with a very limited number of staff, it's essential to have sufficient resources and capacities to create knowledge and increase resilience in challenging situations, such as internationalization.

**Design/methodology/approach** – Data for this study were collected in December 2021 from Finnish microbusinesses participating in business coaching services in Poland and Finland.

**Findings** – Internationalization is challenging and requires knowledge-creating interaction. The paper suggests that when knowledge is created in interaction with the community, the community's experience of resilience is strengthened. In the study, resources and capacities are divided into place-based, sociopolitical, financial, physical and human resources and capacities. The paper highlights resources and capacities, i.e. collaboration opportunities, and digitalization in rural areas, financing options, budgeting and cost management skills, and willingness and ability to interact and negotiate.

**Practical implications** – The results of this study can be used widely in the planning and implementation of business coaching services and are particularly beneficial to microbusinesses in creating knowledge to build resilience.

**Originality/value** – This study introduces the concept of CR to the field of Library and Information Studies (LIS) and contributes to the research of KC by addressing, i.e. resources and capacities in knowledge-creating interaction.

**Keywords** Internationalization, Knowledge management, Community resilience, Knowledge creation, Microbusinesses, Knowledge-creating interaction

**Paper type** Research paper

## 1. Introduction

Business organizations need to continually improve their continuity and profitability. This often depends on the staff's resources and capacities to create knowledge and manage business actions (Tzortzaki and Mihiotis, 2014). There, flexibility and reorientation in challenging situations are needed. This can be further elaborated in a deeper manner with the concept of resilience, which originally means flexibility and adaptation in difficult life events (Luthar *et al.*, 2000; Welsh, 2014). In the communal context, resilience can be seen as a community's



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Journal of Documentation

Vol. 81 No. 7, 2025

pp. 273-292

Emerald Publishing Limited

e-ISSN: 1758-7379

p-ISSN: 0022-0418

DOI 10.1108/JD-12-2024-0298

ability to integrate changes in a way that facilitates awareness of the future (Welsh, 2014; Wilson, 2012). This study introduces the concept of community resilience (CR) to the field of Library and Information Studies (LIS) and aims to contribute to the research of knowledge creation (KC) by studying CR's relation to knowledge-creating interaction and interaction skills.

By examining the connections between KC and CR, and by focusing on resources and capacities as dimensions of CR, this study examines the internationalization of microbusinesses in Finland. Microbusinesses are firms with fewer than 10 employees (European Commission, 2003) and thus a limited number of staff, resources and capacities. This topic is important because rapid changes in the global situation challenge microbusinesses, in particular, to seek benefits from cooperation and communities, as well as from internationalization. Due to inflation in Finland, the general price level has increased, and the purchasing power of customers has decreased. There is also uncertainty in the markets. Finland is a tiny market area, because the population is low. According to Statistics Finland, Finland's preliminary population figure was 5.6 million at the end of January 2025. So, for microbusinesses, it is reasonable to seek foreign markets for business expansion. In this study, resilience in microbusinesses internationalization is investigated through the concept of community, which can be defined as a group of people who share common interests, have interactions, are in the same network, and are tied together but do not necessarily have to be in the same place (Bradshaw, 2008). The following research questions (RQ's) are addressed:

RQ1. How is CR connected to KC in microbusinesses internationalization?

RQ2. What resources and capacities do microbusinesses need to create knowledge for internationalization?

In previous studies, knowledge management (KM) has been shown to have a connection with organizational resilience across various contexts (e.g. Cotta and Salvador, 2020; Duchek, 2020; Zayed *et al.*, 2022). Duchek (2020) stressed the need for academic research, particularly about the capabilities and conditions that construct and develop resilience. Also, Sinha and Ola (2021) have argued that continuous learning results and dynamic capabilities in community knowledge sharing emphasize resilience in organizations and business communities. Furthermore, the connections between KC and resilience need to be focused on to find out how microbusinesses can be supported in creating knowledge to build CR in the internationalization context.

In the field of LIS, the concept of resilience has been applied very little and not in the microbusiness or community context (Hersberger, 2011; Lloyd, 2014, 2015). Hersberger (2011) applied resilience when studying LIS professionals to help them serve users who faced stressful or harmful life experiences. Lloyd (2014, 2015) studied resilience from the perspective of health literacy and information literacy in the refugee context. Also, very little is known about KM, as well as the internationalization activities of microbusinesses, which are the most common type of enterprise in the EU (Lehtinen *et al.*, 2021).

## 2. Theoretical background

### 2.1 Knowledge creation in the internationalization of microbusinesses

Microbusinesses offer a specific context for studying knowledge-related phenomena in organizations. Microbusinesses are defined as firms with less than 10 employees and a turnover of less than 2 million euros (European Commission, 2003), which means that there is a limited number of staff and expertise. According to Lehtinen *et al.* (2021), microbusinesses are the most common type of enterprise in the EU, accounting for 93% of all firms, but they are often studied as a subgroup of small- and medium-sized enterprises (SMEs). The distinctive difference between microbusinesses and SMEs is the importance of the founding entrepreneur, who usually works alone or with a small number of paid employees (Lehtinen *et al.*, 2021). The

smaller the business is, the more the entrepreneur is responsible for things that in bigger companies are handled with a larger group of hired employees (Sinisammal *et al.*, 2014).

In Finland, there are 514,025 microbusinesses, which comprise 95% of all enterprises in Finland (University of Oulu, 2024). Thus, microbusinesses employ a significant portion of the population in Finland and are an important object of research. The recent development of microenterprise research in Finland has been oriented to growth management, leadership, internationalization, the expertise areas of entrepreneurship, the operating environments, and the networks that support entrepreneurship and entrepreneurship education (University of Oulu, 2024).

Because the population in Finland is low, only 5.6 million (Statistics Finland, 2025), also markets are tiny for microbusinesses, it is reasonable to seek foreign markets for business expansion. Many Finnish microbusinesses need to internationalize to obtain a sufficient customer base for their products and services. According to Shen *et al.* (2017), the concept of internationalization can be defined in many ways. It can involve actively seeking opportunities either in a foreign environment (Paul, 2020) or through customers, partners and networks in domestic markets (e.g. Blomstermo *et al.*, 2004). The history of internationalization research on SMEs is based on models like the Uppsala model, which focuses on knowledge acquisition, integration and use in foreign markets (Johanson and Vahlne, 1977; Johanson and Wiedersheim-Paul, 1975). Based on the Uppsala model, Johanson and Vahlne (1990) continued studying the internationalization process by applying the network perspective, in which the relations between enterprises are seen as a network and enterprises internationalize because other enterprises in their domestic network or the international network also do so. This study is based on the network perspective because it offers a view of studying the interaction and KC within networks and communities.

Microbusinesses are facing strong changes in the global situation because the uncertainty in the markets challenges microbusinesses in particular to seek benefits from cooperation and networks, as well as internationalization. When there is uncertainty in markets, the importance of community and shared knowledge is highlighted. Furthermore, to cope with changing markets, the creation of new knowledge is essential. Hence, there is a need for CR and KC. Fuerst and Zetting (2015) studied the KC process in internationalization through interaction with network partners and stressed that knowledge is proactively developed in interaction. The next two subchapters describe the research background of resources and capacities as dimensions of CR and interaction in KC. Then, we suggest a framework for studying CR and KC in the context of this study.

## 2.2 Resources and capacities as dimensions of community resilience

The concept of resilience generally refers to the ability to adapt to and recover from adversity. It is nowadays a very popular academic concept (see, e.g. Iglesias, 2006; Peçinho, 2016; Woods, 2015) and has roots in psychology, ecology and engineering (Turner, 2013; Walker and Cooper, 2011; Weichselgartner and Kelman, 2014). The research on psychological resilience began in the 1940s and 1950s and at first, resilience was seen as a characteristic of the individual who survives difficult life events or stages of life that cause stress and require adaptation (Berkes and Ross, 2013; Poijula, 2018). Later, the research perspective expanded to include the process of moving forward from difficulties (Luthar *et al.*, 2000; Poijula, 2018). According to Fraccascia *et al.* (2018), resilience research is multidisciplinary but fragmented. In scientific literature, resilience in a microbusiness context has been examined from very limited perspectives, for example, by examining the concept within SMEs and family businesses and disaster resilience of the business community (Bhamra *et al.*, 2011; Khanlou and Wray, 2014; Linnenluecke, 2017; Saad *et al.*, 2021; Sinha and Ola, 2021; Yilmaz *et al.*, 2024).

CR is one area of resilience that describes the community's ability to adapt to changes (Magis, 2010; Norris *et al.*, 2008) and make fundamental changes that help prepare better for future disturbances and survive (Welsh, 2014; Wilson, 2012). According to Berkes and Ross

(2013) and Welsh (2014), research concerning CR is divided into two branches, which are based on two different research directions. One branch of the research has developed on the basis of psychological resilience, while the other is based on socio-ecological resilience (Berkes and Ross, 2013; Chaskin, 2008; Vaneckhaute *et al.*, 2017). The psychological approach emphasizes identifying and strengthening system components that lead to resilience, and the socio-ecological approach to CR is focused on studying how the system (the community) is resilient (Vaneckhaute *et al.*, 2017). This study investigates how microbusinesses experience their community and how the community can support KC to build CR. Consequently, the basis is the socio-ecological research of resilience. In this study, the community is seen as a group of microentrepreneurs who share a common office and interact daily. They also have a common interest in working as entrepreneurs.

To understand the phenomenon of CR, this study applies the emBRACE Resilience framework developed by Kruse *et al.* (2017), as it offers a thorough approach to the phenomenon, incorporates social-ecological systems understanding and emphasizes community-level resilience. Resources are an important part of many CR frameworks, but the emBRACE Resilience framework also pays attention to resource availability by looking at resources in conjunction with capacities. The emBRACE Resilience Framework holds that resilience is a process that can be developed, rather than a permanent feature (Kruse *et al.*, 2017). The framework is illustrated in Figure 1.

In the emBRACE Resilience Framework, CR consists of three interacting dimensions: resources and capacities, actions and learning, which are influenced by different forces: societal context, disturbances, system change over time and risk governance (Kruse *et al.*, 2017). This study focuses on resources and capacities and investigates how KC is connected to CR and what resources and capacities, as dimensions of CR, are needed when building CR in the microbusinesses internationalization context.

In the emBRACE Resilience Framework, resources and capacities consist of place-based, sociopolitical, financial, physical, and human resources and capacities (Kruse *et al.*, 2017).



**Figure 1.** The emBRACE resilience framework. Source: Modified from Kruse *et al.* (2017)

Place-based resources and capacities are linked to the place where the community acts or affects (cultural and/or heritage resources, local public services and access to jobs). Sociopolitical resources include political and social interactions and power relations. Financial resources and capacities refer to monetary aspects. Physical resources and capacities include effective transport, communications, and other infrastructure systems. Human resources focuses on individual characteristics, such as gender, health and well-being, education, knowledge, and skills (Kruse *et al.*, 2017). The emBRACE Resilience Framework, as such, does not concentrate on addressing knowledge-creating interaction.

Within LIS, the concept of resilience has been applied minimally. Hersberger (2011) applied resilience when studying LIS professionals to help them serve users who faced stressful or harmful life experiences. Lloyd (2014, 2015) studied resilience from the perspectives of health literacy and information literacy in the refugee context. Lloyd (2014) uses the term information resilience, which develops in individuals whose knowledge base has been disrupted in some way and who, because of this crisis, must find new information and build new knowledge in a new environment. According to Lloyd (2014, p. 62), information resilience is built through collaborative coping activities, which refer “to the process of engaging with others in meaningful, purposeful and culturally congruent ways.” Therefore, Lloyd sees information resilience as a product of a collaborative process. In Lloyd’s (2014, p. 62) research, collective coping is seen as a joint activity in which “refugees worked together to pool fragmented information and combine limited literacies and skills to locate information in order to reduce uncertainty.” As noted by Lloyd (2014), resilience can be viewed as a collaborative process in which a product reduces uncertainty. This study continues and expands Lloyd’s (2014) research from studying how individuals create knowledge and build information resilience by investigating how KC is connected to CR and what resources and capacities are needed when building CR in microbusinesses internationalization context. The next subchapter describes the research background of interaction in KC.

### 2.3 Knowledge creation in interaction

With KM concepts, we can understand phenomena related to learning and continuous education (Johannsen, 2000), where KC plays an essential role. Yew Wong and Aspinwall (2004) argued that KM research has focused mainly on large international corporations. However, microbusinesses would also benefit a lot from KM, because there are challenges concerning deficient resources: “time, financial and human resources as well as knowledge and expertise” (Yew Wong and Aspinwall, 2004, p. 58). Gherhes *et al.* (2016, p. 939) claimed that microbusinesses differ from larger SMEs by being “owner–manager entrepreneur (OME) centric” and are often “constricted by the tend to be underdeveloped capabilities in key business areas, underdeveloped OME capabilities, and often inadequate business support provision.” In microbusinesses, replacing a departing or retired employee can be very difficult because even if the workforce is available, it often takes quite a long time to learn new skills (Sinisammal *et al.*, 2014).

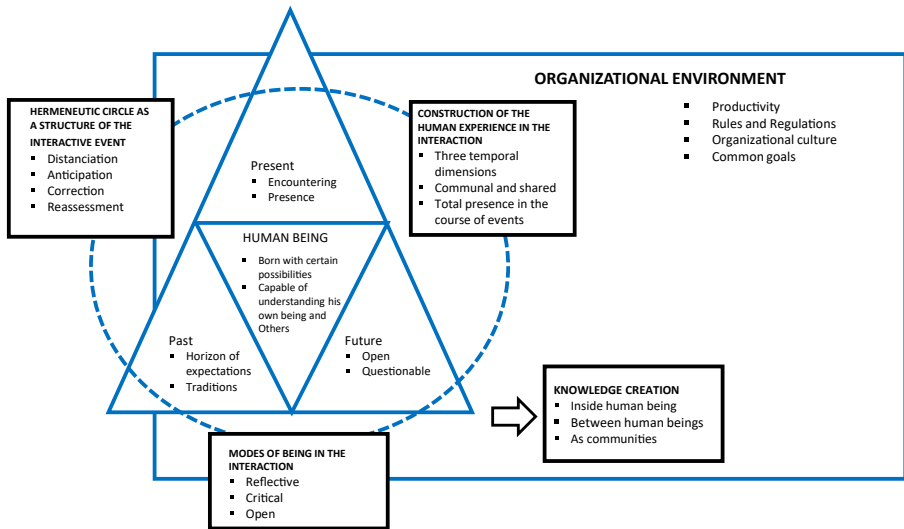
KC means that during interaction, people share experiences and create new knowledge based on their previous experiences (Cook and Brown, 1999; Morner and von Krogh, 2009; Suorsa and Huotari, 2014; Suorsa, 2015; Tsoukas, 2009). During the KC process, people interpret information from their own perspectives in certain situations (Cook and Brown, 1999). According to Propp and Frey (1999), a good basis for interaction must be created so that members of the group can share knowledge and utilize each other’s expertise. Interaction also affects how well the group can preserve knowledge and recall it. In group communication, it is important to view the shared memory that is built up in social interaction: since there are more people, a group is often more skilled than an individual in recalling detailed and accurate knowledge (Huotari *et al.*, 2005). This notion of groups sharing knowledge with interaction is important when investigating microbusinesses with limited expertise and a small number of staff members. To be effective, KC also depends on an enabling context (von Krogh *et al.*,

2000), which is a very interesting notion when studying resources and capacities as a part of CR later in this study.

In KC research, several models have been developed to explain organizational KC, including Nonaka’s SECI model, Nissen’s model, and Boisot’s model (Bratianu and Orzea, 2010). The SECI model divides knowledge into four dimensions: socialization, externalization, combination and internalization, and is based on the idea of knowledge conversion through social interactions (Nonaka, 1994; Nonaka and Takeuchi, 1995). Nissen’s model is based on the idea of knowledge flow in enterprises (Nissen, 2005). Boisot’s model posits that structured knowledge flows more freely than unstructured knowledge and that knowledge can be measured “from three dimensions: codifiability, abstractability and diffusibility” (Li, 2007, p. 5,440). These models concentrate on KC but do not address resources and capacities in knowledge-creating interaction.

Since the 1990s, the SECI model in particular (Nonaka and Takeuchi, 1995) has inspired scientific interest in exploring and developing the ideas of KC, focusing on the conversion of knowledge and the process of knowing and relationships in organizations (Suorsa and Huotari, 2014). There, the emphasis has been on the importance of collaboration and interaction in the KC process (Suorsa, 2015; Tsoukas, 2009). Suorsa and colleagues (2020, p. 155) studied knowledge-creating interactions and stressed that “the process of KC could be described as a flow of continuous events of interaction in the present moment.” According to Suorsa and Huotari (2014), KC can be viewed from the perspective of the conditions that support human interaction. At the core of KC are both human interaction and people’s experiences. Suorsa and Huotari (2014, p. 1,043) summarized KC as “a process in which new knowledge is created by seeing new connections and meanings in interaction between human beings in the working community” (see also Huotari and Iivonen, 2005; Tsoukas, 2009). Suorsa and Huotari (2014) developed a framework (Figure 2) for understanding KC with hermeneutic phenomenology.

The framework concentrates on Hans-Georg Gadamer’s hermeneutic conversation and introduces an alternative for exploring KC. Suorsa’s and Huotari’s (2014) framework offers an approach to investigating knowledge-creating interaction, which is needed when building a community’s experience of resilience. Suorsa and Huotari (2014, p. 1,043) stressed that with



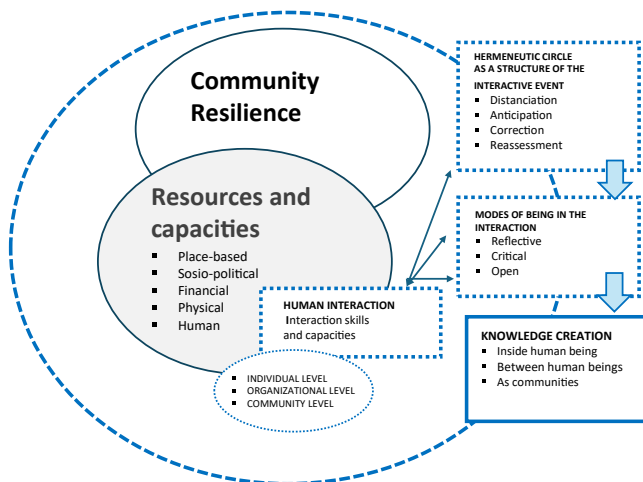
**Figure 2.** Framework for exploring knowledge creation with hermeneutic phenomenology. Source: Modified from Suorsa and Huotari (2014)

the framework for exploring KC with hermeneutic phenomenology, it is possible to investigate KC by focusing on “human existence in interaction, not on the concept of knowledge as such.” Suorsa and Huotari (2014) studied the construction of the experience in interaction more deeply. They noted that earlier research analyzed KC (e.g. Cook and Brown, 1999; Morner and von Krogh, 2009; Tsoukas, 2009), while new knowledge is created based on past experiences. Suorsa and Huotari (2014, p. 1051) also stated that the “hermeneutic view, which is based on Gadamer’s philosophy, shares the same notion of KC as a historical, experience-based event that includes an element of creative change.” Suorsa and Huotari (2014) present three key perspectives for examining the interactive event of KC: the structure of the interaction event, the construction of human experience in interaction and the forms of being in interaction. Hermeneutic phenomenology introduces three temporal dimensions: past, present and future (Suorsa and Huotari, 2014, pp. 1050–1051). The past explains “already lived tradition and experiences.” The future is “always open and questionable.” The present is the most important dimension “in which the past and future orientations encounter each other as a constant encounter between a human being and the world” (Suorsa and Huotari, 2014, pp. 1050–1051). This offers a good ground to examine KC in relation to CR. The next subchapter describes how knowledge-creating interaction, resources and capacities as dimensions of CR are integrated.

#### 2.4 Knowledge-creating interaction, resources and capacities in community resilience

There is not much research that integrates KC and CR, even though previous studies have shown that knowledge can be used strategically to make sense of change (Choo, 1996; Maimone and Sinclair, 2014; Sinha and Ola, 2021). Oktari *et al.* (2021) developed a conceptual model of KC for community resilience (KCCR) in which they used the SECI model (Nonaka, 1994; Nonaka and Takeuchi, 1995). The results of the research of Oktari *et al.* (2021) indicated a need to develop a CR framework based on KC theory for better decision-making and to ensure the dissemination of knowledge in an ecological disaster context.

This study examines the concept of KC and the concept of CR focusing on the emBRACE Resilience Framework (Kruse *et al.*, 2017) and the framework for exploring KC with hermeneutic phenomenology (Suorsa and Huotari, 2014). There are many similarities between these two frameworks, and Figure 3 illustrates how these are examined in this study in a joint framework, focusing on resources, capacities and knowledge-creating interaction in CR.



**Figure 3.** Resources, capacities and knowledge-creating interaction in community resilience. Source: Modified from Kruse *et al.* (2017), Suorsa and Huotari (2014)

In the framework, the community is in the center, although the experience of resilience is built within the individual, the communal experience of resilience is created through interaction in the community (Kruse *et al.*, 2017). In the framework for exploring KC with hermeneutic phenomenology, the idea is to illustrate the communal nature of human experience (Suorsa and Huotari, 2014). Although human activity as an individual can be examined, it is always understood as fundamentally communal, not individual and experience is constructed in interaction (Suorsa and Huotari, 2014). The emBRACE framework examines the availability of resources by looking at them together with capacities. Resources and capacities consist of place-based, sociopolitical, financial, physical and human resources and capacities (Kruse *et al.*, 2017). Also, the framework for exploring KC with hermeneutic phenomenology (Suorsa and Huotari, 2014), takes a stand that humans are born with certain possibilities (resources) which are affecting to the individual KC.

Figure 3 illustrates the importance of human interaction in KC. According to Kruse *et al.* (2017), resilience is created through interaction in the community. Suorsa and Huotari (2014) stress the hermeneutic circle and discussion in KC, also the structure of the interaction event, the construction of human experience in interaction and forms of being in interaction. According to Suorsa and Huotari (2014), knowledge is created inside human beings and through knowledge-creating interaction between human beings and communities. Interaction skills and capacities are not explicated in these frameworks and should be further examined. To be knowledge-creative and strengthen the community's experience of resilience, microbusinesses' interaction requires abilities and the desire to discuss and make consistent interpretations.

### 3. Methods and data

#### 3.1 Research method and the context of the study

Using qualitative methods, this study investigates how KC is connected to CR, focusing on resources and capacities as dimensions of CR, which microbusinesses need when creating knowledge for internationalization. The elements and concepts used are outlined in Figure 3. Data were collected among Finnish microbusinesses who participated in coaching services provided by the EU project, which was an international business skills coaching program for microbusinesses conducted between 2019 and 2023. Popper and Lipshitz (1992) stress that coaching can be divided into two goals: first, to develop the action at the skill level, and second, to strengthen the relations that allows coaches to improve the participants' development at the psychological level. The project provided internationalization services in Finland and Poland, including innovation workshops, trade fair visits, and business-to-business (B2B) meetings between Finnish and Polish SMEs. The first author was a project worker and coach in the project.

The research process started in 2020 by identifying the research problem and setting RQ's and objectives for the study. The process continued by choosing the case companies and coaching them in autumn 2021. To achieve the research goals, an ethnographic case study was justified as an approach. In the ethnographic method, the researcher tries to understand the group of people being studied in their own context (Hammersley and Atkinson, 2007). The starting point of ethnographic research can be summed up as people knowing about the world through their experiences (Cohen *et al.*, 2017).

The first and second phases of data collection were conducted in Poland in December 2021 by organizing two workshops. The workshop activities were four hours long (each) and were partly recorded in video format. In both workshops, the program and the activities were different. The participants were divided into teams and given various tasks aimed at developing different areas related to business activities, such as team skills and interaction. The data from the workshops included group conversations, observation diaries and other coaching documents, such as evaluation forms. The second phase of data collection was conducted in Finland in December 2021. The data from the second phase included an 80-min focus group interview (FGI), which was transcribed into a text document. The research process is illustrated in Figure 4.

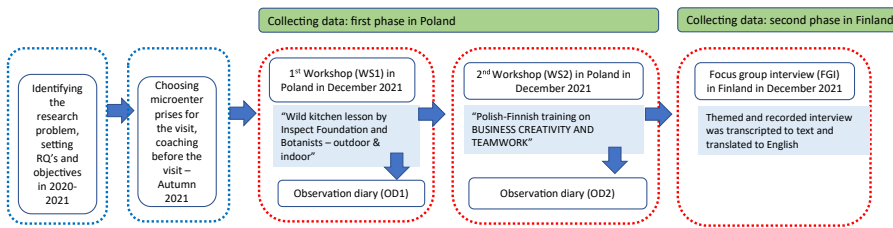


Figure 4. The research process. Source: Figure by authors

The case companies (case 1, case 2 and case 3) consisted of 3 microbusinesses, which had a joint workspace in Finland. The case companies were selected among the microbusinesses that participated in several international coaching services provided by the EU project in Finland and in Poland during the project period in 2021.

Case 1 provided translation services mainly to international customers and had been operating for 3.5 years. Case 2 provided expert services related to staff and business development, personal coaching, and community management and development for domestic customers. Case 2 had been operated for 12 years. Case 3 mainly served journalism and communication services to local customers, but there were customers elsewhere in Finland. Case 3 had been operated for 12 years. The characteristics of the cases are illustrated in Table 1.

### 3.2 Data collection and analysis

The data of the study consisted of the documents of two innovative workshops (WS1 and WS2), observation diaries from the workshops (OD1 and OD2), and a FGI. The participants were told that the data would be used anonymously in the study. The data of the study are illustrated in Table 2.

The first workshop (WS1) was called *Wild Kitchen Lesson by Inspect Foundation and Botanists – outdoor and indoor*. The workshop targeted only Finnish microbusinesses. The workshop was divided into three sessions. In the first session, microbusinesses were taken outdoors to a nearby forest where the coaching program was conducted. In the second session, the workshop organizers presented the goals and activities of the coaching. In the third session, the microbusinesses had a group conversation with the workshop organizers, gave feedback on the completed coaching and planned the corresponding coaching for the Finnish context. The data from the workshop consisted of a 4-h workshop (partly recorded), coaching documents, and a group conversation observed by the first author.

The second workshop (WS2) targeted Finnish and Polish microentrepreneurs with B2B meetings. In WS2, there were 3 microbusinesses from Finland and 6 from Poland. The name of the workshop was *Polish–Finnish training on business creativity and teamwork*. The workshop was divided into two sessions: the first session was about getting to know the

Table 1. Characteristics of the cases

Case	Branch	Duration of business operations (y)	Customers
Case 1	Translating services	3.5	Mainly international customers
Case 2	Business services	12	Domestic customers
Case 3	Journalism and communication services	12	Domestic customers

Source(s): Authors' own work

**Table 2.** Data of the study

Data	Duration/form of the data	Codes
Documents from the workshop 1 held in Poland in December 2021	4 h workshop (partly in video format), group conversations, coaching documents	WS1
Documents from the workshop 2 held in Poland in December 2021	4 h workshop (partly in video format), group conversations, coaching documents	WS2
Observation diaries from workshops 1 and 2	4 pages of observation diaries done by the researcher	OD1, OD2
Focus group interview held in December 2021	80 min long interview, transcribed into a text document	FGI

**Source(s):** Authors' own work

participants and business opportunities, and the second was about creativity and teamwork. The data from the workshop consisted of a 4-h workshop (partly recorded), coaching documents, and a group conversation observed by the first author.

The first author kept an observation diary (OD1 and OD2) from both workshops and observed the overall atmosphere, group communication, methods used and the experiences expressed by the Finnish microbusinesses.

FGI was conducted in Finland in December 2021. It was a way to discuss with the group of microbusinesses how they experience the community and how the community can support KC to build CR. FGI was audio-recorded, transcribed to text and translated into English. An FGI is a group discussion conducted by an interviewer using predefined themes, and the body of the interview and the results can be presented, such as thematic areas, theoretical models or direct quotations (Hyde *et al.*, 2005). The FGI was themed in advance using the KC framework and the emBRACE Resilience framework. Thematic interviews consisted of discussion topics, that is, themes that covered the phenomenon. According to Constantinou *et al.* (2017), thematic interviews make it possible to study people's experiences by emphasizing their own interpretations of situations and emphasizing discussion and interactivity, although there are goal-oriented activities for which the researcher is responsible.

Data was grouped using the principles of qualitative data processing (Belotto, 2018) into categories and subcategories, which are illustrated in Figure 5.

The basis for the data analysis was the framework formulated in this study (Figure 3). Data were analyzed by using the hermeneutic approach, which is a qualitative method, based on the idea of hermeneutic circle, where the researcher analyzes the data and interprets it based on

Categories	Subcategories	Descriptions
1. Knowledge creation	1.1 Experience of interactive event 1.2 Enabling context 1.3 Perceived benefits	Experience of KC as individually and communally Experience of own interaction skills and capacities Experience of community's resilience Enabling context > joint office, interaction Benefits: new contacts and business possibilities
2. Interaction	2.1 Modes of being in interaction 2.2 Construction of human experience	Modes: reflective, critical, open Temporal dimensions: past, present and future Experienced coaching methods in UMBR-ELLA project: How coaching methods supported interaction and the joint experience of community's resilience?
3. Resources and capacities	3.1 Place-based 3.2 Sosio-political 3.3 Financial 3.4 Physical 3.5 Human	Location: Location based services in rural areas Public services: Services provided in the area (i.e. support services) Dissemination: Knowing of alternatives and collaboration opportunities Financial: Financing opportunities, funds etc Logistics and connectivity: Willingness to utilize physical resources (i.e. use programs and remote access technologies) Skills and abilities (i.e. language and cultural skills), willingness to interact and negotiate

**Figure 5.** Categories and subcategories of the data. Source: Figure by authors

previous experiences and an already existing understanding of the subject of the study (Khan and Gupta, 2023; Webb and Pollard, 2006). In this study, the first author worked on the EU project and utilized her practical knowledge of the topic. The hermeneutic approach started by getting to know the phenomenon with previous scientific research and by formulating the framework. The analysis continued by dividing the data based on categorizations (Figure 5) and interpreting the data.

#### 4. Findings

This study focused on investigating the connection between CR and KC and the resources and capacities microbusinesses need in creating knowledge for internationalization. Figure 3 illustrates the theoretical background and categorization made for the study, i.e. resources, capacities and knowledge-creating interaction in CR.

##### *4.1 The connection of community resilience and knowledge creation in microbusinesses internationalization*

The modified framework formulated in this study (Figure 3) has illustrated the connections between resources and capacities, as dimensions of CR, and KC in microbusinesses internationalization. CR is the center of the model, to emphasize the communal nature of human experience. According to Kruse *et al.* (2017), the communal experience of resilience is created through interaction in the community. The communal nature of KC as an “experience-based event that includes an element of creative change” is also stressed by Suorsa and Huotari (2014, p. 1051). As analyzed earlier in this study, new knowledge is created based on past experiences in the research of KC (Cook and Brown, 1999; Morner and von Krogh, 2009; Tsoukas, 2009). Suorsa and Huotari (2014) explain human experience in interaction through three temporal dimensions: past, present and future, where past explains already happened experiences, future is open, and the present is where the past and future orientations meet (Suorsa and Huotari, 2014, p. 1051). According to von Krogh *et al.* (2000), KC depends on an enabling context to be effective. In the business context, enabling context can mean a place or space to meet, interact and create knowledge together or also skills and capacities, i.e. language and cultural skills, ability and desire to discuss and make correct interpretations according to the interaction.

The framework, which illustrates resources, capacities and knowledge-creating interaction in CR (Figure 3), worked well in the analysis of the data. The case companies had joint office space, which increased interaction, because it offered the space and lots of opportunities for interaction. The joint office promoted KC by introducing new contacts and business possibilities through networking. The best benefits of interaction were experienced when working in a multidisciplinary and multicultural group and discussing together (FGI, OD1 and OD2)

If you're a self-employed person, no one will probably tell you what you need to do, but it will require your own proactivity and actively investigating, actively asking professionals, or just looking for information on the Internet, i.e. it mostly requires your own activity. (Case 1, FGI)

Knowledge can be accumulated through one's own network and community. Even if knowledge can be found online and from experts, it can be valuable for someone who already has international experience and knows the twists and turns of cultural issues and practices. (Case 2, FGI.)

After the workshop, we should think about how things went and why things went the way they did. And what to learn and how to apply it to your own activities and everyday life. (Case 3, FGI.)

In WS2, the Finnish microbusinesses did not know beforehand what the coaching would offer precisely. After WS2, the Finnish microbusinesses said that the coaching was well implemented and turned out to be necessary, but KC would have been better if they had known in advance who would be involved in the coaching, what kind of competence the participants had, and what exactly they hope to be done in the workshop. The participating Polish microbusinesses changed just before coaching, and no one really knew who was

involved. In December 2021, the COVID-19 pandemic situation was rapidly changing a lot of things in different countries, and the restrictions were on and off in most of Europe. The arrangements for the EU project visit in December 2021 were also continually changing, and the situation was quite stressful for companies (WS1, WS2, OD1, OD2, and FGI).

The EU project used participatory methods in coaching actions, where the focus was to develop the present skill level and to strengthen the confidence toward coaches and to support organizations to improve the participants' development, also at a psychological level. Participatory coaching was also applied in WS1, and the benefits of coaching were discussed with the participants after the coaching. The results of WS1 and OD1 were parallel. The best benefits of interaction were experienced when working in a multidisciplinary and multicultural group and when discussing together.

Communication is what really matters. If knowledge flows into the community, experiences are exchanged, and there is an open opportunity to have contacts. (Case 3, FGI.)

Theoretically, the observation of this study was that interaction skills and capacities are important for knowledge-creating interaction in microbusinesses internationalization. To be knowledge-creative and strengthen the community's experience of resilience, interaction requires the ability and desire to discuss and make consistent interpretations. The availability of resources is reviewed together with capacities in the modified framework, as in the emBRACE Resilience Framework. Chapter 4.2 takes a stand on resources and capacities needed when creating knowledge for microbusinesses internationalization.

#### *4.2 Resources and capacities needed when creating knowledge for microbusinesses internationalization*

This subchapter describes findings, what resources and capacities microbusinesses need when creating knowledge for microbusinesses internationalization. The emBRACE Resilience framework examines the availability of resources by reviewing them together with capacities. Resources and capacities consist of place-based, sociopolitical, financial, physical and human resources and capacities (Kruse *et al.*, 2017).

Place-based resources are tied to the location where the community operates or influences. In the context of internationalization of microbusinesses, place-based resources mean collaboration opportunities and public services, job opportunities, accounting firm alternatives and digitalization resources in rural areas, where long distances pose challenges. Place-based capacities in this context mean the ability to utilize collaboration possibilities provided by support services, e.g. training, as well as utilizing local resources, such as raw materials or cultural characteristics (WS1, WS2, OD1, OD2 and FGI) Empirical research revealed that northern or rural locations were not necessarily a barrier to internationalization. Digital opportunities were seen as a way to negotiate online; thus, traveling was not always needed. By utilizing digital and remote technology, interaction can be ensured. Due to the lack of technological skills among microbusinesses, business support organizations should offer different kinds of training to better the human resources in microbusinesses.

Even though we are far in the north, these digital opportunities are a way to negotiate online and once you've met, you can then think about Zoom conversations, etc. I also think that in training it's not always necessary to travel somewhere . . . and about this pandemic: for not to prevent us from doing things, but that it would also be a new way of working together. (Case 3, FGI.)

Socio-political resources in this context mean, for example, knowledge of legislation and intercultural cooperation (e.g. cooperation between Finnish and Polish support organizations). Socio-political capacities mean knowing and utilizing laws and regulations, the ability to seize cooperation opportunities and the ability to utilize available support (WS1, WS2, OD1, OD2 and FGI.) Sociopolitical resources and capacities were seen mainly as resources coming from outside, from society, from business support organizations or from EU projects. These can be

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encouraged to be utilized. The price of support services or costs of project activities should be well known in advance, as in microbusinesses cash reserve is often relatively small, especially if the founding entrepreneur works alone.

Funding encourages microentrepreneurs to peek into something new, and afterwards they may find the courage to invest in the development or internationalization by themselves. I see that business support services are such a great opportunity for microbusinesses, but it should be made easy, and it should sound attractive . . . and it should not be too complicated or bureaucratic for microentrepreneurs. (Case 2, FGI.)

Financial resources and capacities were seen as crucial to microentrepreneurs running businesses. Financial resources refer, for example, to financing options and options to choose an accounting firm, basic knowledge of economics, the understanding of business logic, business intelligence and numerical management. Financial capacities refer to knowledge of financing options, the use of accounting programs and remote access technology, budgeting skills, cost management skills, financial forecasting abilities and the realization that development requires resources and investments (WS1, WS2, OD1, OD2 and FGI). Microentrepreneurs are often self-employed people who do not primarily think of their activities in terms of money or earning, but instead believe that what is important is basic knowledge of economics and the understanding of business logic, as well as the realization that development requires resources and investments, business intelligence and numerical management. In addition, pricing and legal issues were mentioned.

One should know how to invoice between the EU, how VAT goes and what the invoice has to include to be proper, for example when invoicing with zero VAT, the legal citation must be included. I get a lot of knowledge from an accountant. The accountant helps with the billing, the taxes, etc., but I must have a basic understanding of invoicing. (Case 1, FGI.)

Physical resources refer to logistics and connectivity, for example, supply chains, distribution channels and transportation options, as well as infrastructure such as facilities, equipment and technology that support internationalization. Physical capacities refer to the ability and willingness to utilize physical resources, i.e. the place to interact and transport connections (WS1, WS2, OD1, OD2 and FGI).

Physical resources and capacities are also those good connections, and there is such a space for the community to discuss things. I also mean digital communication with potential customers or partners abroad and digital tools that are used for interaction, Zoom, or other tools. (Case 2, FGI.)

Human resources refer to knowledge and training, such as language and cultural skills in intercultural communication. Human capacities refer to the willingness and ability to utilize knowledge and training, and to communicate, interact and negotiate with people from different cultural backgrounds and the ability to utilize help (WS1, WS2, OD1, OD2 and FGI).

The self-awareness of the entrepreneur and management level emerged. They should be aware of their own abilities that help in business and the abilities that need to be continually developed. It is good for the community if different people have different human resources and capacities, because then they complement one another. Resources and capacities should be discussed and identified in relation to need, so that they can be developed. It's also important that in the community, a person is allowed to be different from others. The experience of equality was seen as important. Also, language skills and basic cultural skills emerged.

Not everyone is equally extroverted or equally linguistic or equally good in some social situations. People need to be aware of this. Also, no one needs to feel or be ashamed or be somehow inferior or superior as if someone is somehow much better than the others. We don't even think that everyone should go with the same intensity or the same mood, and openness and tolerance are important. (Case 3, FGI.)

Things related to cognition and self-management, that one knows oneself and their own strengths. It also shows in interaction, you can make people aware (in the community) and be more confident in

what you know and what you want and what talents you have and how you can help others, share your own knowledge. It requires self-knowledge and self-confidence and openness to conversation. (Case 2, FGI.)

Uncertainty is easier to handle with people you know. Networking was seen as promoting KC by introducing new contacts and business possibilities. The joint office was offering a place for KC. According to the data, uncertainty of situations was seen as being easier to meet and share when there was a group of familiar people to discuss with.

I feel that community gave a sense of security in a strange environment, and when we met new situations and new issues, it was easier to be in the moment and not pay attention to insignificant things. It is better when you have people you know and with whom to share the uncertainty of situations. (Case 2, FGI.)

The EU project workshop was held in Poland in December 2021, when the COVID-19 pandemic situation was rapidly changing. If the participants had gotten sick because of the COVID-19 pandemic, it would have been safer to travel with the group. On the other hand, it was stressed that traveling together also meant that if one participant got sick, it could have meant that everyone got sick or at least everyone should get quarantined because of one person.

If there are uncertain situations, the group will probably find new solutions and ideas more easily than maybe if one person would try alone. But I would not necessarily generalize this idea to all traveling, because when traveling alone, you can make changes more easily, without planning, or on a practical level. There is always the possibility and probability that different people have different ways of reacting to changes or surprising situations, and this can be reflected in the whole group. (Case 3, FGI.)

Even though internationalization was not a goal or strategic focus for all case companies, it was realized that internationalization can also be more than exports and imports: being able to identify similar businesses or meeting microbusinesses in a foreign country.

Internationalization can be a great variety of things. It can be, for example, getting new ideas and getting to know people and gaining new experiences and thereby developing in your own work . . . The community is such that new openings, ideas, and contacts are possible. (Case 3, FGI.)

The community was seen on a smaller and larger scale: in addition to customers, all cases brought up their joint office as a community. The bigger organizations in the network, entrepreneurial associations, colleagues in the same business field and other entrepreneurs who were in the same network were also mentioned. The community was seen in a holistic way because the case companies were microbusinesses.

I count all the people I deal with. When you are a self-employed person, a microentrepreneur, it is holistic. For me, working time and free time are combined; there is no clear limit within them. I've found that in those village communities where I'm acting, I'm "the reporter." So, for the people I deal with daily, I'm also representing my working role. There will be suggestions that "you could write about this." One might even think that everyone I deal with daily is my community, either directly or virtually. (Case 3, FGI.)

These findings show what resources and capacities microbusinesses need in creating knowledge for internationalization, divided by the emBRACE Resilience Framework (Kruse *et al.*, 2017) for place-based, sociopolitical, financial, physical, and human resources and capacities. In the next chapter, we are discussing the findings of this study and making conclusions.

## 5. Discussion and conclusions

At the beginning of the article, several research gaps were mentioned. In the LIS field, the concept of CR hasn't been applied before. Very little is also known about KM and KC in the internationalization of microbusinesses. This study examined, using qualitative methods, the

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connections between KC and resources and capacities as dimensions of CR in the internationalization of microbusinesses. The following RQ's were addressed:

**RQ1.** How is CR connected to KC in microbusinesses internationalization?

**RQ2.** What resources and capacities do microbusinesses need to create knowledge for internationalization?

The findings of this study strongly support the notion (RQ1) that CR is connected to KC in microbusinesses internationalization. The framework (in Figure 3), was made by modifying the emBRACE Resilience Framework (Kruse *et al.*, 2017) and the framework for exploring KC with hermeneutic phenomenology (Suorsa and Huotari, 2014). Figure 3 illustrates resources, capacities and knowledge-creating interaction in CR. As a result of this study, interaction skills and capacities are emphasized in the modified framework.

Empirical research revealed that KC is connected to CR in microbusinesses internationalization through resources and capacities. The findings of this study show (RQ2) that the internationalization of microbusinesses requires place-based resources, i.e. collaboration opportunities, accounting firm alternatives and digitalization resources in rural areas. Capacities related to place-based resources are, i.e. abilities to utilize collaboration possibilities provided by support services and utilize local resources. Socio-political resources mean knowledge of legislation and intercultural cooperation. Socio-political capacities mean knowing and utilizing laws and regulations, the ability to seize cooperation opportunities and the ability to utilize available support. Examples of financial resources are, i.e. financing options, options to choose an accounting firm, basic knowledge of economics, the understanding of business logic, business intelligence and numerical management. Financial capacities mean, i.e. knowledge of financing options, use of accounting programs and remote access technology, budgeting skills, cost management skills and financial forecasting abilities. Examples of physical resources are, i.e. logistics and connectivity possibilities such as distribution channels, transportation options, infrastructure facilities, as well as equipment and technology that support internationalization. Physical capacities mean, i.e. ability and willingness to utilize physical resources and, i.e. transport connections. It is also very important that microbusinesses have physical places to interact and to network. Examples of human resources needed in the internationalization of microbusinesses are knowledge and training, such as language and cultural skills in intercultural communication. Human capacities in this context mean the willingness and ability to utilize knowledge and training, to interact and negotiate with people from different cultural backgrounds and the ability to utilize help.

This study contributes to the field of LIS by introducing the concept of CR. Previously, the concept of resilience had been studied mainly by Hersberger (2011) when studying LIS professionals to help them serve users who faced stressful or harmful life experiences and Lloyd (2014, 2015) who studied resilience in the refugee context. KC research explains organizational KC with models mentioned earlier in this article (i.e. SECI model, Nissen's model and Boisot's model). These KC models do not emphasize knowledge-creating interaction. This study expanded the KC research from individuals to the community level and refined the view to knowledge-creating interaction and related skills and capacities, which were the key observations in this study.

Microbusinesses are often studied as a subgroup of SMEs, so very little is still known about the internationalization of microbusinesses as a certain type of business (Lehtinen *et al.*, 2021), nor about KC in internationalization. Fuerst and Zettinig (2015) have studied the KC process in internationalization through interaction with network partners and found that knowledge is proactively developed in interaction. This study found similar results, which confirm the connections between KC and resources and capacities as dimensions of CR. In microbusinesses, there are only a few workers, therefore also a limited number of resources and capacities. Due to this, it's essential for the management to have sufficient resources and

capacities to create knowledge and increase resilience in challenging business situations, such as internationalization, which requires a lot of knowledge.

Yew Wong and Aspinwall (2004) have studied KM in a small business environment and noticed the challenges concerning, i.e. human resources and knowledge. Also, Gherhes *et al.* (2016) noticed that microbusinesses differ from larger SMEs by capabilities, which tend to be at a lower level in key business areas. This study has made contributions by finding out what kind of resources and capacities are needed when creating knowledge for microbusinesses internationalization.

The authors acknowledge the limitations caused by focusing on studying a few cases qualitatively in Finland. Cases were selected from Finnish microbusinesses that participated in international business skills coaching provided by the EU project. In the future, the phenomenon studied in this article should be further viewed in different contexts and with various research methods.

The findings of this study can be used widely in situations where knowledge-creating interaction is needed, i.e., in the planning and implementation of business coaching services. The findings will particularly benefit microbusinesses, which should be supported in a situation of societal change by supporting businesses in creating knowledge to build resilience. In addition, this study focused on resources and capacities as dimensions of CR. In the future, the research should continue by investigating KC and the other dimensions of CR in microbusiness internationalization.

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