

PLEASE NOTE! THIS IS PARALLEL PUBLISHED VERSION /  
SELF-ARCHIVED VERSION OF THE OF THE ORIGINAL ARTICLE

This is an electronic reprint of the original article.  
This version *may* differ from the original in pagination and typographic detail.

**Author(s):** Saukkonen, Juha; Muhos, Matti

**Title:** Knowledge as a Competitive Entrepreneurial Asset – Concepts and Practices by Early-Stage Entrepreneurs in Creative Industries

**Year:** 2021

**Version:** Accepted version

**Please cite the original version:**

Saukkonen, J., & Muhos, M. (2021) Knowledge as a Competitive Entrepreneurial Asset – Concepts and Practices by Early-Stage Entrepreneurs in Creative Industries. In F. Matos, M. de Fátima Ferreiro, Á. Rosa & I. Salavisa (Eds.) ECIE 2021 : Proceedings of the 16th European Conference on Innovation and Entrepreneurship : A Virtual Conference hosted by Iscte - Instituto Universitário de Lisboa, Portugal, 16-17 September 2021. Vol Two, 856-864.

# Knowledge as a Competitive Entrepreneurial Asset – Concepts and Practices by Early-Stage Entrepreneurs in Creative Industries

Juha Saukkonen, JAMK University of Applied Sciences, Jyväskylä, Finland

Matti Muhos, University of Oulu, Finland

[juha.saukkonen@jamk.fi](mailto:juha.saukkonen@jamk.fi)

[matti.muho@oulu.fi](mailto:matti.muho@oulu.fi)

## Abstract:

Industries linked to and built on creativity and design have been described as backbones of a modern economy by the likes of Florida (2002; 2005). Simultaneously, net job creation in advanced economies has been dependent on small and medium-sized enterprises (SME) and micro-sized companies. These resource-constrained enterprises operate in the context of a knowledge economy that underlines the key role of knowledge as a source of advantage. As Moore (2000) claims, knowledge intensity creates entrepreneurial opportunities and results to offer an advantage. However, the modern volatile era is rendering companies knowledge obsolescence.

Despite the key role of a unique knowledge base in micro-sized companies' and SMEs' reason for existence and growth, actions on knowledge in this cohort are often implicit and lack processes (Saukkonen and Kreuz, 2018). Furthermore, the current view of knowledge management (KM) stretches the realm of KM beyond the ability to create. Action on knowledge contains sub-processes of knowledge creation, maintenance, renewal, organisation, and transference, for example (Wiig, 1997).

The paper studies the way entrepreneurs express the nature of knowledge in the enterprise and in relation to their personal entrepreneur role. Light is shed on the principles and practices of KM in entrepreneurial firms.

The research is an exploratory and interpretative case study, revealing patterns of thoughts and behaviour in the companies studied. A sample of seven companies whose business activity is based on design and creativity were interviewed in-depth. The collected qualitative case data is thematically content-analysed to constitute a model of companies' development trajectory in relation to knowledge. The study contributes to academic knowledge both in the areas of entrepreneurial studies as well as in KM. The practical contributions serve creativity-connected industries and early-stage entrepreneurs who can use the results to plan and foresee their KM.

**Keywords:** entrepreneurship, creativity, knowledge, growth, competitiveness, entrepreneur

## 1. Introduction

The research at hand focuses on early-stage entrepreneurs creating, manufacturing and selling design-laden products. The quest for knowledge is focused on how they define and deploy the concept of knowledge. The implicit vs explicit nature of principles and processes aiming at maintenance of knowledge assets is also studied. The undercurrent of the economic activity has been stated to be shifting from an information era to a knowledge one. In this paradigm, value is seen to reside in the intangible assets, rather than in the tangible resources and outcomes of the firm (e.g. Boisot et al., 2007).

Knowledge has many definitions. Briefly, it can be coined an organisation's ability to act efficiently in its environment. Knowledge management (KM), in turn, is the capability to purposefully manage activities for leveraging knowledge to maintain competitive positioning (CEN, 2004). In a volatile and rapidly-developing operating environment, a firm needs to manage its knowledge dynamically, i.e. the KM needs to evolve over time and in interaction with other stakeholders (Saukkonen, 2020).

Earlier research has stated that processes for managing knowledge mostly derive from and are applicable to large firms. The dilemma for early-stage micro- and SME-entrepreneurs is that they are simultaneously 1) highly dependent on specific knowledge they possess and 2) resource-constrained; they integrate KM into the rest of their entrepreneurial work.

This paper reviews the ways early-stage entrepreneurs conceptualise knowledge in their entrepreneurial realm and depict their development trajectory and practices in issues concerning knowledge. The research questions set were:

RQ1: How do early-stage entrepreneurs in creative industries conceptualise knowledge ?

RQ2: How do early-stage entrepreneurs depict their development trajectory in issues related to knowledge?

RQ3: How do early-stage entrepreneurs foresee their future knowledge journey?

To address these questions, the paper mirrors the primary data collected to selected frameworks and seeks a step forward in modelling the phenomenon in the specific context selected.

## 2. Literature Review

### 2.1. Defining knowledge

This study is based on the construct of *knowledge as an organisation's ability to act successfully in its environment*. With that definition it is also easy to make a distinction between knowledge and information. Knowledge is information that has been processed further from items such as experiences of the past, contextual information on the current environment and resources and experts' insights (Gamble and Blackwell, 2001). Knowledge is thus dynamic over time and states of a firm's development trajectory. The dynamism of knowledge also means the reach over the boundaries of individuals and organisations, as it emerges from interactions amongst individuals and organisations (Nonaka, Toyama and Konno, 2000). Knowledge as an asset is also context-specific, relative and situational, as it depends on a particular time and space.

The difference between information and knowledge has been a major source of difficulty for research and practice. To address this, Zeleny (1987) introduced a taxonomy of knowledge called DIKW (Data-Information-Knowledge-Wisdom). The model was extended by Hey (2004) into DIKIW, with the additional layer being Intelligence. In the DIKW/DIKIW hierarchies, the achievements in the work done at the lower layer affect the results achievable at the upper layers. A solid base of data and information facilitates better knowledge and a better chance of situational awareness and the correct action being taken in emerging situations (Yusof et al., 2018).

### 2.2. Definitions of knowledge and its management

One strong current stream in knowledge management research focuses on the intellectual capital (IC) of the firm. IC consists of:

- relationship capital (Nahapiet and Ghoshal, 1998)
- human capital – the knowledge, skills and experience of individuals and their willingness to share (Baron, 2011)
- structural capital in firms' structure and process (Kianto, 2008)
- renewal capital in terms of innovative solutions (Kianto, *ibid.*)
- trust capital embedded in a firm's relationships regarding sharing (e.g. Mayer, Davis and Schoorman, 1995)
- entrepreneurial capital in terms of capabilities and mindset (e.g. Erikson, 2002)

Likewise, KM has been established as an umbrella term that covers various activities relating to knowledge, through which the company seeks competitive positioning and advantage. The research community has proposed various taxonomies for KM, as summarised below (Table 1).

Table 1: Divisions of KM into sub-processes

Key sources	KM sub-processes
Wiig 1997	Creation, maintenance, renewal, organisation, transference
Alavi and Leidner (2001)	Creation, storage, retrieval, transference, application
Lin (2014)	Generation, access, facilitation, integration, embedding, application, transfer, protection

This study purposefully does not opt for any of these classifications but sets out to be informed by them and to identify in the empirical part of the study the processes deployed by the early-stage creative industry and reflect the findings back onto these frameworks.

#### Framework on facets of knowing

As knowledge is a wide and multifaceted concept, various scholars have worked on dividing knowledge into sub-segments, as well as making a distinction between knowledge and other concepts related to it and showing the links to the overall construct of knowledge. Zack (1999) divided knowing into the areas of: a) knowing *what* (possession of knowledge artefacts: data, patents, etc.) b) knowing *how* (processual competence) c) knowing *why* (identifying goals and paths to reach them) d) knowing *who* (having in place the necessary relationships) e) knowing *where* (understanding the context and the potential sources of relevant added knowledge and areas of application for the knowledge possessed).

#### ASKO-framework

Kakouris (2018) has developed the novel ASKO framework on entrepreneurial factors and beliefs to be used to understand and design entrepreneurship education. A stands for Ability, i.e. possession of talent and skills for the tasks and perceptions of that skill and performance by entrepreneurs. Support (S) refers to external aids (finance, incubation, etc.) Knowledge (K) refers to generic as well as specific knowledge needed for the firm in its context (e.g. administration skills and knowledge of a specific technology). Opportunity (O) means the situation emerging that is perceived as promising by the entrepreneur (ibid.) The authors decided to test the relative presence (rather than mutually exclusive choice) of the elements in the trajectory and foreseen future of the firm studied, not in order to refute/confirm the framework but to assess its applicability to existing early-stage companies.

#### 2.3. The models of growth

The early-stage companies studied were in the process of growth and had identified needs and opportunities to grow further. Growth in entrepreneurial firms and domination logic or *modus operandi* making it possible has been described in various ways.

The three main processes that lead to growth have been named as emergence, effectuation and causation (Saukkonen, 2020). Emergence puts weight on non-linearity (Lichtenstein, 2000). In practice, emergence can lead to entrepreneurial success by the firm bringing order to an unorganised value system or by challenging the existing and potentially rigid system of value creation. In effectuation, firms and entrepreneurs seek to control their future by developing partnerships and pre-commitments from various stakeholders for their business. Causation describes a process where the entrepreneur sets a goal and then selects the best available means to achieve the goal. The three process types are not mutually exclusive and they manifest themselves differently across states of entrepreneurs' and firms' development.

Development of an entrepreneurial firm is often depicted as a sequential process with identifiable stages. These models are referred to despite claims that they cannot reveal the unique path of each SME (Levie and Lichtenstein, 2010; Muhos et al., 2010). They also lack predictive value since they do not carry path determinism (Muhos, 2015). The stage-gate approach consists of sequential stages where essential activities are performed. The authors of this paper decided not to fix the stages/states to any prior model but provided an opportunity for their findings to arise from the data, whilst still utilising the elements of earlier models by Scott and Bruce (1987) and Skok (1997).

#### 2.4. Specificity of knowledge in an entrepreneurial SME setting (Finalised)

KM has been studied extensively within large, mature firms specialising in KM tasks, jobs and departments. A smaller volume of research focuses on how knowledge concepts and processes are made operational in SMEs that typically have challenges with successful KM (Strobel and Kratzer, 2017). A study by Shin et al. (2017) indicated that the prevalence of knowledge resources of a new firm increases the chances an early-stage firm has of survival and (studied) short-term success, so improvements in KM action pay off for new SMEs. Thus, additional understanding of the phenomenon is likely to have both scholarly and pragmatic contributions. For entrepreneurial firms, specifically, the knowledge of an organisation cannot be separated from the knowledge possessed by its founder-managers. Frameworks of company inception and growth (Farrokh et al.,

2017) propose that at early-stage firms the knowledge conceptualisations and processes, as well as entrepreneurs' personal and contextual attributes, impact the knowledge-oriented processes of an SME.

### 3. Research approach and implementation

This study is an exploratory and interpretative multiple-case study (Yin, 1989; George and Bennett 2005), revealing patterns in the thinking and behaviour of creative industries. According to Yin (1989, p.23), "a case study is an empirical inquiry that: investigates a contemporary phenomenon within its real-life context" and "when the boundaries between phenomenon and context are not clearly evident". Multiple-case studies are helpful in generating and testing explanations (Herriott and Firestone, 1983). Theory testing and extension through a qualitative explanatory study is a step before conducting pure theory testing of hypotheses, as is commonly undertaken through quantitative research (Van Echtelt et al., 2008). Multiple-case studies help to create theory via replication and extension among cases. Cases can be used for the independent corroboration of propositions, and this allows researchers to perceive new patterns. Furthermore, individual cases may add complementary aspects. Bringing together individual patterns helps complete the puzzle from a theoretical standpoint (Eisenhardt, 1991).

Seven entrepreneurs whose area of business activity relies on products and services based on design and creativity were interviewed in-depth using the critical incident technique (CIT; Chell, 2004; Fisher and Oulton, 1999) to clarify how early-stage entrepreneurs conceptualise knowledge as a part of their entrepreneurial realm, depict their knowledge development trajectory and foresee their future knowledge journey. A critical incident is a behaviour that is either outstandingly effective or outstandingly ineffective in relation to the general aims of an activity (Fisher and Oulton, 1999). CIT facilitates the investigation of significant occurrences (events, incidents or issues) identified by the interviewee, the way they are managed and the outcomes perceived (Chell et al., 1998).

The collected qualitative case data is thematically content-analysed. The ways the entrepreneurs interviewed had internalised the concept of knowledge and processes and practices relating to it are interpreted by the researchers via what was expressed (externalisation) in thematic interviews. More precisely, the study at hand represents inductive interpretivism. In an inductive method, the researcher identifies the area of enquiry and aims at developing theory, or a model, from the data. Inductive research moves from particulars to generalisations.

The above characteristics of the interpretivist paradigm were applied to this research as the researchers set out to explore the phenomena (knowledge and its management) in the specific context of early-stage creative industry SMEs as experienced by stakeholders (founder/owner-managers) involved in the issue area. The approach was in this sense exploratory. Exploration is typically applied when the objective is (1) to assess the magnitude of a particular phenomenon and (2) to generate ideas about that phenomenon, or (3) to test the feasibility of establishing more extensive studies regarding the phenomenon (Bhattacharjee, 2012).

The progression of the study from theoretical background to case studies and summative conclusions is depicted in Figure 1.

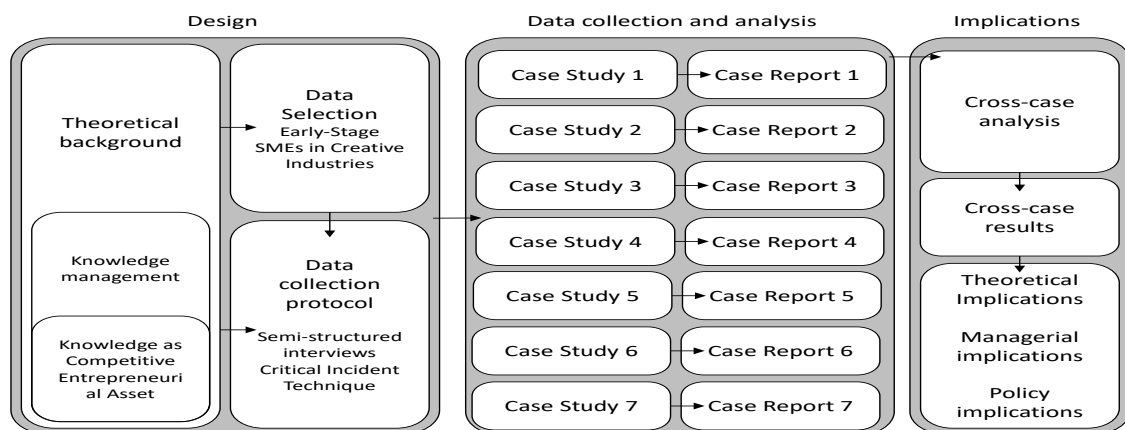


Figure 1. The research process

Altogether, seven SME companies participated in the semi-structured interviews – the content plan and main questions were decided on prior to the interviews, but themes brought up by the interviewees were added to the discussion and resulting analysis. The sales revenue of the companies varied between €40,000/year (2019) and €1.2 million/year. The number of personnel at the companies studied ranged from one (in three cases) to ten people.

All interviews were recorded, edited verbatim and subjected to thematic content analysis, where researcher triangulation was applied; the two researchers analysed the content independently and drew their conclusions to be later merged into a joint view.

## 4. Results

### 4.1. Knowledge conceptualisation

The interviewees unanimously answered the open question asking them to define knowledge in a pragmatic and operational manner. The question itself was labelled as challenging, and most entrepreneurs answered it by giving examples of knowledge they possessed and then generalised their idea on a conceptual level. A typical definition is the following, from a founder-entrepreneur in fashion design and manufacturing:

“To me, knowledge is to understand situations and to be able to act in them.”

In terms of the content of knowledge and artefacts of knowledge, most early-stage firms had registered a trademark, but instead of dividing knowledge capital into fragments, they explained that:

“our firm as a whole story is the knowledge we capitalise on – the idea, the history, the values – you cannot and need not protect that, since it cannot be copied.”

In the same vein, the companies had very few and very loose contractual bases to control and protect their knowledge. Many entrepreneurs recognised the risk involved in such a trust-based view but added that:

“trust has worked so far, since our key relations are part of our story and we are parts of theirs.”

Entrepreneurs saw themselves as the key knowledge hubs ‘of the whole’ in their firms, yet recognised the need to spread the knowledge amongst various actors within the firm and also to allow space for other members’ knowledge to have greater influence on the development of the firm.

### 4.2. Knowledge management development

Typical of cases in the sample was a negative incident involving exceeding one’s limits of knowledge; entrepreneurs tried to find a solution to a novel situation by going beyond their experience and expertise.

“First I wanted to do it myself, then, luckily, I realised someone else does it way better.”

The failure of the solution caused them to turn this kind of ‘affordable loss’ into a knowledge acquisition process, where they found a partner/supplier to complement their own knowledge base, thus acquiring specialised knowledge on the issue at hand from external parties.

“It was good that we tried it ourselves; now we know what to talk about and ask for when dealing with partners and suppliers.”

Positive incidents were linked to opportunity recognition and agility in grasping the opportunity. Interviewees recalled incidents where they were able to ‘mobilise’ their knowledge swiftly to address to the requests of the market and/or value chain.

#### 4.3. Knowledge and KM processes

As the prior-art literature suggested, processes relating to knowledge in the SMEs studied were largely implicit and not documented. The knowledge processes lacked milestones and responsibilities, yet at the same time a common remark was that:

“it (knowledge management) is happening all the time, and many people and parties are involved.”

In the discussion, many entrepreneurs expressed recognition of the need to systematise and ‘processualise’ KM. In one case this had even extended to recruiting for that purpose (among others) recently.

“We needed someone to look at the future and markets with a wider and organised view, so I can stick to creativity, where I can best drive the company further.”

#### 4.4. The knowledge (management) trajectory across development states via established frameworks

One of the interview questions related to the by-then development trajectory and the role of different items and processes concerning knowledge in the entrepreneurial journey. The critical incidents were analysed using the theoretical taxonomies and frameworks introduced earlier (see Chapter 2). The findings of the analysis are summarised below in Table 2.

Table 2: Knowledge elements identified in development states reflected against theoretical frameworks

Presence of the elements of the theoretical frameworks					
State of development	Intellectual Capital Model	Knowledge Management Processes	Areas of knowing (by Zack)	ASKO-framework by Kakouris	Process Types of Growth
<b>Ideation</b>	human capital entrepreneurial capital	creation application	know what know how	Ability Opportunity	Emergence
<b>Inception</b>	trust capital relationship capital	acquisition exploitation transfer	know what know who	Ability Support	Effectuation Causation
<b>Stabilisation</b>	structural capital entrepreneurial capital	sharing protection	know where know how	Knowledge	Effectuation
<b>Growth</b>	relationship capital renewal capital	exploitation sharing renewal	know where know what known when	Opportunity Support	Emergence Causation
<i>Current state (time of the interviews)</i>					
<b>Future Areas of Knowledge Action</b>	structural capital entrepreneurial capital	creation exploitation dissemination	know where know how	Ability Opportunity	Causation

The findings confirm the earlier modelling by Levie and Lichtenstein (2010), which proposes instead of using a stage-based model, to instead see the trajectory of a new enterprise as an organism moving between *dynamic states* rather than sequential and well-definable stages. Seeing entrepreneurial firms through the lenses of knowledge and knowledge management, it became obvious that the knowledge capital sets, processes and valued ASKO-model elements both varied between the development states, i.e. they were dynamic and often moved backwards as well as forwards. The preferred role for entrepreneurs, however, was to be still involved in ‘doing’ rather than ‘planning and managing’: “If need be, I can still put the working overalls on and help others where needed”.

This finding repeated the results of a study by Saukkonen and Vanttinen (2016), where external industry experts gave more weight to establishing processes and practices of management in company development than entrepreneurs did. Various studies (e.g. Kafaji, 2020) state that moves towards delegation and sharing of knowledge contribute positively to solid growth and are a natural process in the company timeline. However, the entrepreneurs interviewed were ready and keen to grow the business but also had an idea of a target size

of the company that would be ideal for the company and their role in it, instead of ever-continuing growth. This finding resonates with the conclusions of Asante and Affum-Osei (2019), that individuals with an internal locus of control are likely to engage in entrepreneurship. Parker et al. state that entrepreneurial motivation arises from three states: 1) can do, 2) reason to do, and, 3) energised to do. The findings propose that these states are interlinked and the motivation of the entrepreneur may decrease when distanced from the 'core of doing': "An ideal size for some would be several million (euro) in sales and around 10+ people, then I would still feel like an entrepreneur".

#### 4.5. Specificity of creative industry context to knowledge and KM

The research results did not reveal any specific knowledge sets/processes typical for the creative industries. Most entrepreneurs had experience in other industries and the advisors were not industry-specific either. Entrepreneurial knowledge was seen as generic knowledge that just had materialised in the creativity context for the respondents. A statement by one interviewee summarises well the view on what is to be an early-stage creative industry entrepreneur: "The interesting thing in this (business) is that history does not help you much; we cannot know if customers will come back to us next time. But, well, who knows that in any business nowadays?"

### 5. Conclusions and discussion

#### 5.1. Answers to the research questions.

The study provided answers to the research questions set as follows:

*RQ1: How do early-stage entrepreneurs in creative industries conceptualise knowledge as a part of their entrepreneurial realm?*

The early-stage entrepreneurial view on knowledge stresses the operational nature of the concept: knowledge is both born and gains its value in action. Exploitation and sharing overrule the concerns relating to knowledge protection. In early-stage enterprises the knowledge resides in individuals rather than in explicit and shared knowledge deposits.

*RQ2: How do early-stage entrepreneurs depict their development trajectory and practices in issues related to knowledge?*

The framework in Figure 2 depicts the way the early-stage entrepreneurial company progresses along its development trajectory via knowledge-related incidents.

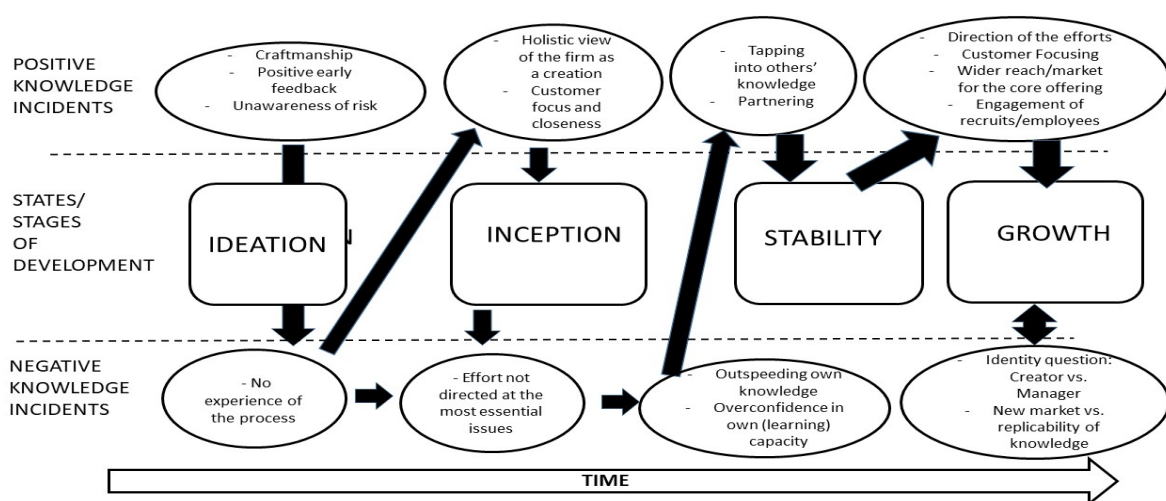


Figure 2. Knowledge-related incidents on the development trajectory



### *RQ3: How do early-stage entrepreneurs foresee their future knowledge journey?*

The entrepreneurs interviewed face a dilemma. They recognise the needs for and benefits of structuring and sharing the knowledge depository and collaborate in pragmatic action on it. However, they wish to stay in touch with most practical aspects happening within the company. This may limit the growth of the firm, the entrepreneur themselves and the other stakeholders involved. The knowledge already possessed was still unused to its full potential, so the focus of the entrepreneurs was wider and more purposeful exploitation of the knowledge to conquer new markets and products

### 5.2. Limitations of the study and directions for further research

The case-study strategy using CIT proved effective for the analysis of the ways early-stage entrepreneurs conceptualise knowledge during early stages of growth, taking the sequential character of the process into account. The construct validity of the study is based on a sound research plan, multiple sources of evidence, synergy between types of data and an established chain of evidence. Analytic generalisation is possible in the case of building the context-specific frameworks applicable in creative industries. The findings of the study cannot be directly generalised to other business contexts, and they are intrinsically linked to the time of data collection. Repeating the research in another contextual setting would shed light on whether the findings are specific to the context or have a wider generalisability. However, case-study protocol was followed and a database established, allowing for further testing of the findings.

This study resonates with an earlier finding by Cope and Watts (2000) that the concept of critical incidents is not as straight-forward as it seems. It was not easy to recall those incidents retrospectively and they were often more processes with longevity than occurrences specific in time. As Cope and Watts (ibid.) sum up: the critical incidents have potential to lead to fundamental, higher-level learning. To reach this, there is a need for knowledge and support designed to help entrepreneurs interpret critical incidents as learning experiences, in order to increase the power of the learning outcomes.

Additional research could focus on dynamics of KM, namely the dynamics over time within the company and entrepreneur trajectory and the dynamics between entrepreneurs and other knowledge actors internal and external to the company (Saukkonen, 2020).

## References

- Alavi, M. and Leidner, D. (2001), "Review: knowledge management and knowledge management systems: conceptual foundations and research issues", *MIS Quarterly*, Vol. 25 No. 1, pp. 107-136
- Asante, E. A., & Affum-Osei, E. (2019). Entrepreneurship as a career choice: The impact of locus of control on aspiring entrepreneurs' opportunity recognition. *Journal of Business Research*, 98, 227-235.
- Baron, A. (2011). Measuring human capital. *Strategic HR Review*.
- Bhattacharjee, A. (2012), *Social Science Research: Principles, Methods, and Practices*, 2<sup>nd</sup> ed., AnolBhattacharjee (open access textbook). Retrieved from [https://scholarcommons.usf.edu/oa\\_textbooks/3/](https://scholarcommons.usf.edu/oa_textbooks/3/)
- Boisot, M. H., MacMillan, I. C. and Han, K. S. (2007). *Explorations in information space: Knowledge, agents, and organization*. Oxford: Oxford University Press on Demand.
- CEN Comité Européenne de Normalisation (2004a). European Guide to Good Practice in Knowledge Management-Part 5: KM Terminology. In CEN Workshop Agreement CWA 14924-5. Retrieved from: <https://chupa.pbworks.com/f/CWA14924-05-2004-Mar.pdf>
- Chell, E. (2004) Critical incident technique, In Cassell, C and Symon, G. (Eds.), *Essential guide to qualitative methods in organisational research*, 1st ed. SAGE Publications, London, pp.45–60.

- Cope, J., & Watts, G. (2000). Learning by doing—an exploration of experience, critical incidents and reflection in entrepreneurial learning. *International Journal of Entrepreneurial Behavior & Research*.
- Eisenhardt, K. M. (1991) Better stories and better constructs: The case for rigor and comparative logic, *Academy of Management Review*, 16(3), pp.620–627.
- Farrokh S., Kordnaeij A., Zali M.R. (2017). Factors affecting the growth of small and medium-sized enterprises. *IJABAER*. 2016 ;14(10):6199-6216 Available at: <http://serialsjournals.com/serialjournalmanager/pdf/1479289988.pdf>. (Accessed: 30 March, 2021)
- Fisher, S and Oulton, T. (1999) The critical incident technique in library and information management research, *Education for Information*, 17(2), pp.113–125.
- Florida, R. (2002): *The Rise of the Creative Class*. Basic Books, New York.
- Gamble, P. R. and Blackwell, J. (2001). *Knowledge management: A state of the art guide*. London : Kogan Page Publishers
- George, A. L., & Bennett, A. (2005). *Case studies and theory development in the social sciences*. MIT Press: London.
- Herriott, R. E and Firestone, W. A. (1983). Multisite qualitative policy research: Optimizing description and generalizability, *Educational Researcher*, 12(2), pp.14–19.
- Hey, J. (2004). The data, information, knowledge, wisdom chain: the metaphorical link. *Intergovernmental Oceanographic Commission*, 26, pp. 1-18.
- Kafaji, M. (2020). Delegation and Collaboration Practices to Embrace Innovative Ideas for Business Growth in Small to Medium Enterprises. *International Journal of Entrepreneurship*, 24(1), 1-8.
- Kakouris, A. (2019). The ASKO dialectical framework for entrepreneurial courses construction: theoretical foundation. *Entrepreneurship Education*, 2(1), 51-69.
- Kianto, A. (2008), Development and validation of a survey instrument for measuring organizational renewal capability, *International Journal of Technology Management*, 42(1), pp. 69-88.
- Levie, J., & Lichtenstein, B. B. (2010). A terminal assessment of stages theory: Introducing a dynamic states approach to entrepreneurship. *Entrepreneurship Theory and practice*, 34(2), 317-350.
- Lin, H. (2014), “A multi-stage analysis of antecedents and consequences of knowledge management evolution”, *Journal of Knowledge Management*, Vol. 18 No. 1, pp. 52-74
- Mayer, R.C., Davis, J.H. and Schoorman, F.D. (1995), An integrative model of organizational trust. *Academy of Management Review*, 20(3), pp. 709-734.
- Moore, G. A. (2000.) *Living on the Fault Line: Managing for Shareholder Value in the Age of the Internet*. New York : Harper-Collins.
- Muhos, M. (2015). Review of business growth models: methodology and the assumption of determinism. *International Journal of Management and Enterprise Development*, 14(4), pp. 288-306.
- Muhos, M., Kess, P., Phvat, K., and Sanpanich, S. (2010). Business growth models: review of past 60 years. *International Journal of Management and Enterprise Development*, 8(3), pp. 296-315.
- Nahapiet, J. and Ghoshal, S. (1998), Social capital, intellectual capital and the organizational advantage, *The Academy of Management Review*, 23 (2), pp. 242-266

- Nonaka, I., Toyama, R. and Konno, N. (2000). SECI, Ba and leadership: a unified model of dynamic knowledge creation. *Long range planning*, 33(1), pp. 5-34.
- Parker, S. K., Bindl, U. K., & Strauss, K. (2010). Making things happen: A model of proactive motivation. *Journal of Management*, 36(4), 827–856.
- Peirce, C. S. (n.a.). *Collected Papers*. Edited by: Hartshorne, C., Weiss, P. and A. Burks. Cambridge, MA.: Harvard University Press.
- Reed K., Lubatkin M. and Srinivasan, N. (2006) Proposing and testing an intellectual capital-based view of the firm. *Journal of Management Studies*, 43, (4), pp. 867-893
- Saukkonen, J. (2020). Towards dynamic knowledge management in technology-based SMEs. *JYU dissertations*. University of Jyväskylä. <https://jyx.jyu.fi/handle/123456789/71621>
- Saukkonen, J., & Kreuz, P. (2018). Extending the Concept of Knowledge Management into Innovation and New Business Creation. In *Proceedings of the International Conference on Creativity and Innovation 2018*. Japan Creativity Society and Kindai University, pp. 11-26
- Saukkonen J. & Vääntinen K. (2016) Development trajectory of an innovation-based environmental technology start-up. In *Proceedings of The 11th European Conference on Innovation and Entrepreneurship*, 15-16 September 2016. Reading : Academic Conferences and Publishing International, pp. 706-716.
- Scott, M. and Bruce, R. (1987). Five stages of growth in small business. *Long range planning*, 20(3), pp. 45-52.
- Shin, K., Park, G., Choi, J. Y. and Choy, M. (2017). Factors affecting the survival of SMEs: A study of biotechnology firms in South Korea. *Sustainability*, 9(1), 108.
- Skok M. (2017). *Startup Secrets – Roadmap to Success*. Available at : <https://www.slideshare.net/mjskok/startup-secrets-roadmap-to-success>
- Strobel, N. and Kratzer, J. (2017). Obstacles to innovation for SMEs: Evidence from Germany. *International Journal of Innovation Management*, 21(03), 1750030.
- Van Echtelt, F. E., Wynstra, F., Van Weele, A. J and Duysters, G. (2008) Managing supplier involvement in new product development: A multiple-case study, *Journal of Product Innovation Management*, 25(2), pp.180–201.
- Wiig, K. (1997), Knowledge management: where did it come from and where will it go?, *Expert Systems with Applications*, 13(1), pp. 1-14.
- Yin, R.K. (1989) *Case Study Research: Design and Methods*, Sage Publications, Beverly Hills.
- Yusof, W., Zakaria, O., Zainol, Z. and Ananthan, S. (2018). DIKW Application on Knowledge Based Framework with Situational Awareness. *International Journal of Academic Research in Business and Social Sciences*, 8(6), pp. 1110-1120.
- Zack, M. H. (1999). Managing codified knowledge. *Sloan management review*, 40(4), pp. 45-58.
- Zeleny, M. (1987). Management support systems: towards integrated knowledge management. *Human Systems Management*. (7), pp. 59-70.