A Critical Evaluation of Generating Digital Entrepreneurship in Innovation Clusters of Franconia: An Embedded Case Study

Simon Kiesel[1], Annette E. Craven[2]

École Nationale des Ponts et Chaussées Business School, France[1]
University of the Incarnate Word, United States of America[2]

Abstract

While many studies have discussed innovation clusters and regional innovation systems from a general perspective, relatively little is known about why young entrepreneurs build on external support and what are the most needed support factors for success [1]–[13]. To answer this, the expectations of individual young entrepreneurs were identified, using qualitative techniques. The general research question was, which support from a local innovation cluster is useful for startups and which is less important.

In 2017, the new Center for Digital Innovation Franconia was founded in Würzburg, Germany [14]. Local companies, universities, cities, the Bavarian government, and organizations like the chamber of commerce and business incubators formed a founding support ecosystem to increase the start-up activity in the field of digitization. It was the umbrella structure for several business incubators and co-working spaces for entrepreneurs in different stages, the science park with laboratories, entrepreneurship lectures, networking events, contests, startup coaching, and funding or legal advice [14]. Furthermore, regular workshops were organized to connect the various groups of students, founders, entrepreneurs, and public institution representatives. Topics included design thinking, funding sources, digital innovation, and digitization intellectual property rights [14].

However, for the first time in Franconia the authors of this study questioned the target group itself about activities, interactions, and interests with regard to external resources and support for early-stage innovators. A qualitative, embedded case-study approach was implemented [15]. First, background material was examined, notably reports from the local center of digital innovation, business plan competitions, chamber of commerce records, and documents describing the services and intentions of the innovation center. Second, a workshop was organized at the Center for Digital Innovation. Several startups and representatives of local supporters within the startup network discussed how to improve cooperation. Third, using semi-structured in-depth interviews with startup companies (n = 10), multiple sources could be used as evidence.

The results of the study showed a significant dissonance between the services offered by innovation clusters and the resources actually required by entrepreneurs. The analysis also provided insight into the increasingly digital Franconian startup culture and essential indications for private and public stakeholders of innovation centers to optimize support factors for business startups. Although the results are limited to startups founded by German entrepreneurs and the network within a local innovation cluster, a comparison with other areas and (less digital/service-oriented) industries is the logical continuation of this research. Furthermore, the findings may be helpful for decision-makers to understand that digital startups need different and faster support than in the past. This paper describes the lessons learned from identifying gaps between needs and offers and the transformation of the research process into an embedded case study.

Keywords: *Innovation Cluster, Franconia, entrepreneurship, embedded case study, startups*

1. Introduction

This article emerged from dissertation research conducted 2019-2021 to explore the support factors for startup entrepreneurs as part of the requirements for an Executive Doctorate of Business Administration degree at Ponts Business School. The research focused on a specific innovation cluster in Franconia, in northern Bavaria, Germany and wanted to find out which support from a local innovation cluster is useful for startups and which is less important.

The paper is divided into five parts, including this introduction. In the following chapter, a theoretical framework was applied, as suggested by Lederman and Lederman [16], to better understand the interrelationships in which young entrepreneurs receive support and learn to build their business. A literature review included the evolving theoretical perspectives related to innovation clusters (theory of the growth of the firm, resources theory, Porter's cluster theory, and regional innovation systems theory, RIS). Third, the authors describe their approach to evaluate the innovation cluster in

Franconia. This is followed by a critical analysis, discussing the results of the study. The final section concludes with recommendations for different stakeholders, limitations, and future research options.

2. Theoretical Framework

Penrose in 1959 posited in the theory of the growth of the firm (TGF) that a firm can be considered a set of resources. Penrose made an essential impact on management research [17]. Her approach addressed typical resources like labor, land, and capital, and indicated "sub-divisions of resources may proceed as far as is useful … for the problem at hand" [as cited in 17, p. 1729]. Therefore, resources can also be intangible like knowledge. Penrose emphasized that it is never the resources themselves that stimulate business processes, "but only the services that the resources can render" [as cited in 17, p. 1729]. The effective management of resources leads to new products and services, innovation, and growth of a company. Penrose suggested that firms should rely on external services, "consultants and similar advisory services to improve its organization, to test markets, and to suggest possible avenues of expansion, [but] all advice and proposed plans have to be considered and approved somewhere within the firm's own managerial hierarchy before action is taken" [as cited in 17, p. 1742].

Wernerfelt [18] continued Penrose's idea of analyzing companies from the resource instead of the product perspective and defined resources as everything that could be a strength or weakness of a company, which could be internal or external. Furthermore, Wernerfelt introduced the thought of resource position barriers as a subsequent development to entry barriers [18], and Lerner and Almor [19] also emphasized the importance of resources, especially for small companies. Tangible and intangible assets are considered internal company resources and "are supposed to drive its diversification process, the choice of the markets to address and the types of firms to acquire or with which to partner. In this perspective, mergers and acquisitions, and alliances, can be seen as a way of obtaining a set of resources in an imperfect market" [20, p. 365].

Externally, regional innovation systems (RIS), or clusters, are a manmade ecosystem that generates innovative pressure and can also stimulate the founding of new companies [12]. According to Pinkwart [9], Porter was the first to describe in the five forces model that clusters can have a positive impact on the local competitive environment. Porter defined industrial clusters as geographically close groups of companies and local institutions that are connected in a given area by common and complementary links [21]. More specifically, RISs, or clusters, are agglomerations of related industries and educational, research, and political institutions interacting in order to generate economic momentum, resulting in measurable regional competitive advantages [22]. Porter is one of the few theorists referred to in the literature regarding the field of cluster-oriented economic development, and although not originally describing spatial patterns of economic activity, Porter did attempt to explain entrepreneurial competitiveness [23]. Engel [2] extended Porter's definition of industrial clusters by also describing these in terms of innovation activity and development stages. Additionally, Engel highlighted the vital mobility of resources in effective clusters of innovation [2].

In parallel, models of national and regional innovation systems were formed, with Makkonen and Inkinen stating that "there is considerable overlap in the conceptual backgrounds of RISs and clusters" [24, p. 218]. While cluster theories such as Penrose's TGF and Porter's five forces model traditionally focus on geographical concentrations of companies and competitiveness, RIS theories include social factors like networking and learning processes [24]. Knowledge transfer operates differently on national and regional levels [1]. Häfner [23] pointed out that the transformation to post-Fordism (from the industrial mass production on a large scale introduced by Henry Ford to the use of small flexible production units) and increasing globalization meant that production steps were no longer integrated into one company at one location. Production stages were increasingly outsourced, which led to new geographic, economic structures.

Concluding the scientific development from Penrose's resources to Porter's external forces and the model of business clusters, the support for startups within innovation clusters can be considered as a main resource that leads to competitive advantages. There is general agreement that creating innovation is a social process that requires interaction with others [6], [7], [25]. Hence, these theories about business resources formed the ideal theoretical framework for this research because of the identification of external support factors for startups that could be provided by regional innovation clusters. The following figure demonstrates how those theories relate to each other and relate to the purpose, and the regional focus of this study.

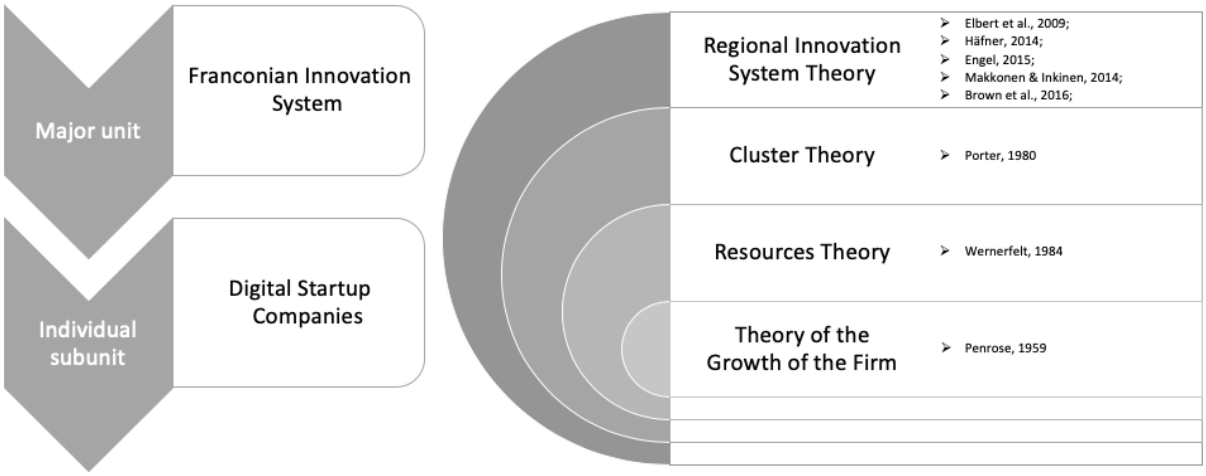

Figure 1. Theoretical framework graphic covering the learning and working world for young entrepreneurs.

3. Approach

To explore the various required external resources and needed support for entrepreneurs in innovation-driven ecosystems, several researchers suggested a more direct approach to close literature gaps, e.g. to ask all actors about their interactions and activities [3], [6], [26]. For the authors of this study, the overarching research question was which support from a local innovation cluster is useful for startups and which is less important. This then resulted in subordinate questions as to why startups build on external support, what are the most needed external support success factors and how support from local digital innovation clusters was experiences in the past. A special focus was placed on the ecosystem in Franconia (north Bavaria, Germany). Consequently, a qualitative, embedded case-study approach was implemented [15].

First, background material was examined. Especially documents from the local Center for Digital Innovation Franconia, business plan competitions, documents from the Chamber of Commerce and records describing the services and intentions of the Innovation Center. They showed how interwoven but also complex the individual institutions in Franconia worked together. In some cases, however, it was also revealed that services were offered several times in the same city by competing state agencies (for example co-working spaces). Founders were presented with a somewhat confusing picture of possible contacts and support services.

Figure 2. Workshop with startups and supporters at the Center for Digital Innovation in May 2019.

Second, a workshop was organized at the Center for Digital Innovation. Several startups and representatives of local supporters within the startup network discussed how collaboration can be improved. Topics and insights were derived with an observation protocol and the results suggested further topics for the development of an interview guide. Following the workshop, an initial detailed pilot interview was managed.
Third, semi-structured in-depth interviews were conducted with startup companies (n = 10). *Startups* were defined according to the definition of the *German Startups Association* on the basis of three characteristics: companies less than ten years old, based on an innovative technology or innovative business model, and geared to significant growth [27]. As sampling design, a nonprobability purposive sampling technique was applied due to the number of startup companies, limited resources, and time [28]. The compilation of the surveyed startups in this study resulted from an official customer list of the Center for Digital Innovation Franconia as of February 2019 [29]. It was limited to startup projects in the field of digitalization. The 42 startups were also divided into five founding stages, from *Idea Stage*, *Concretization Stage*, *Business Plan Implementation Stage*, *Set-Up Phase* to the *Financing Stage*. Thus, a neutral evaluation and pre-selection of the companies was taken over. Since these companies had already received funding from the local innovation network during the critical early-stage stages, the authors concentrated on 17 companies in the most advanced *Financing Stage*, and finally 10 startups were interviewed. After responding to an email invitation for an appointment, all interviews were conducted in random order with the founders or CEOs of the startups. The interviews lasted 34 minutes on average. All entrepreneurs volunteered for the study, agreed to be recorded, were told about the purpose of the study, and it was stressed that in the event of publication, their identities would be protected by assigning a number, a letter, or by using fictitious names. The interviews were conducted in German and then translated by a native bilingual speaker into English. Finally, another person translated the transcript into German and compared it to the original responses to create credibility and dependability, according to Brislin's method of back-translation as a well-known method for cross-cultural research [30]–[32]. Data analysis was performed using the computer software *NVivo12,* and the content was structured and summarized with the help of qualitative content analysis, according to Mayring [33].

4. Critical Analysis

Of the ten participants, two were female, all had a university degree. The average age of the participants was 32 years (ranging from a minimum of 24 to a maximum of 41). The businesses ranged in age from one to five years old and all focused on the business-to-business (B2B) sector. However, two startups used a portal concept to target both customers and businesses. The firms had an average of 27 full-time workers. However, one startup that already had 100 employees pushed this figure even higher.
The thematic analysis revealed that entrepreneurs needed much support and were dependent on external help during the start-up phase. Contacts into new networks was the main reason for building on external support to supplement knowledge. Especially technology-oriented founders had to catch up in management and financing knowledge. But contact with larger companies was also needed. The various networking events and competitions offered were therefore intensively accepted and considered valuable.
However, the urgent desire of many founders for cooperation with larger companies was sometimes thwarted by a lack of entrepreneurial spirit and risk aversion, especially among medium-sized corporates. Different attitudes towards the organization of companies sometimes clashed, such as lean startup thinking, digital communication channels, or flat hierarchies, which may not yet be as pronounced in traditional companies. On the one hand, a critical discussion will conclude that the typical elements of a regional innovation framework still require improvement [23], especially with regard to a firm's traditional resources [6]. The fact that higher population density in conurbations encourages startup activity [34] results in a downside for Franconia. On the other hand, the founders' active further preparation and initiative attest to the fact that today's *Multipreneurs* innovate in a social process that necessitates contact with others [25].
Despite the popularity of networking events for connecting with other new companies, investors, and entrepreneurs, the local exchange became less important for startups as they grew. Only by exchanging with active scaled other startups at a similar stage could significant progress be made. Engel's guidelines for global innovation clusters [2] were also generally true from the perspective of young entrepreneurs in Franconia. Founders demanded a local adaptation of actions, rather than establishing new concepts from the ground up, access to educational institution assets, and

recognition of an export dependence for digital technologies and network to multinational players in a globalized world. In regional innovation schemes, this is consistent with the cluster theory [22].
The experienced consultancy, mentoring, and legal advice provided to IT startups could be better matched with their growth and scale. The design of business plans, elevator pitch exercises, legal topics, funding applications, and financing were all common topics for free training events. On a basic level, however, the offered seminars were much too many. Instead, offered workshops should concentrate on the commonly listed human resource issues, but also on achieving product-market fit and overcoming market barriers. This is the local competitive climate, which is often defined using the five forces model [12].
A quick market launch was critical, particularly for digitally-oriented startups [35]. As a result, resources were required immediately to test digital ideas, bring them to market, and expand as rapidly as possible. Scale-up challenges were both product-related and related to the company's development (space, employees). Unlike the industrial sector, however, most startups did not need hardware production. Mechanical workshop areas, such as those provided by the Center for Digital Innovation Franconia and fitted with 3D printers, laser cutters, and wooden prototyping construction machines, were therefore seldom used. Other offers, such as *Design Thinking* seminars, are still being evaluated to see if they are appropriate for the digital target audience. Prototyping is an integral part of design thinking, and similar user-interface experiments are far more popular for digital services. In the end, a variety of innovation methods and support options can prove to be more effective.
Just half of the startups took advantage of services such as subsidized office rooms, which are often available in incubators and science parks. On the one side, at a later stage of growth, entrepreneurs happily resorted to low-cost rentals for offices in co-working spaces or incubators. On the other side, the majority of them could be built anywhere with access to high-speed internet. Many early-stage IT startups, particularly in the first few months, worked out of university libraries, cafés, or from home. Some also found open-market office space to be more versatile and less expensive. Showcase buildings (which are so common in politics) must be questioned in this regard. On this basis, the findings back up skeptics who have criticized political programs that seek to replicate Silicon Valley at any cost [2], [23], [24], [36].
On the one hand, the limited liquidity during the frugal founding period was repeatedly listed, and there were debtor defaults. Financial sponsorship programs, on the other hand, were characterized as unsuitable or inadequate. When corresponding orders and customer relationships became available, it turned out that most startups were financially very well placed. In terms of foreign capital, the cases differed. Only three of the ten startups actively looked for venture capital, while the majority of new companies relied on turnover, current profits, and little more than grants or smaller seed funding (mostly from family), only three of the ten startups actively looked for venture capital. But these few found the region's supply of VC and angel investors was inadequate. When it came to high venture capital investment that allowed rapid scaling, entrepreneurs still saw a lot of catching up to do. This is in line with Carsten Rudolph, the Managing Director of BayStartUp, who believed that the investor scene in Bavaria is well-positioned for the early stage, but sees a gap in the middle of the market and from ten million euro onwards, for example expansion abroad [37]. Of course, this was highly dependent on the business model.
Half of the startup teams were composed of individuals who had met during their university research. Nonetheless, professors only added two teams (both students from the *FHWS University of Applied Sciences Würzburg*) to the startup network and directly assisted them in developing their businesses. The *University of Würzburg*'s plans for spin-offs were heavily criticized. The faculty's interest might not be as high.
However, according to the *Global Entrepreneurship Monitor*, Franconia appeared to meet all of the main system conditions: access to entrepreneurial capital, government funding, entrepreneurship initiatives, educational history, R&D transfers, commercial infrastructure, market dynamics, physical infrastructure, and social and cultural norms [38]. Nevertheless, the high level of unfamiliarity with resources inside the cluster was terrifying. Although consulting meetings, activities, and competitions were frequently listed as offers, more specialized services, seminars were either unknown, or the interview partners only mentioned them when explicitly asked. This corresponds to the 2017 *German Startup Monitor*. According to the researchers (n = 1,254), one-third of German startups did not even know whether there was a local founder network or innovation cluster nearby, and just half of the young entrepreneurs who were told about such a network wanted to join it [27].

5. Conclusion

An innovation cluster should teach its members how innovative (in this case, primarily digital) solutions can best be developed, implemented, and brought to practical application. To this end, the partner institutions such as universities, the Chamber of Industry and Commerce, business incubators and business angels relied on various educational and promotional offerings. However, this study revealed that the support ecosystem sometimes did not meet the needs of startup entrepreneurs.

Founders should be encouraged to expand their networks as much as possible and benefit from the cluster exchange. They can, however, not restrict themselves to the local startup scene, but look beyond it to supra-regionally sized startups in similar fields. Working with young entrepreneurs who tend to use various communication networks, for example, practitioners must address cultural differences. Rather than focusing on infrastructure funding, policymakers should increase efforts to link entrepreneurs with larger businesses. Financial protection from the government of, for instance, supplier contracts between startups and larger companies, could result in more than just direct subsidies. This would reduce the risk to potential investors and partners while also assisting startups in the long run, compared to a one-time start-up funding. In any case, more public relations work is needed to transparently communicate the various institutions' support services.

The aim of this study was to compare the needs of entrepreneurs with the actual support offered by an innovation cluster. Researchers in the future are encouraged to build on the results. The selection of entrepreneurs based on the Center for Digital Innovation Franconia's list and the local conditions near Würzburg posed a limitation. This may have an effect on the findings' generalizability. This is something that should be looked at in the investigation of other startups. It is recommended to compare the results to those in other areas or around the globe. Furthermore, as a logical extension of this study, additional research might look at other (less digital/service-oriented) industries. It would also be interesting to look at the impact of startup collaborations in medium-sized partner firms.

Biography of the Authors

Since 2010, Simon Kiesel, DBA is a volunteer judge for the *Business Plan Competition of Northern Bavaria*, organized by *BayStartUp*. He is a consultant and coach for startups and organizes and awards the *Würzburg Startup Prize* each year. Furthermore, the author works in the IT environment as a Head of Marketing and Customer Relationship Management for a German publishing company that has gone through the transition from telephone directory production to various digital service offerings.

Annette E. Craven, PhD, CPA, ACC is Professor of Management Emeritus from University of the Incarnate Word, owner/CEO of AEC Coaching, LLC. and an international faculty member of the Ecole des Ponts executive DBA program. In addition to her teaching activities, she has consulted, coached, and mentored organizations and individuals around the world for more than 20 years.

References

[1] R. Brown, G. Gregson, and C. Mason, “A Post-Mortem of Regional Innovation Policy Failure : Scotland’s Intermediate Technology Initiative (ITI),” *Reg. Stud.*, vol. 50, no. 7, pp. 1260–1272, 2015.

[2] J. S. Engel, “Global Clusters of Innovation: Lessons from Silicon Valley,” *Calif. Manage. Rev.*, vol. 57, no. 2, pp. 36–65, 2015.

[3] A. Thomas, R. Passaro, and I. Quinto, “Developing Entrepreneurship in Digital Economy: The Ecosystem Strategy for Startups Growth,” *Strateg. Behav. Digit. Econ.*, pp. 1–20, 2019.

[4] C.-L. Tsai and H.-C. Chang, “Evaluation of critical factors for the regional innovation system within the HsinChu science-based park,” *Kybernetes*, vol. 45, no. 4, pp. 699–716, 2016.

[5] K. Uzlov and T. Li-chun, “Indicator evaluation of regional innovation system according to the cluster approach,” *Sch. Int. J. Bus. Policy Gov. ISSN 2394-3351*, vol. 3, no. 12, p. 178, 2017.

[6] O. J. Groth, M. Esposito, and T. Tse, “What Europe Needs Is an Innovation-Driven Entrepreneurship Ecosystem: Introducing EDIE,” *Thunderbird Int. Bus. Rev.*, vol. 49, no. 5, pp. 263–269, 2015.

[7] D. Heilman, S. Jung, and T. Reichart, “Erfolgsfaktoren für die Etablierung von Inkubatoren im Ruhrgebiet,” *Handel. Res. Inst.*, pp. 1–102, 2015.

[8] C. Loué and S. Ben Slimane, “Proceedings of the 12th European Conference on Innovation and Entrepreneurship,” 2017, pp. 1–843.

[9] A. Maritz, A. Koch, and M. Schmidt, “The Role of Entrepreneurship Education Programs in National Systems of Entrepreneurship and Entrepreneurship Ecosystems,” *Int. J. Organ. Innov.*, vol. 8, no. 4, pp. 7–26, 2016.

[10] H. Mubarak AL-Mubaraki and M. Busler, “Incubator successes,” *World J. Sci. Technol. Sustain. Dev.*, vol. 11, no. 1, pp. 44–52, 2014.
[11] M. O’Dwyer, L. O’Malley, S. Murphy, and R. C. McNally, “Insights into the creation of a successful MNE innovation cluster,” *Compet. Rev.*, vol. 25, no. 3, pp. 288–309, 2015.
[12] A. Pinkwart, “Analyse des Gründungsgeschehens in Deutschland,” Leipzig, 2016.
[13] J. W. Sonn and H. Kang, “Bureaucratic Rationale and Use of an Academic Concept in Policy-Making : The Rise and Fall of the Regional Innovation System in South Korea,” *Reg. Stud.*, vol. 3404, no. November, pp. 540–552, 2015.
[14] C. Andersen, “ZDI Mainfranken Bericht über die Netzwerkaktivitäten 2017,” Würzburg, 2018.
[15] R. K. Yin, *Case Study Research and Applications: Design and Methods*, 6th ed. Thousand Oaks: SAGE Publications, 2017.
[16] N. G. Lederman and J. S. Lederman, “What Is A Theoretical Framework? A Practical Answer,” *J. Sci. Teacher Educ.*, vol. 26, no. 7, pp. 593–597, 2015.
[17] Y. Kor, J. T. Mahoney, E. Siemsen, and D. Tan, “Penrose’s ‘The Theory of the Growth of the Firm’: An Exemplar of Engaged Scholarship,” *Prod. Oper. Manag.*, vol. 25, no. 10, pp. 1727–1744, 2016.
[18] B. Wernerfelt, “A Resource based view of the firm,” *Strateg. Manag. J.*, vol. 5, no. 2, pp. 171–180, 1984.
[19] M. Lerner and T. Almor, “Relationships among Strategic Capabilities and the Performance of Women-Owned Small Ventures,” *J. Small Bus. Manag.*, vol. 40, no. 2, pp. 109–125, 2002.
[20] M. Talaia, A. Pisoni, and A. Onetti, “Factors influencing the fund raising process for innovative new ventures: an empirical study,” *J. Small Bus. Enterp. Dev.*, vol. 23, no. 2, pp. 363–378, 2016.
[21] M. E. Porter, *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. New York: Free Press, 1980.
[22] R. Elbert, F. Müller, and J. D. Persch, “IKT-Cluster,” Darmstadt, 2009.
[23] K. Häfner, *Clusterplattformen in Bayern zwischen Theorie und Praxis*, Band 111. Würzburg: Würzburg University Press, 2014.
[24] T. Makkonen and T. Inkinen, “Spatial scaling of regional strategic programmes in Finland: A qualitative study of clusters and innovation systems,” *Nor. Geogr. Tidsskr.*, vol. 68, no. 4, pp. 216–227, 2014.
[25] N. Harkiolakis, *Multipreneurship Diversification in times of crisis*. New York: Routledge, 2014.
[26] C. K. Monsson and S. B. Jørgensen, “How do entrepreneurs’ characteristics influence the benefits from the various elements of a business incubator?,” *J. Small Bus. Enterp. Dev.*, vol. 23, no. 1, pp. 224–239, 2016.
[27] T. Kollmann, C. Stöckmann, S. Hensellek, and J. Kensbock, “Deutscher Startup Monitor 2017,” Berlin, 2017.
[28] I. Etikan, S. A. Musa, and R. S. Alkassim, “Comparison of Convenience Sampling and Purposive Sampling,” *Am. J. Theor. Appl. Stat.*, vol. 5, no. 1, pp. 1–4, 2016.
[29] A. Burger, “Übersicht über Gründungsprojekte im Bereich Digitalisierung,” Würzburg, 2019.
[30] P. Jones, J. Lee, L. Phillips, X. Zhang, and K. Jaceldo, “An Adaptation of Brislin’s Translation Model for Cross-cultural Research,” *Nurs. Res. - NURS RES*, vol. 50, pp. 300–304, 2001.
[31] R. W. Brislin, “Back-Translation for Cross-Cultural Research,” *J. Cross. Cult. Psychol.*, vol. 1, no. 3, pp. 185–216, 1970.
[32] J. Son, “Back translation as a documentation tool,” *Transl. Interpret.*, vol. 10, no. 2, pp. 89–100, 2018.
[33] P. Mayring, *Qualitative Inhaltsanalyse. Grundlagen und Techniken*, 12th ed. Weinheim: Beltz, 2015.
[34] M. Fritsch and M. Wyrwich, “The Long Persistence of Regional Levels of Entrepreneurship: Germany, 1925–2005,” *Reg. Stud.*, vol. 48, no. 6, pp. 955–973, 2013.
[35] V. Govindarajan and A. Srivastava, “Strategy When Creative Destruction Accelerates,” 2016.
[36] C. Keese, *Silicon Germany: wie wir die digitale Transformation schaffen*. Knaus, 2016.
[37] C. Rudolph, “Informationstechnologie - München - Deutschland bleibt steiniges Pflaster für Startups - Wirtschaft - SZ.de,” *Süddeutsche Zeitung*, 28-Oct-2019. [Online]. Available: https://www.sueddeutsche.de/wirtschaft/informationstechnologie-muenchen-deutschland-bleibt-steiniges-pflaster-fuer-startups-dpa.urn-newsml-dpa-com-20090101-191028-99-476446. [Accessed: 19-Apr-2020].
[38] N. Bosma, S. Hill, A. Ionescu-Somers, D. Kelley, J. Levie, and A. Tarnawa, “Global Entrepreneurship Monitor 2019/2020 Global Report,” London, 2020.