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# **LEMEX Research Papers on Entrepreneurship**

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**Editor-in-chief: Dr. Aki Harima**

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Chairholder: Prof. Dr. Jörg Freiling**



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### **Editorial Remark**

I am delighted to introduce the fourth issue of LEMEX Research Papers on Entrepreneurship ‚Exploring Entrepreneurship Phenomena from Theoretical/Conceptual Aspects’. This issue consists of the following five articles.

1. Absorptive Capacity in the Context of Accelerators – Gaining Competitive Advantages through Knowledge Absorption (Jannis Eckermann, Tim Franke, Aileen Kelch, Lisa Lauts, Hanna Mörig, & Anorth Ramalingam)
2. Towards Understanding Culture in Entrepreneurial Ecosystems (Samuel Kofi Azumah, Henriette Breuer, Silvin Bumiller, Vibeka Göttisch, Paulina Krüger, & Chiara Pleus)
3. Entrepreneurs in Poverty through the Lens of Bricolage (Svenja Baier, Dana Fuchs, Jessica Gießelmann, Jacqueline Krah, Agnieszka Krocak, & Franziska Knemeyer)
4. Student Entrepreneurship: An Application of the Theory of Planned Behavior (Leon Marquardt, Frederik Metzner, Lena Meyer, Alina Otto, Yannic Reiter, & Karin Xing)
5. Resources of Transnational Entrepreneurs: Achieving Competitive Advantages (Isabell Gutsche, Carolin Jürgens, Antonia Kauert, Emma Poppe, & Julian Raschen)

Master students in the Faculty of Business Studies and Economics of the University of Bremen developed these articles in the Sommer Semester 2019 in the course of the Seminar ‘Current Issues in Entrepreneurship Research’ (Lecturer: Dr. Aki Harima, Tutors: Cat-My Dang, Tenzin Yeshe, & Quynh Duong Phuong). In this seminar, students (i) familiarize themselves with topics, which have recently been investigated in entrepreneurship research; (ii) learn different theories and concepts in organizational science; and (iii) develop research propositions by analyzing a research object through a theoretical/conceptual lens. The lecturer allocates a pre-defined combination of a research object (e.g., ‘Accelerators’ and ‘entrepreneurial ecosystems’) and a theoretical/conceptual lens (e.g., ‘absorptive capacity’ and ‘organizational culture’). By conducting a literature review on both the selected research object and theory, course participants derive research questions, which they answer with the development of a set of research propositions. Developing *causa* assumptions by applying theories and concepts is one of the essential skills for researchers. While the combination of research objects and theories is defined by the lecture, it is on the hands of students how they identify research gaps and how they combine the practice and theory.

This issue covers rich entrepreneurship-related topics in variety. The first article, ‘Absorptive Capacity in the Context of Accelerators – Gaining Competitive Advantages through Knowledge Absorption’ illuminates the role of knowledge absorption for accelerators, which represent a novel form of entrepreneurial support organizations. The second article, ‘Towards Understanding Culture in Entrepreneurial Ecosystems,’ deals with entrepreneurial ecosystems a ‘hot’ topic, which has recently received rapidly growing attention from both regional policymakers and entrepreneurship scholars. By applying the framework of organizational culture, this author group investigates how we can understand the cultural aspect of entrepreneurial ecosystems. The third paper, ‘Entrepreneurs I Poverty through the Lens of Bricolage’, takes a closer look at the way entrepreneurs in penurious environments can respond to resource constraints, which emerge through three different types of poverty: social, psychological, and political poverty. The fourth article is ‘Student Entrepreneurship: An Application of the Theory of Planned Behavior’ observes students’ entrepreneurial activities by paying particular attention to the context in which students are embedded and how they influence their attitude, subjective norm, and perceived behavioral control. The final article, ‘Resources of Transnational Entrepreneurs Achieving Competitive Advantages’, analyzes entrepreneurs who conduct business in

transitional settings from the resource-based view. They highlight three types of resources, networks, experience, and knowledge, which transnational entrepreneurs can build through their dual embeddedness in their country of origin and residence.

As a lecturer, I was privileged with the honor of witnessing how rapidly students develop their research interest and capacity with their passion and creativity. The authors in this issue successfully manage to shed light on novel aspects of the investigated phenomenon in the context of entrepreneurship and make conceptual contributions to today's entrepreneurship research. I am convinced that their research contributions are worth publishing and making available for the global audience.



Dr. Aki Harima

Bremen, 25 May 2020

### **Information on Contributions**

#### **Absorptive Capacity in the Context of Accelerators – Gaining Competitive Advantages through Knowledge Absorption**

Submitted by Aileen Kelch, Anorth Ramalingam, Hanna Möring, Jannis Eckermann, Lisa Lauts, and Tim Franke as group assignment in the Seminar on Entrepreneurship and SME Management III - Current Issues in Entrepreneurship Research at the Chair in Small Business & Entrepreneurship (LEMEX) in 2019

#### **Towards Understanding Culture in Entrepreneurial Ecosystems**

Submitted by Samuel Kofi Azumah, Henriette Breuer, Silvin Bumiller, Vibeka Göttisch, Paulina Krüger, and Chiara Pleus as group assignment in the Seminar on Entrepreneurship and SME Management III - Current Issues in Entrepreneurship Research at the Chair in Small Business & Entrepreneurship (LEMEX) in 2019

#### **Entrepreneurs in Poverty through the Lens of Bricolage**

Submitted by Svenja Baier, Dana Fuchs, Jessica Gießelmann, Jacqueline Krah, Agnieszka Krocak, and Franziska Knemeyer as group assignment in the Seminar on Entrepreneurship and SME Management III - Current Issues in Entrepreneurship Research at the Chair in Small Business & Entrepreneurship (LEMEX) in 2019

#### **Resources of Transnational Entrepreneurs: Achieving Competitive Advantages**

Submitted by Isabell Gutsche, Carolin Jürgens, Antonia Kauert, Emma Poppe, and Julian Raschen as group assignment in the Seminar on Entrepreneurship and SME Management III - Current Issues in Entrepreneurship Research at the Chair in Small Business & Entrepreneurship (LEMEX) in 2019

#### **Student Entrepreneurship: An Application of the Theory of Planned Behavior**

Submitted by Leon Marquardt, Frederik Metzner, Lena Meyer, Alina Otto, Yannic Reiter, and Karin Xing as group assignment in the Seminar on Entrepreneurship and SME Management III - Current Issues in Entrepreneurship Research at the Chair in Small Business & Entrepreneurship (LEMEX) in 2019

# ***Absorptive Capacity in the Context of Accelerators – Gaining Competitive Advantages through Knowledge Absorption***

Jannis Eckermann, Tim Franke, Aileen Kelch, Lisa Lauts, Hanna Möring, Anorth Ramalingam<sup>1</sup>

## ***Abstract***

*Accelerator programs are essential to develop new ecosystems and to foster the innovativeness of the community. Accelerator influences the local startup ecosystem through knowledge transfer within and across the community. It is essential for the accelerator program to gain a competitive advantage to compete with other accelerator programs. The knowledge transfer within the program facilitates a competitive advantage. To fill these research gaps, this study seeks to understand the process of knowledge absorption in the accelerator. Thus, it underlines two research questions: 1) How do accelerators absorb knowledge to gain a competitive advantage? Which factors influence the knowledge absorption of accelerators? Drawing upon the concept of absorptive capacity, the authors develop a set of research propositions regarding the absorptive capacity of accelerators.*

**Keywords:** *Accelerators, Absorptive capacity, learning*

## **1 Introduction**

### ***1.1 Practical and Research Relevance***

Since the first accelerator program was established in 2005, the phenomenon of startup accelerators has become more and more important within the economic and scientific world (Hochberg, 2016; Lall, Bowles, & Baird, 2013). Accelerators became a global phenomenon and influence the local startup ecosystem through knowledge transfer within and across the community (Drori & Wright, 2018) because of their first practical experiences, they also continually gain attention and prestige. Furthermore, they are developing new ecosystems and fostering communities of innovation (Drori & Wright, 2018).

Due to the increasing number of accelerator programs, it is becoming more and more important for accelerators to differentiate themselves from other programs and to gain a competitive advantage over other accelerator programs. As accelerators are unique in their structure and knowledge, it is essential to identify the most relevant points for achieving a competitive advantage. The knowledge transfer within the program can be seen as a competitive advantage (Frimodig & Torkkeli, 2013).

In the literature, incubators and accelerators often used as synonyms (Cohen & Hochberg, 2014). However, their process of absorbing external knowledge differs between these two contexts. Extant literature has investigated knowledge absorption predominantly in the context of incubators (Patton, 2014). Since there is only little empirical evidence on how accelerators absorb knowledge, it is essential to conduct further research to better understand the process of knowledge absorption of accelerators and how this can lead to a competitive advantage. Similarly, understanding which factors the process of knowledge absorption influence is worth investigating.

### ***1.2 Research Questions***

Considering the existing state of research regarding the process of knowledge absorption of accelerators and the practical relevance described in Section 1.1, the underlying research questions are as follows:

How do accelerators absorb knowledge to gain a competitive advantage?

Which factors influence the knowledge absorption of accelerators?

<sup>1</sup>Corresponding author: Anorth Ramalingam, University of Bremen, [anorth.ramalingam@gmail.com](mailto:anorth.ramalingam@gmail.com)

These two research questions deal with the process of knowledge absorption that accelerators run through. The aim is to find out how accelerators absorb knowledge and thereby gain a competitive advantage towards other accelerator programs. This is done by incorporating important characteristics that are specific to accelerators. Besides, factors that influence the process of knowledge absorption of accelerators will be identified and considered.

### ***1.3 Report Structure***

To systematically answer the two research questions, this study is divided into four chapters. The following chapter, Chapter 2, deals with the theoretical and conceptual background of this study. A distinction can be made between the topic of accelerators and the theoretical lens, the absorptive capacity. First, the topic of accelerators is explained in detail. For this purpose, we elaborate on the recent development of accelerators. The chapter also provides a definition of accelerators, as well as their organizational characteristics of accelerators. In addition, research gaps are highlighted and addressed. After considering the topic of accelerators, this chapter introduces the theoretical lens for this study, absorptive capacity. This is followed by a definition and the reasons why absorptive capacity is suitable for explaining the knowledge absorption process of accelerators. In addition, we also summarize the development of the concept of absorptive capacity. Lastly, the consideration of a selected theoretical construct and the development of a modified framework follows. Chapter 3 contains the development of the assumptions. This is followed by arguments for the development of the assumptions and, finally, the set of research propositions for this study. In the fourth and final chapter, the expected contributions and future perspectives are examined.

## **2 Conceptual Backgrounds**

### ***2.1 Accelerators***

Accelerators can be defined in different ways. Cohen (2013) one of the leading scholars in the research field of accelerators, defines them as teaching programs where startups are tutored in cohorts to define their core value and shape a coherent business model around it. Accelerators

differ from other entrepreneurial support organizations, such as incubators, because the program takes place within a fixed-term, limited timeframe of only a few months and is therefore highly intensive (Cohen & Hochberg, 2014).

While most of the different support organizations share similar goals to accelerators, which generally focus on boosting successful venture creation, the main objective of accelerators is to build investment-ready businesses (Pauwels et al., 2016). Within the programs, this is realized through educational components, the exchange with experts, and intensive mentoring sessions (Cohen & Hochberg, 2014). Additionally, accelerators offer networking opportunities and a supportive, entrepreneurial peer-to-peer environment in which startups can learn from each other (Pauwels et al., 2016). The end of the program is commonly marked by a pitch event or so-called "demo day", where the participants pitch their ventures to investors and a large interested audience (Cohen & Hochberg, 2014). This event is not only a chance for the startups to demonstrate their business idea and entrepreneurial capacity but also an important opportunity for the accelerator itself to strengthen and extend its network and to position themselves within the ecosystem since it competes with other programs (Drori & Wright, 2018).

Even though the phenomenon is rather young and research is still patchy, the recent dramatic increase of accelerator programs worldwide shows its strong relevance to the today's startup world (Bone, Allen, & Haley, 2017; Drori & Wright, 2018). Despite of these highly growing numbers, however, the research on competitive advantages of accelerators remains still poor. With one major factor being the absorption of knowledge to improve the program's output, it is essential to clarify how this internal process works and what specific factors influence it. One theoretical concept that engages in this topic is absorptive capacity.

### ***2.2 Organizational Characteristic of Accelerators***

Since the theory of absorptive capacity is often used in the context of organizations, it is essential to determine whether or not accelerators themselves can be seen as such or how they are different from conventional ones.

In most cases, accelerators are associated with different types of organizations, which can be either public or private, and the ownership leads them to have different organizational aims (Drori & Wright, 2018). Those organizations are usually viewed as permanent, while accelerators have a rather temporary character (Drori & Wright, 2018). Burke & Morley (2016) define temporary organizations as “a temporally bounded group of interdependent organizational actors, formed to complete a complex task” (p. 1237). From the perspective of an accelerator, it can be assumed that the organizational actors are represented through the participating startups, the experts, mentors, and the accelerator's management, while the program's goal can be seen as a complex task.

Therefore, the detailed functionality of an accelerator is highly influenced by the exact composition of the program, in terms of people who are involved, to a certain point in time (Drori & Wright, 2018). Due to the high fluctuation of the programs caused by their short timeframes and the uniqueness of every cohort, the way people work together in accelerators is different from in permanent organizations. While in permanent organizations, teams usually work on achieving multiple goals in the long term, temporary teams, as they exist within accelerators, engage in a precise and finite task (Saunders & Ahuja, 2006). Work is usually structured and done in workshops, with each having its dedicated subject (Drori & Wright, 2018). The overall efficiency of temporary organizations is therefore focused on the achievement of the individual task ahead, whereas in permanent organizations it is primarily aimed at the ongoing processes (Saunders & Ahuja, 2006).

In conclusion, accelerators can be seen as organizations with temporary characteristics.

### **2.3 Absorptive Capacity**

To answer the proposed research questions, the concept of absorptive capacity is used in the following to analyse the process of knowledge absorption and its contingent factors. The model of absorptive capacity was firstly developed in 1990 by Cohen and Levinthal. They defined absorptive capacity as a firms' “ability to recognize the value of new information, assimilate it, and apply it to

commercial ends” (Cohen & Levinthal, 1990, p. 128). The authors argue that absorptive capacity has a significant influence on organizations' ability to innovate. According to Cohen and Levinthal (1990) absorptive capacity on an organizational level depends on the absorption ability of its members, and it also depends on knowledge transfer within the organization and beyond its borders. Throughout the years, several researchers have applied and adapted the original model to different organizational contexts in further discussions. One prominent example is reconceptualization by Zahra and George (2002) who developed a modified model of absorptive capacity and firstly argued that absorptive capacity influences an organization's competitive advantage.

Considering the phenomenon of accelerators and our proposed research questions, we regard a more recent but also well-known model of absorptive capacity by Todorova and Durisin (2007), which is developed based on the concept by Zahra and George (2002) and further empirical studies. This model differs from the original by Cohen and Levinthal (1990) mainly in the assumption that knowledge absorption leads to competitive advantage and the involvement of several contingent factors that influence the process of knowledge absorption (Todorova & Durisin, 2007). In the following, we extend the concept of absorptive by considering the unique contextual characteristics of accelerators.

The fact that accelerators became a global phenomenon results in the creation of numerous acceleration programs that compete over entrepreneurial talent (Drori & Wright, 2018). Therefore, a competitive advantage is particularly essential to the survival of accelerators today. To stand out from competitors, more and more accelerators specialize in their program by focussing on particular industries or branches. Drori and Wright (2018) pointed out that more specialized accelerators were founded in the past years. This fact indicates that it has becoming increasingly important for accelerators to gain specialized knowledge.

Furthermore, the absorption of tacit knowledge can lead to an important competitive advantage (Howells, 1996). Explicit knowledge is the form of knowledge, which is documented, and easy to copy

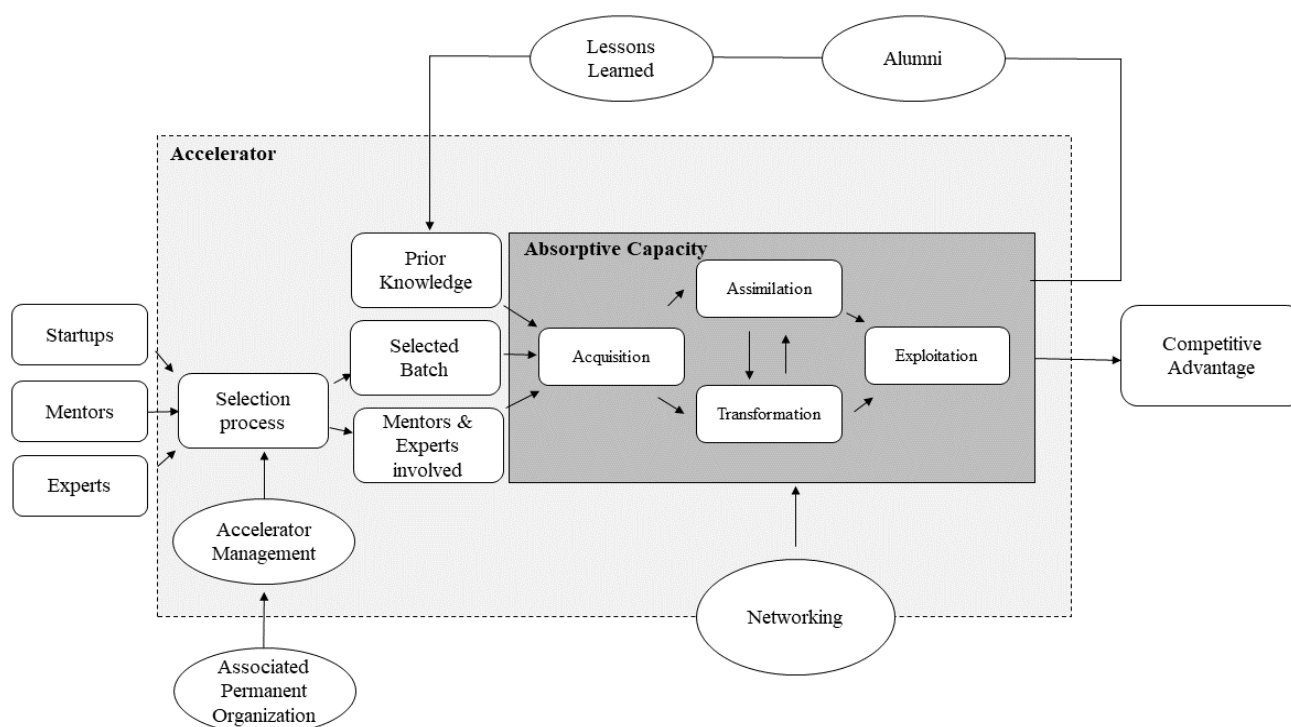


and transfer, whereas copying and transferring tacit knowledge, which is the form of knowledge that is firmly embedded in person and developed from experiences and actions, is very difficult and nearly impossible (Frimodig & Torkkeli, 2013). Within accelerator programs, tacit knowledge is a crucial point with which each program can stand out from others and differentiate itself in the growing market of accelerators (Frimodig & Torkkeli, 2013). Therefore, we argue that the absorption of knowledge, especially tacit knowledge, and the specialization in one industry or branch can result in a competitive advantage for accelerators.

At the beginning of each accelerator program, there is a selection process in which the batch has to be chosen (Pauwels et al., 2016). Furthermore, mentors and experts for the program's educational purpose must be selected and acquired (Hochberg, 2016). Considering the model of absorptive capacity and the argument that knowledge, especially tacit knowledge, is mainly absorbed through people involved in the program, we assume that this step equals Todorova and Durisin (2007) step of "recognizing the value" since information is filtered and the most important experts and mentors to the accelerator are selected. In contrast to the original concept, we assume that this step happens before the actual knowledge absorption within the accelerator.

Similarly to the notion of Todorova and Durisin (2007) we proposed that the selection process is influenced by power relationships, in this case by the accelerator management. The authors argue that this contingent factor of power relationships justifies why an organization absorbs only certain information. Accelerators can be managed in different ways. Mainly, it can be distinguished between either public or private accelerators (Drori & Wright, 2018). The degree of autonomy which the parent organization offers to the accelerator management varies from type to type (Drori & Wright, 2018).

The starting point for the process of absorptive capacity of accelerators is, on the one hand, the chosen batch, mentors, and experts involved in the program and, on the other hand, the prior knowledge which has already been absorbed before. This knowledge base is a precondition for successful absorptive capacity (Cohen, & Levinthal, 1990). In the next step, organizations acquire new knowledge that is assimilated and incorporated in the existing cognitive schemas, or if not possible, cognitive structures must be transformed to assimilate the new ideas. Eventually, the newly acquired knowledge must be exploited to develop competitive advantage (Todorova & Durisin, 2007).



**Figure 1:** A modified Model of Absorptive Capacity in the Context of Accelerators  
**Source:** Own Visualization based on Todorova and Durisin (2007)

According to Todorova and Durisin (2007) the process of absorptive capacity is influenced by some factors. One influential factor considered in the model, which plays an important role in the context of accelerators, is social integration mechanisms since they lead to a higher connection within the organization and, thus, influence the process of knowledge absorption by changing knowledge-seeking behaviour among members of the organization (Todorova & Durisin, 2007). Within accelerator programs, networking is one of the most crucial aspects. Networking happens within the program between the participating startups among themselves or with mentors within the program, which can lead to strong connections and support. Networks of accelerators do not limit to the internal ones but also the connections with external actors and stakeholders (Cohen, 2013).

Through the development of networks within workshops, co-working spaces, or other components of an accelerator program, knowledge is transferred within the accelerator, which in turn contributes to the organization's absorptive capacity (Cohen & Levinthal, 1990).

To represent the dynamic character of the absorptive capacity model, Todorova and Durisin (2007) enhanced the concept by feedback loops that emphasize that an organization's future absorptive capacity is determined by recent knowledge absorption and the development of organizational routines and processes. Looking at accelerators, besides the general lessons learned, alumni are an important source of feedback and additionally, an essential source for new mentors (Pauwels et al., 2016). People who successfully graduated from an accelerator program are likely to participate in future batches as mentors, and they can interact in the program based on accumulated experience (Chang, 2013; Pauwels et al., 2016). Alumni are thus an essential source of knowledge and contribute significantly to the development of tacit knowledge through experience.

Considering the points mentioned, we extend the model of absorptive capacity adapted to the characteristics of accelerator. It is shown in Figure 1.

### 3 Development of Assumptions

Based on research on the accelerator about theoretical lenses outlined above, we will discuss how do accelerator absorb new knowledge and which factors are influencing it.

Accelerators often support startups in the early stages of the foundation. In this phase, startups have equity and knowledge gaps (Frimodig & Torkkeli, 2013). To close these gaps, startups join accelerators. Their main task is to close the knowledge gaps through mentoring and networking (Pauwels et al., 2016). Accelerators select specific mentors who will continuously provide startups with feedback on how to develop their business model with their expertise and experience (Frimodig & Torkkeli, 2013; Pauwels et al., 2016). Besides, mentors close the knowledge gap of startups by connecting them to their network. This allows startups to get into direct contact with potential customers or investors and receive feedback on the business idea (Pauwels et al., 2016). Both mentoring and networking are based on the mentor's tacit knowledge and experience and, as such, are perpetual and non-replicable.

The participating startups are also selected using special selection procedures from different stakeholders, both externally and internally. The main focus here is on the founding team or the individual founders as persons (Pauwels et al., 2016). According to Frimodig and Torkkeli (2013) the selection process of the founding personalities and their quality is one of the success factors for accelerators. Both the willingness to learn and the will to act are essential characteristics of the selected founders, to implement the given feedback, and to use the conditions of the program (Frimodig & Torkkeli, 2013; Goswami, Mitchell, & Bhagavatula, 2018). Mutual exchange of their knowledge and experience develops the startups' human capital and their business model, and this knowledge exchange mechanism differs in each cohort. The participating founders are a critical factor, which decide the knowledge base and the success of an acceleration program. If startups have built a successful business model after participating in the accelerator, they can remain as alumni in the accelerator network. Some accelerators make extensive efforts to organize events to connect alumni and new founders. This networking can also

be done through mentoring, to which alumni can also be selected. Accelerators lie a lot of value in alumni engagement. The alumni use the accelerator as a reference to how successful founders can become by participating in the program (Pauwels et al., 2016).

The mentors, the founders, and the alumni help to shape the accelerator program each time they start. Through personal experience, network, and expertise, the new founders are provided with essential knowledge that makes their business idea successful. The discussions above illuminate that accelerators benefit from the knowledge of the participants, and the entire knowledge base is considered to be the competitive advantage of accelerators. Therefore, startups select acceleration programs to join based on the quality of the knowledge possessed by the mentors and alumni involved in the accelerator's network. Consequently, a cycle is created: the more successful startups in the accelerator are helped to succeed after the accelerator, and they are bound as alumni. The greater the reputation, the more mentors and startups will apply to the accelerator. Accordingly, more suitable mentors and startups can be selected, which can help startups even more. This upward cycle of personal knowledge drives the success and competitive advantage of accelerators. Therefore, we propose:

**RP-1:** Through the selection of experienced mentors, startups, and guest speakers, accelerators generate the strong knowledge base. This selection creates a vicious cycle to attract more stakeholders and startups, who possess valuable knowledge, to the accelerator.

There are three different types of accelerators: university accelerators, corporate accelerators and private accelerators (Dempwolf, Auer, & D'Ippolito, 2015). These differ regarding the funding structures and consequently, also with different strategic interests (Dempwolf et al., 2015; Frimodig & Torkkeli, 2013). For instance, university accelerators specialize in the promotion of student startup teams without affiliate participation. The interest is in addition to the promotion of students, also on increasing the innovative ability of the university. Corporate accelerators work with one or a limited number of primary sponsors, often large companies. The

interest here is to promote startups that fit the business model or could form another business model. For participation, the corporate accelerator received equity. Innovation accelerators are privately organized and profit-oriented. Their interest in promoting fast-growing and promising startups in return for equity (Dempwolf et al., 2015). Their clearly different strategic goals indicate that the goals and interests will affect the program design of the accelerator (Dempwolf et al., 2015; Pauwels et al., 2016). Since accelerator management is responsible for program design, every level tries to assert its interests. For example, in the selection process of startups, mentors, and external experts, who form the knowledge base of the accelerator or in the program design. These power relationships and interests naturally results in the selection of a particular group of startups and stakeholders, who fulfil the strategic goals, and this will affect the diversity and knowledge base. Thus, the proper benefits of accelerator management and its power in exercising may have an impact on knowledge absorption. Therefore, we propose:

**RP-2:** The type of accelerator determines power relationships which leads them to select particular startups and stakeholders, who are favourable to fulfil its strategic goal. This power relationship determines the type of knowledge that the accelerator can absorb.

Bosch, Volberda, and Boer (1999) emphasize that the characteristics of a startup's absorptive capacity are related to the nature of the knowledge in its environment. They support the argument of Cohen & Levinthal (1990), "Absorptive capacity is more likely to be developed and maintained as a byproduct of routine activity when the knowledge domain that the firm wishes to exploit is closely related to its current knowledge base" (p. 150). However, they show that knowledge embedded in the organizational form, as well as the startup's combinative capabilities, influence the absorptive capacity of a startup. From an internal network perspective, the development of strategic opportunities is increased by internal communication between business units, clearly establishing the relevance of knowledge transfer and absorptive capacity within multi-unit startups (Andersen & Foss, 2005).

Moreover, accelerator programs are strongly related to a learning concept since their main goal is to educate early-stage startups (Cohen, 2013). The existing literature describes accelerator programs as educational programs for entrepreneurs (Cohen & Hochberg, 2014). Intense mentorship, as well as working in a cohort, enables participating startups to learn from others in accelerator programs by observing the experience of others. In accelerator programs, the knowledge base comes from participants, mentors, and guest speakers (Frimodig & Torkkeli, 2013). With each cohort, the external participants, such as startups' transformations over time. In this changing dynamic environment, accelerators can still adapt to market conditions but have to consider their image and function as an accelerator. Thus, knowledge is embedded in individuals, and the capability of an accelerator depends on the integration of individual knowledge into its organizational context. For these reasons, we propose the next research proposition:

**RP-3:** Due to the short time frame of accelerator programs and the associated often changing influences (startups), accelerators are not hampered by their embedded knowledge base so that they can easily identify and absorb valuable new external knowledge.

Cohen and Levinthal (1990) posit that distinct organizational mechanisms can influence the level of absorptive capacity, such as the transfer of knowledge across and within units, the communication structure between the external environment and the startup, a broad and active network of internal and external relations. However, their main argument is that the learning potential for absorptive capacity is mainly determined by previous related knowledge, research and development investments. Many empirical studies support this notion of absorptive capacity (Ahuja, 2000; Cockburn & Henderson, 2003; Shane & Venkataraman, 2000; Tsai, 2001). Besides, Reagans and McEvily (2003) support the concept of knowledge accumulation by showing that people absorb knowledge more easily when they already have common knowledge in terms of experience or background characteristics. People can learn more efficiently when learning objects are related to their prior knowledge. Along with prior knowledge, the diversity of the background plays a significant role in one's learning. When

uncertainty exists regarding the knowledge sphere where potentially useful information might emerge, possessing a diverse background increases the possibility that incoming information will be related to a part of their knowledge. This enhances the efficiency of learning.

The knowledge-based view considers knowledge to be the most crucial resource of the startups and the main determinant of competitive advantage (Matusik & Heeley, 2005). This view strongly influences the relevance of the construct of absorptive capacity, as it is the key to developing and increasing a startup's knowledge base. Also, the ability to transfer knowledge from the accelerators to startups has significant importance, because the value of knowledge is formed in a knowledge transfer in which the existing business competence is transferred practically to startups. In this case, we argue that it is important to mention the role of alumni. They have a positive impact on the next round because they can share their experience and knowledge with the new participants. They also can give helpful advice to improve the quality of an accelerator program, which can be attractive for startups (Frimodig & Torkkeli, 2013). The existing literature highlights that accelerators are time-limited programs (Miller & Bound, 2011), whereas they emphasize the importance of cohort presence and knowledge transferability in accelerator programs (Cohen, 2013). The technological solutions and other lessons learned regarding growing startups accumulated by the accelerators are usually disseminated from cohort to cohort. This leads us to say that such accessibility of knowledge, makes the accelerator accumulates experience and knowledge, to operate more effectively. Therefore, we propose:

**RP-4:** By accumulating lessons learned and other valuable, specialized knowledge from previous cohorts, the quality of accelerator programs and its efficiency improve with time, which can be attractive for startups and contributes to the accelerator's competitive advantages.

## 4 Expected Contributions & Future Perspectives

### 4.1 Expected Contributions

In this paper, we identified a research gap on how accelerators gain competitive advantage. Based on our literature review, this study argues that absorptive capacity and the absorption of external knowledge can lead to competitive advantage. We identified a second research gap on how accelerators absorb such new knowledge and what primarily influences this process in the context of accelerator programs. The research on accelerators' absorptive capacity and the way they gain a competitive advantage by absorbing knowledge is currently lacking.

Based on our literature review on the topics of accelerators and absorptive capacity, we provided the first approach on this topic. By creating a modified model of absorptive capacity adapted to the uniqueness and structure of accelerator programs, we firstly provided a conceptual base for further research.

We proposed that knowledge is mainly absorbed by the people involved in the process of the accelerator program. Through participants, mentors, and guest speakers, the new external knowledge is coming into the program with each new batch, and each run through. Moreover, we argued that the accelerator management and, if existing, the associated parent organization has a significant influence on the accelerator's absorptive capacity since, on the one hand, they are strongly integrated into the selection process of participants and mentors. On the other hand, due to different accelerator types, the aims and objectives of the accelerator and its management differ.

We also proposed that because of the short-term of the program and its temporary character, the knowledge base differs from the knowledge base of permanent organizations, which contributes from the absorptive capacity. New influences and thus, new external knowledge come to the program every few months. Finally, we discussed that feedback loops consisting of alumni and lessons learned have an influence on the process of knowledge absorption and therefore contribute to the accelerator's absorptive capacity and, thus, to its competitive advantage.

### 4.2 Future Perspectives

Since the topic of accelerators is quite new and corresponding literature is rare, many questions remain open. With this paper, we provided a first basic understanding of accelerator's absorptive capacity and its contribution to competitive advantage, but further research is needed to examine the different components of the model of absorptive capacity. Future research is required to identify if more factors influence the process of knowledge absorption and in what way they influence it. It has to be examined if there is a difference in contingent factors in different accelerator programs. Further research is also needed to clarify how an accelerator can maintain its knowledge base despite its short-term nature and the changing components to ensure lasting quality. Moreover, the explicit role of power relationships and social integration mechanisms need to be pointed out. What is the explicit role of accelerator management? How is decision-making fulfilled within the program, and what is the explicit role of associated parent organizations? Regarding the other ingredients of an accelerator, the importance of knowledge transfer between accelerator and startups would also be interesting to look to enhance the understanding of knowledge processes within the program.

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### **Authors' Biographical Statement**

*Jannis Alexander* Eckermann is a master student in operational economics with a specialization in marketing and entrepreneurship at the University of Bremen. He completed a bachelor's degree in operational economics with the same specializations at the University of Bremen.

*Tim Franke* is a master student in Business administration with a specialization in Entrepreneurship, Innovation Management, Marketing, and Brand Management at the University of Bremen. He completed his bachelor's degree in Business administration with a specialization in International Entrepreneurship, Management, and Marketing.

*Aileen Kelch* is a master student in Business administration with a specialization in Entrepreneurship, SME Management, Marketing, and Brand Management at the University of Bremen. She completed a bachelor's degree in Business Administration with a specialization in Digital Marketing and Brand Management.

*Lisa Lauts* is a master student in Business administration with a specialization in Entrepreneurship, SME management, Marketing, and Brand Management at the University of Bremen. She completed a bachelor's degree in Business administration with a specialization in International Entrepreneurship, Management, and Marketing at the University of Bremen.

*Hanna Möring* is a master student in Business administration with a specialization in Entrepreneurship and International Management at the University of Bremen. She completed her bachelor's degree in Economics science with a business administration specialization at the University of Oldenburg.

*Anorth Ramalingam* is a master student in Business administration with a specialization in Entrepreneurship and International Management at the University of Bremen. He completed his Bachelor's degree in Business administration with the specializations Finance, Accounting and Taxation at the University of Bremen.

# *Towards Understanding Culture in Entrepreneurial Ecosystems*

Samuel Kofi Azumah, Henriette Breuer, Silvin Bumiller<sup>1</sup>, Vibeka Götsch, Paulina Krüger, Chiara Pleus

## *Abstract*

*Entrepreneurial ecosystems (EE) are a set of interdependent actors that coordinates effective entrepreneurial activities within a particular territory. Previous literature on the entrepreneurial ecosystem did not sufficiently address the influence on the culture within the EE. Thus, this paper seeks to examine the performance of culture affects in the EE. The critical research question highlighted in this paper is: What are the determinants and their effects on the culture within the entrepreneurial ecosystem? To answer the research question, determinants of the organizational culture (Allaire & Firsirotu, 1984) is extended and used as the theoretical lens in this paper. This study contributes to the importance of culture in EE. It also examines the applicability of the theory of organizational culture to the context of EE. Furthermore, the study highlights the four likewise determinants: External factor, cultural system, socio-structural system, and individual actors in the context of EE. The study assumed that these determinants influence and support each other.*

**Keywords:** Culture, Entrepreneurial ecosystem, Organizational culture, Startup ecosystem,

## **1 Introduction**

### **1.1 Practical Relevance**

Entrepreneurial ecosystems (EE) are emerging parlance within the academia and the business sphere. EE has currently emerged as a famous theory in the circle of entrepreneurship strategy and business environment. To be precise, they are considered as economic development techniques that primarily based on the absolute development of innovative and supportive environments that nurture revolutionary startups. They depict the kinds of cultural, social, monetary, and political environments in the vicinity that guide the high-boom of entrepreneurship.

EE is a conceptual model for the benefits and resources produced by a cohesive regional network of entrepreneurs and their supporters that assist in nurturing new ventures to stay on and grow. EE is seen as a set of interdependent actors and factors coordinated in a kind of manner that permits effective entrepreneurship within a selected territory (Spigel & Harrison, 2018). Furthermore, they are viewed as ongoing processes of the development and flow of entrepreneurial resources, such as human and financial capital,

entrepreneurial know-how, market knowledge, and cultural attitudes.

Previous scholars have studied EE with extensive research work on the field, but the culture within the EE has not been deeply touched on. Therefore, the following research question is developed:

What are determinants and their effects on the culture within entrepreneurial ecosystems?

To answer the research question, this paper transmits the determinants of the organizational culture (OC) to the EE to close the gaps and increase the understanding of the culture in the ecosystem. Furthermore, the effects of the cultural components are illuminated. Therefore, the concepts of EE and OC build the basis in this research work. After presenting these, a framework for OC is consulted. In the next chapter, the transferability and differentiation between both concepts are exposed. On this basis, the chosen framework of OC is used to develop a framework for the culture in the EE. This leads to the research propositions and ends up with a discussion and conclusion.

<sup>1</sup>Corresponding author: Silvin Bumiller, University of Bremen, [silvin@uni-bremen.de](mailto:silvin@uni-bremen.de)



The paper seeks to unmask how culture affects performance in the EE. It is essential for apprehension and building of knowledge in the subject field by the academia and the practitioners of EE. Actors of the EE can adopt the conceptual framework of the paper to experience the effectiveness of the model.

## **1.2 Research Relevance**

The purpose of this paper seeks to examine the culture within the EE. It contributes to the unique social and psychological environment of EE by considering its determinants and the effects on startups and the ecosystems as well. The research work focuses on the understanding of the main determinants of culture within entrepreneurial ecosystems.

The culture within the EE has a significant impact on the success of the EE (Jovanovic & Petkovic, 2018). The supportive role of the culture in EE is undertheorized, and it has great potential for research. In order to increase the knowledge of culture in EE, this research work forms the first approach. The review of the literature will broaden the horizon about the theoretical model of the EE, and the conceptual framework of OC in EE will serve as a roadmap for future researchers.

## **2 Conceptual Backgrounds**

### **2.1 Entrepreneurial Ecosystems**

Through the approach of the EE, it is possible to develop an innovative perspective of entrepreneurial enterprise in a certain region. It is innovative as the approach of the EE underlines the external environment of a business. It offers a holistic comprehension by transferring the firm-based perspective to a unity-based view with focusing on the environment in a region. EEs can be constituted of different industries or be branch-specific. In general, EEs arise in regions with certain assets. Furthermore, they are exclusive and vary from one another (Mason & Brown, 2014).

Ecosystems are the union of localized cultural outlooks, social networks, investment capital, universities, and active economic policies that create environments supportive of innovation-based ventures (Hoang & Antoncic, 2003). These regional elements are supportive as they advance

the growth of new startups located in the EE. Furthermore, risk-taking, starting an enterprise, providing financing, and further ventures are emboldened among the actors of the EE by the preceding elements (Spigel, 2017). An EE is a vibrant network, as well as self-controlling consisting of various actors. Thus EEs, are affected by different influences that are not always induced by entrepreneurs (Isenberg, 2014). The intertwining actors and aspects of the EE align in some way that results in a positive outcome by facilitating prolific entrepreneurship (Stam, 2015). Spigel (2017) ascertained the most frequently cited attributes in the literature of EE. These attributes can be clustered into three groups depending on how the utility is constituted, which are as follows: cultural attributes, social attributes, and material attributes.

### **2.2 State of Research of Culture in EE**

To answer the research question, it is first necessary to shortly map the current state of research of culture in EEs and give a brief definition.

Entrepreneurial Ecosystems are based on four elements: social, political, economic, and cultural elements. Those determinants can support the development and growth of startups, reduce uncertainty, and encourage actors to take part within the EE (Spigel, 2017). This research has its focus on the culture within entrepreneurial ecosystems while ignoring the other elements and the interdependencies between them.

According to Hofstede et al., (2001), culture in an entrepreneurial ecosystem is defined as “the collective programming of the mind that distinguishes the members of one organization from another” (p. 520). The culture is shaped by norms, institutions, outlooks, and underlying beliefs about entrepreneurship within a region (Spigel, 2017; Stuetzer et al., 2014). This points out the high exertion of influence by the regional image of entrepreneurship. As well, the perception of the ecosystem, referring to risk attitudes, failures, and success are important cultural characteristics.

Each region has its cultural attitudes towards startup activities and risk-taking. These distinctive differences showed by comparing the development of two different EE (Saxenian, 1994). He argued

that the sharing of information and knowledge, experience as well as expertise embraces the culture and lead to a more successful ecosystem.

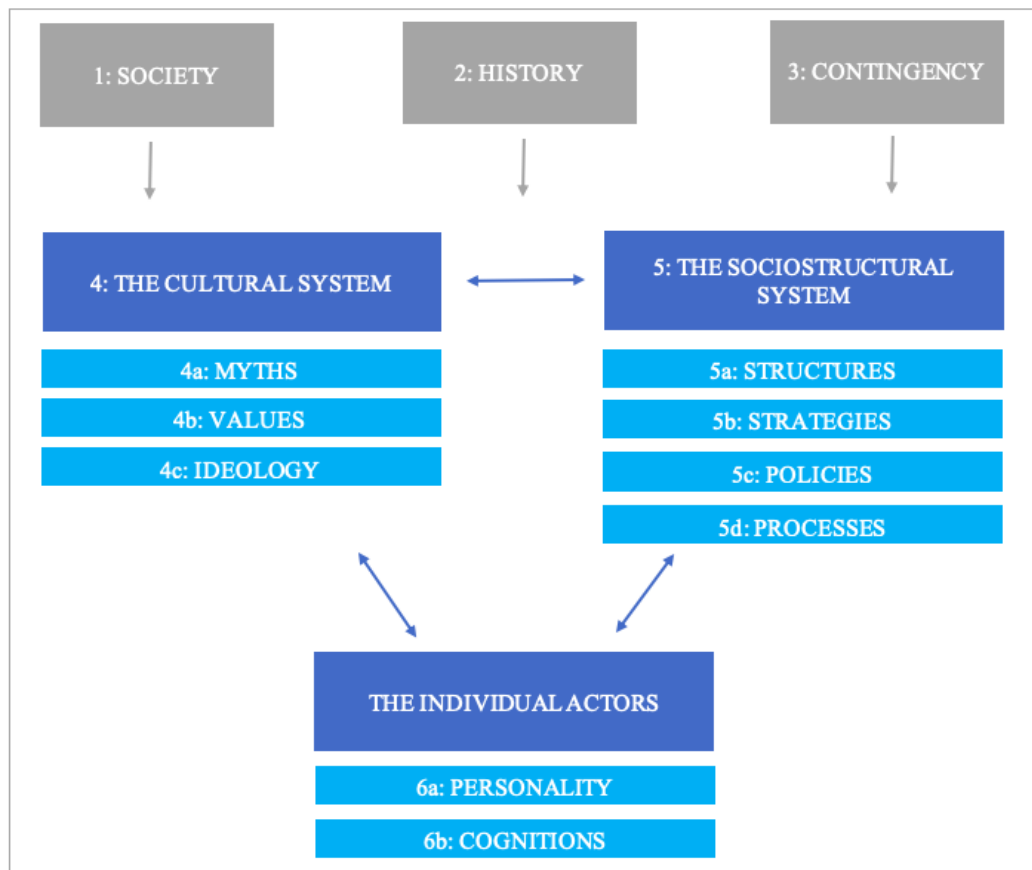
### 2.3 Organizational Culture

To answer the research question, Organizational Culture (OC) is used as a theoretical background. The theory was examined by many researchers, which leads to multiple existing definitions for OC. One famous definition gives Edgar Schein. He defines OC as:

integration means the conventional communication system, the universal language, the definition of relation, and openness for discussion (Schein, 2004). In general, OC refers to shared assumptions, values, and norms and is named by some researchers as an imminent factor for organizational effectiveness (Sharifirad & Ataei, 2012).

### 2.4 Framework for Organizational Culture

A selected framework for OC is presented in the following chapter. It was developed by Allaire and



**Figure 1:** Conceptual Framework for OC

**Source:** Own visualization according to Allaire and Firsirotu (1984)

*"(...) a pattern of shared basic assumptions that the group learned as it solved its problem of external adaption and internal integration that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems."* (Schein, 2004, p. 17).

To clarify this definition, Schein (2004) defines external adaption and internal integration more precisely. External adaption in this context is the strategy or primary task of an organization. Internal

Firsirotu (1984) and published in the paper Theories of Organizational Culture (Figure 1).

This framework was chosen because it contains the determinants of OC, which fit the established research question in this elaboration. It is clear and simple on the one side but includes many important determinants of OC on the other side. Compared to other frameworks, the chosen framework regards two perspectives of organizational culture: from the outside and the inside. In addition to this, the influences of the components among themselves

were considered and increase the understanding of OC. Furthermore, the framework is suitable because it leads the focus on OC instead of considering other concepts in connection to OC. Most of the frameworks for OC in the literature were created in the 1990s. So, the chosen framework is accrued in the time when the subject has been mostly examined. Recent frameworks often investigate the relationship from OC to other topics, which is not appropriate for this elaboration.

The chosen framework from Allaire and Firsirotu (1984) has six components. Three of these components influence the organizational culture from the outside, which is named society, history, and contingency. Society includes the cultural, social, political, and judicial systems. History means, in this case, the transformations of an OC, founders' vision and values of a culture, and contingency implies the industry, technology, competition, and regulations in organizational culture.

The other three components of the framework influence organizational culture from the inside and each other. These are named as the cultural system, the socio-structurally system, and the individual actors.

The cultural system contains myths, ideologies, and values, which affect each other. Because of many definitions in the literature, the authors have determined the following definitions for these. Myths are understood as strong and effective bonds between reality and past, which justify actions in the present. Moreover, the framework uses a definition of myths from Cohen, where myths are defined as a symbolic and holy story (Cohen, 1969). Ideology is, in this case, defined as a convincing system, which suggests corporate action (Allaire & Firsirotu, 1984). Values are defined as interpretations, which confer "(...) meanings for social actions and standards for social behavior" (Allaire & Firsirotu, 1984, p. 213). Values are often the basis of ideologies but can also exist without being in an ideology. Also, other elements like rituals, metaphors, and slogans, sagas, and legends, as well as symbols and logos, were included as sub-items in the cultural system. The society, the history, and the contingency have minted the cultural system in organizational culture, and it modifies and develops by the socio-structural system and the individual actors within

an organization (Allaire & Firsirotu, 1984). The socio-structural system implies the cooperation of formal structures, strategies, policies, and management processes in an organizational culture within formal goals, authority, control mechanisms, and education (Allaire & Firsirotu, 1984).

The last component of the chosen framework is the individual actors. Especially the abilities, expertise, and character of a person are named as an important influence on the organizational culture. Those three components of the framework for organizational culture affect positive on each other but can be dangerous when the OC is changing (Allaire & Firsirotu, 1984).

### **3 Towards Understanding the Culture in the Context of EE**

The theory of OC cannot simply be transferred and used to analyze or explain the culture of EEs. It originates from the social sciences and has been developed to get a better understanding of organizations. The basis for this theory is the organization itself (Schein, 2004). Therefore, it is immanent to understand the differences between organizations and the EE in order to transfer the theory to the research of culture within startup ecosystems.

#### ***3.1 Transferability and Differentiation***

To discuss these differences, it is important to know how organizations are defined. By looking in the literature, there cannot be found a clear definition of this social phenomenon. Nevertheless, Frese, Graumann, and Theuvsen (2012) are making two fundamental restrictions. First, more than one person and their actions are considered. Second, the people and their actions are connected due to an adjustment on the same purpose; thereby, one person's actions can have an impact on the actions of others within the system.

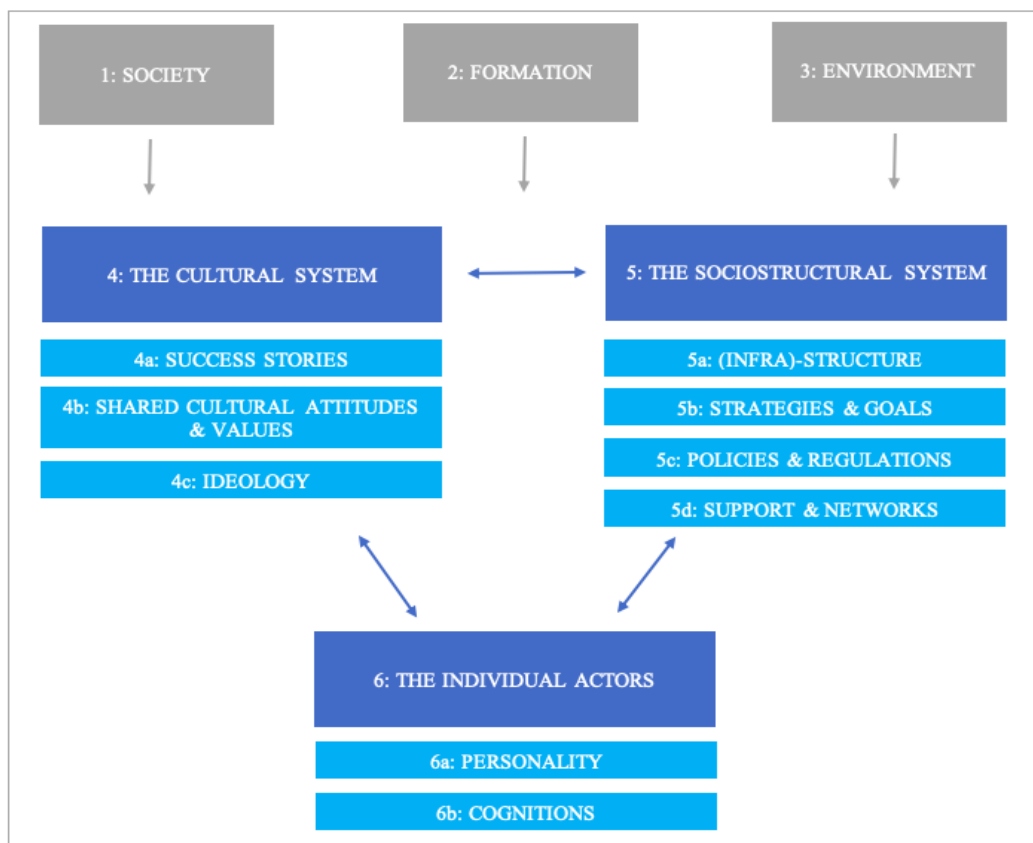
Especially with the second limitation, legal entities, such as public organizations, associations, or companies, constitute organizations because of the natural pursuit of the same goals by individuals within the entities. The theory of OC refers to any organization that falls under the two limitations and is therefore not a theory that is limited exclusively to legal entities like companies, associations, or

public organizations. Looking at a social ecosystem, such as the EE, the first limitation applies just as much as to organizations. The second limitation cannot be transferred to the EE without restrictions. Single actors in a social ecosystem have not necessarily the same goal, even if the action of one actor has a potential influence on the actions of other actors. However, the second limitation also considers that the persons direct their efforts towards a common goal. All actors within the ecosystem contribute to an overall goal, namely the strengthening of the EE.

Nevertheless, there are differences between the typical application of OC and the ecosystem. The typical view focuses on the culture of a single organization (such as a company), while a view of EE considers a whole ecosystem and all its actors (e.g., startups, investors, politics, accelerators, incubators, etc.). Thus, the question arises, which

difference that is reflected, for example, in the variety of professional orientations of the actors. Therefore, startup ecosystems have a greater diversity of knowledge and experiences of their actors. Furthermore, in EEs, the individual goals of the actors are in the foreground, whereas in the typical view, the overall goal of an organization is central. Finally, the difference in complexity is also reflected in the fact that EEs are not possible without certain basic prerequisites, for example, a highly established knowledge base, which is not the case for organizations (Mason & Brown, 2014).

Another main difference is the high dynamic nature that EEs have compared to typical organizations. This is because startup ecosystems are much more dependent on internal factors, and changes in factors within a system lead to higher agility. An inflow and outflow of actors are more frequent and spontaneous. This is even more pronounced in the



**Figure 2:** Conceptual Framework for Culture within EE  
**Source:** Own visualization

aspects differ between these two approaches. One main difference is the total number of actors within the system. This is significantly higher in the EE and (in connection with the structure of the system) more complex than the typical approach of OC. Thus, it can be said that there is a dimensional

case of very promising ecosystems because their potential attracts new actors such as entrepreneurs, investors, employees, etc. (Mason & Brown, 2014). These aspects create greater dynamics and make an interesting difference.

In summary, the main differences between EEs and the typical view of organizations are the dimensional extent and the dynamic nature. The single actors in the EE have their own organizational cultures. Finally, an addition of these cultures, like single puzzle pieces, results in an overall culture of the entire ecosystem.

### 3.2 Framework for Culture in EE

To answer the question of how the theory of OC can be transferred to the EE, a second framework is developed analog to the one from Allaire and Firsirotu (1984). The overall structure is still the same, yet some subcategories need to change to fit better to the characteristics of the EE. Through these adjustments, the differences between organizations and the EE are taken into account. The framework should primarily do justice to the dimensional difference. The size, complexity, and dynamics of the ecosystem will be considered in the individual areas of the framework. In total, there are four main segments (Figure 2).

The first segment includes the grey factors on the top. They are external factors which influence the culture in the EE. This includes the *society, formation* and *environment* of an EE within a region.

The orientation of *society*, which shapes the EE, influences its culture from the outside. For example, an open and tolerant society has a positive influence on dynamic changes and agile developments. Founders are accepted, produced, and supported in their projects. Each individual must have the opportunity to realize itself and still receive moral support from the collective society (Suresh & Ramraj, 2012).

Another important factor is the *formation* of an EE. Each ecosystem appeared under unique settings and conditions (Mason & Brown, 2014). The history of EE includes significant events and successful founders who seem to have a lasting influence on the culture in the ecosystem (Spigel, 2017).

An EE usually extends over one region. Thus, there can be several EEs within a country, which differ in the configuration. The *environment* of the EE is characterized by great diversity. For example, the ecosystems in Calgary and Waterloo (Canada)

consist of different factors. Various actors, market conditions, and focused industries, as well as technologies in the region, influence the culture of the EE (Spigel, 2017).

On the left hand is the cultural system, which shapes the ecosystem through *success stories* and *shared cultural attitudes as well as values*. Experiences of successful and failed founders are shared in the ecosystem. This, together with the underlying attitude, values, and beliefs, ensures that failure is tolerated (Jovanovic & Petkovic, 2018). The segment is rounded off by the underlying *ideology*.

The socio-structural system takes part on the right side of the framework. It gives a formal (*infra*)-*structure, strategies, goals, policies, and regulations* as well as *support and networks* to the EE. Analog to the *structure* of the OC, the culture of the EE takes the power distance in the account. For example, a society with a lower power distance will be aligned more entrepreneurially (Jovanovic & Petkovic, 2018). In Calgary, for example, the individuals of the ecosystem strive for their own success and aim to establish a profitable business model. In addition to the desire for profit, they feel close and emotional connection to their businesses (Spigel, 2017). Nevertheless, for a successful and growing ecosystem, there should also be overarching *goals* that can be found in the ideology and values as part of the cultural system. *Policies* within an EE are also part of the culture. This can be concerning, for example, tax benefits, investments of public funds, or reductions in bureaucratic regulation as well as business accelerators and incubators (Mason & Brown, 2014). The most important processes within an EE are the business development of the individual actors as well as peer *support and networking*. Part of the culture in the ecosystem is to network with each other and to grow faster together. A positive example of this entrepreneurial culture is the ecosystem in Waterloo (Spigel, 2017).

The last segment presents the *individual actors* of the EE, which influence the ecosystem through individual *personalities* and *cognitions*. Individuals shape it through their personal experiences and knowledge (Spigel, 2017).

This framework is the basis for creating research propositions. The research propositions give a detailed look at the last three segments mentioned

before and explain which determinants build and affect the culture in the EE. Also, the dynamics in the EE, and the significance of culture in the ecosystem will be emphasized.

#### 4 Research Propositions

Similar to myths, legends, and stories that are passed on in OC, stories of successful founders shape the culture of the EE. The individuals of the ecosystem can thus get inspiration and be encouraged from experiences and positive examples to follow a similar way (Spigel, 2017). The *success stories* also increase the readiness of entrepreneurs as well as further actors of the EE to risk-taking (Aoyama, 2009). Also, the experiences of failed founders are recycled and shared. This ensures that failure is tolerated and not penalized (Spigel & Harrison, 2018). In addition to the tolerance of risk, and the acceptance of failure, the culture of the EE is characterized by further *attitudes and values*. These include, for example, the willingness to cope with new tasks, which reflects the optimism and enthusiasm of the actors in the EE. Moreover, the fulfillment of desires for happiness and the enjoyment of life is in the foreground. The actors have a positive attitude and take control of their lives and emotions. A long-term orientation, which considers changes, adaptation, and pragmatic problem solving, also shapes the founding culture (Jovanovic & Petkovic, 2018). An underlying ideology shapes a further part of the culture of the EE. It can be understood as similar purposes and goals among the actors of the EE. This provides, for example, cohesion but also shows diversity (Roundy, Brockman, & Bradshaw, 2017).

**RP-1:** The cultural system and its aspects are highly relevant determinants within the culture of an entrepreneurial ecosystem. More success stories shared cultural attitudes, and ideologies influence the culture of the ecosystem positively.

The socio-structural system as an influence on OC is transferable to the culture of an EE. The *(infra)-structure* in the EE includes not only the individual founders but also organizations and institutions that are indispensable for the development of the ecosystem. On the one hand, they provide knowledge and skilled people, which has a supportive effect on the ecosystem (Suresh &

Ramraj, 2012). In addition to that, they provide financial support so that the infrastructure of the ecosystem ensures that the EE grows. The *strategies and goals* mean in the EE the primary pursuit for own goals, strive for autonomy, and development of a successful business model. However, also overarching goals, that be based on the ideology and values of the EE are a supportive determinant to make the ecosystem helpful and successful. *Policies and regulations* can also be found within the culture of EE. Factors like government and market support, which include opportunities in markets, reports from governments and trade associations and suppliers, support the culture in EE (Suresh & Ramraj, 2012). For example, new and young entrepreneurs, as well as companies, can create a dynamic economy. This can be bolstered up through education regulations, through which the growth of the ecosystem can be supported and directed (Suresh & Ramraj, 2012). In the EE, essential processes can be found in the business development of the individual actors as well as *peer support and networking*. The network of the individuals in the EE supports and helps to grow faster (Stam & Spigel, 2016).

**RP-2:** The socio-structural system and components are also highly relevant determinants within the culture of an entrepreneurial ecosystem. More structure, clear strategies, goals, policies, and regulations, as well as constructive support and diverse networks, influence the culture of the ecosystem positively.

The contributions of individual actors of an EE are particularly essential for the development of culture in the EE. For example, “entrepreneurs are key actors in an ecosystem, with the ability to identify challenges and help create structures to overcome common problems. Other actors, such as existing firms, who can draw on ecosystem resources to catalyze new growth, startup workers, mentors, advisors, and dealmakers are also crucial constituencies” (Spigel & Harrison, 2018, p. 157).

**RP-3:** The individual actors and their aspects are highly relevant determinants within the culture of EE. More personality and cognitions influence the culture of the ecosystem positively.

Allaire and Firsirotu (1984) explain in the conceptual framework for OC that the components are interrelated. This relationship provides support for the OC. However, it should be noted that rapid or undiscovered changes can destroy these supporting bonds. Spigel (2017) mentions that the attributes of an EE are connected and therefore produce entrepreneurial culture within the support. The attributes are correlated and rebuild others. For example, networking and sharing success stories motivate actors of the EE and increase financial as well as supportive resources within an ecosystem. According to this, it can be assumed that the elements of the four segments in the framework of culture in the EE influence or support others. In this case, the elements of the cultural system influence the socio-structural system as the individual actors of the ecosystem. Equally elements of the socio-structural system are related to other elements of the culture in the EE. Finally, the individual actors shape other elements of the culture in the EE through their individual characteristics.

**RP-4a:** Success stories shape the personality of the individual actors in the ecosystem. In addition, the exchange of experiences influences the cognitions of these individuals positively.

**RP-4b:** Shared cultural attitudes and values are the basis for mutual support and necessary for networking. It is important not to change these fundamentals rapidly, because it could disrupt the basic components of culture in the EE.

**RP-4c:** The ideology influences and shapes the strategies and goals of the culture in the ecosystem.

**RP-4d:** Individual actors form the structure of the entrepreneurial ecosystem. In addition, the external factor of the environment with the focused industry, technology, and competition has an impact on the structure of the culture in EEs.

**RP-4e:** Personalities and cognitions of individual actors influence the extent of support as well as the nature of networks within an EE.

The framework enables us to analyze the determinants of which the culture within EEs is

built. To further understand the structure, a dynamic view is mandatory, as the culture is not only shaped by the presented determinants, but also by a high level of dynamism within the ecosystems. The rapid inflow and outflow of actors and the high degree of individuality of every single actor make up a large part of the culture of an ecosystem (Mason & Brown, 2014). It also influences and constantly redefines the norms and underlying beliefs. Due to the rapid changes and high interdependencies, there is no possibility to build up routines within the ecosystem. The elements are in constant reformation and, thus, the whole ecosystem and culture within it.

**RP-5:** Every determinant of culture in EE is shaped by the high dynamics within the ecosystem. Therefore, the dynamics can be seen as a significant influencing factor, constantly changing the culture of the ecosystem.

## 5 Discussion and Conclusion

This paper is seen as an initiation for research on the importance of culture within EE. The research work will serve as a milestone for the subject field and can be adopted as an academic basis and has brought to light the use of culture within EE by depicting the determinants and its significance to the players involved.

The paper depicts that the theory of OC can be transferred to EE in order to illuminate the determinants of the culture in the ecosystem. Therefore, the determinants of the culture in the EE are based on the theory of OC. They are likewise part of the four main segments: external factors, the cultural system, the socio-structural system, and the individual actors. Nevertheless, differences have been taken into account through greater dynamism and complexity in the EE. In addition, it can be assumed that determinants influence and support each other. Through these linkages, the positive effects of the EE can be increased.

The analysis of the paper also depicts how the dimensions of the OC framework are transferable in the context of EE regarding culture as a change agent. It is significant to reiterate that the research propositions have been formulated to emphasize the determinants and their effects on the culture within the EE. Nevertheless, it is essential to note that research gaps about the culture within the EE

still exist because this paper only introduces first considerations and initiates the topic to allow interest in the subject field by other scholars. Further research is needed on the subject area for comprehension and apprehension.

### 5.1 Suggestions for Future Research

This study offers a roadmap for future studies on EE, considering the proposition of the research studies and the framework constructed.

Further research about differences and similarities of OC and EE should be done by future studies to allow detailed insight and discernment to the subject matter. The scope of the research about culture in the EE can be expanded to enable more meaningful outcomes to be obtained with more variables, which could bring more clarification to the subject field. Future studies can also consider investigating the stakeholders and the institutions involved in the EE to enable further detailed requisite knowledge of the phenomenon.

### 5.2 Practical Implications

This elaboration increases the understanding and awareness for transmission of the theory of organizational culture on the EE for academia, intuitions, and stakeholders. Furthermore, it provides a deeper understanding of the culture within the EE and the general comprehension of the conceptual framework function and the significant contributions to the EE.

Specifically, it is very relevant to emphasize that the research work seeks to enhance and reinforce the culture component within the EE. The findings in the elaboration can be valuable for institutional and corporate knowledge acquisition. Finally, the paper can serve as a test case for actors of an EE to try the conceptual framework of the study to see how effective and efficient it functions.

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### **Authors' Biographical Statement**

Samuel Kofi Azumah is a creative, innovative, corporate strategist and entrepreneurship expert. He is a co-founder of the rural community planning foundation Ghana. He has served in British English as a Business English tutor. He has several years of teaching experience as an ESL and Business English instructor. He holds BSc. Business administration from Open University Malaysia and MSc. Business administration from Istanbul commerce University in Turkey. He also had an opportunity to study at the University of Bremen as an Erasmus exchange program student during his master's studies. He is committed to business and academic works.

Henriette Breuer is a master's student in Business Administration with a specialization in "Entrepreneurship and SME Management" and "Marketing and Brand Management" at the University of Bremen. She completed her bachelor's degree in Business Administration with a specialization in "Behavioral Economics" at the University of Bremen.

Silvin Bumiller is a master student in Business administration with a specialization in Entrepreneurship, SME management and Innovation Economics at the University of Bremen. He completed his bachelor's degree in Business Administration with a specialization in Innovation & Information at the Philipps-University Marburg.

Vibeka Götsch is a master student in Business administration with a specialization in Entrepreneurship, SME management, Marketing, and Brand Management at the University of Bremen. She completed a bachelor's degree in Business administration with a specialization in behavioral economics.

Paulina Krüger is a master student in Business administration with a specialization in Entrepreneurship, SME Management, and Marketing and Brand Management at the University of Bremen. She completed her bachelor's degree in Business administration with a specialization in Sports economics.

# *Entrepreneurs in Poverty through the Lens of Bricolage*

Svenja Baier<sup>1</sup>, Dana Fuhs, Jessica Gießelmann, Jacqueline Krah, Agnieszka Krocak, Franziska Knemeyer

## *Abstract*

*Many entrepreneurs in the world faced with different forms of poverty. This paper applies the concept of bricolage to better understand of entrepreneurs in poverty. This study will examine entrepreneurs in penurious environments through the conceptual lens of entrepreneurial bricolage by emphasizing social, political, and psychological poverty. This paper seeks to extend the study of Baker and Nelson's (2005), "creating something out of nothing" by highlighting the different concepts of poverty. The research question of this study is how bricolage enables entrepreneurs in poverty to achieve welfare. We answer the research question by developing a framework with four research propositions. The findings of the study examine how different dimensions of poverty are interrelated. Furthermore, it reveals how entrepreneurs can overcome different dimensions of poverty by applying the characteristics of bricolage.*

**Keywords:** Entrepreneurship, Bricolage, Poverty

## **1 Introduction**

Poverty represents one of the most significant issues in today's society and many people in poverty are engaged in entrepreneurial activities. Entrepreneurship is defined as a process that entails action to create or seize an opportunity and to innovate or to spur a new venture (Servantie & Rispal, 2018). In contrast, poverty appears to function as a contradiction to this pursuit. Defining poverty in terms of the international poverty threshold of \$1.90 household income per day, 44% of the total world population lived under the constraints of poverty in 1981. Since then, this percentage has been decreasing (World Bank, 2016). Nevertheless, ca. 10% of the world population live under the constrain of poverty, which encompassed 736 million people (World Bank, 2016). Poverty is defined as a lack of social, legal, political, and economic welfare. (Ellis, 1983). It is difficult to measure how many people are living under the constraints of poverty because these poverty dimensions have no measurable characteristics. People who support from poverty are often engaged in entrepreneurial activities. However, the failure rate of these entrepreneurs is considerably high. One reason for this high number of failures in a venture is that entrepreneurs are faced with varying forms of poverty. According to

Baker and Nelson (2005), entrepreneurship in penurious environments is often characterized by severe resource constraints like a limited budget or limited human resources. Additionally, entrepreneurs are faced with different dimensions of poverty caused by their situation, such as the lack of networks, as well as by the economic area in which they set up their businesses (World Bank, 2019).

Some entrepreneurs manage to get out of the poverty situation through entrepreneurship. An example of an entrepreneur overcoming poverty is the story of John Paul DeJoria. He was facing personal poverty as he was living in a car and had no entrepreneurial network. Nevertheless, because of his determined work attitude, he set up a successful hair-care company and, nowadays, has become a billionaire. However, due to the high number of entrepreneurial failures, a theoretical approach for entrepreneurs to overcome these constraints is needed. One attempt to find a solution is the approach of using bricolage as suggested by Levi-Strauss (1966).

The existing literature have already discussed entrepreneurship in poverty through the lense of entrepreneurial bricolage. Many papers refer to the research question of how entrepreneurship could

<sup>1</sup>Corresponding author: Svenja Baier, University of Bremen, [svenja.baier95@web.de](mailto:svenja.baier95@web.de)

encourage the development of countries in poverty while benefitting from bricolage behavior (Hooi et al., 2016). Besides that, several papers are referring to the question of how entrepreneurs in poverty could overcome resource constraints through bricolage (Holt & Littlewood, 2017; Loarne & Maalaoui, 2015). One of the most relevant papers about entrepreneurs in poverty and bricolage is *Creating Something from Nothing: Resource Construction through Entrepreneurial Bricolage* by (Baker & Nelson, 2005). In existing literatures, the definition of entrepreneurs in poverty is mainly restricted to resource constraints (Baker & Nelson, 2005; Linna, 2013). Based on this prior research, this paper extends the frequently used approach of resource scarcity by selected dimensions of poverty that were defined by Ellis (1983). Therein, the aspect of resource constraints is part of a set of poverty dimensions (Ellis, 1983). In this context, the following work will address the research gap of overcoming entrepreneurial poverty through bricolage with a focus on social, political, and psychological poverty. This research paper aims to expand Baker and Nelson (2005)'s findings by highlighting the different concepts of poverty. Therefore, the research question of this paper is: How can bricolage enable entrepreneurs in poverty to achieve welfare?

The structure of this paper is as follows: first, the theoretical background will be presented, highlighting the concepts of poverty and bricolage. Second, based on the research question and the theoretical and conceptual background, research assumptions will be developed and explained using a framework. The development of the framework is based on the existing frameworks by (Baker & Nelson, 2005; Ellis, 1983). Finally, the expected contributions and future perspectives will be presented.

## **2 Conceptual Backgrounds – Reviewing Literature on Bricolage and Poverty**

### **2.1 Literature Selection**

The following chapter describes the theoretical background for the development of this paper. It deals in particular with the theory of bricolage behavior and the definition of poverty. The main article that explains the theory of Bricolage has been written by Baker and Nelson (2005), as they initially associated the original theory of Levi-

Strauss on Bricolage with entrepreneurs. Many other authors who have subsequently dealt with this also refer to the work of Baker and Nelson (2005). To establish a link between bricolage, poverty, and creating something new in literature, it is first necessary to describe poverty in the context of this work. After reviewing current and past literature on poverty, the choice of the main article is *The Dimensions of Poverty* by Ellis (1983) as he describes in detail the different characteristics of poverty and how these relate to personal welfare.

### **2.2 Defining Bricolage**

Bricolage is a concept developed by French anthropologist Claude Levi-Strauss (1967) in his work *The Savage Mind*. According to Levi-Strauss (1966), bricolage describes the skill of using given resources, making do, and recombining these resources to create something new. Creativity, originality, and co-opting of resources are very prevalent features in bricolage. The process of bricolage is divided into three steps: First, the bricoleur must step back and consider his repertoire of available materials and tools. This repertoire can be extensive but also characterized by limitations. As a second step, the bricoleur will consider these resources to choose between the possible solutions each set of resources may offer for his problem or task. The final step then is the actual outcome, which is characterized by uncertainty but also by creativity as it can differ widely from the originally imagined outcome. Levi-Strauss (1966) uses the comparison of a bricoleur and an engineer to further point out the differences between bricoleur behavior and modern scientific thinking: While the work of an engineer depends on the existence of a specific repertoire, the work of a bricoleur is more like a compromise between the given setting and the project (Levi-Strauss, 1966).

This concept of bricolage was adopted into various disciplines. Baker and Nelson (2005) use the concept of bricolage in their often-cited work *Creating Something from Nothing: Resource Construction through Entrepreneurial Bricolage*. Using bricolage, they explain how entrepreneurs can act successfully, although their resources in their environment are minimal. Bricolage is defined roughly as making do by applying combinations of the resources at hand to new problems and opportunities (Levi-Strauss, 1966). This adaptation is based on an in-depth field study

of 29 new ventures that were affected by an economically depressed environment. Baker and Nelson (2005) point out that bricolage can happen in several different domains: physical inputs, labor, skills, customer/market, as well as institutional and regulatory environment. The study shows how organizations created something from nothing by using physical inputs, while other organizations did not consider involving customers, suppliers, workers and/or by making use of self-taught skills. Customers and markets as a domain are defined by serving niches or making products available to everyone. The third domain is focused on the institutional and regulatory environment. As an example, organizations created something from nothing by refusing to accept limitations and standards. As a result, the recombination of given resources can lead to growth (Baker & Nelson, 2005).

The use of bricolage is clustered in two patterns: Parallel and selective bricolage (Baker & Nelson, 2005). Firms referring to selective bricolage may be empowered to grow, whereas parallel bricolage firms often fail to take advantage of growth potential (Rönkkö, Peltonen, & Arenius, 2013). According to Baker and Nelson (2005) there are specific characteristics for parallel and selective bricolage within the predefined domains. Compared to selective bricolage, firms who are engaged in parallel bricolage focus on acquiring and extracting resources at hand, which might end in inputs they do not know how to use correctly. Furthermore, entrepreneurs who are engaged in parallel bricolage are likely to be characterized by a lack of proper education on how to use resources and by networks that show strong social ties. The main factor that is restraining entrepreneurs when pursuing parallel bricolage is the consistent and repeated use of bricolage in every dimension mentioned above. In contrast to that, entrepreneurs engaged in selective bricolage take advantage of this behavior in a selective way regarding the use of it for each dimension. This prospering use of bricolage is often mainly observed during the founding process of businesses. In this case, entrepreneurs use bricolage in a specific part of their business when first beginning to form a business idea, for example, using second-hand materials and self-taught skills. The important distinction from parallel bricolage lies within the sensible application of bricolage in a profitable and reflected way (Baker & Nelson, 2005).

There are further approaches to characterize bricolage behavior. The concept of bricolage is directly linked to resource constraints and can therein influence the entrepreneurial process in two ways - internal and external. This leads to categories of internal and external bricolage (Louridas, 1999). Another differentiation is focused on material and ideational bricolage especially used by social entrepreneurs (Molecke & Pinkse, 2017). To stay within the scope of this work, lastly named characterizations will not be of further consideration.

### 2.3 Understanding the Concept of Poverty

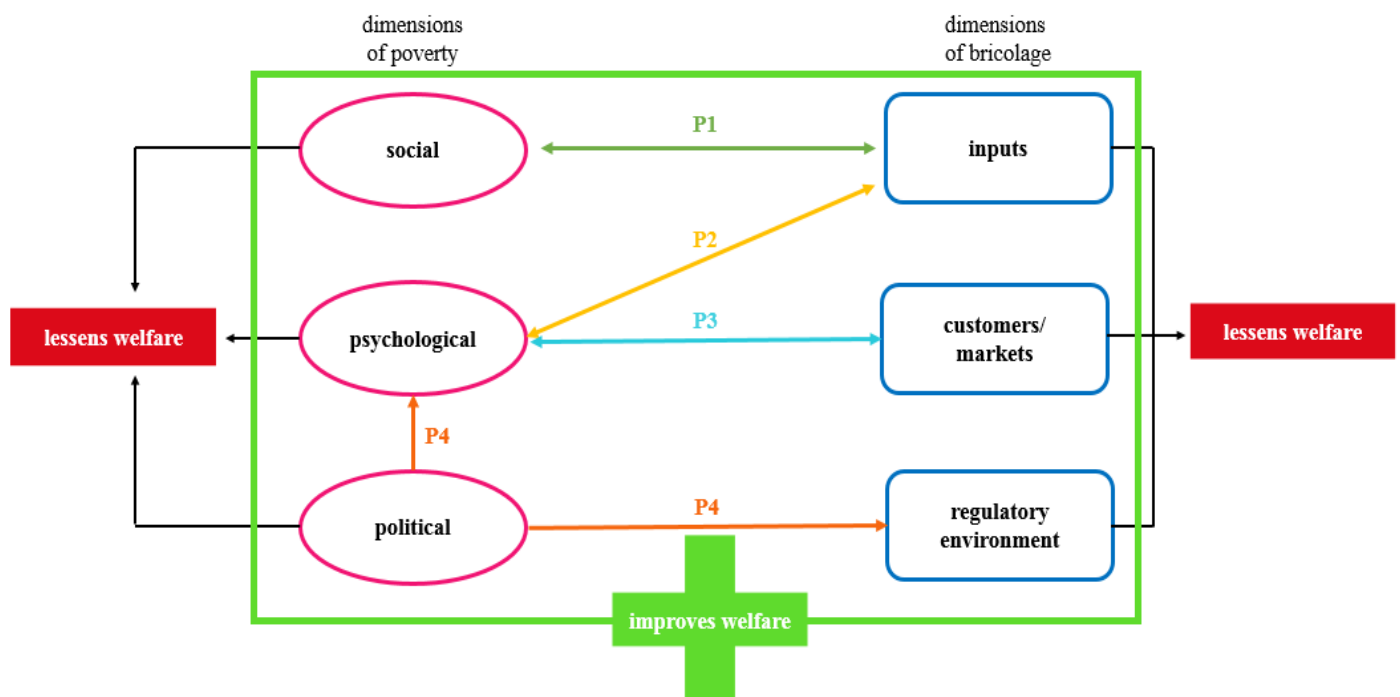
To establish research propositions that create a link between poverty and bricolage behavior, it is important to first explain poverty in this context. Baker and Nelson (2005) defined poverty as a form of resource scarcity within their concept of research. In a more comprehensive approach towards poverty, Ellis (1983) analyzes how it is not only a deficit of resources but rather the lack of welfare (Ellis, 1983). Welfare therein can be described as the state of an individual concerning their attempts to deal with their environment (Broom, 2019). Ellis (1983) states that four different levels influence the current state of welfare. The *level of living* (Level 1) is about physical welfare and safety, such as future security, and can be understood as the social system. Level 2, the level of *available resources* (stock), can be regarded as the economic system which contains all-natural, economical, technological, and enabling resources. The third level, *access to power*, can be considered as the political system. Furthermore, Ellis describes a -1 level, the *level of pressure*. This level is mainly about the subjective perspective of every individual and can be understood as the degree of happiness. Each of the levels described above can give rise to a different pattern of poverty. Overall, the dimensions of poverty are chiefly economic, social, political, and legal dimensions of poverty. Additionally, there are also psychological, ideological, and perceptual dimensions of poverty (Ellis, 1983).

We selected the following dimensions for further considerations, which are important to the development of a conceptual framework. The focus of this work is set on social, psychological, and political poverty. Social poverty refers to the network of social connections that serve to

facilitate individual and collective actions in a particular social structure or society (Lewandowski, 2008). Also, it is divided into internal and external factors. An example of external factors is legal constraints preventing an individual from using their opportunities. Internal factors can explain a case in which the group concerned is internally precluded from doing what would actually be beneficial (Ellis, 1983). Psychological poverty vaguely describes the attitude towards oneself and the environment. It is characterized by a lack of self-reflection. Consequently, others are held responsible for mistakes without questioning ones' actions and

### 3.1 Creating a Framework for Poverty and Bricolage Interdependencies

Figure 1 shows the interdependencies that arise when combining the above-discussed dimensions of poverty and bricolage. The suggested interconnections originating within the dimensions of poverty are shown in pink, those of bricolage in blue. The right part of the framework proposes a loss of welfare when applying bricolage in all dimensions homogeneously (parallel bricolage, see chapter 2.2). On the left side, it shows how the chosen dimensions of poverty combined lead to a loss of welfare as well (see chapter 2.3). In contrast,



**Figure 1:** A Framework for Poverty and Bricolage  
Source: Own Figure

impact (Ellis, 1983). In an attempt to understand the political dimension, political equality can be described as a fundamental prerequisite on which any legitimate policy is based. If this is not the case, political poverty will arise. Political poverty also refers to the degree of access to power that the group has compared to the other groups in society. Access can vary, for example, through formal political systems but also informal contacts within a power structure. The question that arises is to what extent the group can gain access to its equitable share of all resources available to society as a whole or, more generally, to participate in the making of their destiny (Ellis, 1983).

### 3 Development of Research Propositions

the connection between the dimensions of poverty and those of bricolage can lead to an improvement of welfare (green plus-sign).

As a first proposition, the above-presented framework shows that social poverty can overcome by using bricolage behavior regarding the input dimension (RP-1). Along with this reasoning, it suggests that psychological poverty can be solved by using resources at hand (RP-2). The third proposal presented by the framework is that psychological poverty can be overcome by using available resources and therein generate new customers and markets (RP-3). Last but not least, it advances an Interconnection between political and psychological poverty, which can be overcome by

bricolage behavior within the regulatory dimension (RP-4).

In the subsequently developed propositions, the interdependencies are focused upon the improved welfare created by selective bricolage.

### ***3.2 Analysis of Bricolage and Poverty as a Concept of Welfare***

#### ***3.2.1 Interdependency of Social Poverty and Bricolage Inputs***

Social poverty describes the lack of social network and inhibiting factors (Ellis, 1983). Concerning the inhibiting factors, Ellis (1983) names external and internal factors, as discussed in chapter 2.3. One consequence of external inhibiting factors is that individuals are confronted with non-fulfilled social needs (South African History Online, 2017). This condition can be transferred into the context of entrepreneurship. Networks, especially informal contacts like family and friends, play an essential role in the entrepreneurial process as they form a support system. Therefore, the socio environment is an explicit resource for an entrepreneur in terms of entrepreneurial success. Furthermore, the importance of social networks emphasized by the fact that the ability to build contacts and develop networks is fundamental for a firm's success (Baum, Calabrese, & Silverman, 2000; Zhao & Aram, 1995). Since relationships are important resources for a firm's success, the loss of existing networks leads to challenging circumstances. A lack of social networks might arise through deportation, an example people can lose their networks all of the sudden through forcible displacement (Nash, 1980; Mare, 1980; Walt, 1982). This can also be extended to social exclusion in general (Luzzi, Flückiger, & Weber, 2008). Therefore, social exclusion establishes social poverty, which leads to psychological consequences. Thereof resulting traumas can arise as individuals have to reintegrate themselves into the (new) country and culture as well as into the society (Hagan, Castro, & Rodriguez, 2010). Herein, social networks serve as aid with regard to appropriate behaviors required in certain situations (Lewandowski, 2008).

In terms of entrepreneurship, lack of employees is considered to be a severe constraint (Ruef, Aldrich, & Carter, 2003). Entrepreneurs focus on existing

networks, like family members. (Baker & Nelson, 2005) consider the usage from resources at hand as one of the key elements of bricolage (Baker & Nelson, 2005), whereas resources at hand in this context can be defined as existing social networks (Baker, Miner, & Eesley, 2003). Regarding the domain of labor input (Baker & Nelson, 2005) also propose the involvement of customers and suppliers in the working processes. Additionally, entrepreneurs can make use of the inputs that these new networks have available. Labor inputs include self-taught skills as well as the effect of learning by doing. Customers and suppliers can therein create positive contributions in the form of labor or expertise (Baker & Nelson, 2005).

As shown above, networks are a foundation for entrepreneurial success. Especially entrepreneurs in poverty only have limited access to resources. Therefore, they use resources at hand, which in this case, encompass existing networks, such as family and friends (Baker & Nelson, 2005). The loss of social networks, e.g., though forcible displacement, leads to social poverty (Nash, Mare, & Walt, 1982; Ellis, 1984). Thus, entrepreneurs have to come up with new networks due to deportation or exclusion within another country and/or culture. This leads to the question, how entrepreneurs who lack social network can overcome these circumstances by building up new networks. The approach by Baker and Nelson (2005) can be extended and used as a solution in this context. Bricolage behavior is defined as “exploiting physical, social, or institutional inputs that other firms rejected or ignored.” (Baker & Nelson, 2005, p. 329), it can create welfare by involving customers and suppliers in the working processes. Thereby, an entrepreneur that lost his/her existing network can build up new networks in another country through bricolage behavior as he/she uses social structures at hand. This leads to the first research proposition:

**RP-1:** Social poverty through forcible displacement or social exclusion leads to a loss of existing networks. Bricolage helps to build up new networks by involving customers and suppliers to benefit from the existing social environment. Therein, social welfare can be improved.

#### ***3.2.2 Psychological Poverty and Bricolage Behavior with Regards to Inputs***

Psychological poverty, as described by Ellis (1983), represents how an individual's welfare negatively impacted by a lack of self-reflection (cf. Ellis 1984). This aspect applies to entrepreneurship as an entrepreneur's self-perception has an influence on his business processes and how mistakes are handled.

Baker and Nelson (2005) explain that bricolage behavior helps entrepreneurs to overcome poverty by recombining resources at hand, namely inputs. These can be resources that other entrepreneurs decline or ignore. Entrepreneurs face a limited repertoire for handling challenging situations (Hatton, 1989). Therefore, the recombination of resources at hand is highly relevant to benefit most from challenging situations. Entrepreneurs in poverty can benefit from the concept of *trial and error*.

The concept of psychological poverty and bricolage behavior therein can be linked. On the one hand, psychological poverty is caused by the incapability to deal with challenging situations that require the ability of self-reflection. On the other hand, bricolage behavior is about using available resources and creating valuable products. Herein, bricolage behavior can be seen as a solution to solve psychological poverty in challenging situations. In this context, bricolage behavior is about an entrepreneur's attitude that he/she can create something from nothing (available resources) that improves the current situation, and therein helps to overcome psychological poverty and improve welfare. The solution in this lies within the attitude that is transferred in using unconventional inputs. Making do can resolve the mindset that is associated with psychological poverty, namely, how mistakes and challenging situations are perceived. Therefore, the following proposition can be derived:

**RP-2:** Entrepreneurs can overcome the incapability to deal with challenging situations by bricolage behavior. By applying resources at hand to handle the situation the optimal way, psychological poverty can be overcome.

### 3.2.3 Psychological Poverty and Interactions with Customers and Markets

Psychological poverty can also be interpreted as a form of low goal setting. Therein, goal setting is

based on a group's or an individual's ideology (Ellis, 1983) because the current welfare perception leads to the ideology that goals are also based on this welfare situation, which in turn is caused by the ability to self-reflect. As a consequence, goals which are set too high or too low causes a circulatory manner and decrease in welfare. Therefore, an accurate goal setting is mandatory to ensure welfare.

Baker and Nelson (2005) claim that applying resources for another purpose creates new markets and addresses new customers. This can be connected to the aspect of psychological poverty due to inadequate goal settings (Ellis, 1983). The circulatory process described above states that bricolage behavior can improve welfare by creating new markets and therein new opportunities. This then leads to a positive influence on the entrepreneur's ideology, which is the foundation for goal setting. As an entrepreneur's ideology is improved, his/her ability to set goals undergoes strengthening. Therein, psychological poverty can be reduced by improved welfare via a bricolage approach towards new markets. This leads to the following proposition:

**RP-3:** Generating new markets through bricolage behavior can counteract psychological poverty. It favorably influences and therein strengthens psychological welfare.

### 3.2.4 Poverty and Psychological Poverty in Terms of Regulatory Environments

Political poverty arises when legal prerequisites differ within a population. Ellis (1983) further describes political poverty as the degree of access to power, comprehending access to resources, and the ability to influence society. Sida (2017) also acknowledges that the ability to advance one's needs and rights and to have an impact on decision making as part of political power and otherwise of political poverty. Therein, a dependency between the conflict of rights and resources and the mindset of an individual can be recognized. Due to that, it can be concluded that a reduction in (determination) rights leads to psychological effects or, more precisely, to psychological poverty (Campbell & Murray, 2004). These aspects are transferable to the context of entrepreneurs because they often have to face legal constraints that affect their entrepreneurial mindset.

Baker and Nelson (2005) also referred to the aspect of the institutional and regulatory environment within their framework. Due to bricolage behavior, entrepreneurs often operate in new and unknown markets compared to their original backgrounds. Therefore, entrepreneurs faced with challenging circumstances. This aspect can lead to a lack of knowledge about market-specific regulations and restrictions. Nevertheless, entrepreneurs may not perceive these regulations and rules as restrictions. Then, it may lead to a different approach towards situations and restrictions in this (new) market (Baker & Nelson, 2005).

Considering how psychological poverty is influenced by the political empowerment of an individual, a bricolage mindset can have a positive influence on the perception of an entrepreneur's situation within a community or a market. This leads to the following proposition arises:

**RP-4:** Lack of political empowerment causes psychological poverty. Therein, bricolage behavior acts as a source of support to overcome these circumstances. This is because by acting in a bricolage manner, restrictions might not be perceived as such, and therefore, entrepreneurs are enabled to improve welfare.

## 4 Expected Contributions and Future Perspective

### 4.1 Findings

This paper addresses the research gap in overcoming entrepreneurial poverty through bricolage with a focus on the different dimensions of poverty. This approach extends the study conducted by Campbell and Murray (2004), research where poverty is defined as a resource constraint. The definition used in this paper is based on the different dimensions of poverty by Ellis (1983), especially the social, psychological, and political aspects.

The results of the paper show how the different dimensions of poverty are interrelated and lead to a lack of welfare. By referring to the approach of bricolage by Baker and Nelson (2005), this paper answers the question of how entrepreneurs can overcome different dimensions of poverty by applying the characteristics of bricolage:

Political poverty, which mainly includes a lack of empowerment, can lead to psychological poverty among entrepreneurs. This situation can overcome by behavioral bricolage. Using the example of social exclusion, which leads to the loss of existing networks, a focus is set on the social poverty of entrepreneurs. Bricolage helps entrepreneurs to overcome this situation by involving customers and suppliers as workers. Poverty also includes a psychological dimension where entrepreneurs faced with challenging situations that require self-reflection. By using existing resources through bricolage, entrepreneurs can learn to deal with these situations and find solutions that help them understand how to deal with misperceptions. Bricolage behavior can also lead to modified and new products as well as to new markets and, therefore, strengthens an individual's welfare through which their ideology can positively affect their psychological poverty situation.

All research assumptions lead to the result that through applying different dimensions of bricolage, entrepreneurs can overcome different dimensions of poverty to achieve welfare.

### 4.2 Relevance and Further Research

As this paper focuses on the research gap of the different aspects of poverty, it pursues a more realistic and detailed research approach in the context of entrepreneurs in poverty.

Entrepreneurs are not only confronted with poverty in the form of resource constraints such as low profits or lack of human resources. They are influenced by their social environment as well as their economic and political systems. All this influences their psychological behavior and effects their business in general. This paper not only combines the various dimensions of poverty but also gives examples of possible circumstances of entrepreneurs in poverty alongside resource constraints and how they can overcome these situations through bricolage. With the extension of the various aspects of poverty, it is possible to get a more detailed and more realistic research approach in the context of entrepreneurs in poverty.

However, there are many other dimensions of poverty that needs to be researched in the context of entrepreneurship. The approach by Baker and Nelson (2005) can be further explained in context



with other forms of poverty, such as conceptual or legal poverty. It is relevant to explore further aspects to ensure comprehensive research. Another point that requires further research is the sustainability of bricolage in the context of entrepreneurship. The sustainable effect of applying bricolage is a relevant topic to classify if bricolage is a short-time solution for temporal problems in entrepreneurial activities or if it can lead to long-term success for the entrepreneur. Also, possible conflicts that may arise in the social, political, or economic environment in context with bricolage are issues that require further research. As a topic of current relevance, the impact of climate change on the availability of resources presents many opportunities to expand the approach of Baker and Nelson (2005).

In general, further research can contribute to a more realistic and applicable approach towards the ways bricolage behavior can enable entrepreneurs in poverty to achieve welfare in different circumstances, whether financial, social, or political.

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### **Authors' Biographical Statement**

Svenja Baier is a master student in Business Administration with a specialization in Entrepreneurship, SME management, Marketing, and Brand Management at the University of Bremen. She completed her Bachelor's degree in Business Administration with a specification in statistics at the University of Hamburg.

Dana Fruhs is a master student in Business administration with a specialization in Entrepreneurship, SME management, Accounting, and Controlling at the University of Bremen. She completed her bachelor's degree in Business administration at the Carl von Ossietzky University of Oldenburg.

Jessica Giebelmann is a master student in Business administration with a specialization in Entrepreneurship, Marketing, and Brand Management at the University of Bremen. She completed her bachelor's degree in Business administration at the University of Bremen as well.

Franziska Knemeyer is a master student in Business administration with a specialization in Entrepreneurship, SME management, Marketing, and Brand Management at the University of Bremen. She completed a bachelor's degree in Business administration with a specialization in International Entrepreneurship, Management, and Marketing.

Jacqueline Krah is a master's student in Business Administration with a specialization in Entrepreneurship, SME management, Marketing, and Brand Management at the University of Bremen. She completed her Bachelor's degree in Business Administration at the University of Bremen.

Agnieszka Korczak is a master student in Business administration with a specialization in Entrepreneurship, SME management, Accounting, and Controlling at the University of Bremen. She completed her bachelor's degree in Business Administration with a specialization in Finance and Accounting at the University of Bremen and California State University Fullerton.

# *Resources of Transnational Entrepreneurs Achieving Competitive Advantages*

*Isabell Gutsche<sup>1</sup>, Carolin Jürgens, Antonia Kauert, Emma Poppe, Julian Raschen*

## **Abstract**

*The concept of transnational entrepreneurship (TE) is becoming increasingly important in the context of globalization, and this topic has emerged as an attractive research area in recent years. Transnational entrepreneurs have unique skills and resources that other entrepreneurs do not possess. Over the years, the role of transnational entrepreneurs become imminent as they maintain economic, social, and cultural linkages to their country of origin (COO) and also from the country of destination (COD). The existing literature on TE's emphasizes on reasons, conditions, and process of building a new business in the adopted countries. There is a shortfall of studies on the unique features of TE's and how they develop competitive advantages in their entrepreneurial activities. To fill the research gap, this study aims to answer two research questions. 1) What unique resources do TE's possess, and how do they utilize these resources? 2) How do they bring advantages to transnational entrepreneurial activities? The resource-based view is used as a theoretical lens in developing seven research propositions in this study. The finding of the study shows that the network, experience, and knowledge are the three pillars of resource of the TE of which network is the key resource element which grants them access in getting market information, capital and support of entrepreneurs in both countries. Therefore, they can create knowledge spillovers with positive impacts on the economy in both COO and COD.*

**Keywords:** *Transnational Entrepreneurs, Competitive Advantage, Resource-Base View*

## **1 Introduction**

The concept of transnational entrepreneurship is a manifestation of the effects of globalization. This relatively new phenomenon is stimulated by modern transportation systems and easy access to faster communication, which made it more affordable to travel across countries and more accessible for people to move in search of job opportunities, education, and a better quality of life. The increasingly interconnected world leads to running companies internationally. This process is not only open to large firms but also comprises smaller companies and individuals. Individuals carrying out entrepreneurial activities in a cross-national context and embedded in at least two economic and social fields are called transnational entrepreneurs (TE) (Veréb & Ferreira, 2018). The special characteristic of this kind of entrepreneurship is that business exchange usually takes place between TE's country of origin (COO). The countries of destination (COD) (Lundberg & Rehnfors, 2018) and that TEs maintain economic, social, and cultural linkages to their COO and the adopted COD (Drori, Honig, & Wright, 2009). As a result, TEs have special skills and resources that

other entrepreneurs do not possess. To explain the importance of resources that TEs have, the resource-based view (RBV) is suitable. This approach of systematic planning explains the causes of economic success and which measures are possible to maximize success. In addition, this approach is appropriate for describing why organizations or individuals operating in the same industry differ in their performance over time (Barney, Ketchen, & Wright, 2011; Hoopes, Madsen, & Walker, 2003).

The topic of transnational entrepreneurship has emerged as an attractive research area according to their economic activities in recent years (Bagwell, 2015; Moghaddam et al., 2018; Patel & Terjesen, 2011). Existing literature investigates reasons, conditions, and processes of building a new business in the adopted countries using the resources and opportunities arising from maintaining business-related relationships with their home countries (Drori, Honig, & Wright, 2009; Harima & Baron, 2020). Nevertheless, there is a lack of information about the uniqueness of resources TEs have. Besides, explanations as to how TEs develop competitive advantages in their

<sup>1</sup>Corresponding author: Isabell Gutsche, University of Bremen, [isa\\_gut@uni-bremen.de](mailto:isa_gut@uni-bremen.de)

entrepreneurial activities are missing (Moghaddam et al., 2018). Our research paper aims to find out which resources and abilities TEs combine to achieve sustained competitive advantage (SCA) and how they develop those resources to special bundles, which allow them to be unique in comparison to other entrepreneurs. The following paper will answer the research questions:

“What unique resources do TEs possess, and how do they utilize these resources?”

“How do they bring advantages to transnational entrepreneurial activities?”

We develop a causal assumption to emphasize the uniqueness of TEs regarding their unique resources and especially their abilities to access and build up unique resource bundles to achieve sustained competitive advantages. We focus on the resources of TEs because this investigation will be built on the RBV, which means a concentration on the resources of the entrepreneurs instead of other entrepreneurial parts.

This paper is structured as followed: after this introduction part, we will give theoretical background information about the TE itself, about the RBV, and after that, we combine the two topics and give an insight into the Transnational Entrepreneurship through the lens of the RBV. After this theoretical part, we develop seven research propositions in chapter three to give some information and insights about the uniqueness of TEs and their knowledge and resources in comparison to other entrepreneurs. These propositions then lead to our penultimate chapter, which includes expected contributions based on our research. Closing this paper, we will give a wrap up in chapter five, which is our conclusion.

## 2 Theoretical Background

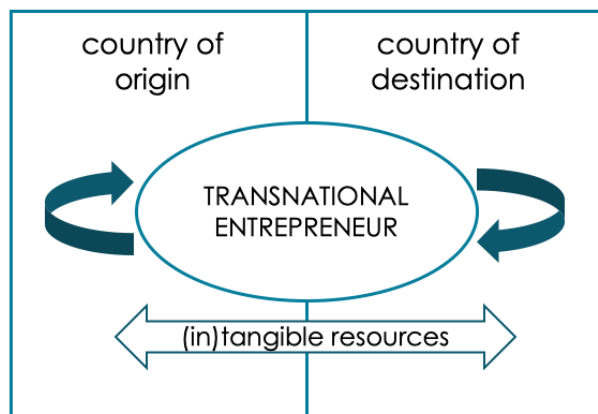
### 2.1 Transnational Entrepreneurs

Individuals who migrate from one country to another and conduct business by combining resources from COO and COD are called TEs. They are engaged in border-crossing business activities that exhibit business-related linkages to their COO and their COD (Lin & Tao, 2012; Lundberg & Rehnfors, 2018). Therefore, their strategies are shaped by different social and

economic areas, which lead to special opportunities and access to resources from more than one country (Drori, Honig, & Wright, 2009). Exploiting cross-national business opportunities, TE's generate competitive advantages utilizing resources outside a firm's domestic market. This ability could even be enhanced through business activities between COO, COD, and a third country (Chen & Tan, 2009). Based on their research in multiple economic fields, Lin and Tao (2012) determine that the success of TEs depends on regular contact with foreign countries.

Literature lists several reasons why a TE operates in his or her home country and the host country. In principle, it is discussed whether business opportunities or homeland sentiments are the main reason for the cross-border activities of TEs. Lin and Tao (2012) state that TEs are, first of all, businesspersons. They move from one country to another in the hope of finding more promising opportunities and expanding their business. TEs are motivated to pursue market opportunities, access network resources, access finance, and promote knowledge and learning (Dimitratos et al., 2016). However, social security in the form of proximity to family members, relatives, and friends is also an important reason (Lin & Tao, 2012). Although there are motivational differences between cultures, it can be said that TEs take care of both personal and economic needs (Dimitratos et al., 2016; Lin & Tao, 2012).

Besides the TE, there are other types of immigrant entrepreneurs such as international entrepreneurs, ethnic entrepreneurs, or returnee entrepreneurs (Drori, Honig, & Wright, 2009). The main difference to other immigrant entrepreneurs is that TEs are linked to both the COO and the COD (Veréb & Ferreira, 2018). The combination of two or more countries means that TEs have access to resources, such as new markets, cheaper labor, or other resources that would otherwise not be available (Alvarez et al., 2018; Terjesen & Elam, 2009). TEs take advantage of the opportunities arising from at least two networks and optimize resources where they are most effective (Drori, Honig & Wright, 2009). At the same time, TEs act as relevant development agents by influencing internationalization, technology transfer, innovation, and employment (Alvarez et al., 2018; Harima, Harima, & Freiling, 2020). The nature of TE can be seen in Figure 1.



**Figure 1:** Nature of TE  
**Source:** Own presentation

## 2.2 Resource-Based View

The Resource-based View (RBV) is a theory of strategic planning, and this is also a part of strategic management. Even though the relevance of organizational resources was already known, the RBV of the firm was first shaped in the 1980s (Barney et al., 2011). Back then, the RBV was developed as a complement to the industrial organization (IO) view, which puts the determinants of firm performance outside the firm. The RBV searches for the internal sources of SCA and intends to explain why the performance of organizations in the same industry might vary. Hence, it complements the IO view rather than replacing it (Kraaijenbrink, Spender, & Groen, 2010). Since then, it has grown to one of the most popular theories for understanding organizations and has contributed to install the relevance of resources and capabilities for understanding the sources of SCA for ventures. Furthermore, it defined resources and capabilities as parcels of material and immaterial assets, which contain management skills of the company and organizational procedures, as well as the company's inherent knowledge and resources to select and implement strategies. Above all, RBV has become so much more complicated, precise, and sophisticated that it must currently be referred to as a theory rather than just a view. Hence, about thirty years after the introduction of the RBV, most scholars speak of the resource-based theory (Barney et al., 2011).

The central proposition of the RBV is that a firm must obtain and control valuable, rare, inimitable, and non-substitutable (VRIN) resources and capabilities to achieve a state of SCA. These criteria are also called VRIN-criteria. Additionally,

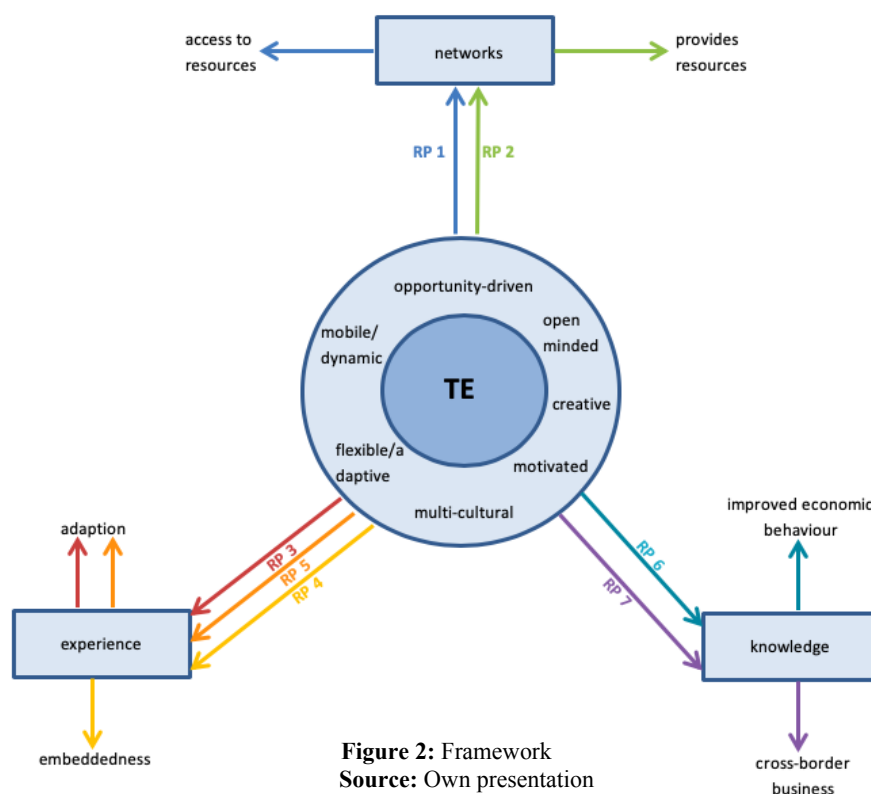
the organization should be in a place that can absorb and apply these resources and capabilities. Moreover, the RBV follows the assumption that organizations are profit-maximizing entities. These are led by boundedly rational managers operating in distinctive markets that are moving towards the equilibrium and are, to a certain degree, predictable. This means that the RBV accepts an asymmetric distribution of information about a resource's future value. Due to its focus on the resource as the significant constituent of an organization and its view of firms as resource bundles, the RBV is noticeably reductionist. Even though the essential message is appealing, easily comprehended, and taught, it has been criticized for many weaknesses as well (Kraaijenbrink et al., 2010).

## 2.3 Transnational Entrepreneurship through the Lens of RBV

The key element of the RBV is that firms have heterogeneous internal resources and capabilities (Barney et al., 2011). Referring to entrepreneurs, this means that entrepreneurial success goes ahead with garnering additional resources. Mobilizing additional resources is the primary purpose of developing a strategy for competitive advantage to be sustainable (Lynch & Baines, 2004). In the light of the link between RBV and TE's intangible and tangible resources and capabilities, it is essential to identify and bundle those resources and abilities that generate the most significant impact for SCA over other types of entrepreneurs.

TE literature also states that each TE possesses a distinctive set of resources (Drori, Honig, & Wright, 2009). In the TE literature, there are no precise definitions of resources. Resources can be referred to financial (e.g., money, material possessions), human (e.g., skills, internal mindsets), social (e.g., relationships, network ties), cultural (e.g., education, experience) and symbolic (e.g., legitimacy, credibility, power, status) capital. The resources that go with it provide sources of competitive advantages (Terjesen & Elam, 2009).

Furthermore, TEs benefit from the access to more diversified sets of resources of all fields because they are simultaneously embedded in multiple environments. For instance, migration experience and foreign business knowledge of at least two contexts give them an extraordinarily creative,



**Figure 2:** Framework  
**Source:** Own presentation

social, and cultural comprehension. They can introduce processes or products to the COD based on the profit of the entrepreneurs' contacts in their COO (Lundberg & Rehnfors, 2018). Furthermore, they maximize their resource base by combining resources of their multiple fields. Thus, more diverse resources and TE's ability to identify and exploit new opportunities facilitate more value-added combinations (Patel & Terjesen, 2011). This also leads to the fact that TEs develop new skills that other entrepreneurs in single institutional settings do not possess.

TEs can achieve SCA by collecting, combining and managing resources and abilities in unique synergistic combinations in the form of resource bundles that are valuable, rare and inimitable, used in the right set of institutional environments (Barney et al., 2011; Drori, Honig, & Wright, 2009; Terjesen & Elam, 2009).

### 3 Development of Assumptions

Based on research on TE with theoretical lenses of RBV, we will discuss how TE creates resources bundles to achieve SCA while developing research propositions in this chapter. The following framework (Figure 2) provides an overview of the interrelationships of the aspects outlined, as

described in detail in the research proposition 1-7.

#### 3.1 Networks as Providers of TE Resources

TEs travel both virtually and physically between their COO and their COD. Belonging of at least two social environments, they can maintain critical global relations because they have knowledge about the environments where are embedded. Through this knowledge, TEs can enhance their resource base concerning creativity, dynamics, and logistics, as TEs are social actors within at least two social fields in which they continuously aim to detect new business opportunities. These opportunities can only be found using new networks, ideas, information, and practices. Especially the multiple social fields and network relationships enable the TEs to maximize and optimize every resource needed to attain special leverage.

TEs do have social capital, which emphasizes the importance of networks to secure access to other forms of capital. Those other forms are variable. However, especially the monetary capital can be obtained through networks, since minority groups, to which TEs belong, often do not have access to such resources in their COD (Lin & Tao, 2012). Networks constitute a means to gain access to



instrumental resources. Those resources are, for example, any information, capital, market, technology, and expressive resources like emotional support from other people. From which we infer:

**RP-1:** TEs gain access to resources and can acquire new resource bundles through social network relationships of two embedded countries.

TEs' business activities require frequent travel to other countries (Portes, Haller, & Guarnizo, 2002). But this does not mean that the activities are only conducted between the home and the host country. They could entail any country within their diaspora network (Bagwell, 2015). This means that TEs can be allocated to at least two geographical locations giving them access to and supporting unique flows of information. Through this, TEs can identify and make use of opportunities like transnational contacts that might be unnoticed or unreachable to entrepreneurs only acting within one geographical location (Drori, Honig, & Wright, 2009).

The most crucial aspect of transnationalism is the benefit that TEs acquire from transnational networks, which can be viewed as an enhanced form of social capital. These networks allow them to attain specific otherwise unavailable resources and grant access to new market opportunities and business ideas. Especially the transnational contacts TEs gain from the networks are a rich source of inspiration for new business concepts, processes, and products. The contacts help to procure introductions to new customers and new consumption markets as well. Additionally, they lower the frequency of the travel TEs need to do for their business activities (Bagwell, 2015). Moreover, family members, who are also counted as transnational contacts, could be a great help for TEs by giving input and feedback about a business idea (Mustafa & Chen, 2010). For example, Bagwell (2015) interviewed a Vietnamese nail salon owner in the United Kingdom who was able to keep up with the nail design trends arising from the USA because she could visit relatives and friends there. This analysis shows that TEs can gain an SCA through their transnational contacts, and this leads to research proposition 2:

**RP-2:** TEs' transnational networks are

advantageous sources of inspiration for new business ideas, products, and processes.

### ***3.2 TE Skills based on Adaptation and Embeddedness***

TEs rely on both global and domestic contacts as well as a certain degree of knowledge and skills (Solano, 2015). Since they engage in at least two or more socially embedded environments, they can maintain essential cross-national relations that improve their ability to creatively, dynamically, and logistically maximize their resource base (Drori, Honig, & Wright, 2009). For example, one significant advantage of TEs is that they can draw on the work experience, which they have gained in their COO, to develop unique relations that allow them to manage transnational business operations (Solano, 2015). Furthermore, life experience regarding travel and migration allows for a differentiated view on the world and utilizing resources from all over the world (Terjesen & Elam, 2009). These relations represent social networks that are not only essential for running the transnational business itself but can be another business advantage of TEs in cutting transaction costs or providing resources. Also, the same networks can be used to conduct the TE's business outside the COD or to gain access to information, which is a resource in its own right. Above that, TEs develop transnational activities by exploiting the resources, which are provided through these networks of contacts in their COO and COD (Solano, 2015). Therefore, we propose:

**RP-3:** TEs enhance their ability to creatively, dynamically, and logistically maximize their resource base by maintaining essential global relations.

TEs show that entrepreneurship may create knowledge spillovers, which can be beneficial for the COD but also for the COO. The fundamental precondition, therefore, results from their business-related linkages to both countries, which leads to a strategy shaped by cross border circumstances (Drori, Honig, & Wright, 2009). Veréb and Ferreira (2018) conclude that TEs have significant knowledge about both areas and a unique position to exploit opportunities out of that, which is reflected in their skills to enhance the economy. Thus, the two geographical locations enable TEs to migrate with access to the knowledge and resources

of both countries. Therefore, it is about maintaining linkages to the COO while building new ones in the COD. In doing so, the combination of resources from dual environments leads to comparative advantage (Patel & Terjesen, 2011).

The distinct advantage based on this cross-national context certainly is the emerging transnational capital focusing on the recombination of the home and host networks to a dually connected system, which enhances the interconnection and integration of its members. Furthermore, one aim lies in the knowledge spillover, which means the creation of knowledge that can be used by entrepreneurs in both countries without any significant compensation (Veréb & Ferreira, 2018). In summary, TEs may be the leading force towards economic growth, and knowledge flows between both areas (Drori, Honig, & Wright, 2009). While establishing innovation in COD and maximize their resource base, they are also able to benefit the circumstances in their COO and, in general to generate more entrepreneurial gain than other entrepreneurs embedded in only one country (Veréb & Ferreira, 2018). This leads us to the following research proposition:

**RP-4:** TEs are in a position to approve, redevelop, and innovate the existing framework conditions of the COD while also having a positive impact on entrepreneurs in the COO.

TEs identify and exploit entrepreneurial opportunities by finding previously unoccupied niches, unfulfilled needs, and unused processes and strategies based on observations and combining them with their ideas and knowledge from their home and host countries (Sequeira, Carr, & Rasheed, 2009).

Acting in different geographical locations of at least two countries provides TEs unique flows of information, which improves their ability to recognize opportunities (Drori, Honig, & Wright, 2009). TEs are in frequent contact with other people in the home and host countries, so they can identify market changes, such as new technologies, legal and economic changes or changing customer expectations more quickly than other entrepreneurs (Sequeira, Carr, & Rasheed, 2009). At the same time, they try to adapt to market changes by quickly

locating foreign partners and introducing new strategies and processes (Saxenian, 2002).

Solano (2015) explains that previous work and life experiences are other crucial factors in identifying and exploiting entrepreneurial opportunities. In particular, practical knowledge in the form of foreign business knowledge, such as knowledge of clients, the market or competitors, and foreign institutional knowledge, such as knowledge of government, rules, and norms, improve entrepreneurial qualities (Lundberg & Rehnfors, 2018). TEs are uniquely positioned because they combine their knowledge and experience from different national contexts in a way that enables them to develop a strategy and adapt it to market conditions. For the reasons discussed above, we can develop the next research propositions:

**RP-5:** TEs can quickly adapt to changes in their environment and recognize previously unoccupied niches, unmet needs, unexploited processes, and strategies due to the opportunity-driven characteristic.

### ***3.3 Advantages Arising from Cultural Experiences and Knowledge***

In theory, entrepreneurs with higher education are more likely to have the ability to run a business. Furthermore, critical thinking skills required to evaluate complex business situations, establish priorities and make decisions. (Coleman, Cotei, & Farhat, 2013). Transnational studies have also shown that education and high occupational skills have a significant role (Portes, Haller, & Guarnizo, 2002). Lin and Tao (2012) emphasize a typical portray of a TE as being male, 45-year-old, or older, having a Master's degree or higher education and work experience. Moreover, Solano (2015) posits TEs as slightly better personal skilled, higher educated, more business-related, and professionally experienced than other entrepreneurs. These facts show that higher education is strongly related to entrepreneurial success. Advanced education is also one condition for the cultural experience. Furthermore, TEs develop cultural experiences out of their upbringing, career experience, or travels. Having diverse cultural experiences enables TEs to view things from different perspectives. Looking at different perspectives results in higher tolerance



and open-mindedness to otherness (Schmoll, 2012).

Furthermore, TEs can adapt to new or existing cultural repertoires (Terjesen & Elam, 2009). This ability can lead to cultural similarity, which is caused by the self-integration of the TE and the host country's tolerance towards immigration (Baltar & Icart, 2013). This process has a positive impact on the perception of business opportunities in COO and COD and enhances creative business activities. In addition, cultural knowledge of the COO, seen as irrelevant in the COD, can achieve a competitive advantage in transnational activities (Chen & Tan, 2009). With these two intangible resources, TEs are able to navigate in multiple cultural settings like their COO and COD. Knowledge of different cultural contexts leads to better economic behavior (Lundberg & Rehnfors, 2018). This general defines the following assumption.

**RP-6:** TEs possess a higher level of education and cultural experience, which leads to a promotion of a different perspective and improved economic behavior a SCA.

Culture has a rather action-oriented role in transnational entrepreneurship due to the association with the core of transnationalism and the assumption that cultural boundaries are blurred and indirect (Drori, Honig, & Wright, 2009). Because of their frequent travel to various countries, TEs gain a global mindset, cultural sensibility, and cross-cultural skills (Lundberg & Rehnfors, 2018). This fact and the multiple geographical locations TEs occupy, provide, and support unique informational flows. Due to the different social contexts, TEs need to pay particular attention to the cultural and knowledge patterns. Therefore, their actions and responses to accomplish their purpose are led by the actor's predispositions, knowledge, and creativity (Drori, Honig, & Wright, 2009). Furthermore, the cultural capital for TEs encloses knowledge of overseas markets, international management knowledge, as well as bilingualism (Bagwell, 2015).

Their familiarity with various cultures helps TEs to increase trust and also lowers transaction costs connected with cross-border business activities. Additionally, their skill to align to or adopt existing cultural reservoirs qualifies them to intermediate

trade directly or indirectly. This aspect is crucial because it provides TEs to manage successfully in familiar as well as unfamiliar settings (Terjesen & Elam, 2009). This means that they can understand and get along with local business practices and customs and make out how they should interact with local parties, such as employees, suppliers, and customers, which leads to a reduced risk of misunderstandings and conflicts. Moreover, TE's embeddedness in multiple cultural societies with the inherent cultural tools gained improves their negotiation skills and their skill to handle opportunities for business creation, maintenance, and outcomes. In addition to that, it affects their decision to start a cross-border business (Drori, Honig, & Wright, 2009). It also makes it possible for them to bypass the psychological distance, which could help them to gain a SCA (Lundberg & Rehnfors, 2018). This analysis leads to research proposition 7:

**RP-7:** TEs global cultural experiences facilitate the cross border business activities and unique flow of information.

#### 4 Expected Contributions and Future Perspective

As we found out through our research, the topic of transnational entrepreneurship still shows some research gaps towards the uniqueness and the competitive advantage of TEs that have to be filled. TEs differ from other entrepreneurs in their multiple embeddedness and their access to resources of more than one country. Therefore, our framework initially shows their fundamental characteristics, which are essential for their behavior and their business-related linkages to the COO and COD. TE's typical qualities are, for example, that they are opportunity-driven, flexible, dynamic, and creative. These characteristics enhance TEs' possibilities towards adapting to changes in their environment and recognizing niches and unexploited processes.

Furthermore, our framework generates an overview pointing out the connection between networks as the leading providers of the resources needed, the TE skills based on adaption and embeddedness, and the advantage towards their cultural experience. Together, it leads to the unique resource-bundles of TEs that maximize their resource base and could not be reached by

entrepreneurs embedded in only one country. Our research propositions also highlight their unique position to enhance the economy in both countries because they establish a new business in the COD while maintaining linkages to their COO that constitute a new network, including home and host country. Thus, in general, our constructed propositions fill a constitutive research gap in merging the topic of TE with the approach of the RBV, which facilitates a new perspective on the SCA and the main difference towards other entrepreneurs.

In the context of globalization, the concept of transnational entrepreneurship is becoming increasingly important. A large number of studies have focused on the topic of TEs. However, it shows the lack of information on the relationship between TEs and their ability to get access to specific resources and on how they uniquely combine these resources. For this reason, we support further research for a theoretical framework that better explains the link between TEs and RBV. The framework generated could be used as an essential foundation. Our seven research propositions are each based on theoretical foundations and provide a basis for more intensive research towards this topic.

For example, through our research propositions, it is possible to investigate which specific factors give TEs a sustainable advantage over their competitors. Entrepreneurs can take an active approach and use their existing resources efficiently. Our proposals cover several different topics despite their common resource-based perspective. Thus, it is possible to find out, for example, which intrinsic characteristics transnational entrepreneurs possess by nature and how they can use them to achieve sustainable advantages. Research proposition 7 fits in with this. It targets the cultural resource of entrepreneurs and suggests that they have a more sustainable economic behavior through their different views on different cultures and thus achieve a SCA. This would be an interesting topic for further research because of the cultural perspective, which is unique for TEs in comparison to other entrepreneurs. No other entrepreneurs have this advantage, and it would be interesting to know how important the cultural experience and knowledge are for a SCA. Our propositions give the first hint to this, and further research is possible.

Moreover, future research could validate the research propositions, for example, by implementing empirical investigations and long-term studies. In addition, future research could identify the dynamics of highly diversified TE activities: What additional resources do TEs have if they become entrepreneurs in three or more countries, and how do they combine them? How do the social structures and contexts of TEs change if they operate only in developed economies, only in emerging economies, or both in developing and emerging economies?

## 5 Conclusions

To sum up, the essential resources of TEs refer to human, social, and cultural resources. The uniqueness does not persist in the resources themselves but rather arises from the combination as resource bundles created by TEs. The most critical SCA results from their embeddedness in at least two social and economic environments with different types of resources so that they can maximize their base in general. Therefore, the networks mentioned are crucial because they enable access to market information, capital, or even to support other entrepreneurs in both countries. This leads to a unique flow of information, which enhances the business-related linkages of TEs to their home country but also helps them to enter new markets and find unoccupied niches in their host country. Furthermore, they create knowledge spillovers with positive impacts on the economy in both COO and COD.

Overall, TEs develop better economic behavior by combining their knowledge and experience of more than one country, which enables them to reach more entrepreneurial gain than other entrepreneurs embedded in only one country.

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### **Authors' Biographical Statement**

*Isabell Gutsche* is a master student in Business administration with a specialization in Entrepreneurship, SME management, Marketing, and Brand Management at the University of Bremen. She completed her bachelor's degree in Economics with a specialization in Marketing and management, Learning and human resources management, Accounting, and Finance.

*Carolin Jürgens* is a master student in Business administration with a specialization in Entrepreneurship and International Management at the University of Bremen. She completed her bachelor's degree in Business administration with a specialization in Logistics.

*Antonia Kauert* is a master student in Business administration with a specialization in Entrepreneurship and Taxation at the University of Bremen. She completed her bachelor's degree in Business administration with a specialization in Taxation.

*Emma Poppe* is a master student in Business administration with a specialization in Entrepreneurship and Logistics. She completed her bachelor's degree in Business administration with a specialization in Logistics at the University of Bremen.

*Julian Raschen* is a master student in Business administration with a specialization in Entrepreneurship and Taxation at the University of Bremen. He completed his bachelor's degree in Business administration with a specialization in Taxation.

# *Student Entrepreneurship: An Application of the Theory of Planned Behavior*

Leon Marquardt, Frederik Metzner, Lena Meyer<sup>1</sup>, Alina Otto, Yannic Reiter, Karin Xing,

## **Abstract**

*Positive influence on entrepreneurial education deepens the individual psychological factors that lead to a higher probability of exerting entrepreneurial activity. This paper defines the student entrepreneur as an individual who actively enrolled in university, attends entrepreneurial classes, and conducts innovative revenue-generating entrepreneurial activities. The existing literature on student entrepreneurship addresses only the implications of personality traits, which lacks the contextual influences on student entrepreneurship. Therefore, this study deals with the influence of embeddedness in different contexts reflected on the transformation of entrepreneurial intention to actual exertion of entrepreneurial behavior of students. The concept of the theory of planned behavior is used to support the development of the research framework. It is one of the most applied theories for explaining and predicting the behaviors of individuals. This study addresses the research question of what factors enhance and limit the transformation of the entrepreneurial intention of students to entrepreneurial behavior? The study denoted that without contextualizing the entrepreneur's dedicated environment, the influencing factors for transforming intention to behavior cannot be depicted as a whole. Moreover, the combination of different contexts and their different peculiarities needs to be considered.*

**Keywords:** Student Entrepreneurship, Embeddedness, Theory of Planned Behavior

## **1 Introduction**

Existing academic studies on student entrepreneurship are generally motivated by the influence of education on student entrepreneurship. Most studies reveal that positive education influences the individual psychological factors, thus leading to a higher possibility of exerting entrepreneurial activity (Welsh, Tullar, & Nemati, 2016). Therefore, research highlights the importance of psychological factors regarding entrepreneurial activity as well. Nevertheless, the importance of contextualization for entrepreneurship was only recently illuminated (Welter, 2011). However, the extant research on student entrepreneurship has not paid sufficient attention to the context specific to students. Hence, the following paper deals with the influence of embeddedness in different contexts reflected on the transformation of entrepreneurial intention to the actual exertion of entrepreneurial behavior of students. Explaining human behavior, such as entrepreneurial activity, in all its complexity, is a difficult task. Concepts referring to behavioral complexion have played an important role in prediction and explaining behavior. Thus, this study applies the concept of the Theory of Planned Behavior (TPB) for an appropriate research

framework. As students are a driving force for entrepreneurial activity and innovation, based on various reasons, such as access to pioneers in the relevant academic field, the paper illuminates the influence of contexts on entrepreneurial activity for students. Based on the described factors above, the following research question was derived:

- What factors enhance and limit the transformation of the entrepreneurial intention of students to entrepreneurial behavior?
- The following chapter depicts recent developments of research on student entrepreneurship, followed by relevant definitions and an introduction to the TPB. Furthermore, the derived research concept will be presented, which will be completed by the development of different propositions. In the end, the research contributions will be summarized, and possible future research perspectives will be illustrated.

## **2 Theoretical and Conceptual Background**

### **2.1 Recent Development**

<sup>1</sup>Corresponding author: Lena Meyer, University of Bremen, [lemeyer@uni-bremen.de](mailto:lemeyer@uni-bremen.de)

Recent studies, such as the Global Entrepreneurship Research Association (2018) reports that key factors consist of individual psychological factors and embeddedness within different contexts. The model of the TPB is often used to explain the entrepreneurial intention of students. Only certain personal factors, such as motivation, attitude, self-efficacy, or values, are investigated. However, the additional implication of contextual variables has been neglected. Research dealing with driving forces of entrepreneurial activity of students mainly focuses on the implications of personality traits and entrepreneurial education (Nowiński & Haddoud, 2018). Therefore, the existing literature on student entrepreneurship lacks contextual influences and has dealt only with individual determinants (Bergmann, Hundt, & Sternberg, 2016).

## **2.2 Definition and Characteristics**

In literature, entrepreneurs are defined in several ways. The same applies for student entrepreneurship, but the definitions are considerably less specific. As a consequence, student entrepreneurs are often mixed with academic entrepreneurs. Admittedly, the research on academic entrepreneurs rather illustrates university members exerting entrepreneurial activities, rather than students (Politis, Winborg, & Dahlstrand, 2011). The following paper relegates to the definition of ‘Studentpreneur’: An individual actively enrolled in university, attends entrepreneurial classes, and conducts innovative revenue-generating entrepreneurial activities (Marchand & Hermens, 2015). Therefore, the focus on contextual embeddedness is linked to the definition above.

## **2.3 Research Gap**

The main focus of literature concerning student entrepreneurship lies within entrepreneurial education (EE) and its impact on entrepreneurial intention and behavior. Various conducted systematic literature reviews in this research field indicate that these topics have been investigated in several approaches (e.g., Liñán & Alain, 2015; George et al., 2014; Sirelkhatim & Gangi, 2015). Previous studies mostly refer universities as a facilitator for EE. This scope implies that students are merely recipients of EE, resulting in a high probability of entrepreneurial activity. While the

enhancement of such behavior is significant, the scope simplifies the impact of contextual embeddedness in student life. Therefore, it is essential to consider a student as an actor embedded in different contexts (Wright, Siegel, & Mustar, 2017). Recently published papers highlight the importance of contextualization on the entrepreneurial activity of students (Morris, Shirokova, & Tsukanova, 2017). Nevertheless, the current research status of student entrepreneurship calls for further studies exploring the different contexts influencing a student in entrepreneurial activity. Therefore, it is necessary to shift the scope from EE to the student itself and understand the student as an actor embedded in different contexts.

## **2.4 Theoretical Lens**

### **2.4.1 Theory of Planned Behavior**

The TPB is considered as one of the most applied theories for explaining and predicting behaviors of individuals (Zhang, 2018). Ajzen (1991) explains that the perception of human behavior is more affected by external and objective factors rather than individual factors (Zhang, 2018). Thus, the main assumption of the TPB explains that attitude, subjective norms, and perceived behavior control (PBC) influence intention and behavior (Ajzen, 1991). For reasons of simplification, the correlation between PBC and behavior has not been taken into account in this paper. However, it should be noted that this relation does exist.

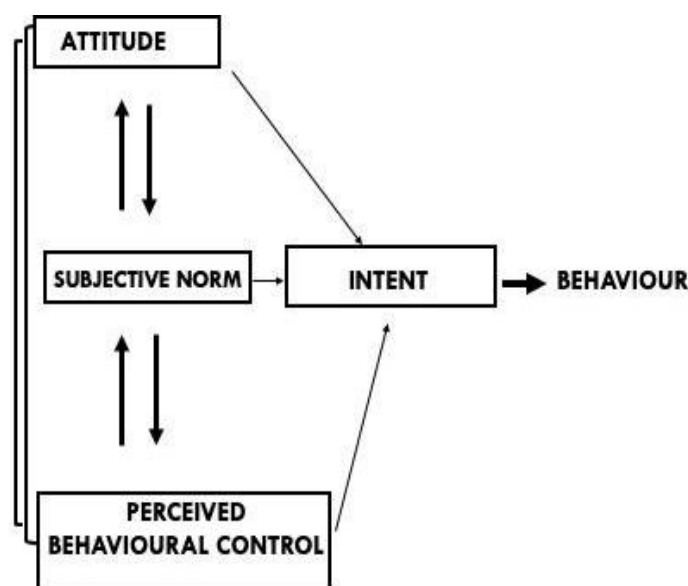
In the field of entrepreneurship, the TPB has been used to explain and predict behavior. Since entrepreneurship can be seen as “[...]an intentional process in which individuals cognitively plan to carry out the behaviors of opportunity recognition, venture creation, and venture development.” (Lortie & Castogiovanni, 2015, p. 936) and due to the applicability, the theoretical framework can be considered as suitable. The basic assumption of the TPB is that intention results in any kind of behavior. Intention can be seen as a collection of driving factors that influence behavior. Therefore, they can be used as indicators of how much effort an individual is planning to perform a certain behavior (Lortie & Castogiovanni, 2015). If the intention to perform a behavior is strong, the execution of that behavior is more likely. Thus, intention portrays a central factor of the TPB. According to this theory, the

behavior of humans is controlled by three different kinds of considerations: the belief about the possible consequences (behavioral belief), belief about the normative expectations of other people (normative belief) and about the existence of factors that may affect the performance of the behavior (control belief). Behavioral belief results in an attitude towards the behavior, which can be favorable or unfavorable. Furthermore, normative beliefs result in subjective norm, and control belief turn PBC (Ajzen, 2002).

Attitude, which one holds towards behavior, is described by Ajzen (1991) the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question. As a result, the intention will be affected by the dependence of how favorable the individual evaluates the behavior. The more distinctive the attitude, the more obvious the interdependence between attitude and behavior (Ajzen et al., 1980).

Perceived behavioral control refers to the perceived ease or difficulty of performance. It includes the attitude of an individual towards the PBC concerning past experience but also anticipated obstacles (Ajzen, 1991). If an individual has a high PBC, the development of performance or intention is more likely.

The combination of attitudes, subjective norms, and PBC has an impact on the intention of an individual. In general, the more favorable the attitude, subjective norm, and greater PBC, the more likely an individual's intention is stronger to perform a behavior (Ajzen, 1991). The three factors may influence each other, but have different influences on behavioral intention separately (Zhang, 2018).



**Figure 1:** Theory of Planned Behavior

**Source:** Own visualization based on Ajzen 2011

Subjective norms are defined as a reference to the perceived social pressure to execute a certain behavior. Therefore, subjective norms can be seen as indicators of how important an individual evaluates the opinion of others or the (dis-) approval of a certain group. Important reference groups typically include family members and close friends. The attitudes regarding the subjective norms represent the perceptions that a person has about the assessment of others concerning the behavior (Lortie & Castogiovanni, 2015).

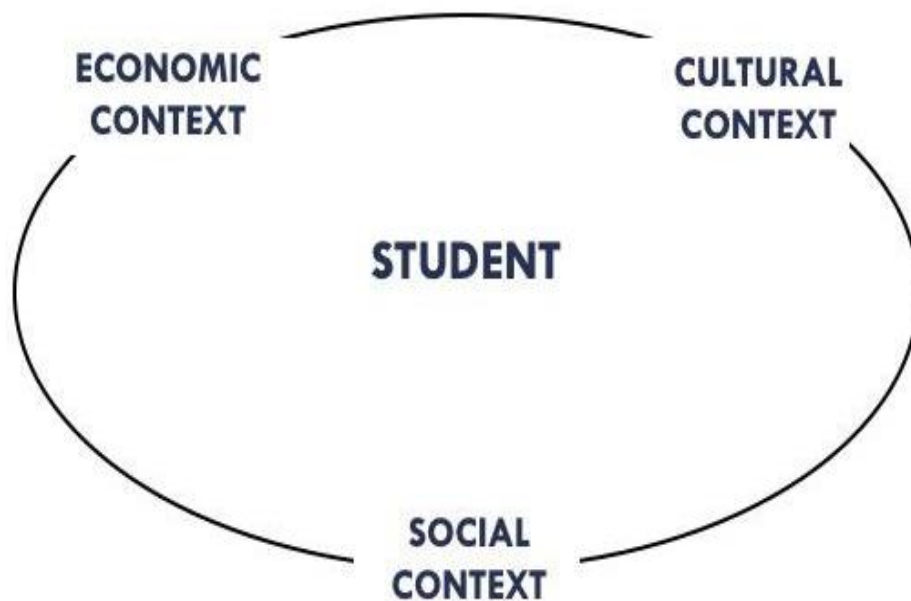
#### 2.4.2 Selected Theoretical Construct

As already scratched, there is growing recognition in entrepreneurship research that economic behavior can be better grasped within its conceptual contexts, as these contexts either provide individuals with opportunities or set limits to their actions. Therefore, the context can be a liability or an asset for the nature and extent of entrepreneurship (Welter, 2011). On top of that, researchers argue that contextual embeddedness has been neglected, as entrepreneurship research



mainly focuses on individual factors (Saeed et al., 2015). By addressing the phenomenon of student entrepreneurship from a contextual perspective, we respond to the critique of entrepreneurship research focusing on individual factors. Entrepreneurs are embedded in social, cultural, and political contexts, which ingest an essential role in their behavior and activity (Thornton et al., 2011). However, as we are focusing on student entrepreneurship, we do not consider the political context and concentrate on an economic context. In this paper, the economic context of student entrepreneurship is defined as the student's financial situation (e.g., student job, dependency on parents, dependency by financial loan). This does not mean that students are not

illuminate, is the cultural context. As university life is shaped by diverse cultures, in the form of different socio-economic and geographical groups, it is critical in forming intercultural competence. Scholars from minority groups have expanded and enriched education and teaching in many academic disciplines by offerings new perspectives, raising new questions, challenges, concerns, and encouraging innovative thinking. As innovative thinking and new perspectives are the core for entrepreneurial activity, the cultural context is fundamental for student entrepreneurship. Based on this argumentation, we deviated the following schematic:



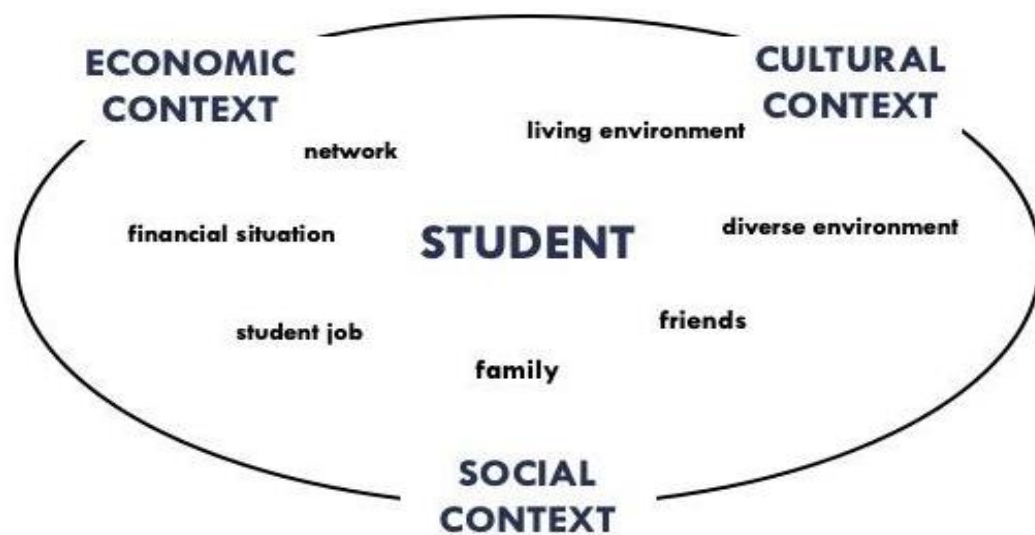
**Figure 2:** Contextual Embeddedness of Students  
**Source:** Own visualization

embedded within a political context. Nevertheless, we argue that the economic context is more prominent in the mind of the student as he or she faces a lot of financial challenges while studying. This includes living conditions such as renting an apartment, provisions or student loan, course material, and tuition fees. Furthermore, there is a strong connection between both cultural and social contexts to student's life. Social context, in this case, is defined as the interaction a student has with different people (e.g., family, friends, university colleagues, and work colleagues). Entrepreneurs' social networks are essential to opportunity recognition (Ardichvili et al., 2003). An extended network results in more opportunities for entrepreneurship, deriving in the assumption that social contexts influence the entrepreneurial activity of students. The third context, which we

Within these different contexts, we focused on embedded factors like family, friends, financial situations (see Figure 1) to set up our propositions. These factors are explained in detail within the development of our propositions.

As contextual embeddedness and individual factors, both have an impact on entrepreneurial action. The framework bases on the interdependence of contexts and individual factors for the transformation of entrepreneurial intention to behavior. Based on the recent research of entrepreneurship and the recognition of the importance of embeddedness in a different context for economic behavior. A transition of the contextual embeddedness of students on the theory of planned behavior within the student entrepreneurship has been deduced (see Figure 3).

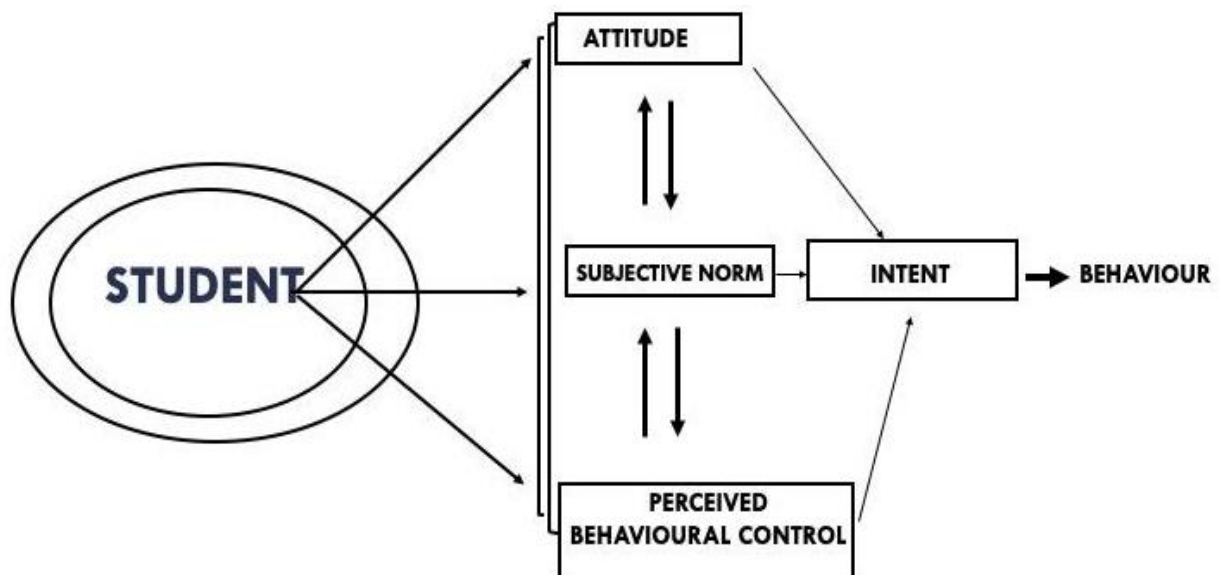




**Figure 3:** Embedded Factors of Contexts Influencing Student Behavior  
**Source:** Own visualization

Our conceptual framework shown above assumes that different contexts and their embedded factors (see Figure 4) have an impact on the three antecedents' factors attitude, subjective norm, and PBC model of the theory of planned behavior, therefore leading to an influence on entrepreneurial intention.

to be a predictor of behavior and, in consequence, a crucial factor for exerting certain behavior (Sheeran & Webb, 2016). Regarding our research question, "*What factors enhance and limit transformation of the entrepreneurial intention of students to entrepreneurial behavior?*" By considering the researched literature and our



**Figure 4** Transition of Context and Theory  
**Source:** Extended the model developed by Ajzen (2011)

Intention-Behavior relations are widely researched. The intention is defined as the individual's self-instruction to achieve desired outcomes and to perform particular actions to achieve these outcomes (Ajzen, 2011). Thus, intentions are assumed to capture both the level of commitment an individual has and the motivational factors influencing the individual. Furthermore, correlational studies indicate that intention is aimed

developed framework shown above, we concluded that different contexts could either enhance or limit the mentioned transformation from intention to behavior. Based on this, we developed the following research propositions, which focus on an embedded factor within one of the three mentioned contexts (social, cultural, and economic) and illuminate their influence on the transformation entrepreneurial intention to behavior.

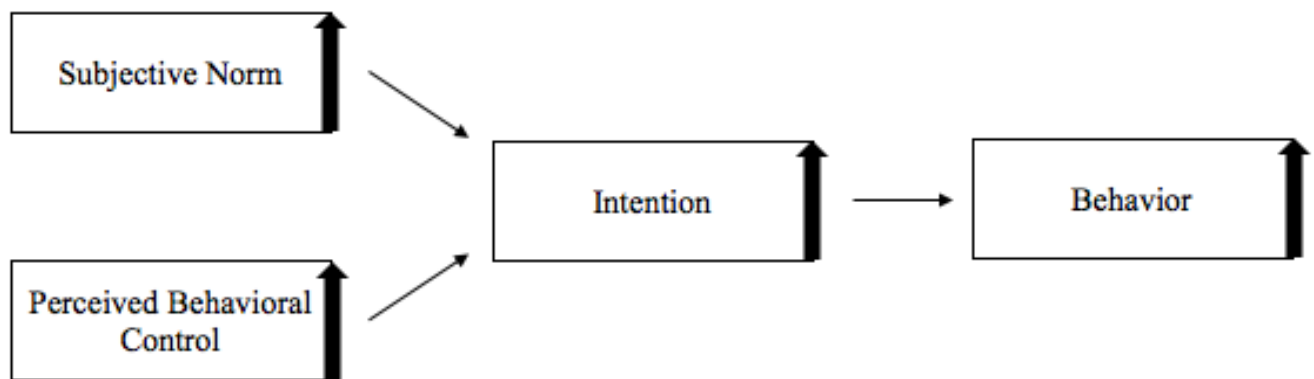
### 3 Development of Propositions

In the last decades, universities increased the level of cooperation between each other, for example, through international student exchange programs such as ERASMUS+. Due to the improvement of student's mobility, universities embody a high level of cultural diversity and, as a consequence, can be interpreted as a place of cultural encounter. Therefore, universities incorporate a cultural ecosystem that has a significant influence on the entrepreneurial intention of students (Contiua, Gaborb, & Stefanescuc, 2012). In the case of student entrepreneurship, students differ in their origin, level of performance, and experiences in entrepreneurial behavior (Morris et al., 2017). Based on cultural attitudes towards entrepreneurship and the possible experience of international students, local students can benefit from the before mentioned factors through social

entrepreneurial intentions (Bogatyreva et al., 2019; Contiua et al., 2012). This suggests that a universities' cultural ecosystem can be seen as an influential factor in student's entrepreneurial intention and activity. Positive experiences regarding cultural exchanges can increase the likelihood of entrepreneurial behavior through the mutual enhancement of student's attitudes and PBC. If the cultural diversity within the university is associated with a negative experience, then the PBC will decline as a result of a perceived lack of self-confidence about the cultural encounter. Based on this, the following proposition was made:

**RP-1:** University context is associated with a diverse environment and thus leads to more openness of students regarding cultural differences.

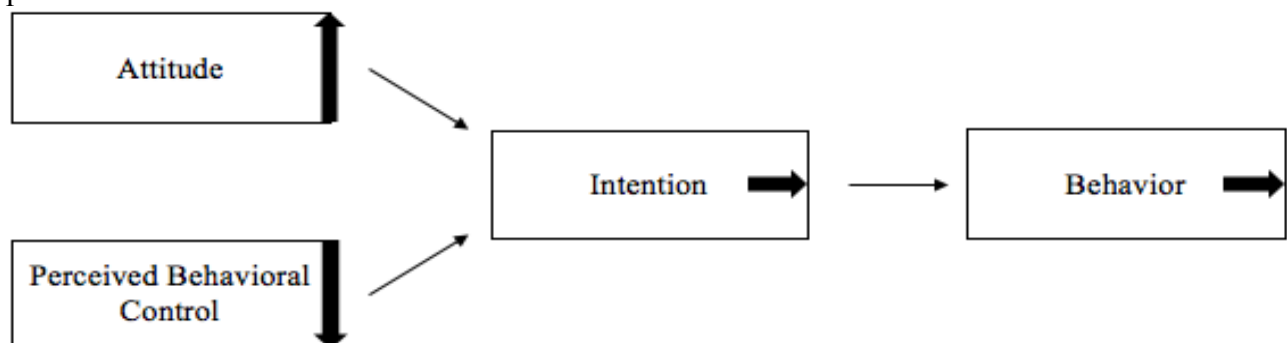
**RP-1a:** This mutually enhances attitude and PBC.



**Figure 5:** Context's Impact on Elements of Theory of Planned Behavior (RP-1a)  
Source: Own visualization

interactions (Ferreira, Loiola, & Gondim, 2017). In addition to the environment of the university itself, the location or region in which the university is located plays a vital role concerning the entrepreneurial intention of the students

**RP-1b:** This enhances the attitude towards entrepreneurial intention but is cushioned by a decrease of PBC.

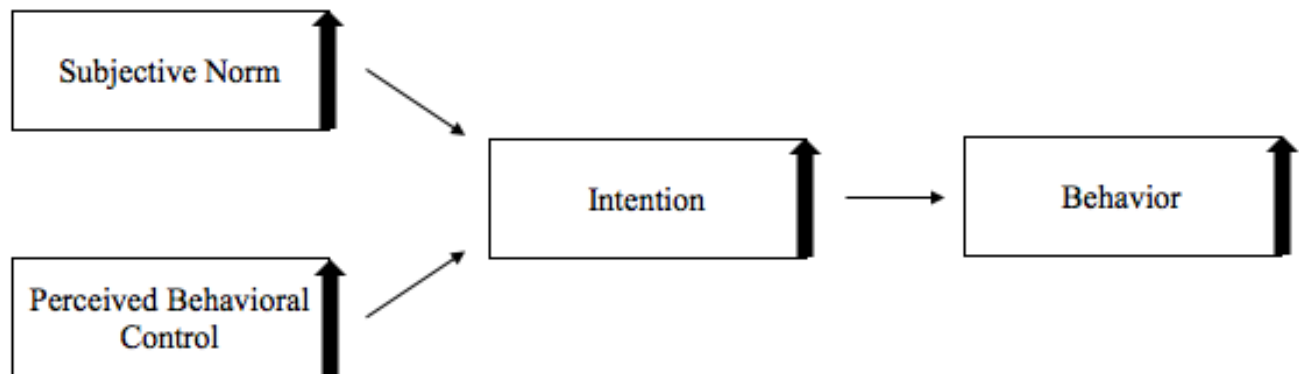


**Figure 6:** Context's Impact on Elements of Theory of Planned Behavior (RP-1b)  
Source: Own visualization

(Bergmann et al., 2016). Moreover, cultural diversity will affect the cultural scope and competencies that might support student's

Many previous works of literature, both in economics and in psychology, have shown that personal traits are significant predictors of a variety

of socio-economic outcomes. In regards to the development of personality traits research furthermore indicates that it is strong linked to the family environment (Nakao et al., 2000). Therefore, we argue family, an embedded factor within the social context of the student, as an



**Figure 7:** Context's Impact on Elements of Theory of Planned Behavior (RP-2a)  
Source: Own visualization

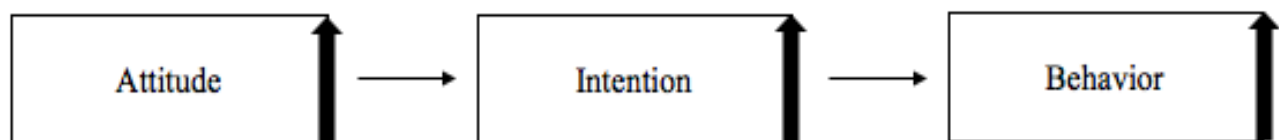
influencing entity for the transformation of entrepreneurial intention to behavior. Especially, family-related early life experiences play an essential role in forming an individual's beliefs, attitudes, and intentions (Bronfenbrenner, 1986). Furthermore, research illustrates that being part of an entrepreneur family increases the chance for the entrepreneurial activity of students. In conclusion, students whose parents own a business show a significantly higher preference for self-employment (Fini et al., 2009). Hence, it can be derived that a supportive family is a crucial factor for student entrepreneurship. A positive attitude

**RP-2:** Family has an impact on transforming entrepreneurial intention to behavior.

**RP-2a:** A supportive family mutually enhances subjective norm and PBC of the individual.

**RP-2b:** A non-supportive family enhances attitude towards entrepreneurial intention and entrepreneurial behavior.

Entrepreneurial activity is embedded in a social context (Krueger & Brazeal, 1994). As a result, it is assumed that employment experience plays an essential role in the early stages of the startup process (Wong & Lee, 2006). The intent to pursue an entrepreneurial career of an individual can result from the work environment (Lee et al., 2011). Previous experiences of students enable them to acquire essential skills and knowledge that can be



**Figure 8:** Context's impact on elements of Theory of Planned Behavior (RP-2b)  
Source: Own visualization

and support of the family can ease the perceived difficulty of performing a behavior and starting a business connection. Therefore, it also has a positive influence on attitude. A non-supportive family can enhance the perceived social pressure on the student. Thus, the student feels reluctant to go into self-employment. Nevertheless, a non-supportive family can also evoke a contrary reaction. For example, the student feels challenged by the negativity of the family, and consequently have a strengthening impact on attitude. Based on this fundament, the following proposition was inferred:

applied to the startup. Therefore, student entrepreneurship should be considered in a job-related context in which students are embedded because of the embeddedness of students in the job-related context, and job identification can be seen as a critical factor within the consideration (Luhtanen & Crocker, 1992). This perception is also supported by studies, which have established that job satisfaction predicts entrepreneurial activities (Brockhaus, 1980). If students possess a high identification with their job and hence a positive interpretation of job-related conditions, it increases the job-related PBC and, as a

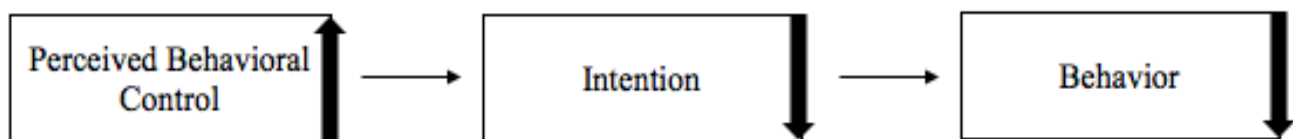
consequence, decreases the likelihood of entrepreneurial behavior (Chen, Chi, & Friedman, 2013). It constituted in the satisfaction which is correlated to the job, the perceived importance, and the length of employment. Employees who enact strong job identification are more likely to tie their future to the organization (Hatak, Harms, & Fink, 2015). Organizational identification fulfills the individual need and, therefore, their attitude, such as needs for safety, self-enhancement, and lead in summary to higher job satisfaction (Chen, Chi, & Friedman, 2013). The perceived ability to execute the relevant task of entrepreneurship is the origin of the motivation to the entrepreneurial act.

Therefore, self-efficacy can be defined as a key variable, which affects the strength of entrepreneurial intention and the likelihood that intention transforms into actions mutually (Boyd & Vozikis, 1994). Consistent is a strong manifestation of self-efficacy that is proved to have

to the impact of job identification and satisfaction on entrepreneurial activity, a negative experience with employment results in a decrease of PBC, and coeval increases the plausibility of entrepreneurial behavior. A positive correlation between low job satisfaction and entrepreneurial intention results in entrepreneurial behavior. It substantiated in the fact that frustrated employees are more likely to consider entrepreneurship as a future option (Brockhaus, 1980).

**RP-3:** Employment experience shifts perspective on entrepreneurial opportunities. The influence on entrepreneurial intention depends on the kind of experience.

**RP-3a:** A positive employment experience increases PBC in non-entrepreneurial employment and therefore decreases the likelihood of entrepreneurial behavior.

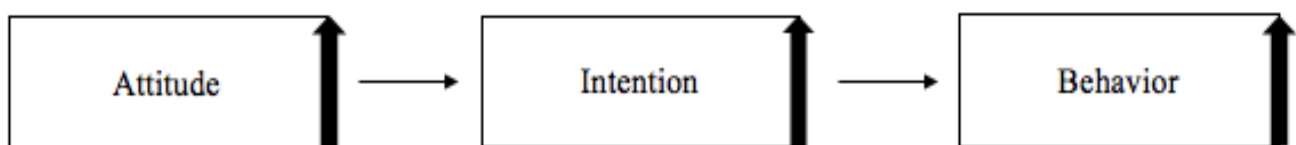


**Figure 9:** Context's Impact on Elements of Theory of Planned Behavior (RP-3a)  
Source: Own visualization

a high correlation with strategic risk-taking (Krueger & Dickson, 1994) and is positively related to the intent to perform entrepreneurial behavior (Krueger, Reilly, & Carsrud, 2000). Employees who are satisfied with their current job situation are less likely to be an entrepreneur as an alternative (Hatak, Harms, & Fink 2015). The proponent of entrepreneurship can be mentioned as a negative situational factor, such as dissatisfaction

**RP-3b:** An adverse employment experience pushes attitude towards entrepreneurial intention.

The decision to start a business depends strongly on the environment in which the student is living. The "Embeddedness Theory" is a useful framework for explaining this influence. The theory highlights the



**Figure 10:** Context's Impact on Elements of Theory of Planned Behavior (RP-3b)  
Source: Own visualization

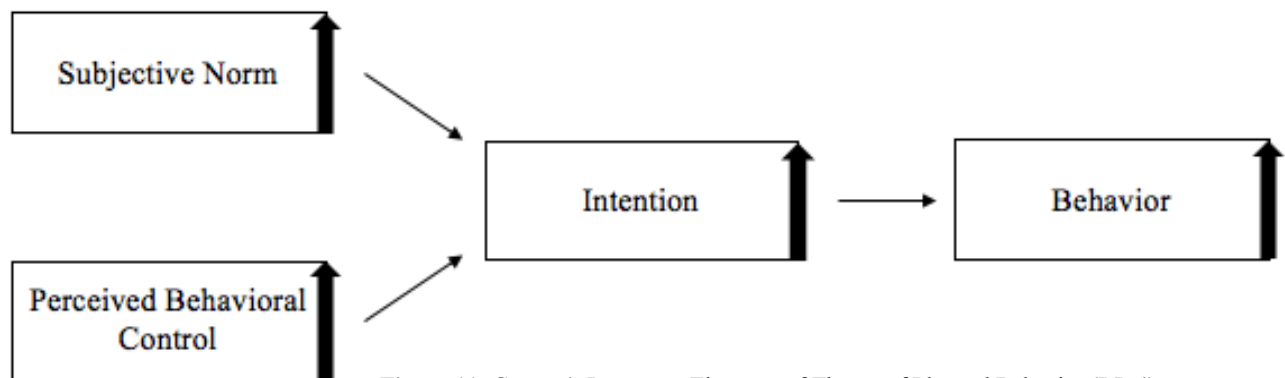
within the job. Dissatisfaction portrays a significant source of motivation regarding entrepreneurship (Wong & Lee, 2006). Previous Dutch studies expose that frustration concerning previous wage employment is the most common driving factor for entrepreneurship (Noorderhaven et al., 2004). Due

role and influence of networks of social relationships and the trust gained through these relationships in individual decision-making and goal-oriented action. Individual decisions and actions are partly influenced by the behavior and expected behavior of others in the relevant

environment (Granovetter, 1992). Behavior is, therefore, a consequence of the influence of the social context on a student. In the case of student entrepreneurship, it seems more suitable to regard entrepreneurial behavior as embedded in a university context. Besides the university context, other external factors of the direct environment of a student can steer and influence behavior. Low entrepreneurial activity in an area is associated with a lack of financial resources, business skills, knowledge, the necessary infrastructure, support, and networking with professional networks (Morris et al., 2017). This example shows that the

entrepreneurial intention of the student will be significantly higher. In summary, the region, the entrepreneurial ecosystems, and the university environment influence the intention of entrepreneurial activism (Wright et al., 2017). Based on this exposure to a well-developed entrepreneurial ecosystem, we conclude the following proposition:

**RP-4:** A well-developed ecosystem within the direct environment of the student is related to a higher level of entrepreneurial intention through an extended PBC and subjective norm.



**Figure 11:** Context's Impact on Elements of Theory of Planned Behavior (RP-4)  
Source: Own visualization

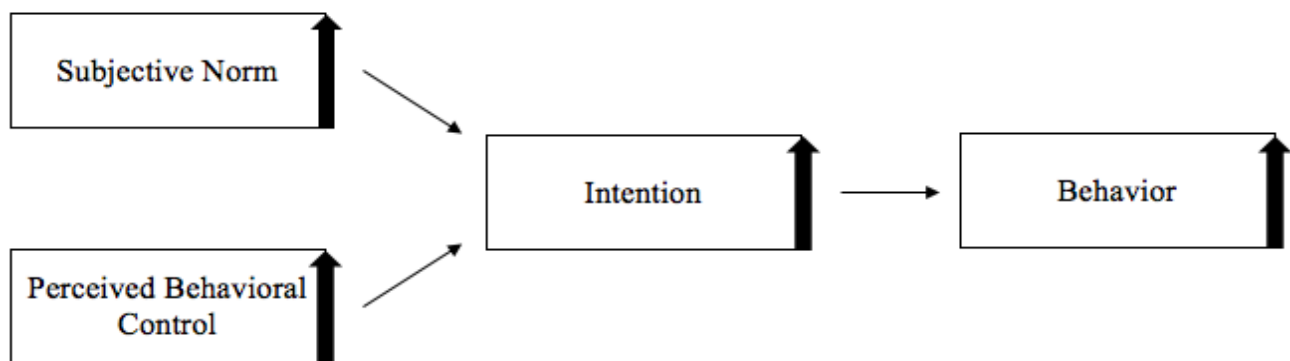
environment contributes significantly to the decision to perform entrepreneurial behavior. If a student is embedded in an entrepreneurship-friendly environment, the student will demonstrate an extended PBC and an increased intention to perform the entrepreneurial behavior. Fellow students have a decisive impact on the environment of a student. For example, fellow students with entrepreneurial experience might be more influential than pure teaching in the classroom. Such a network in the direct environment of a student can strengthen PBC. Furthermore, an established traditional startup community plays a vital role in the entrepreneurial ecosystem. Among others, it consists of investors, incubators, accelerators, and events. It is crucial that the student feels at least partially embedded in a well-developed ecosystem so that the supportive community can influence the student. A well-developed ecosystem can improve the PBC and the subjective norm to strengthen entrepreneurial intention and behavior. The region, in this case, politics, institutions, and regional industry, in which the student is embedded, plays an essential role in the decision-making. If it turns out to be supportive of entrepreneurship, then the

The fifth proposition focuses on the interdependence between the exposure to the field of entrepreneurship through social interactions between a student and fellow students with high entrepreneurial conviction and their impact on the entrepreneurial intention of students. The literature mostly values universities as incubators. Studies with this kind of perception investigate the effect of infrastructure, such as the availability of offices or laboratories for entrepreneurial purposes (Di Gregorio & Shane, 2003; Etzkowitz & Klofsten, 2005; Gnyawali & Fogel, 1994). Other research activities focus on financial support mechanisms that universities provide and state that such programs enhance the likelihood of entrepreneurial student activities but simultaneously limiting the scope (Shirokova, Tsukanova, & Morris, 2018). Also, researchers within the field of entrepreneurship investigated the influence of exposure to entrepreneurship in universities through campus magazines or the websites of responsible faculties within the university context of students. It highlights an increase in entrepreneurial motivation through a higher level of awareness (Aguirre, Parellada, & Campos, 2006; Burg et al., 2008; Etzkowitz &



Klofsten, 2005; Laukkanen, 2003; Moray & Clarysse, 2005). However, university as a place of exposure to entrepreneurship influences student's entrepreneurial intention through the social interactions between a student and fellow students even though a student may not participate in curricular or ex-curricular entrepreneurial programs (Wright et al., 2017). Souitaris, Zerbini, and Al-Laham (2007) confirm the impact of fellow student's perception of entrepreneurship on entrepreneurial intention of other students. Their study proves this influence on a student's subjective norm. Furthermore, Boyd, Fietze, and Philipsen (2015) state that within entrepreneurial activities conducted as a group, there is a high probability that founding members are fellow students. Therefore, it can be assumed that one reason for this lies within the impact of fellow students on one student's PBC. However, most studies only consider the influence of social interactions with family members and friends. Hence, the following proposition was developed:

**RP-5:** On-campus students are more confronted with topics of entrepreneurship. Therefore, fellow students with high entrepreneurial conviction can influence entrepreneurial intention. This influence mutually enhances subjective norm and PBC.



**Figure 12:** Context's Impact on Elements of Theory of Planned Behavior (RP-5)  
**Source:** Own visualization

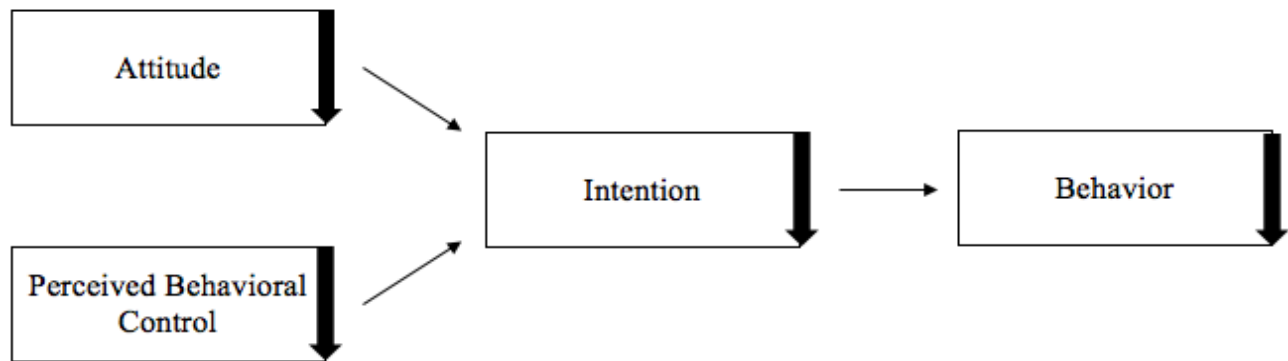
As already briefly discussed in chapter, 2.4.2 friends play an important role within the social context (Loi, Chan, & Lam, 2014). A distinction has to be made between different types of friends. While university friends are simultaneously part of the social and educational context of a student, this assumption is inapplicable with close non-university friends (Loi, Chan, & Lam, 2014). Perceived social pressure from friends is an example of the subjective norm, which influences

the entrepreneurial intention (Ho, Ocasio-Velázquez, & Booth, 2017). The fact that close non-university friends have limited access to entrepreneurial courses within the university, they may be opposed to the student's founding considerations. Several studies show that the influence of friends can be greater than the influence of the university. If close non-university friends do not support the student's entrepreneurial intention, the student might not have the courage to start a business. In addition, loans of friends represent the main part of financial resources for student entrepreneurs (Bathelt, Kogler, & Munro, 2010; Soetanto & van Geenhuizen, 2015). This applies not only to financial support but also to emotional support, advice, or information (Diáñez-González & Camelo-Ordaz, 2017). For example, if close non-university friends do not share the same level of entrepreneurial conviction, such resources are not accessible. This might result in a decrease in PBC. Further studies show that the opinions of friends play a significant role in making crucial decisions, and, in some cases, influence them the most (Gannon et al., 2014; Nyaribo, Prakash, & Edward, 2012). If a student receives no support in any way from close non-university friends and/or they do not approve of the student's startup activities and/or have made bad experiences with startups themselves. Consequently, the student can be disparaged from attitude and internal control.

**RP-6:** Close non-university friends can cushion the encouraging impacts of the university towards entrepreneurial intention regarding PBC and attitude, based on the need for reputation.

#### 4 Research Contribution and Future Research

In reference to the introduction, it was already scratched that contextual the embeddedness of students has been neglected. While the significance



**Figure 13:** Context's Impact on Elements of Theory of Planned Behavior (RP-6)  
**Source:** Own visualization

of context has been emphasized in research (Welter, 2011), it is still not clear how context is influencing the transformation of entrepreneurial intention to entrepreneurial behavior. Regarding our research propositions, it can be derived that contextual embeddedness is a relevant factor for transforming entrepreneurial intention into entrepreneurial behavior. Aside from that, the high complexity of context composition and their interdependence with each other is a relevant result for future research. Hence, we suggest, entrepreneurial education is not the key to lifting barriers between intention and behavior. It can be an impacting entity but cannot be seen as a single component for transforming entrepreneurial intention to entrepreneurial behavior as it would simplify the student. Therefore, we suggest that future research should consider the following aspects:

- (1) The embeddedness of students in different contexts: While this paper already depicted contexts of students, there are still more contexts that influence the entrepreneurial activity of students.
- (2) The combination of different contexts and their influence: As already mentioned, the high complexity of context composition needs to be researched.
- (3) The interdependence of individual factors and contexts: Both individual psychological factors and contextual embeddedness have an impact on transforming entrepreneurial intention to behavior.

- (4) The development of a contextual framework: To be able to compare entrepreneurial activity, it is advisable to develop a contextual framework that allows more comparability between each entrepreneur.

#### 5 Conclusion

As context plays a significant role in behavior, the sufficiency of conducting interviews without regarding context needs to be evaluated. Notably, the interplay of different contexts and individual psychological factors face the consequence of high complexity for transforming intention to behavior. As each individual faces different challenges in entrepreneurial activity, it is explicit that both contextual embeddedness and individual psychological factors differ for each individual. Furthermore, the combination of different contexts and their distinct peculiarity need to be considered. Without contextualization, the entrepreneur within his or her dedicated environment, the influencing factors for transforming intention to behavior cannot be depicted as a whole. On top of that, conducting interviews should not solely focus on individual psychological factors but rather emphasize more on the contextual embeddedness. It is also critical to research the interdependence between both individual and contextual factors. Nevertheless, more contexts than the illustrated ones and more embedded factors within these contexts can influence the transformation of entrepreneurial intention to entrepreneurial behavior. Hence, a comparative study of students with intentions and/or behavior with a focus on contextual embeddedness and individual psychological factors is recommended.

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### **Authors' Biographical Statement**

*Leon Marquardt* is a master student in business administration with a specialization in entrepreneurship and logistics at the University of Bremen. Previous to this master's program, he completed his bachelor's degree in business administration with a specialization in logistics at the University of Bremen.

*Frederik Metzner* is a master student in Business studies with a specialization in Entrepreneurship, SME management, Marketing, and Brand Management at the University of Bremen. He completed a bachelor's degree in Business Studies with a specialization in Logistics.

*Lena Meyer* is a master student in Business administration with a specialization in Entrepreneurship, SME management, and logistics at the University of Bremen. She completed a bachelor's degree in Business administration with a specialization in Logistics.

*Alina Otto* is a master student of the business economy at the University of Bremen. Her studies focus on entrepreneurship, digital marketing, innovation management, and brand management.

*Yannic Reiter* is a master student in Business administration with a specialization in Entrepreneurship, SME management, Marketing, and Brand Management at the University of Bremen. He completed a bachelor's degree in Economic science with a specialization in Business administration at the University of Rostock.

*Karin Xing* is a master student in Business administration with a specialization in corporate taxation, auditing, and entrepreneurship at the University of Bremen. She completed a bachelor's degree in Business administration with a specialization in corporate taxation.

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