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CAN BUSINESS MODEL COMPONENTS EXPLAIN DIGITAL START-UP SUCCESS?

A Qualitative Analysis of the Business Models of Start-ups from the Perspective of German Venture Investors

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Abstract

This study explores the success relevance of business model components of digital start-ups from the perspective of German venture capital (VC) investors. In doing so, the study explains the importance of the business model in general and the importance of a convincing value proposition and a plausible revenue model in particular for the investment decision process of VC investors. The study takes an exploratory three-dimensional research approach that integrates the meso-perspective on the business model, the micro-perspective on the entrepreneurial personality, and the macro-perspective on the entrepreneurial context, thus operating in a very young research field. In contrast to most studies on this topic, this paper shows that the business model is not the key resource for the success of a start-up, while an early concept of a business idea might be. Communication and interaction with VC investors at this early stage can be valuable tools for the continuous development of the initial business idea.

Keywords: Start-up Success, Entrepreneurship, Business model, Venture capital investors, Value Proposition, Revenue Model, Digital Start-up

1. INTRODUCTION

Over the past decade, the economic importance of start-ups has increased. Start-ups and innovative ventures have increasingly become the focus of politics,

the media and the public (Hahn, 2014, pp. 7-10). Moreover, smart, sustainable growth through innovation increasingly requires successful entrepreneurship (Organization for Economic Co-operation and Development [OECD], 2010, pp. 4-6). As a result, governments and other stakeholders have sought to create conditions favorable to entrepreneurs and their new businesses, which have also increasingly received attention in academic research (Mason & Brown, 2014; Zahra et al., 2014, pp. 480-481).

With the advent of the digital economy, companies and entrepreneurs have come to identify new opportunities driven by technological innovations in information technology, telecommunications, media, and entertainment (Arlott et al., 2019, pp. 1-5). Platform business models offer companies in today's digital economy the opportunity to create value on a virtual level (Aloulou, 2019, pp. 190-195). In addition, many of the traditional barriers to founding a business have disappeared: Companies providing digital services can be founded with lower financial expenditure and advance payments than before. At the same time, the importance of the business model, i.e. of the value creation model, seems to have increased. In this respect, digital entrepreneurship (e-entrepreneurship) and classic entrepreneurship are different (Arlott et al., 2019, pp. 4-8; Wirtz, 2019, pp. 35-49). Consequently, the renewed interest in entrepreneurship has thus also affected the attention paid to e-entrepreneurship over the past decade (Baierl et al., 2019, p. vi).

Although newer forms of entrepreneurship differ considerably from older ones, entrepreneurship research remains tied mainly to classical approaches that emphasize the importance of personal characteristics. However, the entrepreneurial context has also received attention recently, particularly in research areas with a political-consultancy interest (Alvedalen & Boschma, 2017; Malecki, 2018). In contrast, few studies have examined aspects such as business models at the corporate level. Witt (2012), for example, argues that entrepreneurship research largely neglects the business dimension of start-ups.

Zahra et al. (2014) further distinguish two different directions in entrepreneurship research, each using different definitions of and perspectives on actors and contexts: First, research on individual behavior and personality characteristics of the entrepreneur; in terms of more *general entrepreneurship research*, the personality, human capital, and actions of entrepreneurs or entrepreneurial actors. Thus, this kind of research focuses primarily on the actor, and when it does consider the context, it does so only to a very limited extent. The Anglo-American tradition refers to this perspective as *independent entrepreneurship research*; in contrast, corporate entrepreneurship research is not part of entrepreneurship research but rather innovation research dealing with larger companies and firms (Eckardt, 2015, p. 12). Second, *contextual research*, which examines the behavior and spatial interaction of entrepreneurs and firms in the context of spatial business networks, is commonly referred to as *regional cluster research*. Accordingly, the focus is on contextual factors of entrepreneurial activity, such as regional clusters (groupings) or other economic geographical factors. The *concept of the entrepreneurial ecosystem*, which describes the self-

reinforcing interaction of spatial concentration of founders, is also used in this field. A third perspective on start-up success draws on *business model research* (Ladd, 2018, p. 59). Starting with a business idea that aims to fill a market gap, business modeling is concerned with the composition and configuration of resources and activities inside and outside the company to achieve that goal. In this sense, the business model provides how the start-up intends to create and capture value. In doing so, research assumes that the business model significantly influences the new ventures' performance (Gruber, 2007; Ladd, 2018; Zott & Amit, 2007). In the German-speaking world, however, entrepreneurship research remains focused on research of the founder's personal characteristics (Blum & Leibbrand, 2001, pp. 15-16).

Shepherd et al. (2019), while confirming the dominance of actor-centered research in their systematic literature review, suggest that an expanded approach should be developed. This approach sets itself apart from traditional monism and dualism by integrating all three perspectives on entrepreneurial success: business model-specific characteristics, the entrepreneurial ecosystem, and entrepreneurial personality. This study follows this call by examining the relevance of success characteristics at all three levels for digital start-ups from the perspective of German venture capitalists (VCs). This article also draws on the original empirical research. It addresses two research questions (RQs): First, to what extent do single business model characteristics (meso-level research) influence the economic success of a digital start-up from the perspective of German venture investors? Second, to what extent do groups of success characteristics (micro-, macro-, and meso-levels) differ in terms of their contribution to the economic success of digital start-ups from the perspective of German venture investors? To answer these two questions, this article first reviews the current debate on research on high-growth companies and its implications for success factor research and the further development of classical approaches to business model analysis. In the next step, the researcher examines original data from semi-structured interviews with 77 VC investors on the three dimensions of entrepreneurship research.

This empirical study shows that from the perspective of German VC investors, business model components of e-entrepreneurship, such as a *plausible value proposition* and a *plausible revenue model*, are the most relevant predictors of success. Furthermore, VC investors view the overall group of business model components as less important than the group of personality characteristics but as more important than the entrepreneurial context. The business model is not the key resource for a start-up's success, whereas an early concept of a business idea can be. Therefore, communication and interaction with VC investors at this early stage can be seen as valuable tools to improve upon the initial business idea.

2. THEORETICAL PERSPECTIVES

Empirical research on high-growth companies has provided conclusive evidence on companies' growth patterns and sources in early company lifecycles (e.g., Acs et al., 2008; Autio et al., 2000; Barbaro et al., 2014). However, insights

into success factors are only a by-product of this research approach. It is ostensibly crucial to identify companies and industries with above-average growth potential as early as possible to promote these companies with targeted economic policies (Henrekson & Johansson, 2010). According to the OECD definition (Cassia et al., 2009; Hoffmann & Junge, 2006; Schreyer & OECD, 2000),

High-growth enterprises, as measured by employment (or by turnover), are enterprises with average annualised growth in employees (or in turnover) greater than 20% a year, over a three-year period, and with ten or more employees at the beginning of the observation period (OECD, 2011, p. 74).

Key findings of research on high-growth companies in terms of success factors and the variables selected for this study include the following: First, companies only grow at a rate of over 20% in a short phase of the business lifecycle (Acs et al., 2008; Hözl, 2009). Second, fast-growing companies are more likely to have a higher debt ratio (López-García & Puente, 2009). Third, smaller companies grow faster because of higher efficiency in more agile and informal structures (López-García & Puente, 2009). Fourth, fast-growing companies usually do not include start-ups but rather larger small businesses (Acs et al., 2008; Coad & Rao, 2010). Fifth, internationalization leads to higher growth (Henrekson & Johansson, 2010). Sixth, higher innovation intensity can explain the rapid growth of small businesses, while larger companies tend to take fewer risks and therefore focus instead on incremental innovation (Carznitzki & Delanote, 2013).

Scholars have criticized research on high-growth companies for its reliance on and use of qualitative factors. For example, Fadahunsi (2012, pp. 105-110) identifies a very high number of variables in about 25 areas of the field. Dobbs and Hamilton (2007, pp. 296-300) recommended that research designs be based on quantitative variables instead, quantifiable factors rather than soft factors and non-structured or non-numeric data such as strategy skills, customer knowledge, or leadership style. However, there is the problem that research can be based only on publicly available data, for example, annual reports. However, in countries such as Germany, this only applies to larger and stock-listed companies required to publish their annual report by international standards (IFRS). This publicity obligation is generally irrelevant for start-ups. Furthermore, it does not exist in principle for sole traders and partnerships, making it impossible to conduct studies on many different types of companies. Furthermore, publicly released financial data is only of limited value because this kind of data only allows researchers to make inferences regarding a company's performance to a small extent.

However, business models are not uniformly or unambiguously defined in management practice or the academic literature, not at least because the concept of the business model as an analytical instrument is still a relatively recent phenomenon. Moreover, the development of this concept is closely related to the digitization of the economy and the accompanying questionability of existing business models due to disruptive technologies, such as those that can be observed in the media or retail industries (Burkhart et al., 2012, pp. 1-19; Stähler, 2002, p. 37).

The revenue model approach, the process model approach, and the core competence concepts are among the classic approaches to business model analysis (Paul & Wollny, 2011, p. 66). While the revenue model approach deals with the company's revenue structure (Bodendorf & Robra-Bissantz, 2003, p. 165), the process model approach analyzes the company's core processes (Adam, 2009, p. 20). The core competence approach creates a basis for management decisions regarding restructuring strategic processes (Xaver & Hass, 2009, p. 32). All three approaches consider different elements of a business model.

Hoppe and Breitner (2003, p. 199) identify three essential components of a business model: a business activity model, a financing model, and a market model. These three components can be seen as overlapping: A market model requires a financing model that explains how the company will finance a business model or product until it is available. At the beginning of the product life cycle or the company life cycle (in the case of a start-up), there are costs but no sales or revenues, and therefore no profits. The activity model models the internal value creation: the production of services by existing resources and competencies. Finally, the market model analyzes the situation in terms of competition and demand. However, neither the financing, activity, or market models can fully explain how revenue sources can be developed (Kraus, 2005, p. 121).

Furthermore, the three classic approaches to business model analysis (revenue model approach, process model approach, core competency approach) represent an internal view of business models and consider the value chain as an in-house process. The internal organization of production factors, processes, services, and core competencies creates value. Suppliers, customers, or service providers, exist outside firm boundaries, but they are only supporting elements and not essential components of the value creation process. For these reasons, the approaches and models discussed are of little use for practitioners, as they do not allow for integrated and holistic analyses of business models (Markowska, 2011, p. 163; Tapscott et al., 2000, p. 198; Wirtz, 2001, p. 215).

Osterwalder and Pigneur (2010) developed an integrated business model approach to solve these problems of classic business model concepts. The purpose is to develop a practical tool for business model analysis, restructuring existing business models, or systematically modeling new business models following a design approach (Lehmann, 2012, p. 48). In addition, they do not consider a company as an aggregate of business functions, such as procurement and production, but as a network of stakeholders and specific key processes and resources that take effect along the value chain, thus closing the vacancy discussed above (Osterwalder & Pigneur, 2010, pp. 16-27).

More recently, there has been an increase in theoretical and empirical studies on business model innovation. Osterwalder and Pigneur's model (2010) is often included as an approach, although there is not yet a universally accepted system for describing business models (Schallmo, 2013, p. VII). Despite its widespread use in entrepreneurial education, only a few empirical studies have

used this approach to examine start-up success factors at the business level (Ladd, 2018, p. 57). However, this classification is helpful for this study because it provides a basis for querying expert knowledge to identify relevant qualitative success factors at the company level. Furthermore, business model design and innovation have been very much concerned with serial business model design or serial entrepreneurship (Dabić et al., 2021; Schallmo, 2013, p. 2). The digital economy reflects this development. On the one hand, founding several start-ups in close chronological succession is typical, or the changing conditions of start-up founding are becoming apparent.

3. RESEARCH DESIGN

A systematic literature review by Köhn (2017), which also considers 58 articles on start-up valuation determinants, finds that business model characteristics, founder and team characteristics, and financial information are the core information collected and evaluated in the assessment process. This finding suggests that VC investment managers are highly informed experts and that VC investment practices also seem to be based on multi-dimensional models of entrepreneurial success.

This article draws on original research using a multi-perspective approach to examine the three dimensions of entrepreneurship research from the perspective of German VC investment managers in an explorative manner. The research aims to explore the relative importance of and interaction between specific groups of characteristics and single characteristics across dimensions of e-entrepreneurship. Initial results on the macro perspective and on an integrated perspective have been published by Schumacher (2022a; 2022b).

To this end, one reference model per each main research perspective was operationalized and used as a basis for data collection through guided expert interviews. First, the Osterwalder-Pigneur business model approach is a model for business model components (Osterwalder & Pigneur, 2010). Second, the Giessen-Amsterdam model is a reference model focusing on the entrepreneurial personality (Rauch & Frese, 2000; Rauch & Frese, 2008). Third, the Isenberg model (Isenberg, 2011) is a reference model for the entrepreneurial ecosystem.

For the analysis of the meso-perspective, this study uses the business model approach by Osterwalder and Pigneur (2010) because it is a proven and now widely used form for business model analysis, restructuring existing business models, or systematically modeling new business models according to a design approach (Lehmann, 2012, p. 48). This approach facilitates understanding, discussing, evaluating, and optimizing business models. In doing so, Osterwalder and Pigneur propose nine dimensions to describe business models holistically: Key Partners, Key Activities, Key Resources, Value Proposition, Relationship with the Customer, Channels, Customer Segments, Cost Structure, and Revenue Structure.

This study derives seven business model characteristics from Osterwalder and Pigneur's business model approach (Tab. 1).

Table 1

Business Model Characteristics	
Dimension	Characteristics
Business Model Components (Meso-Level)	Detailed & Plausible Financial Planning
	Key Partner (Key Supplier) Availability
	Detailed Business Development & Implementation Planning
	Plausible Market Segmentation for Structuring Marketing- & Sales Channel Strategies
	Key Resources Availability
	Plausible Revenue Stream Model
	Convincing Value Proposition

Regarding RQ1, the researcher first asked the experts about the success relevance of each Business Model Characteristic. For this purpose, the experts received a list of the characteristics (see Tab. 1) and additional explanations on a handout. Second, the researcher asked the experts to select a maximum of three characteristics they believe have the most significant influence on a digital start-up's success and explain the reasons in more detail. RQ2 asks about the success relevance of each of the three dimensions. The researcher collected the data to answer RQ2 in the second part of the interview. Again, interviewees were provided with lists of success characteristics derived from the three relevant models mentioned above and additional explanations on a handout.

The researcher identified the experts using the German Federal Association of the Digital Economy (BVDW) member list, which also lists start-up investors focusing on digital ventures. Based on this list of 725 potential experts and an initial mailing by e-mail or messaging via the professional online business-network LinkedIn, 77 experts were recruited and interviewed mainly face-to-face, over the phone, or in videoconferences between August 2018 and February 2019. A total of 731 statements were collected and, following the qualitative content analysis of Mayring and grounded theory methodology, categorized in a three-stage procedure (open, theoretical, and selective coding). Coding was based on the model-theoretical references provided by the reference models for each research perspective. The approach taken was deductive-inductive: The categories of the content-analytical category system were derived theoretically (deductive), and the subcategories were developed from the transcript (inductive). The analysis process followed three steps: First, the transcripts of the interviews were divided into coding units (segments). The segments were determined based on content. Second, trial coding was conducted. Third, primary coding was conducted. Finally, it is important to note that prior to the interview, the researcher used a filter question to confirm that the interviewee was indeed an active professional investment manager making decisions on the funding of digital start-ups.

4. INTERVIEWEES

According to the initial filter question, all 77 VC managers surveyed make investment decisions in the context of digital start-ups. Of the 77 experts surveyed, 35 have been active as investment decision-makers for more than five years (45.5%), and seven for 17.5 to 20 years; 42 of the interviewed experts (54.5%) have up to five years of relevant professional experience in the field of start-up financing and investment, while 24.5% of the experts indicated that they had a background of 10 or more years of professional experience as decision-makers for investment or financing. The mean value is 7 years.

About 50% of the interviewed experts had more than 5 years of experience in financing and investment in start-ups (median = 5 years), so the answers to the questions on the success characteristics are based on several years of professional experience. In addition, 5% of the interviewed experts are analysts, 11% are chief executive officers (CEO) of a VC company, 11% are department heads in an investment company, 17% are managing partners, 22% are managing directors, and 28% consider themselves angel investors. The remaining 4% of different positions cannot be assigned to one category.

Of the interviewed experts, 50.7% manage EUR 10m of assets under management, 7.8% more than EUR 100m. The volume of the assets under management ranges from EUR 40,000 to EUR 1bn. Thus, the interviewed experts do not only represent long-term professional experience in investing and financing in the field of start-ups. Moreover, the previous statistics show that the experts can draw on considerable professional experience when assessing the risks.

Half of the experts (50%) estimate their investment decision success rate to be 60% or higher, while 50% consider it to be below 60%, while 10.4% estimate their investment decision success rate lower than 20%. The location parameter indicates nearly a normal distribution of the self-assessments of investment decision success rates (mean = 56.1%, median = 60%). Consequently, it can be concluded that interviewed experts are not characterized by overconfidence concerning their investment skills.

To sum up, this sample includes experienced VC investors who, when investing larger amounts of debt capital, rely on their professional experience and assessment of the personality, the business model, and other favorable or problematic contextual factors of start-up entrepreneurship performance.

5. BUSINESS MODEL EFFECTS ON START-UP PERFORMANCE

Of the seven business model characteristics derived from the Osterwalder-Pigneur business model approach, the interviewed experts identified a convincing value proposition and a plausible revenue stream model as the most relevant for success. Many statements show that the value proposition is not to be understood

in a marketing catchphrase but rather a compressed product concept in development, whose product-market fit must be assessed again and again (see Ex42 and Ex61 in Tab. 2). In addition, the development of a product's value proposition must always relate to specific market segments and not be defined in general terms (see Ex3 and Ex10 in Tab. 2).

Due to the general dynamics of a start-up and the market, the value proposition continues to evolve. Just like the development of the business model and the iterative process of reflection and further development of the original business or product idea, the value proposition is also subject to a process of fixation and adaptation. New insights about the market, new product features, or new perspectives from focus group discussions demand a dynamic and highly plastic understanding of the unique selling proposition (USP) and the start-up (see Ex26 and Ex59 in Tab. 2).

Table 2

Selection of Statements on Value Proposition Relevance

ID	Statement
Ex1	"Is this value proposition transparent and plausible for the customer? It is easier to build a complex business model than a good and simple model."
Ex3	"I have to get the value proposition across so that the customer understands." "Convincing value proposition goes hand in hand with market segmentation."
Ex10	"The value proposition is very important. If you don't have a reputation or brand image, you have to cater to the customer with a super value proposition." "Different customers, in turn, require different value propositions. Therefore, good market segmentation is fundamental for a suitable value proposition."
Ex14	"Many start-ups fail because they don't manage to formulate a truly compelling value proposition."
Ex16	"All copy-cat projects work out to some degree, but it's not very feasible in the long run."
Ex25	"The very first thing - which start-ups can do better than corporations - is getting the product-market fit right. What is the customer problem? What solution do I have for it?"
Ex26	"You can't do it without a value proposition. Super important. Moreover, that should definitely be an iterative process."
Ex30	"Value proposition is also very important. Many start-ups are looking to solve a problem, but not seeking contact with the customer directly at all."
Ex35	"Do I have a product that people need today or tomorrow? Are people willing to pay money to use it? Can the product be manufactured with a margin? A potentially large market must exist. Supply creates demand. That's the secret to success."
Ex36	"If I know what the problem is and can solve that, then yes, I have to be able to transport that. Into the minds of the customers."
Ex37	"Value proposition must be obvious, easy to explain and convey."
Ex42	"Product-market fit is the key consideration here as well."
Ex50	"There are only two ways: Either I do something new or have already found something that I'm transporting to a new market."
Ex58	"Sure, the value proposition is the be-all and end-all – you should at least build something where the added value for the customer could be explained to a schoolchild. It has to be tangible." "Copy-paste is the main issue in this area right now. Really bad from the investor's perspective. Investors will work it out in the intense meetings in the financing rounds."
Ex59	"The value proposition is super elementary. Especially when the product is new, you have to know about the benefits and to tell it to the customer." "And depending on what the product is, it also needs to be adjusted and changed again."
Ex61	"I need to identify and understand the market and develop the right product. Formulating a plausible value proposition indicates understanding the market and having found the right product."
Ex70	"A clear value proposition shows: The founding team has developed something relevant, it solves a real problem, and the solution can also be communicated to the customer."
Ex71	"Success and financial planning seem too small-bore to me in the early stages – instead of formulating a revenue stream model that emerges from a clear and convincing value proposition."
Ex75	"You have to create the benefit and differentiate that from other products."

As also suggested by the statements in Table 2 (see Ex1, Ex3, Ex36, Ex37, and Ex58 in Tab. 2), start-ups need to develop a value proposition that is simple and easy. Start-ups may even fail as companies because they cannot create this kind of value proposition (see Ex14 and Ex16 in Tab. 2). Nevertheless, Ex50 sees the possibility to succeed with a start-up even if the value proposition is not new but adjusted for a new market or segment.

Start-ups are unlikely to attract capital if they do not take the formulation of the value proposition seriously (see Ex16 and Ex58 in Tab. 2). As Ex59 emphasizes, value propositions are never self-evident, especially in the case of a new product. Ultimately, a *new product* differs from already available ones. Therefore, when comparing it to other products on the market, the emphasis of the value proposition is on the difference and not on similarity (see Ex75 in Tab. 2). Thus, the value proposition is more important than a business plan (see Ex71 in Tab. 2).

To formulate the value proposition and test it virtually, a start-up must identify, understand, and reach out to its target segments (see Ex30 in Tab. 2). According to Ex35 and Ex70, the value proposition is another proof-of-concept milestone: If the start-up can formulate the benefit but for now cannot monetize the product with this value proposition, a start-up could also become successful. For Ex71, the value proposition is the starting point of a start-up's value chain (Tab. 2).

One challenge for start-ups regarding value propositions is that although it can be tested as a linguistic variable, it is not possible to evaluate whether it can also be monetized. In contrast, it is easier for an already established company to, for example, calculate the market launch risk due to previous experience with similar or comparable products. After the market launch, a start-up only knows whether customers understand its product or services and whether they are also willing to pay an appropriate price premium above the product costs. In addition, customers may also perceive an individual benefit that may differ from the start-up's value proposition but one that might, ideally, increase the start-up's chances of becoming successful. This means that a start-up must find and realize a value proposition and successfully convey this proposition to customers so that they will buy the start-up's products and services in a significant volume.

The revenue model is a subcomponent of the business model. It describes the instruments and sources with which revenues are generated for the target consumer of the product offered. Accordingly, the revenue model can be viewed as a business operationalization of the value proposition of the start-up's invention. The revenue model transforms the invention into an innovation. Terminologically, innovation is the added value of the invention recognized by the market. Several experts interviewed address the close connection between value proposition and revenue model (see Ex22, Ex23, Ex43, Ex47, Ex63, and Ex75 in Tab. 3). As the value proposition, the revenue model must be straightforward and allow the start-up to generate revenue as quickly as possible (see Ex1, Ex7, Ex26, and Ex44 in Tab. 3). After all, a start-up can survive only a few mistakes, such as an inaccurate

target group approach, an unclear value proposition, or exaggerated product development (see Ex26 and Ex29 in Tab. 3).

Table 3

Selection of Statements on Revenue Model Relevance

ID	Statement
Ex7	"For digital-only companies at a very early stage, revenue streams are very important. Financial planning is then derived from the revenue model."
Ex8	"At the heart of it is the question: can I monetize my USP? It needs a really good value proposition and then a plan for making revenue from it. That's critical."
Ex12	"The revenue stream model is now one level deeper. Not just 'who is my customer?' but 'will they spend money on my idea?'. Industry experience results in robust data and therefore realistic revenue planning."
Ex22	"There are already 1,000 examples that sell well, where the value proposition is low, but there's still a model behind it that makes money."
Ex23	"In many cases, the revenue streams come first when you really have delivered a value proposition."
Ex26	"Many teams are strong in their technical component. However, the benefits and sales channels are sometimes disregarded. You must address a mass market at some point, which means the revenue stream model, synonymous with sales, is always a very important component."
Ex29	"A start-up cannot cope with any or only a few mistakes. There's no such thing as an 'iterative scaling-up approach.' I have to approach the right people so that I also generate sales as early as possible. Without revenue, the project dies."
Ex39	"A profitable business definitely needs a good idea of how I can make money. But, of course, just the business idea alone is of no use."
Ex43	"I have to be able to commercialize my idea. Especially with engineers, the problem is often that they can't get their idea across in a commercially attractive way."
Ex44	"Do I have a plausible business model? I must identify what I want to earn my money with plausibly. Someone must be able to explain in three minutes what the core of the idea is. The core must be simple and ingenious." "Making sales is the be-all and end-all. And that, in turn, then defines my product."
Ex47	"A convincing value proposition and the revenue streams are, after all, somehow very closely intertwined."
Ex58	"Flexibility is also very important in terms of revenue streams. What's the saying? I have to 'pivot' regularly and turn everything upside down when needed."
Ex59	"The revenue model is important because you have to generate revenue yourself as it's always difficult to find someone who will finance you through five to six years. So that it's very important to have a good revenue model, to be on your own feet as soon as possible."
Ex64	"A revenue model is much more important than any other plan."
Ex65	"And that solution to the customer problem has to be monetizable. The keyword is 'revenue streams.'"
Ex69	"Even if there's no profit generated for a long time, at least you should have revenues."
Ex72	"The revenue model shows whether the market has actually been understood. Again, economizing the value proposition is key."
Ex75	"Even the revenue streams won't flow if you don't have compelling value." "Customer value is the nucleus of the foundation."

The simplicity of the revenue model about a simple value proposition is the lever for rapid monetization of the idea because time is the critical scarcity factor for a start-up. However, in order not to jeopardize funding due to limited financial resources (see Ex59 in Tab. 3), the revenue model, like the value proposition, must have certain flexibility (or plasticity) (see Ex58 in Tab. 3). Irrespective of this, a functioning revenue model proves to both the founding team and the investors that the invention is indeed an innovation. Thus, monetization of the value proposition can already succeed shortly (see Ex72 in Tab. 3).

Estimates range between three to six years regarding the monetization of the value proposition through the revenue model (see Ex59 in Tab. 3 and Ex11 in Tab. 4). In this context, the revenue model should be reviewed regularly (see Ex58 in Tab. 3) and should not be aimed at market segments that are too narrow. Instead, the market segments should be scalable (see Ex26 in Tab. 3). In addition, a team

with appropriate product management experience would be necessary for operationalization (see Ex70 in Tab. 4).

Table 4

Selection of Statements on Other Business Model Components

ID	Theoretical Code	Statement
Ex11	USP	“Domestically, we have a maximum lead of three years.”
Ex17	MSC	“This solution must be tailored to different people, so market segmentation is particularly important. The value proposition here goes hand in hand with market segmentation. Which customer am I targeting and how?”
Ex40	MSC	“I think a lot of good products are unfortunately poorly marketed. So if I can't position a good product properly in the market, that's very unfortunate.”
Ex52	MSC	“Even if there was no market to begin with, I can build a good value proposition.”
Ex70	AKR	“Depending on how quickly I can attract people with scaling experience to my team, that's the key resource par excellence and also the key to success.”

Note: USP = Unique selling proposition; AKR = Availability of key resources; MSC = Plausible market segmentation concept.

In the last part of the interview, the researcher asked the experts about the relevance to the success of the entire group of characteristics per research perspective (actor, context, and business model). The highest relevance for success is attributed to personality characteristics (Schumacher, 2022a), followed by the business model components. However, according to the experts interviewed, the entrepreneurial context contributes the least to entrepreneurial success (Schumacher, 2022b).

6. CONCLUSIONS AND OUTLOOK

In summary, the following findings and implications can be derived from the two main characteristics in the group of business model components, namely a convincing value proposition and a plausible revenue model: German VC investors consider a convincing value proposition to be the most relevant component for the success of digital start-ups. Value propositions must be defined in a simple and target group-specific manner and must be able to convince the market of a product that is not yet well-known. Furthermore, value propositions are the core component of the business model on which the revenue model must be based.

Value propositions are never fully formulated but must be modifiable at any time in order to remain agile in changing target segments or markets. In addition, value propositions also provide a point of orientation for product development or the transformation of an idea or invention into an innovation. This orientation enables start-ups to differentiate their products or services from comparable products or services.

The second characteristic is a plausible revenue stream model, which German VC investors consider to be also relevant for the success of digital start-

ups. Plausible revenue models operationalize the value proposition. They are also to be kept as flexible and straightforward as possible and not too target group-specific but more broadly defined. In such a way, ideally, it is possible to generate revenues immediately after the product launch. Plausible revenue models are the proof-of-concept for the relevance of the business idea, the products derived from it, and their value proposition. In addition, even mediocre business ideas and USPs can be monetized with a plausible revenue model.

For both factors, some experts cited time (see Ex11 in Tab. 4 and Ex59 in Tab. 3) and scalability (see Ex26 in Tab. 3 and Ex70 in Tab. 4) as the main reasons for the simplicity and flexibility of the revenue model and value proposition. However, both reasons point to a significant problem for start-ups: Time (time-to-market) is the critical scarcity factor. As noted earlier, Ex11 and Ex59 assume that the start-up takes three to six years to realize the first-mover advantage and secure possible follow-up financing from investors or strengthen internal financing capability through quickly generated revenue (see Tab. 3 and Tab. 4).

This exploratory qualitative study provides an initial proposal for entrepreneurship research on meso-level entrepreneurial success that may have implications for future resources for entrepreneurship and firm performance. This study contributes to the literature in two ways: First, this study adopts a multi-theoretical view by including three main research perspectives representing the meso-, micro-, and macro-level of entrepreneurship activity. Second, the exploration of expert assessments of success characteristics instead of interviewing entrepreneurs of digital start-ups and their attitudes on success factors allows for an external view of start-up entrepreneurship. Thus, experts are not only observers but also practitioners who take financial risks by analyzing the founder, business models, and the start-up context.

It is important to remember that the approach taken here influences the sample size. For this reason, the results of this qualitative analysis can be regarded as the basis for statistical analysis of quantitative data in the context of a questionnaire-based survey with higher case numbers. Instead, the study confirms some theoretical assumptions about the importance of the components value proposition and revenue stream model and the entire group of business model components. However, these findings allow VC investors to conclude the focus of their implicit or explicit factor investment models. Furthermore, start-up entrepreneurs may find practical value in developing a value proposition and revenue stream model.

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MOGU LI KOMPONENTE POSLOVNOG MODELA OBJASNITI USPJEH DIGITALNIH STARTUPOVA?

Kvalitativna analiza poslovnih modela startupova iz perspektive njemačkih ulagača u rizični kapital

Sažetak

Ovim istraživanjem ispituje se važnost uspješnosti komponenti poslovnog modela digitalnih startupova iz perspektive njemačkih ulagača u rizični kapital (VC). Objašnjava se važnost poslovnog modela općenito te važnost uvjerljive ponude vrijednosti i modela prihvatljivog prihoda, posebno za proces donošenja odluka o ulaganju u rizični kapital. Primjenjuje se istraživački trodimenzionalni pristup koji objedinjuje mezo perspektivu u poslovnom modelu, mikro perspektivu u poduzetničkoj osobnosti, te makro perspektivu u kontekstu poduzetništva, djelujući u vrlo mladom polju istraživanja. Za razliku od većine istraživanja na ovu temu, ovaj rad pokazuje da poslovni model nije ključan resurs za uspjeh startupa, dok bi rani koncept poslovne ideje to mogao biti. Komunikacija i interakcija s ulagačima u rizični kapital u ovoj ranoj fazi mogu biti vrijedni alati za kontinuirani razvoj početne poslovne ideje.

Ključne riječi: Startup uspjeh, poduzetništvo, poslovni model, ulagači u rizični kapital, ponuda vrijednosti, model prihoda, digitalni startup.

JEL klasifikacija: L26; M13; G24; G32.