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Entrepreneurial Support Systems in the Digital Era: A Taxonomy of Digital Company Builders

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Completed Research

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Abstract

New venture creation is at the core of entrepreneurship and regarded as the source of innovations and new employment. However, despite the potential that digitization bears for innovation and entrepreneurship, the failure rate of start-ups is still very high. In this context, digital company builders (DCBs) are becoming increasingly important as a new form of entrepreneurial support. Based on a multiple case study with ten DCBs we iteratively developed a taxonomy consisting of 13 dimensions, which describe how such organizations provide what kind of support to whom. Based on this taxonomy, we further grouped the cases into four main types of digital company building. These results may provide researchers a tool to systematically compare different entrepreneurial support systems, help both entrepreneurs and incumbents decide which support system is best suited to their individual needs, and furthermore be useful to the owners of DCBs themselves in their strategic positioning.

Keywords

Entrepreneurial support, digital company building, taxonomy.

Introduction

Entrepreneurship leads to economic growth and innovation, which is why different agencies and policymakers are actively seeking ways to facilitate the creation and growth of new businesses (Ratinho et al. 2020). However, despite the awareness of the potential that digitization bears for innovation and entrepreneurship, the failure rate of technology start-ups is still close to 70% (CBInsights 2021). Consequently, research interest in fostering entrepreneurship grew (Ratinho et al. 2020). Many public initiatives promote the development of support systems that offer favorable contextual conditions for entrepreneurship. In contrast to such initiatives which require entrepreneurs themselves to identify available resources (Elia et al. 2016), corporate and independent private incubators adopt a push-oriented logic by building a system of required actors, resources, services, competencies, and relationships to support entrepreneurial endeavors in developing a digital or internet-related business model (Kreusel et al. 2018). One such but relatively new phenomenon emerging in practice is so-called 'company building' (Kullik et al. 2018). Similar to accelerators, company builders (CBs) also focus on ICT or tech startups and target radical innovations (Hausberg and Korreck 2020). However, this model differs from other for-profit incubators in that CBs not only support startups, but actively build them, which affects the degree of process involvement and the nature of the relationship with the incubatee (Brun 2019). According to the Global Startup Studio Network, ventures coming out of such organizations have a 30% higher chance to reach Series A (first round of funding) than traditional ventures (Zasowski 2020). Scheuplein and Kahl (2017) further found that company builders have significantly higher employment growth rates than other types

of venture capital investors. As a result, the model attracts attention from founders, investors as well as established companies (Alhokail et al. 2019). Prior research addresses CBs from an incubation (Kreusel et al. 2018) or a corporate venturing perspective (Gutmann 2019) resulting in initial explanation attempts regarding their organizational designs (Rathgeber et al. 2017) and governance structures (Köhler and Baumann 2015). However, current literature does not exclusively address the phenomenon and its different types and unique characteristics. To the best of our knowledge, there is neither a clear scientific definition nor a holistic classification of the different types of CBs in the digital age, making the current analyses collectively non-exhaustive. In practice, several terms are used interchangeably (i.e. startup studio, startup factory, or venture builder (Scheuplein and Kahl 2017), leading to conceptual confusion. These facts, along with the plethora of white papers on the subject (e.g. Alhokail et al. 2019; Zasowski 2020) reveal that company building has long been advocated in practice but has received little attention in academia so far. This is surprising in that it seems to be one of the most widespread for-profit incubation models in Germany at present (Kreusel et al. 2018) and is also gaining attention in the US (e.g., Betaworks), and other countries such as South Korea (e.g., Fast Track Asia) or Russia (e.g., Fast Lane Ventures) (Köhler and Baumann 2015) especially in the context of digitalization (Fischer 2020). Therefore, this paper aims to derive a taxonomy of CBs in the digital era and answer the following question:

RQ: *What is the exact nature of digital company building?*

Following the taxonomy development process of Nickerson et al. (2013), we develop a taxonomy based on a multiple case study with ten digital company builders (DCBs) and a data corpus of 26 interviews, several informal interviews, and additional company material. Taxonomies and case studies are appropriate when nothing or very little is known about the phenomenon, and the research goal is to provide an analytic theory by stating "what is" (Gregor 2006; Yin 2018). We determine 13 dimensions that systematically characterize the phenomenon in the light of entrepreneurial support. This paper is organized as follows. Section 2 reviews the literature on company building from a business incubation and a corporate venturing perspective to provide a working definition of DCBs. Section 3 describes the methodological approach used to develop the taxonomy, which in turn is presented in section 4. Finally, we discuss the implications of the taxonomy and future research opportunities in section 5.

Related Research

Business Incubation and Company Building

Incubation describes how an entrepreneurial support organization provides support to a startup in order to ensure its survival and economic development (Pauwels et al. 2016). Since the emergence of the first business incubators, research on this topic exploded resulting in a plethora of definitions, typologies and taxonomies (Hausberg and Korreck 2020). The most fundamental one is offered by Grimaldi and Grandi (2005) who distinguished along the type of sponsors between government-funded business innovation centers, university business incubators, corporate private incubators and independent private incubators. While the former two comprise a primarily non-profit model, the latter two are more focused on economic success. Other scholars made use of the different incubation services for their classifications. Gerlach and Brem (2015), for instance, argue that it is not the financial support that makes an incubator successful but additional services such as physical networking and entrepreneurial support, differentiating the incubator concept from simple venture investors. Thus, returning back to the value-adding intervention system of Schwartz (2013), we can differentiate between tangible (e.g., office space) and intangible (e.g., access to financing) services, which are referred to as fundamental baseline and growth-driving forces. These services comprise the essential elements of traditional business incubators that seek to *catalyze* economic development through the support of young entrepreneurs (Rathgeber et al. 2017). This is in contrast to accelerators, a new for-profit incubation model that focuses on accelerating the growth of already existing, and mainly ICT-related startups (Hausberg and Korreck 2020). Such organizations offer time-restricted support in terms of mentoring, coaching and networking (Pauwels et al. 2016) and therefore only *nurture* their incubatees (Shankar and Shepherd 2019) in order to make them investor ready. Thus, if we look at the entrepreneurial process, which consists of conceptualization (stand-up), actual venture creation (start-up), and business growth (Autio et al. 2018), we find that accelerators focus strongly on the last phase. Kreusel et al. (2018), on the other hand, add the term 'company builder' to describe a new phenomenon of independent private business incubation. They analyze 11 German business incubators and conclude that

this new type of incubation differs from other forms in two aspects: 1) internal idea generation and realization; 2) higher equity stake. In this sense, CBs not only nurture existing ideas and teams but also actively generate and *build* them themselves. This further implicates that the incubated startup is not only the client but also the product of the company builder. This view of the incubator as a "startup factory" contrasts with the current literature on business incubation (Brun 2019). Other authors further highlight the extended resource portfolio (i.e., IT and programming, marketing, recruitment and legal, longer incubation duration) as a third main difference (Scheuplein and Kahl 2017). Köhler and Baumann (2015, p. 1) consequently define independent private CBs as organizations which "actively assemble startup firms in a factory-like manner, i.e., with a focus on speed, efficiency, and scale, and using standardized processes and shared resources". The authors also see a clear difference to traditional incubators regarding governance structures. However, since they base their definition on a single case study, i.e. Rocket Internet, it does not provide a holistic overview of the phenomenon and its variants. In addition, the authors recommend researching CBs in the context of other areas such as corporate venturing and new business development to arrive at a more generalized version of the model. Consequently, some scholars address this issue by analyzing company building from a corporate perspective. Table 1 depicts an overview of the differences of the three main incubation models based on current business incubation literature.

	Incubators	**Accelerators**	**Company Builders**
Central Business Goal	Catalyzing entrepreneurship	Accelerating existing startups	Building completely new startups
Phase of intervention	Stand-up phase	Scale-up phase	From stand-up to scale-up phase
Supporting Service	Tangible & intangible services	Mainly intangible services (Mentoring, Coaching & Networking)	Tangible, intangible & extended operational services

Table 1. Differences between the three predominant incubation models

Corporate Venturing, Company Building and Digitalization

To remain competitive in volatile environments, incumbents rely on entrepreneurial strategies (Shankar and Shepherd 2019). Since breakthroughs usually come from new entrants, they commit to these entrepreneurial strategies by building new businesses (i.e. corporate venturing) (Prügl and Spitzley 2021). This is done within the corporate structures, the acquisition of external partners, or in association with another established company (Covin and Miles 2007). As a result, incubators and accelerators also emerged in the corporate context (Shankar and Shepherd 2019). Due to the successes of Rocket Internet and Betaworks, CBs have also gained ground in practice. Kullik et al. (2018) found that corporate-backed CBs tend to either make investments into a venture capital fund focused on starting external ventures in specific industries or technology sectors (indirect-external venturing) or invest in a venture capital fund designed to encourage employees to start internal ventures (indirect-internal venturing). Peter (2018) on the other hand, differentiates between four corporate company building strategies, namely spin-out (realization of own internal ideas), insourcing (joint development of new industry startups with market experts), joint-venture (buildup of a new business in association with partners outside of the own industry) and startup-exit (collaboration with startups to open up completely new business areas). Gutmann (2019) classifies the "venture builder" as a corporate venturing mode, which transfers internally developed ideas into independent external ventures. The authors further see this phenomenon as a vehicle for explorative activities involving the validation and execution of new business models outside the incumbent's boundaries. In the context of digitalization, current literature mainly use the term company building to delimit it from internally orientated digital innovation labs, which are at the core of the research endeavors (e.g. Hund et al. 2021). Hence, research on corporate venturing driven by company building in a digital context seems scarce (Tkalich et al. 2021). However, managerial literature also indicates that CBs may provide services relevant to digital transformation. These 'digital services' comprise *digitalization services* (digital process optimization), *transformation services* (digital business expansion) and *innovation services* (disrupting current business model through digital innovation) (Fischer 2020). In this context, the emergence of a new type can also be observed in practice. They often refer to themselves as "independent corporate company builders" or "digital business builders" and have made it their goal to support existing firms in their digital innovation and transformation projects (Zasowski 2020). However, it seems that there are no scientific publications on this yet.

After reviewing the respective literature streams and several definitions attempts of company building and synonymously used terms in both practice and science (e.g., Alhokail et al. 2019 and Rathgeber et al. 2017), we derived a working definition. In order to offer a broad definition, we argue that company building depicts the umbrella term for all these related terms, i.e., start-up studio, start-up factory, corporate/independent CBs, and venture builder. We attribute this to the fact that all definitional approaches include building a new venture or business model or supporting its development. We do not include any details on the shareholder structure, the venture creation processes, or the provided services since these factors appear to vary depending on the fundamental composition and strategy of a DCB (e.g., independent vs. corporate). We further add the term 'digital' as most of the publications address the development of the phenomenon in the context of the software industry (e.g. Tkalich et al. 2021) and digital or internet-related businesses (e.g. Kreusel et al. 2018). Therefore, it can be distinguished from pure technology entrepreneurship found in science parks or technology centers, aiming to exploit opportunities related to advances in science and engineering (Giones and Brem 2017). Thus, we propose the following definition: *Digital Company Builders (DCBs) are organizations that aim at building new digital ventures or business models. They work independently, in collaboration with or under the roof of established companies, and use methods from various support organizations, such as business incubators or accelerators. With this, the model seeks to combine the innovative capacity of founders with the experience of serial entrepreneurs and the various types of assets of established companies.*

Method

This paper aims to identify characteristics of DCBs from the perspective of entrepreneurial support to distinguish different forms and compare them to other entrepreneurial support systems. Taxonomies, which "determine membership into a posteriori categories that emerge from empirical analysis inductively" (Fiedler et al. 1996, p. 12), provide a set of domains allowing the researcher to classify objects of interests (Gregor 2006). As the domains are derived from the characteristics of the measured subject, they are exhaustive and mutually exclusive (Fiedler et al. 1996). Hence, we follow the iterative taxonomy development method from Nickerson et al. (2013), which consists of seven steps. At the very beginning, the researcher has to define a meta-characteristic (step 1) and ending conditions (step 2). The former depicts an initial comprehensive characteristic, which should be based on the research purpose. Consequently, "each characteristic should be a logical consequence of the meta-characteristic" (Nickerson et al. 2013, p. 343). The latter describes when to terminate the iterations. In our case, the meta-characteristic is formulated as 'describing the entrepreneurial supporting structures'. With this, it fits the purpose of the taxonomy of distinguishing different forms by covering how such institutions provide what kind of support to whom. In regard of the termination criteria, we adopted eight objective (to ensure mutual exclusiveness and collective exhaustiveness) and five subjective ending conditions (to ensure conciseness, robustness, comprehensiveness, extensibility, and explainability) from Nickerson et al. (2013). As DCBs represent a rarely addressed phenomenon, we opted for an empirical-to-conceptual approach to start the iterative part of the development process in step three. Here we choose a sample of ten DCBs that focus solely on digital business or venture building within and outside of established companies. We excluded cases that did not meet our working definition. Table 2 gives an overview of the cases and conducted interviews. In cases where we were unable to gain access to all of the desired interview candidates (IP04, IP05 and IP07), we made use of public interviews published on Spotify.

Our first iteration started by identifying and analyzing the first subset of the sample (step 4), i.e., the founders or leading employees of the DCBs, to identify common characteristics of the objects through semi-structured interviews (step 5) and grouped them into dimensions (step 6). We performed open, axial, and selective coding according to Strauss and Corbin (1998). The resulting first taxonomy comprises 27 dimensions refined in iteration two by reviewing previous publications regarding taxonomy criteria in business incubation, corporate venturing, and digital entrepreneurship in general (conceptual-to-empirical), leading to 16 preliminary dimensions. In iterations three and four, we also interviewed the other two subsets, i.e., operational stuff of the DCBs and founders and/or CEOs of the emerged ventures, to ensure comprehensiveness. There was some overlap here, as in some cases the operational staff transitioned to the new startup portfolio. In iteration five, we consolidate the previously identified dimensions to improve the taxonomy's conciseness, resulting in 13 preliminary dimensions. Afterwards, all objective and subjective ending conditions were met (step 7), and the taxonomy development process ended.

Case	Self-labeling / Description	Interviewees (IDs)
A	Independent Digital Business Builder focused on building digital business models in collaboration with corporates from various industries.	Venture Principal (IP01), Venture Architect (IP02)
B	Independent Corporate Company Builder focused on supporting firms in starting & scaling new businesses.	Partner & Leadership Member (IP03), Partner (IP04), CEO & Founder of DCB (IP05)
C	Corporate Venture Builder focused on shaping digital transformation & innovation of new business models. It develops corporate ventures & internal venture builders.	Co-Founder & CEO of DCB (IP06), Senior Consultant (IP07)
D	Independent Company Builder focused on building and investing in Fintech Startups.	Head of DCB (IP08), Venture Architect (IP09), Prior Venture Architect & Founder of Portfolio Startup (IP10), Prior Portfolio Manager & CEO of Portfolio Startup (IP11), Prior Venture Developer & Entrepreneur in Residence (IP12)
E	Corporate Venture Builder focused on building digital B2B businesses in the fields of climate and health.	CEO & Founder of DCB (IP13), Venture Architect (IP14), CEO & Founder of Portfolio Startup (IP15)
F	Startup Studio focused on the digitalization of small businesses in fragmented markets.	CEO & Founder of DCB (IP16), CEO & Founder of Portfolio Startup (IP17)
G	AI Venture Studio focused on building machine-learning startups.	CEO & Founder of DCB (IP18), CEO & Founder of Portfolio Startup (IP19)
H	Corporate Company Builder focused on supporting established as well as young companies in corporate innovation activities.	Associate Partner (IP20), Senior Venture Architect (IP21), CEO & Founder of Portfolio Startup (IP22)
I	Corporate backed Venture Builder focused on building corporate & independent startups in construction tech.	CEO & Managing Director of DCB (IP23), Founder of Portfolio Startup (IP24)
J	Corporate backed Independent Company builder focused on building & investing in digital logistic startups.	Partner & COO (IP25), Head of DCB (IP26)

Table 2. Overview of self-conducted and public interviews

Results

We find that DCBs can be distinguished by their entrepreneurial support structures along 13 dimensions. Figure 1 visualizes the taxonomy as a morphological box as it offers intuitive insight into the structure and provides a first answer to the posed research question. Based on this taxonomy, we were further able to derive four different expressions of DCBs, i.e., *founder-centric DCBs* (case G), *portfolio-centric DCBs* (cases D and F), *industry-centric DCBs* (case I and J), and *corporate-centric DCBs* (cases A, B, C, E and H).

WHO is supported by the DCBs?

This dimension addresses the different types of entrepreneurs that DCBs may try to attract. *'Visionary'* relates to an independent external founder bringing his/her own idea into the organization to pursue them without compromise. The *'mature'* entrepreneur, who can originate from inside or outside a corporate, is either an experienced founder who wants to avoid uncertainty (e.g., due to family reasons) or is more appropriate for scaling and/or commercializing an already existing and validated venture idea. Finally, the '*intrapreneur*' is not a founder who wants to pursue his/her ideas but is interested in innovating within established structures. In particular, a digital-experienced, creative, and risk-taking employee who has the power to initiate change. Thus, corporate-centric DCBs are not looking for a "real" founder but an intrapreneur and a future CEO. Or, how IP03 and IP13 put it:

"We have to make sure that we involve the people who give us the ability to release certain things from the company" (IP03, Case B).

"*As I said, the company builder is 'the' entrepreneur, who is there the whole time. The entrepreneur who runs the company at some point, we usually only bring him/her in after nine to twelve months"* (IP13, Case E).

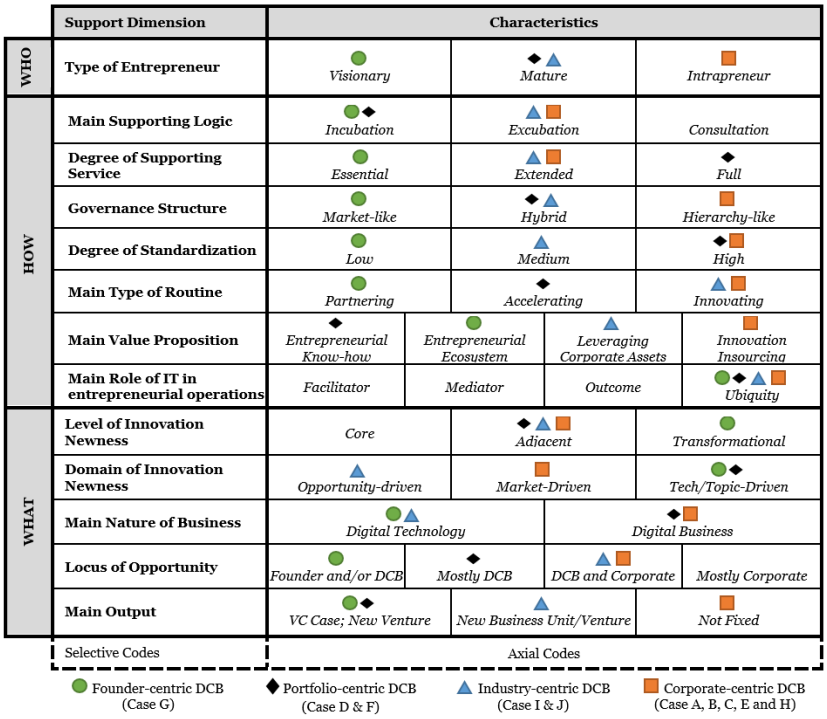

Figure 1. DCB taxonomy

HOW do the DCBs support?

Main supporting logic. While '*incubation*' depicts an independent startup's active nurturing and building within the DCB, '*excubation*' relates to innovation projects with corporates outside of their established structures. Therefore, the latter is very close to the concept of external corporate venturing (Prügl and Spitzley 2021). However, in contrast to this concept, which presupposes a new company as the output, our results have shown that company building does not necessarily result in a new venture (see section on main output). With '*consultation',* we refer to the supporting activities regarding digitalization issues of corporates. This characteristic emerged out of necessity: *"However, we very quickly realized that the companies have completely different issues at the moment: They have internal questions about how to digitize their processes. They have a problem here and there that can basically be solved more with the consulting approach than with a big new innovation model"* (IP06, Case C). Interviewees from the other cases (e.g., Case A and H) also confirmed that consultation is a precursor. However, it depicts only a possible initial service in the context of corporate-centric DCBs but does not represent their primary activity.

Degree of supporting service. '*Essential*' comprises the traditional shared services separated from the core business, such as office infrastructure and consulting regarding finance, tax, or accounting. '*Extended*' services include, additionally to the basic service, mentoring, funding, sales and marketing, and customer service. In our section regarding the related research, we referred to these services as fundamental baseline and growth-driving forces, respectively. DCBs with a '*full*' service package offer a whole venture building team consisting of venture architects, UI/UX designers, product managers, and sometimes engineers. However, none of our cases provides a dedicated internal IT unit. Interestingly, founder-centric DCBs, which produce the most transformational innovations, only offer basic services. According to the CEO, a higher degree of supporting service may attract the wrong people, lowering commitment and self-efficacy: *"Many company builders have sales, engineering, customer care, and HR, which they then share and make available to ventures. We don't believe that this is the way to build really strong, independent teams with the best people."* (IP18, Case G). Again, this underpins the founder-centric approach of this DCB type.

Governance structure. Here, we go along with the "incentive-system theory of hybrid governance forms" of Makadok and Coff (2009). '*Market-like*' forms are defined by the fact that the entrepreneur owns the key assets (ownership), has the right to decide about how to do the work (authority), and is rewarded according to the outcome (incentive). '*Hierarchy-like*' corresponds to the exact opposite, meaning that the

entity performing the work submits to the authority of superiors, does not own the key assets, and is rewarded according to the services rendered, not bearing the risk of poor performance nor the reward for good performance. Organizations adopting a *'hybrid'* governance form act market-like in some dimensions while hierarchy-like in others. In the case of corporate-centric DCBs, where the DCB corresponds to the actual entrepreneur, we see rather hierarchy-like structures. Even if this type mostly brings in the idea, it often has not a high equity involvement and no or only limited decision rights regarding the idea's further development. These facts combined with the success uncertainty are very problematic, which is why corporate-centric DCBs often set up work-for-hire contracts: *"We get paid for the time that we spend in there on a retainer basis and have target agreements"* (IP13, Case E). In contrast, founder-centric DCBs acting purely market-like to motivate the team in the proper manner. Portfolio-centric and industry-centric DCBs are truly hybrids. They distribute the shares depending on the entrepreneur's experience, the idea origin, and the degree of support needed while paying attention that the economic incentive is strongly dependent on the development of the venture: *"There is a certain risk, but not like with an independent founder who says: I'm not going to pay myself a salary until something happens or until I have financing. But it's clear that you can only earn really good money if the thing is successful"* (IP23, Case I).

Degree of standardization. While some DCBs only have a low degree of standardization, meaning they only set up specific venture creation stages (i.e., ideation, MVP development, scaling), portfolio-centric and corporate-centric DCBs offer a highly standardized and digital-enabled ideation process. They ensure market and strategic fit, topic relevance and use digital dashboards, documentation, and KPIs for automation and measuring purposes: *"We also have our own analytics tool. This is based on crunchbase data and a few other data sources [...] A longlist is created from these data sources, which we then filter using various parameters to obtain a shortlist. Of course, this shortlist represents a match to the strategic goal of the company, but also a match to the market and the potential that we see in it"* (IP21, Case H). This difference in approaches can be attributed to the main nature of the business (see section below).

Main type of routine. "Routines are made for repetition. In particular, if they create value, routines tend to be not only repeated but also replicated" (Schmidt et al. 2019, p. 57). As a DCB continuously creates new ventures, i.e., replicating the creation process to create value, routines play a role in this context. A founder-centric DCB does not seek early profit in a single case; it does not try to accelerate the ideation phase but instead seeks high-quality ideation to find the most valuable case. Thus, it builds an entrepreneurial ecosystem around its startups and constantly looks for new partners. As the CEO of case G explained, they developed a kind of a '*partnering'* routine about how they get in touch with industry and research partners: *"We have developed best practices on how to get key partners to participate in such a project at a very early stage and to provide data without giving up equity"* (IP 18, Case G). While all other forms of DCBs are good at '*accelerating'* the replication process through their accounting, recruiting, or fundraising routines, portfolio-centric DCBs seem to be exceptionally fast: *"It takes 18 to 24 months to set up a company like this. That's why: What do we do better? I don't know anyone who can do it faster* (IP08, Case D). The other two types built up routines that allow them to engage in fast and structured ideation and prototyping.

Main value proposition. We were able to find four main value propositions for the respective forms, i.e., *'entrepreneurial know-how'* (portfolio-centric DCB), '*entrepreneurial ecosystem'* (founder-centric DCB), *'leveraging corporate assets'* (industry-centric DCB), and '*innovation insourcing'* (corporate-centric DCB). Here, we want to continue with IP08's statement above, as it highlights the importance of entrepreneurial know-how: "*I think it's realistic to say that it takes 36 months to set up a company. That means 30 to 60 people, just to recruit them. I have to create a branding for the company. [...] I have to build a culture in the company. I have to create the administrative activities. That's why, that's where experience comes in. [...] And I can't afford the learning curve when I'm doing company building."* (IP08, Case D).

Main Role of IT. Technology can act as a '*facilitator'* that helps startups emerge, a '*mediator'* for new innovative business operations, an '*outcome'* of entrepreneurial action, and ultimately as a '*ubiquity'* that can become a business model itself (Steininger 2019). All of our cases deal solely with digital startups and digital businesses (ubiquity). However, most of them do not care about the underlying digital technology but instead aim at continuously building digital business models (see section on 'Main nature of business').

WHAT do the DCBs support?

Level of innovation newness. This dimension and its characteristics are based on the innovation ambition matrix (Nagji and Tuff 2012), which was highlighted in Case H: *"I don't know if you know the*

Harvard Business Review Innovation ambition matrix. Most of it probably falls into this adjacent area" (IP20, Case H). The Interviewee further argues that '*transformational*' innovation is difficult in the corporate context due to political issues. Only the founder-centric DCB seeks more disruptive approaches. The CEO of case G shares his vision regarding one of the DCBs portfolio startups: *"In the long term, we want to build a data-centric company that can itself map the diagnostic parts in the value chain and can then even develop into other areas, be it the treatment side or even the patient insurance side. In other words, a model of an integrated provider that is actually digitally driven"* (IP18, Case G).

Domain of innovation newness. There are different domains from which innovative ideas emerge. Even if industry-centric DCBs address projects or problems coming out of their core processes or businesses, they mainly use corporates assets for their ideation ('*opportunity-driven*'). Corporate-centric DCBs also claim to engage in "Resource-Opportunity-Thinking" (IP06, Case C). However, their ideation approaches revealed, that they are more *'market-driven'*. The other two forms are dedicated to a specific technology (e.g. artificial intelligence) or a relevant, digital topic (e.g. FinTech).

Main nature of business. As previously mentioned, most of the analyzed cases focus on *'digital businesses'*, meaning they "do not really care about the specific technology behind their business idea, they simply focus on the service that is based on it" (Giones and Brem 2017, p. 46). Only industry-centric and founder-centric DCBs pursue real '*digital technology*' entrepreneurship by combining physical products with digital technology. In the latter case, we can even talk of deep technology as the DCB develops artificial intelligence solutions based on significant scientific and technical challenges (Bergmann 2017).

Locus of opportunity. Our taxonomy offers four different loci or origins. Even if all of the representatives of the DCBs state that it is a mixture of own and partner ideas (i.e., founder or corporate), DCBs themselves mostly set the initial priorities in most of the cases. Case F represents a good example, as it first argues that the shareholder structure depends on the origin of the idea, only to mention a little later that the DCB holds the decision-making rights: *"It´s more that we are the founders and they are the co-founders. […] We want to make people participating and proposing ideas. But they have to pass in our filter (IP16, Case F)."*

Main output. Regarding the results of the DCBs, we found three characteristics. Founder-centric and portfolio-centric DCBs are aiming to create a new venture that depicts either a *'venture capital case'* or a complete sale. The goals of industry-specific DCBs are similar. However, the result is sometimes a '*new business unit'* rather than a new venture. This is comprehensible, as they work on solutions independent of the core business but may have long-term strategic relevance for the incumbent. Corporate-centric DCBs work at the interface between various corporates and entrepreneurship and often cannot foresee the result.

Discussion and Conclusion

In this paper, we inductively derived a taxonomy of digital company building in the light of entrepreneurial support and differentiated four types of DCBs, i.e., founder-centric, portfolio-centric, industry-centric, and corporate-centric. While the former seems more attractive for independent and visionary founders, the portfolio-centric model may be interesting for serial entrepreneurs who want to build their own DCB. The other two forms can be located in the corporate world. Current literature puts both types in one box, namely corporate company building (Peter 2018). However, as our taxonomy shows, these types are entirely different regarding their fundamental setup. In this regard, we also want to outline further misconceptions in current literature and future research questions along the three support dimensions (who, how, why).

There are various lenses to analyze the entrepreneurship construct on an individual level (*who*). Hence, different typologies emerged in the literature referring, for instance to the social entrepreneur (Zahra et al. 2009) or digital entrepreneur (Bandera and Passerini 2018). However, a recent literature review on the differences in personality traits across various types of entrepreneurs states that only two percent of the literature incorporates incubator participants (Salmony and Kanbach 2021). We address this gap by providing initial insights on the types of entrepreneurs acting within a new form of incubator. However, we have only scratched the surface and cannot pinpoint their exact character traits and how they differ from other founders. Furthermore, we could identify a few inconsistencies in the literature regarding the *'how'* of company building. First, not all DCBs focus on speed. Since founder-centric and industry-centric DCBs focus on building high-quality, sometimes even deep technology solutions, they prefer longer ideation phases. Therefore, the definitions of Köhler and Baumann (2015) cannot be applied to all types of DCBs. Second, there are different degrees of standardization depending on the nature of the DCBs. For instance,

portfolio-centric and corporate-centric DCBs have to be fast to achieve early funding or corporate management support, respectively. Therefore, they seek a high process standardization to get quick results. Although this may be due to their routines, it is unclear how these arise and how they influence the venture creation process. Finally, and in contrast to Köhler and Baumann (2015), we found that not all DCBs adopt a truly hybrid governance form. When it comes to the *'what'*, we found that founder-centric and industry-centric DCBs focus on deep technology. There are also first insights in managerial literature that the DCB model can support such endeavors as they recombine the knowledge of digital natives with the industrial engineering knowledge of corporates (Bergmann 2017). This seems particularly relevant for medium-sized enterprises and so-called 'hidden champions'. However, there is neither a clear scientific definition of deep technology nor research-based evidence for this assumed relationship. If there is a connection here, DCBs could play an important role in the digital transformation of incumbents. Regardless of this specific technology, the practical literature already highlights the value of DCB in this context (Fischer 2020). Therefore, we want to encourage future researchers to investigate DCB in the context of digital transformation. Table 3 outlines possible future research questions derived from our arguments.

Domain	Future Research Questions
Types of Entrepreneurs	What types of entrepreneurs can be found within DCBs? Are these types different from other entrepreneurs? How can an incubator or corporate attract these specific types?
Standardization	How can standardization be achieved within DCBs and what is the role of routines?
Deep Technology	What is deep technology exactly? How is it related to digital company building?
Digital Transformation	What is the role of digital company building for the digital transformation of incumbents? Why is the model particularly relevant for medium-sized enterprises?

Table 3. Future Research Agenda

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