

PAPER • OPEN ACCESS

Accelerators for Start-ups as the Strategic Initiative for the Development of Metropolis

To cite this article: Anna Kwiotkowska and Magdalena Gbczyska 2019 *IOP Conf. Ser.: Mater. Sci. Eng.* **471** 092014

View the [article online](#) for updates and enhancements.



IOP | ebooks™

Bringing you innovative digital publishing with leading voices to create your essential collection of books in STEM research.

Start exploring the collection - download the first chapter of every title for free.

Accelerators for Start-ups as the Strategic Initiative for the Development of Metropolis

Anna Kwiotkowska ¹, Magdalena Gębczyńska ¹

¹ Silesian University of Technology, Faculty of Organization and Management, Akademicka 2A, 44-100 Gliwice, Poland

Anna.Kwiotkowska@polsl.pl

Abstract. The subject of this paper is one of the strategic initiatives of the Metropolitan Association of Upper Silesia and Dąbrowa Basin, usually referred to in Poland as the Silesian Metropolis, which began its activity on January 1, 2018. The Silesian Metropolis lies within one of the largest urban areas in the European Union. The process of building a strong metropolitan center is a long-term process and will cover all areas of social and economic life, including space for the creation, development and further functioning of the start-up community with the support of the launched network of accelerators for start-ups. Accelerators help nascent firms, and particularly high-tech start-ups succeed in the early stages of development by providing services such as office spaces, mentoring, networking and a variety of educational programs. Accelerators are quite a new phenomenon; therefore, little research has done on accelerators. The purpose of this study is to contribute into explain the diversity found among accelerator. On the basis of conceptual reflection, it is shown that the configurational approach can be use in this case in particular, and in research on accelerators in general. In this paper, we have shown that research on accelerators can benefit from the input of configurational approach. To do so, we have given details of how the three main concepts of ideal type, “fit” and equifinality – developed from this approach – play a part in explaining the existence of several categories of accelerators. The main benefits from the conceptual framework lie in its highlighting of five coherent functional-structure pairings to which accelerators can be assimilated.

1. Introduction

The Metropolitan Association of Upper Silesia and Dąbrowa Basin, usually referred to in Poland as the Silesian Metropolis (Polish: Górnośląsko-Zagłębiowska Metropolia; Metropolia Silesia), was created in June 2017 by a decree of Poland's Council of Ministers as an expansion of the already existing Metropolitan Association of Upper Silesia (Polish: Górnośląsko-Zagłębiowska Metropolia). It started its activity at the beginning of 2018. The Silesia Metropolis, consists of 14 cities of Silesia and Zagłębie: Bytom, Chorzów, Dąbrowa Górnicza, Gliwice, Jaworzno, Katowice, Mysłowice, Piekary Śląskie, Ruda Śląska, Siemianowice Śląskie, Sosnowiec, Świętochłowice, Tychy and Zabrze. The seat of the metropolitan council is Katowice, the largest agglomeration of the Silesian Metropolis. The Silesian Metropolis lies within one of the largest urban areas in the European Union.

Metropolis and metropolitan area are commonly used terms to illustrate contemporary urbanization processes. The idea of metropolization is characterised by dualism because it aims to make stronger and maintain what is regional, our and specific, not only in the area of culture and folklore but also, or maybe first and foremost, in the pragmatic dimension, which is a chance for improving cooperation of



one functional coherent area in the national and international scale. This process aims to emphasize the region's specification and demands standardization and cooperation to integrate specific and different but close territorial units. It is based on the conviction that strength lies in unity. Moreover, the process of building a strong metropolitan center is a long-term process and will cover all areas of social and economic life. The main tasks of the Silesian Metropolis include, among others: establishing a common development strategy for cities forming the Metropolis, implementation of tasks covered by the joint urban development strategy included in the Metropolis, obtaining funds from domestic and foreign funds, road management, activating the labor market, supporting innovative economic programs and develop an entrepreneurial ecosystem which is define as a set of interdependent actors and factors coordinated in such a way that they enable productive entrepreneurship within a particular territory. Entrepreneurial ecosystem approach that explicitly focuses on how urban and regional contexts affect ambitious entrepreneurship, undoubtedly includes both the start-up community, universities, the investor community and business environment institutions. That's why one of the strategic initiatives of the Silesian Metropolis is construction of space for the creation, development and further functioning of the start-up community. This requires entrepreneurial support in the form of launching the network of accelerators for start-ups.

Accelerators typically focus on developing individual start-ups, but also help develop entrepreneurial ecosystems. These organizations are a new form of entrepreneurial support organization. They do so by acting as a bridge between start-ups and the broader entrepreneurial environmental resources by for example helping form connections, helping develop individual start-ups, helping coordinate the right match among the various players in the ecosystem, and helping select mentors and founders with the appropriate motivation and knowledge. As these accelerators apply this expertise in this go-between role, they help build commitment to the broader ecosystem. Furthermore, they enable success (or fast failure) of individual start-ups and do so in a way that develops the overall entrepreneurial capacity of the broader entrepreneurial ecosystem. Yet, research on the accelerators has been anaemic. There are several reasons for the lack of published research. In addition to the lack of comprehensive data sources, the newness of the phenomena is also an issue. Not enough time has passed since the inception of many programs to assess outcomes, particularly since accelerators tend to focus on extremely early stage start-up ventures and most start-ups have graduated from accelerator programs within the last five years. There is also a large gap of knowledge about which types of accelerators can be distinguished, and which ones should be developed from the point of view of satisfying the needs of a given region. The purpose of this study is to contribute into explain the diversity found among accelerator.

Diversity in the types of institution is essentially studied using the taxonomic approach. The problem with this approach is that it stems from a purely descriptive approach, which implies the absence of all explanatory aspects [1; 2]. As a result, the taxonomies cannot explain the diversity found in types of institution, in this case of accelerators. This is why certain authors are moving towards abandoning taxonomies in order to explore new approach [3]. This research paper, which is in line with this train of thought, will thus attempt to answer the following question: what theoretical framework can be used to explain the diversity found among accelerators?

To answer this research question, our work will be based on conceptual reflections. This process can be divided into two stages. First, we will review the theoretical perspective for research on accelerators by S. Dempwolf, J. Auer and M. D'ippolito (2014). We will show that the theory of configurations offers the most interesting perspective for this question. Next we will describe the key concepts of this theoretical approach to show how they play a part in explaining the diversity of accelerators. Secondly, we will present the main elements that explain the diversity among accelerators using the configurational approach, that is, the definition of five coherent structure pairing to which accelerators are assimilated.

2. Research on accelerators

The accelerator phenomenon has been cited nationally and internationally as a key contributor to the rate of business start-up success [4]. Accelerators help nascent firms, and particularly high-tech start-ups succeed in the early stages of development by providing services such as office spaces, mentoring, networking and a variety of educational programs [5; 6]. One of the earliest institutions to use the model of accelerators was The Foundry, in 1998 [7]. This was followed by Y –Combinator in 2005 and Techstars in 2006, which have since been credited as the leaders of the current accelerator models.

Early articles on the accelerator phenomenon defined them by the unique services they provide to entrepreneurs. For example, experts at the Kauffman Foundation explain that accelerators are organizations offering a suite of professional services, mentoring, and office space in a competitive program format [7]. Other scholars and institutions (including NBIA - The National Business Incubation Association - a membership organization for the incubator industry) have highlighted differences in the characteristics of organizations hosting accelerator programs. Scholars have since observed that a more precise definition is needed, especially to distinguish accelerators from business incubators. From a policy perspective, the organizational distinctions among these entities are useful. D. Isabelle (2013), D. Atkins (2011), and D. L. Hoffman and N. Radojevich-Kelley (2012) spelled out several of these distinguishing characteristics [6; 8, 9]. They found the following characteristics to be more typical of accelerators: they are for-profit organizations that receive equity in exchange for the provision of funding to the startups; they do not necessarily provide office space for the startups they support, but typically provide meeting space and they target regional, national, or even global startups. What more three key elements underlie the value added by accelerators: mentorship and the ability to learn from others who are more experienced, connectivity to a powerful network that can be leveraged by the new firm, and brand enhancement and signaling of legitimacy. Therefore, the general purposes of accelerators include: identification of investment opportunities, matching [of] customers with start-ups and stimulation of start-up activity and economic development [10; 11].

Some research highlights the role accelerators play in mediating the relationship between start-ups and investors. For example, D. L. Hoffman and N. Radojevich-Kelley (2012) multiple case study suggests that mentorship driven accelerator programs connect start-ups with potential investors [6], and J.-H. Kim and L. Wagman's (2012) game theory model highlights accelerators' role as certifiers of start-up quality [12]. J.-H. Kim and L. Wagman (2012), also raise an interesting tension: since accelerators are investors in the ventures that they are certifying, they might be incentivized to withhold negative signals about participating start-ups. Overall, much of the existing research is conceptual, lacking empirics [8, 12] or relying on a few case studies [6].

Study provides by S. Dempwolf, J. Auer and M. D'ippolito (2014) creates a taxonomy of startup assistance organizations [4]. The proposed taxonomy distinguishes accelerators from other startup assistance organizations based on the organization's value proposition and business model, both of which are influenced significantly by the accelerator's technology focus and the founder's motivation for starting. Through this taxonomy, three categories of startup assistance organizations are identified: (1) incubators and venture development organizations, (2) proof-of-concept centers, and (3) accelerators. Accelerators are further subdivided into university accelerators, corporate accelerators, innovation accelerators and social accelerators.

University accelerators are educational nonprofits that accelerate the development of student entrepreneurs and innovation at universities. University accelerators typically provide seed grants to support students through the early stages of development. Unlike for-profit accelerators, university accelerators do not take equity stakes in student-founded companies, and they are typically agnostic when it comes to technology focus [4]. Their physical facilities such as laboratories and workshops are an advantage when compared to independent accelerators as well. They enable them to focus on a vast variety of startups as they have the ability to provide them with the appropriate facilities. The main focus of first independent accelerators and still of most independent accelerators nowadays were the IT startups, which also do not require laboratories and similar facilities that independent lack. Corporate accelerators engage in the provision of seed capital and various combinations of mentoring,

technical assistance, networking, and facilities to entrepreneurs, inventors, and start-up teams to advance certain goals of the corporate or institutional parent. Corporate accelerators grow and manage portfolios of complementary start-ups to accelerate innovation and gain a competitive advantage. CorpVenturing assists Global 5000 companies with investing in innovation strategies and it suggests the following objectives as inherent to a corporate accelerator: find next-generation products in your industry that you can help commercialize, create an ecosystem of users and customers for your key products, drive innovation at a much faster pace than is possible internally, create growth options by taking stakes in interesting companies, gain a window into the technologies and business models that will be winners and profitably leverage your existing scale, distribution, and relationships into additional value [13]. Innovation accelerators are stand-alone, for-profit ventures in the business of: identifying cohorts of promising startup companies with rapid, high-growth potential, making seed-stage investments in those companies in exchange for equity, engaging in innovation-acceleration activities with these companies to help them obtain next-stage funding, cashing out for a profit when these companies are acquired or have successful IPOs [4]. Social accelerators are quite rare and display a mix of founder motivations that bridge public and private goods. These experimental accelerators may seek profit while relaxing aspects of the business model to accommodate objectives that advance the public good. They may also be founded for the purpose of accelerating nonprofit and social enterprise startups while adopting features that promote accelerator profit.

Taxonomies are classifications of items into ordered categories based on shared characteristics, from general, observed characteristics to unique and potentially unobserved characteristics. They are frequently used in biology (e.g., to classify species), but the method can be applied broadly and will be useful for differentiating among start-up assistance organizations. The goal of the taxonomy is to help identify and organize fundamental and observable characteristics of accelerators and disaggregate them from characteristics that they share with similar types of organizations. As a result, the existence of several groups of accelerators can be explained by the fact that each of them has adopted an organizational structure that is suited to its own context. This approach thus provides the first element for explaining the diversity among accelerators.

Although this theoretical approach is quite interesting, it is also limited by its position, which is determinist. This because organizations, which hope to attain a maximal level of performance, have no other choice but to adapt to contingency factors [14]. Such a determinist position is strongly criticised because of its resulting reductionism and excessive simplification [15]. To compensate for this, the theory of configurations has developed as an extension of the contingency theory, adopting a richer, more complex approach. The reductionism is no longer a problem because the organization is taken as a whole composed of multiple variables working together coherently. The configurational arguments acknowledge the complex and interdependent nature of organizations, in which fit and competitive advantage frequently rest not on a single attribute but instead on the relationships and complementarities between multiple characteristics [16]. The configurational approach therefore has a certain potential. It can provide a theoretical framework to explain the diversity of accelerators. The following section will show how the key concept in this approach can be used for this purpose.

3. An attempt to explain diversity among accelerators using a configuration approach

Configuration scholars argue that increased understanding of organizational phenomena, such as performance, can be better achieved by identifying commonality among distinct, internally consistent sets of organizations than by seeking to uncover relationships that hold across all organizations [17; 18]. Consequently, a deeper understanding of performance likely resides in uncovering the orchestrating themes and integrative mechanisms that ensure complementarity among a organization's various aspects [18; 19]. The configurational approach is based on three key concepts, all referring to the ideal type concept of "fit" and equifinality [20]. Thanks to them, this approach can turn out to be a useful way of explaining phenomena in different fields of research. For example, there is growing body of literature in which the configuration approach, which was originally introduced to business

studies is applied in the context of entrepreneurship research. Their reasoning is based on two main points.

The first concerns the holistic perspective on configuration domains (structure, strategy, etc.) calls the attention of the researcher to an analysis of the interaction of multiple potential success factors. Research in entrepreneurship must move towards a more integrative approach in order to develop theories and research questions that are more connected. The configurational approach, by studying how several dimensions work together to form coherent units, can make it possible to attain this target. The second point is that the theory of configuration provides concepts that are particularly relevant for studying the phenomena related to entrepreneurship. As an example, R. Harms, S. Kraus and E. Schwartz, used the trend for research on the performance of young companies and showed how the three key concepts of ideal type, “fit” and equifinality, developed from this approach, can be useful in such case [21]. On this ground, research on accelerators can benefit from the input of the theory of configurations as means of explaining the phenomena in which the field is interested, such a diversity of accelerators. To discuss whether the configuration approach can be applied in research on accelerators, it must first be analysed if key concepts of the configuration approach apply in this context. We discuss three key assumptions of the configuration approach: the ideal type concept, the concept of “fit” and the concept of equifinality.

An ideal type is a theoretical construct that can be used to represent a holistic configuration of organizational factors. The ideal type serves as “an abstract model so that deviation from the type can be noted and explained” [20]. R.E. Miles and C.C. Snow supported this alternative interpretation when they stated explicitly that they were presenting the “pure” form of each configuration [22]. Similarly, H.T. Mintzberg explicitly stated that ideal types represent pure forms of organization that are very difficult to observe in the real world [23]. In practice, organizations tend to resemble them to a greater or a larger degree. The closer they are, the higher their performance levels. Even though the combinations of organizational elements are unlimited, only a few of them lead to coherent configurations that organizations can resemble [24].

The literature identifies more or less the same number of categories of accelerators. The various classifications generally identify between three and four categories [4; 5; 7; 10]. The categories identified are usually: university accelerators, corporate accelerators, innovation accelerators and social or government back accelerators. It can be concluded from this that the existence of various groups of accelerators can be explained by the fact that they all manage to achieve a certain level of performance and that they are necessarily edging closer to the ideal types that are still to be defined. This observation led us to formulate first proposition: existing groups of accelerators are close to the ideal types of structures that produce maximal performances.

Many different conceptualizations of “fit” appear in the organizational literature. The interaction approach to “fit” characterizes many traditional theories, especially contingency theories, which typically define “fit” as the statistical interaction of two variables, for example between structure and environment, structure and technology, or structure and strategy. According to the concept of “fit”, performance results from the alignment of multiple domains pertaining to the organization (internal fit) and the environment (external fit). The concept of “fit” is central to the configuration approach since it is through the alignment of internal factors with one another and with external demands that the multitude of potential variable patterns is reduced to a few fitting organization types [21]. In the configuration approach “fit” results from the interaction of not only two, but three or more variables, thereby going beyond the contingency approach. Organizations generally try to maximise both internal and external fit. Units that do not succeed find themselves in a “misfit” situation. The origin of this situation can be, for example, a conflicted environmental context where attaining overall coherence is prevented by the contradictory contingency factors. Organizations that are in this situation lack coherence. The lack of coherence leads to inefficiency, which in turn, and as a result of economic pressure, leads to elimination. As a result, it is possible to explain the simultaneous existence of several categories of accelerators by the fact that they all succeed in findings an internal fit for their organizational structure, while at the same time adapting to their environmental context. This leads us

to make our second proposition: existing groups of accelerators manage to obtain both the internal and external fit for their structure together.

The next step in modelling a configurational theory is to state explicitly the relevant interpretation of the equifinality assumption, of which D. Katz and R.L. Kahn wrote that “a system can reach the same end state e.g., the same level of organizational performance from differing initial conditions and by a variety of paths” [25, p. 30]. Equifinality has recently received increasing attention in the management literature [e.g. 20; 26], because it provides a theoretical underpinning for the persistence of a variety of design choices that can all lead to a desired outcome, thus offering considerable promise for organization theory [e.g. 27]. Thus, in configurational equifinality, organizations choose a functional demand, or a group of functional demands that are not too conflicting with each other to respond with an organizational structure that has a certain internal coherence. Equifinality thus allows for several structure pairings that make it possible to attain the same level of performance. C. Gresov and R. Drazin discuss the concept of equifinality in more detail [28]. They posit that organizations differ with regard to the degree of conflict between the functional demands that they are facing (conflict of objectives), and with regard to the options that they have in order to deal with these functional demands. Each case (high/low conflict, high/low latitude) results in different types of equifinality. Configurational equifinality is the one that best characterises the situation of accelerators. Accelerators must effectively face up to many conflicting functional demands, with none recognised as being superior to another. From the literature, five main functions can be identified [4; 5; 6; 7; 9; 10; 11]. The first function concerns support local/regional economic development, through the encouragement of job creations and stimulate fast-growing small businesses. The second function is development of innovations, new technology and services, through support for projects with a high innovation dimension. What more it helps closing the innovation gap, as accelerators are providing corporations with the necessary coordination of ideas that fall outside the scope of existing business units and help a company to expand to new markets. The third is to develop and stimulate student entrepreneurs and to foster the closer links between universities and industry to facilitate effective research and technology transfer. The fourth function is to stimulate and promote start-up activity within a specific region or specific domains thus promote certain sectors of activity. The fifth function, which is the most recent and rarest, is to advance the public good by supporting projects that combine an economic and social dimension. In comparison to the diversity present in the functional requirements, the choice of structure is relatively free of constraints, accelerators are not limited in their choice of organizational structure by contingency factors. This observation on functional diversity and structural freedom shows that accelerators are in a situation of configurational equifinality. So accelerators have the choice between several function-structure pairings for achieve high performance, and this plays a part in explaining their diversity. We can formulate the next proposition: existing group of accelerators remind the five coherent function-structure pairings for achieve high performance.

In the literature the functional requirements of accelerators have been studied in detail, however they were relatively uninterested in the organizational structures implemented by accelerators. As a result, our knowledge of function-structure pairings remains incomplete. We believe that using configurational approach has made it possible to show that there are several structure that accelerators tend to resemble. Five main functions in the literature have been identified, which implies that there are five structure pairing. However, the five structures adapted to each for this five functions are still to be determined. The typology of organizational structures identified by H.T. Mintzberg may be useful for this purpose [29]. The main organizational structures that he identifies are as follows: entrepreneurial organization, machine organization (bureaucracy), professional organization, missionary organization, innovative organization (“ad hococracy”). An organization that approximates one of these ideal types is hypothesized to be more effective than other organizations, especially when its context fits the ideal type. From these ideal types, it is possible to identify structure adapted to each of five functions satisfied by accelerators.

The entrepreneurial organization has a simple, flat structure. It consists of one large unit with one or a few top managers. The organization is relatively unstructured and informal compared with other types of organization, and the lack of standardized systems allows the organization to be flexible. The entrepreneurial organization is fast, flexible, and lean, and it's a model that many companies want to copy. A particularly strong leader may be able to sustain an entrepreneurial organization as it grows, and when large companies face hostile conditions, they can revert to this structure to keep strict control from the top. This is why the entrepreneurial structure is associated with a differentiation strategy. What more, entrepreneurial organizations try to set themselves apart from each other by specialising in a niche market so as not to be limited by their low resources. In the case of accelerators, the function of promoting a given sector of activity exactly corresponds to a differentiation strategy, because it means specializing in projects, start-ups from a specific sector of activity. As a result, promoting sector of activity and entrepreneurial structure forms a coherent structure pairing.

The machine organization is defined by its standardization. Work is very formalized, there are many routines and procedures, decision-making is centralized, and tasks are grouped by functional departments. Jobs will be clearly defined; there will be a formal planning process with budgets and audits; and procedures will regularly be analyzed for efficiency. The machine organization has a tight vertical structure. Functional lines go all the way to the top, allowing top managers to maintain centralized control. These organizations can be very efficient, and they rely heavily on economies of scale for their success. In the functions of supporting local/regional economic development, accelerators aim to maximise the number of projects so as to create a maximum number of business. To do this, they position themselves in the domain of small business start-up projects, not required a long term support period, and accelerator can have supported a large number of such projects. The function of supporting local/regional economic development thus implies implementing significant financial, human, material resources, thus making the machine (bureaucracy) structure particularly well-matched for this function.

According to H.T. Mintzberg, the professional organization is also very bureaucratic. The key difference between these and machine organizations is that professional organizations rely on highly trained professionals who demand control of their own work. So, while there's a high degree of specialization, decision making is decentralized. This structure is typical when the organization contains a large number of knowledge workers. The professional organization is complex, and there are lots of rules and procedures. This allows it to enjoy the efficiency benefits of a machine structure, even though the output is generated by highly trained professionals who have autonomy and considerable power. This is why the professional structure is relevant for the function supporting research and technology transfer. Accelerators concerned by this function aim to promote on the market the discoveries made by researchers. This accelerators play the role of interface between universities and industry to facilitate effective research and technology transfer.

In the missionary organization, ideology serves as the prime means for coordinating work, achieving control through standardization of norms, forming the principal coordination mechanism. As a result, there tend to be few formal rules and regulations in the missionary organization. The missionary structure thus seems to be adapted to the function of supporting the public good. To satisfy this function, accelerators support projects with a social aspect. This desire to accompany social projects makes it possible to diffuse strong values within the accelerator. These values define the standards to which the employees adhere. In this way, employees are more deeply involved in the organization.

The innovative configuration forms in response to an environment which is complex and dynamic and draws together experts from different disciplines into "ad hoc" project teams focused on solving a particular problem, developing a new product or service, or responding to a specific market. This is a highly organic structure with little formalization of behaviour, according to H.T. Mintzberg, characterized by specialized jobs based on expertise, a tendency to group specialists by function for housekeeping purposes (but then deploy them in project teams to do their work), and a reliance on teams and task forces. It is precisely by breaking through the boundaries that are often created by

narrow specialization and by creating teams of experts from different disciplines that the innovative organization manages to produce innovative work. This structure is appropriate for the function of supporting the development of innovations. Accelerators turned towards this function support project with a high potential of innovation. For this reason, it is essential that these accelerators adopt a structure that stimulates the innovative capacities of these projects, which is what the adhocratic structure make possible, through its highly qualified personnel, considerable flexibility and high level of reactivity. For each of the five functions that accelerators can fulfil there is therefore an organizational structure that is adapted. Combining these five functions with the Mintzberg typology has made it possible to improve our knowledge of the function/structure pairing available for accelerators. The table below summarizes this knowledge.

Table 1. Five function-structure pairing for accelerators

Structure	Prime coordinating mechanism	Formalization	Decentralization	Accelerators function	Project supported
Entrepreneurial	Direct supervision	Low	Low	Promoting sector of activity	Specialized in a single sector
Machine	Standardization of work processes	High	Low	Local/regional economic development	Several sector of activity
Professional	Standardization of skills	Variable	Decentralized	Research and technology transfer	Academic
Missionary	Standardization of norms	Low	Conditional	Advance the public good	Social
Innovative	Mutual adjustment	High	Intermediate	Development of innovations	Technological

Adapted from [3;30].

4. Results and discussions

Not all accelerators are identical. They have a wide range of different objectives and characteristics. These differences can be identified in the literature by means of a number of typologies. However, despite the indisputable explanatory potential, this approach has been criticised for its excessive reductionism which only makes a partial explanation of the phenomena possible [15]. The fact remains that most typologies are based on relatively similar classification criteria. As a result, the typologies are often poorly differentiated. It thus seems necessary to diversify the classification criteria further so as to improve our understanding of accelerators. This is why we come back to the theory of configurations which has developed as an extension of it in response to the critics. In this paper, we have shown that research on accelerators can benefit from the input of the configurational approach. To do so, we have given details of how the three main concepts of ideal type, “fit” and equifinality – developed from this approach – play a part in explaining the existence of several categories of accelerators. The main benefits from the conceptual framework lie in its highlighting of five coherent functional-structure pairings to which accelerators can be assimilated.

5. Conclusions

The results of this work can be double useful. Firstly, from a theoretical point of view, future research can clearly benefit from new conceptual framework, which is an interesting perspective for studies on management of accelerators and their evaluation. Secondly, this work may be useful from a managerial point of view, especially for decision-makers or managers of the newly established and created Silesian Metropolis. For which development it is extremely important to build an entrepreneurial ecosystem, including knowledge-based institutions such as accelerators. Metropolitan managers and local authorities can use the five function-structure pairings to which accelerators can be assimilated, as a tool for more precise planning of business environment institutions development, adapted to various functions and needs of this region. They can effectively orient any founding granted

to accelerators in such a way as to develop certain structure pairing rather than others. It is possible to envisage the impulsion of new accelerators following an audit of this region highlighting the non-representation of certain function-structure pairings. Given the difficulties associated with evaluating the performances of accelerators, metropolitan managers can also choose to evaluate the degree of adjustment of the structure pairing for each accelerators. Finally, the managers of accelerators may adhere to a proactive approach and indicate themselves the readjustments necessary thanks to knowledge of the five function-structure pairings. This knowledge can also allow them to carry out a competitive analysis of their environment and thus judge the relevance of position of their accelerators. Accelerators can improve their positioning in the local environment and develop ever-more pertinent strategies. In conclusion, it should be specified that this paper is a conceptual reflection that has made it possible to make propositions. These propositions still need to be the subject of validation through an empirical study.

References

- [1] D.J. Ketchen, J.G. Combs, C.J. Russell, C. Shook, M.A. Dean, J. Runge, F.T. Lohrke, S. E. Naumann, D.E. Haptonstahl and R. Baker, "Organizational configurations and performance: A meta-analysis", *Academy of Management Journal*, 40(1), pp. 223-240, 1997.
- [2] D. Miller, "Configurations revisited", *Strategic Management Journal*, 17(7), pp. 505-512, 1996.
- [3] Ch. Bakkali, K. Messeghem, and S. Sammut, "Toward a typology of incubators based on HRM", *Journal of Innovation and Entrepreneurship*, 3(3), 2014.
- [4] S. Dempwolf, J. Auer and M. D'Ippolito, "Innovation Accelerators: Defining Characteristics Among Startup Assistance Organizations", Optimal Solutions Group, LLC, College Park, MD 20740, 2014.
- [5] S. Cohen, "What Do Accelerators Do? Insights from Incubators and Angels", *Innovations*, 8(3-4), pp. 19-25, 2013.
- [6] D.L. Hoffman and N. Radojevich-Kelley, "Analysis of Accelerator Companies: An Exploratory Case Study of Their Programs, Processes, and Early Results", *Small Business Institute Journal*, 8(2), pp. 54-70, 2012.
- [7] B. Fishback, C.A. Gulbranson, R.E. Litan, L. Mitchell, and M. Porzig, "Finding Business 'Idols': A New Model to Accelerate Start-Ups." Ewing Marion Kauffman Foundation, Kansas City, MO, 2007.
- [8] D. Isabelle, "Key Factors Affecting a Technology Entrepreneur's Choice of Incubator or Accelerator", *Technology Innovation Management Review*, Retrieved August 11, 2014 from <http://timreview.ca/article/656>, 2013.
- [9] D. Adkins, "What are the New Seed or Venture Accelerators?" *NBIA Review*, 5, 2014 from http://www.nbia.org/resource_library/review_archive/0611_01.php, 2011.
- [10] B. Clarysse, M. Wright, M. and J. Van Hove, "A look inside accelerators in the United Kingdom: Building technology businesses", In P. H. Phan, S. A. Mian, and W. Lamine (Eds.), "Technology entrepreneurship and business incubation: Theory, practice, lessons learned" (pp. 57–86). London, U.K.: Imperial College Press, 2016.
- [11] C. Pauwels, B. Clarysse, M. Wright, J. Van Hove, "Understanding a new generation incubation model: The accelerator", *Technovation*, 50–51, pp. 13–24, 2016.
- [12] J.-H. Kim and L. Wagman, "Early-Stage Financing and Information Gathering: An Analysis of Startup Accelerators", SSRN Scholarly Paper ID 2142262. Rochester, NY: Social Science Research Network, <http://papers.ssrn.com/abstract=2142262>, 2012.
- [13] CorpVenturing, Corporate Accelerators webpage. <http://www.corpventuring.com/services-corporate-accelerators.html>, accessed April 7, 2014.
- [14] W.G. Astley and A.H. Van de Ven, "Central perspective and debates in organization theory", *Administrative Science Quarterly*, 28 (2), pp. 245-273, 1983.
- [15] G.G. Dess, S. Newport and A. Rasheed, Configuration research in strategic management: Key issues and suggestions", *Journal of Management*, 19(4), pp. 775-795, 1993.

- [16] N. Siggelkow, “Evolution towards fit”, *Administrative Science Quarterly*, 47, pp. 25–159, 2002.
- [17] D.J.J. Ketchen, J.B. Thomas and C.C. Snow, “Organizational configurations and performance: a comparison of theoretical approaches”, *Academy of Management Journal*, 36, pp. 1278–1313, 1993.
- [18] D. Miller, “Configurations revisited”, *Strategic Management Journal*, 17, pp.505–512, 1996.
- [19] J.A. Black and K.B. Boal, “Strategic resources: traits, configurations and paths to sustainable competitive advantage”, *Strategic Management Journal*, 15, pp. 131–148, 1994.
- [20] D.H. Doty, W.H. Glick and G.P. Huber, “Fit, equifinality and organizational effectiveness: A test of two configurational theories”, *Academy of Management Journal*, 36(6), pp. 1196–1250, 1993.
- [21] R. Harms, S. Kraus and E. Schwartz, “The suitability of the configuration approach in entrepreneurship research”, *Entrepreneurship & Regional Development*, 21(1), pp. 25-49, 2009.
- [22] R.E. Miles and C.C. Snow, “Organization strategy, structure, and process”. New York: McGraw-Hill, 1978.
- [23] H. T. Mintzberg, “Structure in fives: Designing effective organizations”, Englewood Cliffs, NJ: Prentice-Hall, 1983.
- [24] A.D. Meyer, A.S. Tsui and C.R. Hindings, “Configurational approaches to organizational analysis”, *Academy of Management Journal*, 36(6), pp. 1175-1195, 1993.
- [25] D. Katz and R.L. Khan, “The social psychology of organizations”, New York, Wiley, 1978.
- [26] D. Marlin, D.J. Ketchen, and B. Lamont, “Equifinality and the strategic group-performance relationship”, *Journal of Managerial Issues*, 19, pp. 208–232, 2007.
- [27] P.C. Fiss, “Building better causal theories: A fuzzy set approach to typologies in organization research”, *Academy of Management Journal*, 54, 2, pp. 393–420, 2011.
- [28] C. Gresov and R. Drazin, “Equifinality: Functional equivalence in organization design”. *Academy of Management Review*, 22, pp. 403–28, 1997.
- [29] H. T. Mintzberg, “Mintzberg on management: Inside our strange world of organizations”, New York: Free Press, 1989.
- [30] V. Lemieux, “Applying Mintzberg’s theories on organizational configuration to archival appraisal”, paper presented at the Association of Canadian Archivists Conference in Halifax, Nova Scotia, 28–30 May, 1998.