Understanding the Interplay Between Startups and Accelerators for Early-Stage Resource Mobilization

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Abstract: Startups, representing the engine of innovation and technology entrepreneurship, face the challenge of securing resources for sustainable growth while generating innovative solutions. Startup accelerators have rapidly emerged as prominent players in the entrepreneurial ecosystem, providing resources, mentorship and training to startups. However, a deeper analysis of how startups approach accelerator programmes is often overlooked in the literature. Drawing on a multiple case study of 9 AI-based startups located in Italy that participated in different acceleration programmes, we explore how startups’ teams engage with acceleration programs. We find that early-stage startups engage with accelerators that focus on learning and validation mechanisms with the aim of searching for and accessing human capital, while they turn to accelerators that focus on access and reach mechanisms with the aim of pursuing market access and scaling objectives. The implication of these research could benefit both theory and practice by enhancing the understanding of the interplay between startups and accelerator programs, and by offering insights to founders to align participation with the stage and goals of their startups.

1 INTRODUCTION

The startup ecosystem represents the heartbeat of innovation and productive entrepreneurship (Stam, 2015). Characterized by novel business models and innovative ideas, startups distinguish themselves for their rapid growth and ambition to revolutionize existing markets, often by leveraging disruptive digital technologies (e.g., Ghezzi, 2019; Paul, Alhassan, Binsaif, & Singh, 2023). In this rapidly evolving context, the primary challenge for these young enterprises is not only to devise innovative solutions but also to acquire the necessary resources for growth, including human, social and financial capital (Aldrich & Auster, 1986; Freeman, Carroll, & Hannan, 1983). In recent years, the remarkable growth in startups and increased venture activity has been accompanied by the rise of new intermediaries within startup ecosystems. Among these, accelerators emerge as a particularly influential and widely adopted organizational form (Bergman & McMullen, 2022; Clayton, Feldman, & Lowe, 2018; Hathaway, 2016). We refer to accelerators as “fixed-term, cohort-based programs that includes mentorship and training components and culminates in a public event or demo-day” (S. Cohen & Hochberg, 2014). Originating with Y Combinator in 2005, the global prominence of accelerators is witnessed by numbers, with over 3000 worldwide as of 2023, over 1000 of which are in the United States alone (Betaboom, 2023). While the importance of accelerators is widely acknowledged, a substantial gap exists in understanding the dynamics between startups and these entrepreneurial support programs (Bergman & McMullen, 2022; Crișan, Salanță, Beleiu, Bordean, & Bunduchi, 2021).

This study contributes to prior entrepreneurship literature in two ways. First, it observes the interplay between the characteristics of the acceleration program and accelerator and the intent of the participating startups, in relation to their stage of development. Second, it unveils the role of different accelerators mechanisms in facilitating the Search, Access, and Transfer of resources necessary for startups’ sustaining growth (Clough, Fang, Vissa, & Wu, 2019).
THEORETICAL BACKGROUND

2.1 Startups and Resource Mobilization

Startups face challenges known as “liabilities of newness”, referring to the challenges arising from their youth such as limited size, and resource constraints, hindering legitimacy and competitiveness (Aldrich & Auster, 1986; Freeman et al., 1983). Therefore, Entrepreneurial Resource Mobilization is a pivotal aspect of entrepreneurship, focusing on acquiring and utilizing resources efficiently to seize entrepreneurial opportunities (Hallen & Eisenhardt, 2012). Rooted in resource mobilization theory, this concept emphasizes the process of acquiring tangible and intangible assets, critical for entrepreneurs. Entrepreneurial success relies on the strategic mobilization of diverse forms of capital, including human capital for innovation, social capital for network-driven resource acquisition, and financial capital for investments (Davidsson & Honig, 2003; Lerner & Nanda, 2020; Portes, 1998).

Clough and colleagues (2019) propose three distinct phases – Search, Access, and Transfer – that form a comprehensive framework for understanding how these resources are mobilized by entrepreneurs.

The Search phase pertains to the cognitive aspects related to the aspiration-driven identification of potential resource providers amidst uncertainty (e.g., Aldrich & Kim, 2012; Hallen & Eisenhardt, 2012). The Access phase centers on convincing resource owners to allocate their assets to the new business endeavor, covering skills, relationships, and financial resources (e.g., Baker & Nelson, 2005).

Lastly, the Transfer phase encompasses negotiation and agreement between entrepreneurs and resource owners regarding management, property rights, and value distribution, all influenced by transaction costs that can impact resource exchange (e.g., Villanueva, Van De Ven, & Sapienza, 2012).

2.2 Accelerators

Accelerators offer intensive, time-limited programs, bridging startups to vital resources and positioning themselves as brokers within the broader entrepreneurial ecosystem (S. Cohen & Hochberg, 2014; Cîrîșan et al., 2021).

Accelerators substantially differ according to the array of interventions they deliver through a diverse range of services to startups (e.g., mentoring, training, financial support, etc.) (Crișan et al. 2021). Therefore, the effectiveness of startup accelerators varies according to accelerator design, mentor interactions, and peer networking offered. Given a set of services provided by accelerators (Pauwels, Clarysse, Wright, & Van Hove, 2016), research identifies four fundamental mechanisms that accelerators enable, and that connect services to outcomes: Validation (i.e., acceptance/validation of business ideas), Learning (i.e., possibility to acquire entrepreneurial skills), Access and Growth (i.e., access to resources and capital), and Innovation (i.e., support to product development). These mechanisms emerge as the primary explanatory characteristics of accelerators, outlining how services lead to outcomes. While specific contexts are associated with certain interventions, such as globally recognized accelerators prioritizing top-level tangible outcomes, an accelerator's modus operandi may be better explained by the link between interventions and outcomes (Pauwels et al. 2016).

The intentions of founders when participating in an acceleration program add an additional layer of complexity. For example, prior research examines how startups approach accelerator programs, and how their interaction with the temporal structure of accelerators impact on venture development (Qin, Wright, & Gao, 2019). They discovered that startups may either try to engage concurrently on multiple tasks leveraging the different services offered by the program, or they focus with intensity on a primary task at time. Few studies investigate startup participation in these programs from the startup's perspective, particularly exploring how startups strategically approach participation within a program. Therefore, the research questions investigated in this study is “How do entrepreneurs strategically leverage startup accelerators participation to support their ventures' early-stage resource mobilization?”.

3 METHODOLOGY

3.1 Research Design

We selected startups’ teams approaches to acceleration programs as our unit of analysis. As this new angle of research field is mostly unexplored, we believe that new theory can emerge (Bansal & Corley, 2011). Therefore, we adopted an empirical qualitative multiple-case study approach, which is helpful for theory building based on in-depth field investigation that seek to understand certain manifestations of the phenomenon (Eisenhardt & Graebner, 2007; Meredith, 1998).
3.2 Empirical Setting and Case Sampling

The cases were selected by the mean of theoretical sampling, for the likelihood they would have offered theoretical insights (Eisenhardt and Graebner, 2007). For this reason, we decided to focus on early-stage startups participating in Italian accelerator programs. For the case selection, we draw from a proprietary database listing Italian accelerator, and from Pitchbook, a subscription-based website covering private capital markets such as venture capital and private equity. To maintain consistency and relevance in the sample, we applied the following criteria: (i) artificial intelligence was selected as the focus sector, in order to reduce the potential biases of environmental heterogeneity (Eisenhardt and Graebner, 2007); (ii) we considered only early-stage startups born from 2020 to 2022, in order to be able to investigate entrepreneurial resource mobilization mechanism in an early stage of development; (iii) As we progressed through the sampling process, a noteworthy observation emerged – many startups participated in multiple acceleration programs. Recognizing the significance of the phenomenon, we found it to be an excellent springboard for answering our research question. Consequently, we made the deliberate decision to include only startups that meet this criterion, adding depth and relevance to our study. Once a sufficiently large initial sample was gathered, the cases were filtered to select the most notable examples for examination, ensuring the alignment with the research’s design. As a result, the final sample consisted of 9 AI-based startups: Startup A, Startup B, Startup C, Startup D, Startup E, Startup F, Startup G, Startup H, and Startup I.

By building on Crișan and colleagues (2021), we categorized all the accelerator programs in which the startups in our sample have participated into two distinct groups, according to the type of services offered, by relying on secondary data (e.g., websites, with or without wayback machine). The first group of accelerator programs places a strong emphasis on Learning and Validation mechanisms, achieved through dedicated efforts in team building, training sessions, and mentorship, among the others. The second group of accelerator programs prioritizes Access and Growth mechanisms, typically welcoming within their cohorts only startups that have already identified a product-market fit and are poised for scaling.

3.3 Data Collection and Analysis

Multiple sources of information were used, including primary and secondary sources, such as semi-structured interviews with founders and accelerators C-levels – having substantial and exclusive knowledge pertaining to the subject under investigation (Aguiinis & Solarino, 2019) – as well as information from the startups’ and accelerators’ websites, podcasts and video-interviews, and third-party articles (Yin, 1984). The researchers conducted 21 semi-structured interviews over two distinct waves, with a total of 953 minutes of material was recorded, and the results were transcribed into 288 pages. To improve the overall rigor of the case study, as recommended by (Eisenhardt, 1989) and Yin (1984), the final outcome of primary data was triangulated with secondary sources.

After the data collection phase, we conducted a within-case study analysis. The Gioia Methodology (Gioia, Corley, & Hamilton, 2013) was adopted to study each case according to an open coding practice, allowing to investigate complex phenomena using labels, thus generating theory from data (Gioia et al., 2013).

As our data analysis unfolded, we have recognized three different layers across which the data could be classified according to resource mobilization theory (Clough et al., 2019), namely (1) search, (2) access, (3) transfer.

Subsequently, we articulated data according to these two dimensions: on the one hand, we clustered the data according to the two clusters of accelerators (i.e., learning and validation, access and reach), and then we articulated the data across the tree resource mobilization mechanisms (i.e., search, access, transfer). Table 1 offers a selection of categories explaining the connection between the two dimensions described above. We further considered a third overarching dimensions of analysis related to the startup approach across acceleration programs.

4 RESULTS

We adopt a narrative approach to describe our findings (Berends & Deken, 2021), following the different overarching dimensions we have developed.

Cluster 1: Participation in Learning and Validation Accelerators

Search. The startup’s participating in these programs were still in an embryonic stage, often still seeking to
fill a perceived gap in entrepreneurial skills, and to validate their business idea. As an interviewee from Startup F reported: “On the technological level, we were prepared, but on the business, marketing and sales side we had no experience or expertise”.

Moreover, these startups have often objectives related to the need of validating a concept, conducting tests, and determining whether the business idea is feasible and has potential utility (“we had an idea and we wanted to see whether it could have become a product” – an interviewee from Startup G reported).

**Access.** A big concern of participants within Learning and Validation programs is to find to attract crucial early team members. These attention securing mechanisms were facilitated by the acceleration programs. For example, as an interviewee from Startup B explained: “[thanks to the acceleration program] we hired as our first employee a human resources expert who became our Head of People and took care of the whole recruiting part”.

Secondly, the training services offered by Learning & Validation acceleration programs bridges the knowledge gap of entrepreneurs related to their inexperience. As reported by an interviewee from startup A, training and mentoring sessions were provided by industry experts on “how to do the pitch, how to open the company, and how to do due diligence”, thus reinforcing the set of skills and knowledge of the entrepreneurial team. Moreover, participants were supported in designing and conducting tests to validate their business model (“we received constant training and feedback throughout the process, receiving extensive training on what would have been the problems and issues in the startup world (...) it’s all based on: building the idea, training, heavy validation of what your idea is.” – an interviewee from Startup B reported).

Third, Learning and Validation accelerators facilitate meaningful connections with a community of inquiry for your business. As reported by an interviewee from Startup D: “when they feel that a person from their network could be very useful to your business, instead they send you an email, put you in touch and then let you kind of continue the conversation”.

Finally, startups are kicked out of the nest only in the final stages of the program, where they often approach investors in the Demo Day. As reported by an interviewee from Startup F: “During the Demo Day, we had the opportunity to be introduced to various investment funds”.

**Transfer.** The main transfer mechanisms in Learning and Validation accelerators are related to team formation, as the acceleration program actively nurture the collaborative processes that lead to the creation of high-functioning teams. As an interviewee of Startup B reported: “We were able to get to know other people, understand each other, and be guided in creating a team that was functional.”

**Cluster 2: Participation in Access and Growth Accelerators**

**Search.** Startups that enter an Access and Growth accelerator program are typically in a more advanced stage of development and possess distinct objectives. First, they are searching for valuable partners, investors and market access. As referred by an interviewee from Startup D: “[the objectives were] getting money, industrial partners that allow us to scale the market, so that gives us firepower in terms of business development”. Many interviewees reported that they participate in the access and growth acceleration program with the specific aim to find a main investor. Another common goal within these programs is the desire to establish connections with the aim of entering untapped markets. This goal is often exemplified by participation in international accelerators in order to establish international relationships. As an interviewee from Startup D explained: “the goal was to start getting to know the UK market (...) in order to understand the dynamic of a new and foreign market”.

**Access.** When participating in Access and Growth accelerators, participants main concern is to be able to access the social network of the accelerator program. To this extent, the accelerator act as a facilitator, performing introductions and creating trust between the resource seeker and potential resource holder (“Getting to large realities such as banks and insurance companies is extremely difficult for a start-up without someone introducing you, and many of the larger customers we have were introduced to us by the network of investors we have” – an interviewee from Startup G reported. Interaction with accelerator’s network of resource holders is also often structured on a time basis, and accelerator partners are often companies that sponsor the programs to gain access to innovative ideas and teams. As explained by an interviewee from an accelerator program attended by many of the startups in our sample: “Once a week there’s a meeting with at least one of the partners to put something together, get to know each other, deepen talks, and carry on any possible form of collaboration and interaction with the startups.” Access and Growth accelerator programs also facilitate the interaction with financial resource holders. Accelerators have a network of investors and when they see that start-ups are ready,
they are willing to make introductions. As reported by an interviewee from Startup D: “Since we have been in the program, we have talked with 4-5 funds that we clearly could have talked to before, but it would have been more difficult to get there”.

**Transfer.** Access and Growth accelerators act also as resource providers, providing a financing ticket to the startup participating in the program (“we receive from the accelerator 100,000 euros, plus another potential 180,000 euros of follow-on” – an interviewee from Startup D explained). Moreover, these accelerators also favor the transfer of other forms of financial capital such as access to software from crucial service providers. For example, an interviewee from Startup A reported “[the accelerator] have AWS as a partner, and we have over 200,000 euros in credits, which is crucial for us because our whole AI model is based on AWS”.

Finally, access and growth accelerators also foster transfer mechanisms by actively supporting startups in fundraising with external funding providers, helping them finalizing the round.

**Acceleration Approach**

Our analysis reveals that start-ups try to strategically approach participation in accelerators by taking a more or less targeted approach to the services provided by accelerators.

Startups participate in Learning and Validation accelerators adopting a more comprehensive approach to the different services offered, due to the higher degree of uncertainty and inexperience they face. Here, startups have the possibility to learn and validate their business models, thus reducing the uncertainty and refining their strategy (“In the early stages, the added value is that it really makes you make the effort to put yourself there and pull down the company vision for the next one or two years.” – an interviewee from Startup A reported).

On the other side, the results highlight how startup adopt a more focused approach in their subsequent participation in Access and Growth accelerators. As reported by an interviewee of Startup E “We came into the accelerator already with a viable product on the market and with paying customers, so actually we have our own road and we know what we have to do [enlarge market access]”.

### Table 1: Interplay between Entrepreneurial Resource Mobilization mechanisms and Acceleration mechanisms.

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Learning and Validation Accelerators</th>
<th>Access and Growth Accelerators</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Layer</strong></td>
<td><strong>Search</strong></td>
<td><strong>Access</strong></td>
</tr>
<tr>
<td><strong>Search</strong></td>
<td>Complete initial team composition</td>
<td>Fill entrepreneurial skills gaps</td>
</tr>
<tr>
<td><strong>Access</strong></td>
<td>Connect with potential team members</td>
<td>Connect with community of inquiry</td>
</tr>
<tr>
<td><strong>Transfer</strong></td>
<td>Nurture the formation of the team</td>
<td>Obtain financing ticket and perks</td>
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</tbody>
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**Figure 1: Empirical Model.**

### 5 DISCUSSION AND CONCLUSIONS

This research proposes a new angle to studying accelerators by changing the unit of analysis (Makadok, Burton, & Barney, 2018). In particular, it observes how the process entrepreneurial resource mobilization process evolves throughout the
subsequent programs’ participation. The combination of these findings leads us to the empirical model illustrated in Figure 1. This paves the way for a twofold contribution.

First, this study expands upon existing research on the acceleration strategies employed by entrepreneurs, by showing the relation between the degree of focus on a limited number of services and the early involvement in different types of accelerators.

Second, this research provides a fine-grained view of the entrepreneurial resource mobilization mechanisms within accelerator programs, and how they differ in the light of the startup development stage.

**Startup Approaches to Acceleration Programs**

For effective participation in an acceleration program, a startup must be capable of efficiently acquiring resources, overcoming time compression diseconomies arising from the compression of the venture development process (Qin et al., 2019). This research observes the relationship between the characteristics of the program offered by an accelerator and the intent of the participating startups, observing how the efficacy of a program goes beyond the intrinsic characteristics and set of services offered from the accelerator (Chan, Patel, & Phan, 2020; S. L. Cohen, Bingham, & Hallen, 2019). Startups that participate in acceleration programs that focus on learning and validation mechanisms (often the first participations in acceleration programs) exhibit an interest in leveraging all available services to establish foster their venture development (Qin et al., 2019). Conversely, startups later participation within accelerators whose main focus is on access and growth mechanisms, where startups are solely interested in a limited range of services and have targeted resource objectives related to market access and scaling, are characterized by focused approaches.

**Entrepreneurial Resource Mobilization Mechanisms within Accelerators**

This study contributes to the existing literature on resource mobilization by analyzing the role of different accelerators programs at various stages of startup development in facilitating the Search, Access, and Transfer of resources necessary for sustaining growth (Clough et al., 2019). Both accelerator programs identified in this study place a focus on the resource mobilization phase, but the mechanisms of entrepreneurial resource mobilization vary depending on the type of acceleration program considered.

The search for resources by startups varies based on their stage of development and their objectives related to participation in the acceleration program. Startups that take part into Learning and Validation accelerators seek to fill entrepreneurial skills gaps, validate their business idea, and acquire human capital (Gabrielsson, Politis, Persson, & Kronholm, 2018). On the other hand, Access and Growth accelerators provide support to startups during the stages of product commercialization and company growth (Del Sarto, Cruz Cazares, & Di Minin, 2022). Startups that take part in these accelerator programs are more mature and seek mainly for the social and financial capital that can stimulate their growth (Lerner & Nanda, 2020; Portes, 1998).

For the access stage, accelerators focused on Learning and Validation mechanisms mainly assist team formation and matching between human capital requirements. Moreover, they facilitate the development of entrepreneurial skills within with the provision of training programs and mentoring sessions (Davidsson & Honig, 2003). On the other side, accelerators focused on access and growth mechanism center on favoring the connections with potential customers, partners and investors with the specific aim of commercialize their products and acquire financial resources (Shankar & Shepherd, 2019).

Finally, the degree of emphasis on the transfer stage varies significantly among accelerator types. being especially present within Access and Growth accelerators, where startup receive directly from the accelerators financial resources, or it is supported in building agreements with external financial resources providers (Gibbons & Henderson, 2012).

**Practical Contributions**

The results of our study can help founders navigating the complex landscape of accelerator programs. Our research emphasizes the importance of making "conscious" participations in line with one’s stage of development and verifying the fit between sought and offered resources. In this regard, the research argues that the impact of an accelerator depends on the characteristics of both the accelerators and the participants, showing the relevance of the approach in the matter.

**Limitations and Future Developments**

This study possesses some limitations. Specifically, the limited sample size, consisting of only ten startups, hampers the generalizability of the findings. Additionally, this study exclusively focuses on
startups operating within the artificial intelligence sector in Italy. Subsequent research endeavors could investigate sectors beyond artificial intelligence and explore diverse geographical regions apart from Italy. Employing a quantitative approach could further enhance the generalizability of the results.

REFERENCES


