A life cycle perspective of startup accelerators

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Abstract

Accelerators are broadly seen as platforms that government, non-profit, and for-profit organizations use to fast-track the development of entrepreneurial and SME business capabilities. Typically, this occurs as competitive, time-constrained, cohort-centered, authentic learning experiences supported by mentoring and access to the local entrepreneurial ecosystem, management development programs, and financial resources. Interest in how the ventures in the development programs evolve and contribute to the entrepreneurial ecosystem is increasing (Cantner et al., 2021), but how the accelerators evolve has yet to be adequately researched. To better understand how accelerators evolve, we adapt Churchill and Lewis's (1983) conceptual framework of the stages of small business development. This study investigated the life cycle of Australian accelerators from 2013 to 2020. The accelerators ranged from short-term "pop-up" programs to permanent programs. We found through a series of four selected exemplar case studies that these accelerators exhibited a similar four-stage life cycle to their participants, including (1) gestation, (2) survival, (3) viability, and (4) decline or renewal. We also found that external support was a critical issue that determined viability. Our findings support the development of accelerator management to be more agile, resilient, and entrepreneurial, which can confront those adopting a more standardized franchise model. In addition, we adapt Kohler's (2016) work on corporate accelerators into an inclusive framework for all forms of accelerators, including considering their geographic context or Place, the actors involved with the accelerator or its People, the accelerator's value Proposition to participants, the accelerator's Processes and most fundamentally, its Purpose that will contribute to the entrepreneurial ecosystem practice and literature. This research

provides practical considerations on positioning, suitable business models, and maximized operations.

Introduction

Accelerators are for-profit or not-for-profit organizations embedded in many entrepreneurial ecosystems as capacity-building "venture development programs" (Woolley & MacGregor, 2021). Recent work by scholars such as (Gonzalez-Uribe and Leatherbee 2017; Pauwels et al. 2016) suggest that accelerators often serve the fundamental needs of entrepreneurial ecosystems (EE) to provide infrastructure for startup support. The accelerator meets this critical need for startups by leveraging the EE's portfolio of community capitals, including entrepreneurial/social, financial, human, political, built and cultural capitals (Bliemel et al. 2019).

Participants often seek experiences that help prepare them to create or develop opportunity-driven, innovative, equity-funded, growth-focused global enterprises harvested through acquisition or an initial public offering (Morris et al., 2015). Accelerators offer access to a portfolio of resources such as social networks, funding, authentic training, and management development to support startups in recognizing, assessing, and exploiting attractive opportunities in a low-risk environment (Bliemel et al., 2019; Miles et al., 2017). Accelerators are typically organized as stand-alone ventures or hosted by other organizations, such as corporates, who use accelerators to generate cultural change, strategic benefits, and financial returns (Miles & Covin, 2002). The rapid increase in the amount and types of accelerators around indicates the importance of "accelerator programs (that) are a combination of previously distinct services or functions that were each individually costly for an entrepreneur to find and obtain where they would have to" (Hochberg, 2016, p. 25). Accelerators must increasingly provide more than a "one-stop-shop" for startups to access a range of services in one place. As the sector matures, accelerators continuously refine their focus to specialize and diversify their services and products.

Accelerator programs can be temporary organizations designed to develop an ecosystem and stimulate specific economic activity. One example of a 'built for purpose' accelerator is the Australian Walan Mayinygu Indigenous-focused program for regional community and economic development in New South Wales, Australia, with a three to four-day "pop-up" program supported by banks, Indigenous Business Australia, and a regional university (https://research.csu.edu.au/engage-with-us/incubators). Temporary accelerator programs serve a specific purpose by addressing a particular need or problem in the ecosystem. Once the issue is resolved or a certain level of development is achieved, these programs are often dismantled or modified to cater to other demands or address different issues. Likewise, they can be associated with public or private investment organizations, such as community development programs or private equity firms, to create investment opportunities (Crișan et al., 2021). Some accelerator models operate more like a franchise, with a common brand, operating model, and network, like Tech Stars or Founders Institute at a global scale, plus others at national or regional scales.

In some cases, accelerators also have a very focused audience in mind, where the main aim would be to develop a particular type of entrepreneur. For example, accelerators that aim specifically to develop or support female entrepreneurs (Avnimelech & Rechter, 2023), corporate entrepreneurs (Urbaniec & Żur, 2021), or to attract a specific type of entrepreneur, e.g., transnational entrepreneurs (Brown Mawson, Lee, & Peterson, 2019). Some of these accelerator programs are also "the source of a wide range of innovations in different fields, such as high-tech, green technology, urban development, transportation, e-commerce, social media and energy" (Drory & Wright, 2018, p.1). Accelerators serve purposes across levels, including supporting individual development, startups, and the broader entrepreneurial ecosystem (Caiazza et al., 2020; Cunningham et al., 2021).

Research on accelerators usually considers how they support entrepreneurship. Here, we investigate how accelerators are entrepreneurial organizations that evolve in dynamic environments. While business incubators have evolved multiple times over decades (Bruneel et al., 2012), much more is needed to understand how accelerators evolve and the triggers of their evolution. While the startups undergo a process of metamorphosis, the accelerators that support them must also adapt to the entrepreneur's opportunity set to provide adequate support. Likewise, as startups transition due to rapidly changing business environments, accelerators must evolve to meet customer and market demands (Ismail, 2020). This leads to pressures on the business model and processes regarding what they focus on and how they execute this. As an accelerator's mentor network matures, funding stabilizes, and the brand grows, so does the accelerator's need to change how they see themselves and proactively plan to meet the expectations at different levels of growth. Like the customers it serves, the accelerator also reaches a point where it fails, retrenches, or pivots, aiming to move quickly and remain relevant. The accelerator will also evolve and grow because of external pressures, demands, and influence. Therefore, as was found in Nicholls-Nixon et al. (2021), entrepreneurial ecosystems and the lifecycle of accelerators are intertwined and should be investigated accordingly.

We investigate accelerators to see how they sustain growth through entrepreneurship to become adaptable and resilient organizations or terminate operations. This adds to the emerging interest in how these venture development programs evolve and facilitate entrepreneurial development, enterprise growth, and the entrepreneurial ecosystem (Caiazza et al., 2020; Cunningham et al., 2021). What happens in terms of growth and adaptation after each cohort of startups comes through the programs? How will this influence the accelerator development, and are all accelerators then learning organizations?

Like other entrepreneurial organizations, accelerators that have reached maturity or outlived their initial purpose struggle to remain viable and, like the startups they support, either fail or must strategically renew themselves (Guth & Ginsberg, 1990; Covin & Miles, 1999). To contribute to this research topic, we adapt Churchill and Lewis's (1983) conceptual framework on the stages of small business development to explore how business accelerators evolve through entrepreneurial initiatives to remain relevant in their entrepreneurial ecosystem. We combine this with an adaption of Kohler's (2016) framework for corporate accelerator dimensions to provide a typology of effective structures.

The gap that we address answer calls for more "'Before-during-after' studies … enabling the generation of "best practices" to achieve intended outcomes" (Cohen et al., 2019; Colombo et al., 2018; Crișan et al., 2021). This research also contributes to a better understanding of "The precise relationship between context, interventions, and outcomes in the form of different mechanisms will help them identify the most suitable framework to reach specific outcome of the incubation process", as identified by Sohail et al. (2023, p. 11). Our research explores how accelerators may transition (Picken, 2017) over time to remain relevant and competitive strategically. Our research explores the lifecycle of accelerator business models, how dynamism in the entrepreneurial ecosystem impacts the accelerator life cycle, and the business model's development.

Conceptual Framework

Previous research on accelerators mainly focused on the value proposition offered by the accelerator programs (Osterwalder & Pigneur, 2010) or the type of accelerator (Bagnoli et al., 2020). However, the focus is typically on the capacity-building programs offered to the startups participating at the accelerator. Little attention has been given to how an accelerator keeps its operations and business model relevant over time as the operations expand or change according to market demand. For example, how accelerators incorporate participant needs and preferences in their strategic and tactical decisions should be better understood. Like startups, accelerators experience the liability of newness and the obstacles of breaking boundaries, being too ‘different’, innovative, or risky in their approaches (Hallen et al., 2014). Crisan et al. (2021, p.63) mention that despite the wealth of research on accelerators, more recent research calls for “further study to examine accelerators as specific organizational forms (Drover et al., 2017; Roundy, 2017), with distinct business models (Cohen et al., 2019) to better understand the acceleration process.” Our aim with this research is to provide a better understanding of how accelerators evolve and adapt as an entrepreneurial organization over time. To accomplish this, we adapt Churchill and Lewis’s (1983) SME lifecycle to map the stages of the accelerator life cycle. Churchill and Lewis’ stages of development provide structure for our investigation into what entrepreneurial actions shape and guide the development of these accelerators (Figure 1).

Figure 1 about here

Our adaptation of Churchill and Lewis (1983) proposes that a business accelerator’s lifecycle consists of venture gestation, survival, success, and maturity stages, where entrepreneurs can understand what they will deal with at different levels of developing their ventures.

This framework proposes four stages of development that highlight common challenges experienced at each stage. It is important to note that these stages are not steps and do not always follow a particular order but are flexible and adaptable. Likewise, no period is specified for a “pop-up” accelerator program. For reference, Walan Mayinygu had a compressed lifecycle, moving through all four stages in approximately 18 months, roughly equivalent to one complete cycle of establishing the accelerator and supporting a single cohort.

Stage 1: Gestation refers to the processes before the accelerator venture team recognizes or develops and assesses the strategic and operational relevance of opportunities to create funder and participant value propositions and the corresponding feasibility of the accelerator. The case studies here reveal how accelerators originated due to very different circumstances. Compared to Churchill and Lewis' (1983) original Stage 1 being 'existence' and its emphasis on finding first customers, we adapt this to 'gestation' to recognize the conditions that preceded the existence and the accelerator's purpose.

Stage 2: Survival is critical to the pressures to find a "balance between revenues and expenses" (Navarro, 2015, p. 491). Some accelerators remain at this stage, hoping to develop some form of competitive or contributive advantage, including social enterprise accelerators (Robb-Post et al., 2010). This stage can be particularly difficult for accelerators since they incur immediate costs while rarely charging for their services in the hope of a more significant return much later when the startups are acquired or have an IPO.

Stage 3: Viability. Churchill and Lewis' (1983) original framework labelled this stage 'success' while noting that the firm must continue adapting to changing circumstances. We relabel this as ' viability ' to reflect that this is an ongoing process of balancing recent success with future uncertainty. This stage of development is where the accelerator is an ongoing enterprise. This could be where they appropriate value from the accelerator through a trade sale or capitalize on its success and grow through product or market development initiatives. More formal strategic planning processes and financial controls are often implemented at this stage. This then leads to stage 4.

Stage 4: Decline or Renewal. Churchill and Lewis' (1983) original framework have a fourth and fifth stage, labelled 'take-off' and 'resource maturity', which are appropriate to more scalable forms of entrepreneurship and biased towards a positive outcome. Here, we simplify their model to four stages, with the final stage reflecting the churn in the accelerator industry and the need to remain relevant in dynamic environments. At this stage, the accelerator may either lose its relevance or renew itself in some way through product, processes, strategic, or value proposition innovation (Morris et al., 2010), often by exploiting its reputation, "size, financial resources, and experienced managerial staff." (Navarro, 2015, p. 491). The drive, creativity, and innovation to remain relevant and responsive can take time to preserve.

This conceptual framework assists in understanding the expectations at different levels of development in terms of the venture and the management concerned. How this relates to the structure and management of accelerators will be discussed next.

Accelerators and Entrepreneurship Framework

Accelerators evolve and mature as SMEs over time and in different situations. Research suggested that the level of previous startup experience of the accelerator managers could influence their efficiency and effectiveness in supporting startups, as well as their style of managing the accelerator's business model evolution. Taking all of this into account, we adapt Kohl (2016) to a 5P framework of elements that all accelerator managers must consider: (1) place, (2) people, (3) proposition, (4) processes, and (5) purpose. This is used as a framework to evaluate the level of involvement and experience, as well as the entrepreneurism of the accelerator management. First, *Place*, the context where these activities are conducted geographically, and the platforms involved. Second, the *People*, including the human and social capital involved. Third, participants are offered the *Proposition* regarding programs, mentorship, opportunities, and related costs. The fourth dimension is *Process*, how the programs and operations are managed. By using these dimensions to develop the structure of accelerators, the stakeholders involved can better understand what is available to work with. However, as Pauwels et al. (2016) noted, one additional element must be considered: the accelerator's *Purpose* or mission. The other four elements must reflect that to meet the accelerator's mission and desired outcomes.

Next, we discuss the method used to conduct the research, whereafter we will continue to make sense of our findings.

Methodology

When we began our long-term investigation of Australian accelerators in 2013, most were startups themselves existing in embryonic or emerging EEs. We used unstructured interviews, workshops, and embedded researchers to explore the state of Australian accelerators from 2013 to 2020. Data for this study included public documents pertaining to the accelerators, site visits, interviews, and informal discussions with accelerator managers. In addition, one of the authors was embedded with startup accelerator projects from the first two cases and used those experiences as a data source. Many of the insights are based on nearly a decade of interactions between the research team and the accelerators. Hence, the broad mix of methods within the methodology.

We follow comparative case study analysis (Eisenhardt, 1989) and used thematic analysis to explore how a judgement sample of four Australian accelerators pivoted throughout their life cycle to adapt to a changing environment, grow and expand their operations and change their focus. Cases were chosen based on multiple factors, including access to accelerator managers and their decision-making, and to draw out examples across comparably extreme circumstances while fitting the criteria for being accelerators. Farmers2Founders was chosen because of its unique emphasis on working closely with primary industries in a rural setting, something highly atypical among accelerators since they usually focus further down the value chain. Walan Mayinygu was chosen for its unique focus on Indigenous entrepreneurship and its short lifecycle. Lighthouse was selected due to its unconventional history and trajectory as a community-based organization that happened to extend itself into the accelerator sector. Startmate was chosen because it represents ‘normal’ accelerators more while appreciating its unique model of mentors being investors.

Interviews helped us gather rich and robust information on the accelerator managers' perceptions, experiences, and reflections (Springer et al., 2000). We revisited the accelerators to conduct an in-depth interview with the managers over that period. In addition, three co-authors were actively involved in working with accelerators during this period, and the data set was augmented using publicly available data on these accelerators. This was done to explore the following research questions:

RQ1: What does the life cycle of the accelerators look like?

RQ2: How did they apply the 5P framework at critical pivots?

To illustrate the crucial areas where they make decisions to change or where the decision-making power lies, we use case vignettes to provide a more complete narrative. Case vignettes were chosen for this study to provide “*Stories about individuals, situations and structures which can refer to important points in the study of perceptions, beliefs and attitudes (Hughes 1998:381)”* (Barter & Renold, 1999). The stories in these vignettes center around the development of accelerators and how they maintained their independence and competitiveness. We focused on better understanding how key decision-makers utilize the 5P framework and what they do to remain competitive. The vignettes helped to describe these decisions and follow the outcomes (Payton & Gould, 2022). The variables we compared across the vignettes include the 5Ps and key pivots in the accelerator’s lifecycle.

This research specifically focuses on the growth strategies employed by these accelerators. To analyze these strategies, the research examines the information published on their official websites, communication to program participants, and influential decision makers are interviewed about their approach. They are not involved in the larger franchise accelerator models that follow a specific framework or business model. Nor are they part of a corporate or government-subsidized initiative, which may dictate critical aspects of their operating model. Being independent provided more information on how they transition from one stage to another and made it possible to control less institutional influences.

Findings

We highlight four accelerators to focus on the lifecycle and drivers to pivot at various stages. Table 1 provides an overview of the four accelerators included in this research by using vignettes. Case vignette one illustrates the changes in their scope and services through the different stages of development. Case vignette two provided insight into an on-demand option or so-called pop-up accelerator developed for a very limited time, which had to evolve rapidly because of the constant changes in demand. Case vignette three provides more of a long-term perspective of an accelerator that had to diversify and reinvent itself over a long period of time and in response to a diverse range of external demands and expectations. The last case, vignette four, provides context to how the accelerator (just like their customers, the startups) struggles, especially with the demands when growing rapidly. This case vignette illustrates how the supporter (accelerator) also requires support to make those leaps at different stages of development.

VIGNETTE 1: FARMERS2FOUNDERS

Place: Australia and Asia

People: It was founded by Dr. Christine Pitt, "former CEO of the MLA Donor Company and founder and CEO of the Food Futures Company, and Sarah Nolet, partner and CEO of AgThentic" (O'Keeffe, 2019).

Proposition: The capacity building was initially done through innovation workshops with partners like Federation University, Cicada Innovations, Charles Sturt University, and the University of New England. Farmers and farmer organization leaders were brought together with innovation experts in ideation initiatives.

Process: This was done by working with stakeholders who need innovative solutions to issues such as sustainability and changing consumer preferences (Farmer2Founders, 2020). Farmer2Founders served "300 primary producers from across industries and from all states and territories, supported 25 producers to engage strategically with technology, and helped 32 producer-led ventures on their technology and value-adding commercialization journey" (Farmers2Founders, 2020). Farmer2Founders 2020 annual report offers insight into how it transitioned from startup to the rapid growth stage of its lifecycle by demonstrating relevance to its strategic partners and clients such as Grain Research and Development Corporation, Meat and Livestock Australia (MLA), and the farmers who attended their workshops.

Purpose: Farmers2Founders was created in 2019 to help farmers become more innovative and help shape the future of the food sector with support from "Meat and Livestock Australia, Grains Research and Development Corporation, Australian Wool Innovation, AgriFutures Australia and Wine Australia" (O'Keeffe, 2019).

VIGNETTE 2: WALAN MAYINYGU

Place: Regional New South Wales in Australia.

People: Indigenous Australians interested in starting or growing an SME in Regional Australia. Typically, these entrepreneurs were similar to participants in the form of rural development called 'one village one product' programs that use the entrepreneur's understanding and talents in their region's culture, landscape, and traditional arts to create unique place-based products and services (Fujita, 2007; Ho et al., 2023).

Proposition: There was no cost to participants to attend these "pop-up" accelerators. A networking reception and meals were provided to encourage peer-to-peer learning and the development of social capital.

Process: Over the three or four-day program (depending on local speakers and context), participants were offered a range of programs from small business marketing, local funding sources, and social entrepreneurial ecosystem development. In addition, other support organizations, such as Indigenous Business Australia and the Australia New Zealand National Bank, were present to provide follow-on support and funding.

Purpose: To build regional entrepreneurial ecosystems that better support Indigenous SMEs.

VIGNETTE 3: LIGHTHOUSE INNOVATIONS

Place: This accelerator started in Canberra, ACT, but expanded to offer services across Australia.

People: Anna Pino (Director/CEO) specializes in design, sales, allied health, venture capital, development, and the for-purpose sector. Candice Edye (Director/Commercialization Manager) is an expert in marketing, public relations, small business management, and entrepreneurship experience, starting her first business straight out of university. The ACT Government gave the accelerator operators free rein to design their offerings to suit the communities' needs and ceased funding them in 2014.

Proposition:

Commented [MM1]: NOT SURE WHAT THIS WAS??

Process: Lighthouse was founded in 2008 by Epicorp Limited and the ACT Government "as a crucial link in its innovation system, to demonstrate its continued commitment to the region."

Purpose: Lighthouse focused on "facilitating relationships, providing access to support and funding, targeted mentoring and broad-based business development and educational activities at all stages of business development grew rapidly" from 2008 to 2014. It consisted of a larger team, but the managers brought versatile experiences, networks, and expertise to the programs. As demand outside of the region began to grow, the accelerator programs included more than 2,500 unique individuals/enterprises (https://www.lighthouseinnovation.com.au/about/our-history.html). Lighthouse aimed to commercialize high-technology projects and linkages between government, research institutions, and the private sector in the ACT.

In 2014, the ACT Government policy changed, and funding was cut. Therefore, on July 1, 2014, LHInnovation Pty Ltd, a company owned by the key Lighthouse staff, acquired Lighthouse. From then on, they continued focusing on establishing and assisting small businesses in their startup stages by facilitating relationships to commercialize ideas from Research Institutions. They have an education focus on training, coaching, and mentoring startups on preparing and attracting external investment, grants, and intellectual property-based products (IP Toolkit, Teen Startup, and specialized design projects in Allied Health). They also play an integral role in building the ecosystem and relationships with "'community-based projects, e.g., CBR Collective, Entry29, and Festival of Ambitious Ideas." They also develop and deliver programs for and with the government on best practice, e.g., the ACT Microcredit loan program and BizLab developed under the Federal government SBAS program." In sum, after the funding model change and take-over, the industry focus became more industry-agnostic and local community-focused, expanding rapidly to include Australia-wide projects.

This accelerator's focus changed significantly over its lifecycle according to demand and the interests of its founders and managers, but also to respond to the market and external pressures. They have established programs and are seen as one of the first accelerators in this ecosystem, therefore, as a successful and reliable business model. This creates a competitive advantage since they are perceived as different, with a well-established brand known for their focus and expertise. The company continues to grow and provide unique free and fee services focusing on capability building, providing support and assistance to businesses, and providing expert skills in various management services.

VIGNETTE 4: STARTMATE

Place: Australia and New Zealand.

People: Startmate was founded in 2011 as an independent organization by a startup founder returning to Australia from the US. In 2012, the same founder launched Blackbird Ventures, including acquiring Startmate as a wholly owned and independently operated subsidiary with its board, P&L, team, and CEO. They are independent in decision-making, with most VCs directly investing in the Startmate funds in Australia and New Zealand. Startmate's founder-led approach mirrors Blackbird's founding journey, where it initially raised $29 million from mostly technology founders. This underpins Blackbird's (and Startmate's) belief that it is about backing the most ambitious people as their ambition attracts the best people, thereby improving the chances of success. Being a small startup (Expanding from 4 FTE to 10 FTE in the coming year), Startmate collects feedback from founders and investors, experiments, tests, and abandons what is not working.

Proposition: Since 2017, they have offered a $75k cash investment at a $1m post-money valuation, becoming a co-owner with 7.5% equity. Based on the conversations with Startmate founders, the average burn through the program for a company with no employees is about $25k per month. They felt their base valuation of $1m had begun to feel less competitive in attracting the region's best new startups. In October 2021, they updated their standard investment terms to $120k at a $1.5m post-money valuation for founders that have not raised a prior round and, for others, $120k at valuations for the previous valuation received.

Startmate community revolves around three core pillars:

1. Founders — Accelerator program and Founder fellowship
2. Operators — Fellowship for women, students, and engineers
3. Investors — First Believers program

Process: Startmate may appear to be a venture-backed accelerator (Bagnoli et al., 2020). However, Startmate's operations and funding remain independent of Blackbird and claims its model is a unique mentor-driven seed fund. Every mentor in the Startmate program invests their money into the Startmate fund, which is then invested in the cohort's startups. Every single mentor at Startmate is personally invested in the fund itself. Every mentor invests $10,000 to $250,000 per cohort, giving them "the skin in the game." Because of the new second and third pillars, it can now be considered a hybrid archetype, as noted by Clarysse et al. (2015), with an investment perspective as well as a community-driven/ecosystem-building perspective. Startmate now invests money into every single company at the latest valuation.

Purpose: Through its accelerator and fellowship programs, Startmate claims to be industry-agnostic. Earlier, Startmate was mostly around SaaS businesses. As the Australian market evolved, they got into hardware startups, direct-to-consumer startups, B2B (business-to-business), and enterprise level. Startmate aims to pump talent into the startup ecosystem of Australia and New Zealand. With its coverage across Sydney, Melbourne, Newcastle, Noosa, and New Zealand, Startmate has backed and invested in more than 170 startups with a combined valuation of over $ 2 billion.

Each of these vignettes shows how multiple of the 5Ps changed over time. It is important to note that accelerators, just like startups, reach a point where they expand. The accelerator and startup are rapidly moving towards an innovation and expansion stage. The incubator level can be seen as a business ideation stage. Therefore, the difference between the incubator and accelerator stages is "that their differences sometimes lie in the nature, intensity, and duration of a characteristic, rather than its presence or absence in a program" (Dempwolf et al., 2014, p.9). However, the accelerator is also mainly "designed to quickly move startups from one stage to the next" (ibid.).

Discussion and Implications

Theoretical Implications

We found that accelerators differed significantly in terms of their place, people, proposition, process, and purpose. Of the four different accelerators studied, there were similar issues regarding lifecycles. Across all four cases, the phases and transitions between them are dependent on a dynamic environment and the confluence of needs of a diverse set of stakeholders. Each accelerator evolved following the generalized pattern of the four stages adapted from Churchill and Lewis (1983), albeit at different speeds and the ability to cycle back and forth between stages to avoid stasis or decline. Meanwhile, the 5Ps framework of place, people, process, and purpose draws out the differences between the accelerators and their evolution. For example, Walan Mayinygu differed significantly from the others in terms of place (regional and rural), people (indigenous focus), proposition (no cost, developmental, and focus on traditional arts, crafts, foods, and culture), process (any participant welcomed, short duration, participant selection of activities), and purpose (to help support the development of viable rural indigenous entrepreneurial ecosystems in regional Australia). The differences reflect the need and mission or purpose of the program. Likewise, Lighthouse Innovations focused more on the issues, strengths, and opportunities in Australia's capital with abundant support and available resources.

We also found that accelerators have a lifecycle that is quite dynamic. Table 1 illustrates an accelerator's development stages based on Churchill and Lewis (1983). While accelerator research is best known for its emphasis on high-potential startups, the adaptation of this framework reveals how the accelerators' evolution is directly analogous to that of SMEs. This simplification of the stages provides insight into the issues accelerators could face when transitioning from one stage to another. As much as the startups in the accelerator programs evolve and adapt to changes around them to grow and succeed, so must the accelerators. Accelerator management, therefore, becomes crucial in how they contribute with their skill, experience, and networks, how they can strategize proactively and how fast they can react to changes in their environment. These accelerator managers must be agile and entrepreneurial in planning, managing, responding, and finding the most suitable way for the accelerator to remain current, relevant, and sustainable. This research adds to the business life cycle literature and accelerator research. It advances the framework to explore different entrepreneurial management pathways and strategies that can be explored in dynamic environments. Further research remains about how accelerators may iterate between survival and viability multiple times in dynamic environments to avoid decline.

Managerial Implications

Businesses respond and evolve according to their influences, and accelerators adapt and grow according to their responses and interactions with the ecosystem around them. This research provides practical considerations on positioning, suitable business models, and maximized operations by acknowledging the need for accelerator CEOs to be adaptive and align the accelerator program strengths with changes in the market and demand based on the 5P model, where the accelerator's management must consider its *place, people, process,* and *purpose*. Practically, accelerator offerings should be reviewed against the 5P model and continuously improved by seeking participant feedback, identifying new trends in the delivery and content of these programs, and determining what is expected as deliverables by the participants and the broader community.

Individual vignettes provided unique examples of how the pathways and development journey pivot and change independently and in response to their environment. The competitiveness between accelerators and the dynamism of this environment necessitates accelerators to be more innovative and entrepreneurial to remain relevant than at the early startup stages and continue maintaining a 'fit' in a niche while considering the growth of their niche.

Table 1 here

Our iterative and reflective approach to this study offers a historical perspective on the lifecycles of accelerators. This is useful to get a holistic overview but also to understand the effect of each transition as much as the outcomes at the end of the process. The role of individual factors such as skills, networks, experience, and the meso or organizational level can be observed through this case vignette approach and having information on the full lifecycle available. Further guidance on how accelerator managers can develop their entrepreneurship skills and how these structures can support these efforts can be investigated. More extensive and culturally diverse samples could also be considered to compare these entrepreneurial strategies and entrepreneurial ecosystem influences on the transitioning of the accelerators. Over time, the accelerator's purpose often changes, and what motivates these changes is essential to understand since it will influence the lifecycle and stakeholder involvement.

Future research could focus on the differences in the accelerator lifecycle due to place, people, proposition, process, and purpose and incorporate a more geographically dispersed sample, including how multiple accelerators co-evolve over time in reciprocal reactions to each other. While we have focused on independent accelerators, future research may include the evolution of accelerator franchises, accelerator-as-a-service consultancies, institutionally backed accelerators (e.g., supported by universities or governments) or venture-backed accelerators. For instance, anecdotal evidence of the Australian accelerator-as-a-service model shows some completely closed down, even after having run the federal government's research commercialization acceleration program (e.g., Pollenizer), some survived by abandoning startups to focus on scale-ups (e.g., BlueChilli), while others exited by becoming acquired by major consultancies (e.g., VentureTec) or by being replaced by equity management firms who run corporate venture capital programs (e.g., Muru-D).

Emerging research also shows new regional forms of accelerators that are more networked among each other (Renando, 2020). Such relationships between accelerators may challenge single organization focused frameworks like Churchill and Lewis (1983) and provide fruitful areas of future research to advance or supersede such frameworks.

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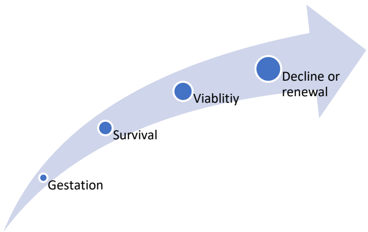
Figure 1

The stage of business development of Accelerators



Time →

Source: Adapted from Churchill and Lewis (1983)

Table One

Accelerator stage of development

CASE	GESTATION	SURVIVAL	VIABILITY	DECLINE/ RENEWAL
Farmers2 Founders	To support and commercialize agriculture.	To serve primary producers from across industries and from all states and territories, expanding place and process.	To advance the application and commercialization of ag-tech. Standardized offerings.	NA
Walan Mayinygu Indigenous Accelerator	A "pop-up" 4-day Indigenous entrepreneurship support program – bring accelerator to the participants' "place."	Rapid growth into regional market centers.	NA	End of Walan Mayinygu
Lighthouse Innovations	Public-private joint venture that became independent after funding cuts.	It evolved from high-tech ventures to education and a general startup development ecosystem. Change in processes and purpose.	Ecosystem and startup development programs, funding,	Growth with a focus on capability building and supporting businesses.
Startmate	An early entrant in high-tech accelerator programs, triggered by the return of an expat entrepreneur who wanted to get into angel investing.	Accelerator and fellowship programs. Change in process and people.	Identify talent in the ecosystem of Australia and New Zealand. Change in place.	

Adapted from Kohler (2016) and Churchill and Lewis (1983)