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## The role of business accelerators in generating dynamic capabilities within startups

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**Abstract:** Business accelerators provide entrepreneurs with a combination of capital and specific support resources to help them grow rapidly and scale their business idea. Despite their rapid emergence as key role players in the entrepreneurial ecosystem, research is still scant about their impact in new venture development. This paper examines the effects of business accelerators from the dynamic capabilities' perspective. Specifically, a qualitative and descriptive analysis of Y combinator's business accelerator methodology has been conducted. The analysis shows how Y combinator contributes to the generation of dynamic capabilities in companies, through the implementation of specific actions and resources embedded in its business acceleration program. Our findings reveal that business accelerators stimulate dynamic capabilities of portfolio firms. It can help them gain competitive advantage and superior performance in the market compared to companies that do not participate in an acceleration program.

**Keywords:** entrepreneurship; dynamic capabilities; business accelerator; startups.

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## 1 Introduction

Young innovative firms are essential to any economy as they are key drivers of job creation, innovation and productivity growth (Isenberg, 2010; Block et al., 2018). They are key for promoting innovation, renovating markets and driving improvements in productivity and prosperity (Clarysse et al., 2015).

Despite these positive effects, they face several constraints (Battistella et al., 2017) such as lack of routines, resources and legitimacy (Alexander et al., 2007) which limit their development and threaten their existence (Liao et al., 2009). Startups must develop dynamic capabilities to overcome such limitations (Baker and Nelson, 2005; Paradkar et al., 2015). This is especially true for startups as they face dynamic business environments (Liao et al., 2009). The dynamic capabilities view is based on the RBV that overcomes the limitations of static resource-oriented approaches to explain firms' competitive advantages in continuously changing markets (Wang and Ahmed, 2007). Dynamic capabilities allow startups to address the demands in such kind of context as they include the ability to sense and seize opportunities and achieve and sustain competitiveness through the acquisition, combination and reconfiguration of their resources and capabilities (Teece et al., 1997; Zahra and George, 2002). They are the "antecedent organisational and strategic routines by which managers alter their resource base – acquire and shed resources, integrate them together, and recombine them – to generate new value-creating strategies" [Eisenhardt and Martin, (2000), p.1107]. As such, they drive the generation, development and reconfiguration of other resources, which become the origin of new competitive advantages as markets evolve. [Eisenhardt and Martin (2000), p.1107]. Accordingly, given that new venture emergence is an iterative process (Sommer et al., 2008), dynamic capabilities allow founders to apply changes (Jones et al., 2013), adapt and evolve (Schilke and Helfat, 2018; Teece, 2007). Zahra et al. (2006) suggest that firms should use dynamic capabilities to maximise their goals. Jones et al. (2014) highlight dynamic capabilities as a crucial antecedent to innovation and growth in a new, small and rapidly growing technology-based firm. Therefore, dynamic capabilities (Teece et al., 1997) offer a valuable perspective by which to analyse a new firm's formation process (Newbert, 2005).

There are a small number of studies that have examined dynamic capabilities in emerging ventures (Baker and Nelson, 2005; Alexander et al., 2007; Salunke et al., 2011; Corner and Wu, 2012; Jones et al., 2014; Paradkar et al., 2015). This is aligned with recent calls for more investigation on the generation of dynamic capabilities within new ventures (Newbert, 2005; Zahra et al., 2006).

The development of dynamic capabilities implies accessing the necessary knowledge and information to achieve the entrepreneur's goals. Most young firms are particularly dependent on external resources because of their relatively limited organisational and technological resources. These firms present a lopsided knowledge base, few capabilities and a limited capacity to develop them (Debrulle, 2012). This means new firms will need to search both outside and inside the firm's boundaries for knowledge, resources and capabilities, which they must acquire, appropriate and integrate into the venture (Jones et al., 2013).

In this regard, accelerators have been recognised by private, public and academic institutions as suitable vehicles for new business creation, (Pauwels et al., 2016; Yang et al., 2018). They provide newly created firms with a time-bounded, cohort-based value-adding program of monitoring, mentoring and networking (Miller and Bound, 2011; Clarysse et al., 2015). These programs orchestrate resources and deploy strategic processes to enhance startups' capabilities and to expose them to markets and institutions (Wright and Drori, 2018) with the objective of facilitating their development and improving their chances of success (Pauwels et al., 2016).

Besides the positive effect of accelerators on venture development (Fehder and Hochberg, 2014; Smith et al., 2017), an agreement has not been reached yet on what particular practices or structures facilitate these effects (Hallen et al., 2016). As Smith and Hannigan (2015, p.2) affirm: "scholars understand relatively little about how accelerators might shape the trajectories of new startups".

Thus, our research is aimed at further understanding the process of generating dynamic capabilities within new ventures and the effects that business accelerators have in startups by focusing on the following question:

How can startups benefit from business accelerators programs from a dynamic capabilities' perspective?

Our core reasoning is that by deploying specific practices and routines, business accelerators help startups acquire, integrate, administer and reconfigure their resources to deal with the uncertainty generated by an external environment and to gain competitive advantage. As a result, they contribute to the generation of startup dynamic capabilities. In this line, the processes used by accelerators which are aimed at developing these capabilities would result in an enhancement of the startups performance, highlighting their importance for new business development (Goswami et al., 2018; Pauwels et al., 2016; Yusbobova and Clarysse, 2016).

For this purpose, based on the dynamic capabilities' literature, we present a theoretical analysis that links the Y combinator (YC) acceleration program with their accelerated startups' dynamic capabilities. We explain how YC influences their startups' dynamic capabilities through the deployment of specific routines.

This study is the first attempt at analysing the interaction between accelerators, startups and dynamic capabilities. The aim of this paper is contributing to the current literature through understanding how business accelerators have an effect on the creation of dynamic capabilities within new ventures. Our conclusions can help academics, accelerator directors or policy makers to effectively allocate efforts and resources.

## 2 What is an accelerator?

Accelerators (sometimes called seed or startup accelerators) are new entities within the entrepreneurial landscape (Cohen, 2013; Pandey et al., 2017).

The breakthroughs in technology and new business philosophy laid a fertile ground for accelerators to appear. Also, the fact that the previous generation incubation models had great limitations contributed to their success (Miller and Bound, 2011; Bruneel et al., 2012; Dempwolf et al., 2014; Fehder and Hochberg, 2014; Hochberg, 2016).

The world's first accelerator, YC, was founded in 2005 in Cambridge, Massachusetts by Paul Graham, a successful entrepreneur, and Jessica Livingston, a marketer but it was quickly established in Silicon Valley (Miller and Bound, 2011). The core concept was the investment of small sums of money in a batch of newly created firms to help them during a three month long intensive program, which should result in high long-term returns on investment (Y combinator, 2018). In 2006, just a year later, one of the first portfolio firms, Reddit, was acquired by Condé Nast for a reported USD10-20M. This fact seemed to prove the validity of the accelerator model (Heinemann, 2015). In 2007, Cohen, an entrepreneur, and Feld, a venture capitalist and entrepreneur inspired by YC founded TechStars in Boulder, Colorado (Hallen et al., 2017). Since then, these two accelerators have become widely and quickly imitated worldwide by corporations, universities, governments, and investors as a highly effective approach to business generation (Fowle and Tyne, 2017). In 2009, there were five accelerators (Christiansen, 2009). That number has dramatically increased to almost 2,000 all around the world at present: F6S manages a database of 1,052 accelerators, and Crunchbase includes more than 2,054 accelerator programs.

There is no agreement on the universal definition that describes accelerators (Fowle and Tyne, 2017) but the basic idea behind it has stayed untouched (Heinemann, 2015). Based on initial research (Miller and Bound, 2011; Cohen, 2013; Cohen and Hochberg, 2014), other authors extended the concept and defined an accelerator as an entity with the following features (Heinemann, 2015; Fowle and Tyne, 2017):

- 1 fixed duration program (usually between 3 and 12 months)
- 2 typically, growth-based (payment via equity rather than fees)
- 3 often provide seed funding
- 4 cohort-based entry and exit
- 5 a structured program which includes mentorship, entrepreneurial training, and networking opportunities
- 6 highly selective.

While the size and industry-focus of these programs vary widely, the majority of accelerators look for promising startups at a very early stage of development with technology at the core of their business (Cohen et al., 2019). This common technology-based feature within startups highlights the roles that accelerators must play in helping them manage unforeseen uncertainties and face a high-pressure dynamic environment (Liao et al., 2009).

Most accelerators provide seed funding or stipend (USD 26,000 on average, ranging from 0 to USD 150,000) in exchange of equity participation (typically 5%–7%), a small

non-controlling amount (Hochberg, 2016). Therefore, the main source of income for accelerators is actually equity gains generated by startups performance, thus implying a growth-driven perspective, aimed at building companies that scale rapidly or fail fast in order to minimise wasted resources and achieve a positive exit (Cohen and Hochberg, 2014).

Nevertheless, there are accelerators which are only partially interested in financial returns and lack ownership of startup (Weiblen and Chesbrough, 2015) instead they expect non-monetary accelerator's benefits such as innovation, marketing, corporate social responsibility (CSR) or public objectives (Heinemann, 2015). As a result, the goal of accelerators is to link the quality of the startups it selects (Yin and Luo, 2018). Thus, accelerators are highly selective in choosing their participants (Hoffman and Radojevich-Kelley, 2012).

So far, literature has shown that accelerator programs are time-bounded, usually lasting from 3 to 12 months (Heinemann, 2015). This short time frame is partly linked to the decrease in time and costs it takes to launch technology related firms (Christiansen, 2009; Miller and Bound, 2011). The establishment of timelines and strict graduation dates creates a very demanding setting that will stimulate fast progress and avoid co-dependency in relationships between startups and accelerators (Miller and Bound, 2011; Cohen, 2013). Fostering a sense of urgency within startups is vital for new business creation as it speeds up the development cycles of new ventures and forces them to test and validate their ideas fast, resulting in faster growth or failure (Heinemann, 2015; Kohler, 2016; Fowle and Tyne, 2017). Moreover, the speed of process brings efficiency to the market and also maximises the profit of the program by reducing the amount of support that the startup needs from the accelerator (Heinemann, 2015).

According to the literature, the cohort-based approach is a distinctive feature of accelerators (Heinemann, 2015). Startups enter and exit an accelerator together in batches or cohorts. This model enables firms to interact with their peers encouraging learning among them while also competing for limited resources such as attention and follow-on investment funding (Smith et al., 2017), the latter generates a very strong relationships between peers (Cohen, 2013), and as a result, events tend to be more relevant and make a more significant impact (Heinemann, 2015).

All accelerators include intense and immersive education and mentorship programs with the objective of accelerating the life cycle of their startups' portfolio. In such programs, they compress years' worth of experienced learning into a very short time frame (Hathaway, 2016). A successful learning experience is achieved by well-planned programs that include frequent contact with mentors, entrepreneurial training and networking opportunities (Pauwels et al., 2016). Mentors are experienced entrepreneurs, investors, or other relevant professionals who are carefully selected by accelerators in order to provide advice and feedback to the startups during the duration of the program (Hoffman and Radojevich-Kelley, 2012). Although there are differences in how this mentorship is structured across accelerators, mentorship is a common denominator of any accelerator (Cohen, 2013). Good mentoring is what makes the difference between failure and success (Rhett, 2014).

In addition, an accelerator program often includes entrepreneurial training which entail a variety of subjects such as legal, tax, finance, marketing, management and pitch.

On top of the networking between peer ventures and mentors, most accelerators offer the possibility to contact program graduates, venture capitalist, and angel investors by planning events and promoting constant interactions (Kohler, 2016). Moreover, regular

monitoring of the cohort is conducted by program directors during individual private meetings.

The accelerator's experience often finishes with a public pitch event or 'demo day' where founders pitch their business to investors and potential customers followed by formal and informal networking opportunities (Cohen, 2013; Pauwels et al., 2016).

Taking the literature above, an accelerator can be defined as a fixed-term, cohort-based, learning-oriented program aimed to assist new technology-focused ventures early in their lifecycle, by providing mentoring, education, networking opportunities and connections to potential investors in order to help them grow fast and scale their business ideas (Hallen et al., 2017).

Accelerators are not primarily intended to provide inexpensive office space and in-house business support over a long period as other business incubation models are (Bruneel et al., 2012; Bergek and Norrman, 2008; Dilts and Hackett, 2004). They focus on intangible resources from very early stages. This shift in focus highlights the importance of this kind of services to help startups (Chen et al., 2009).

Primarily, an accelerator provides a way to cope with a mix of necessities that entrepreneurs find difficult to cover by themselves (Hochberg, 2016). Furthermore, an accelerator can be a mechanism by which new ventures learn and test their business ideas. The latter is due to a combination of financial and knowledge resources, structured in a specific program that provides them with the best opportunity for high growth and accelerating the time to reach key milestones.

### **3 How an accelerator works**

Early evidence demonstrates the positive effects of accelerators on the outcomes of startups they work with (Fehder and Hochberg, 2014; Hallen et al., 2017; Smith et al., 2017). However, when measuring these positive effects, they are not equally distributed among all programs, meaning that depending on the accelerator the quality of the impact on the startups varies widely (Hathaway, 2016).

There is widespread agreement that YC is a reference accelerator that inspired multiple other programs that copied its acceleration model (Smith and Hannigan, 2015). In comparison to other accelerators, YC, the pioneer of the accelerator's model, has been successful and is always ranked as a top accelerator (Hochberg et al., 2015, 2016, 2017).

Since its foundation in 2005, YC has sponsored over 1,500 companies with a combined valuation above USD 85 billion including billion-dollar companies such as Dropbox, Airbnb, Stripe, Twitch, and Reddit (Y combinator, 2018). Due to these results YC is considered one of the most established accelerators becoming a relatively senior model (Smith and Hannigan, 2015). All these reasons suggest that YC is an optimal benchmark for identifying a successful acceleration process.

Due to the reduced number of available literature, it was necessary to rely on secondary sources including online articles and online interviews with experts in order to understand processes held by YC. Its processes are well documented on its webpage (Y combinator, 2018) thus allowing us to identify all phases a project goes through before, during and after the YC involvement. The phases can be defined as follows:

- 1 Selection process: everything starts with an application which consists of completing a detailed questionnaire about the startup and a one-minute video that describes it and the founders. The applications with higher scores are called for an interview with 2–3 YC partners at YC head office. After that, they notify candidates at the end of the day if they join the batch.
- 2 Investment/foundation: once the batch is selected, YC provides seed funding, USD 125 k for 7% of the total equity. Nevertheless, before the investment, YC reviews the company's documentation to identify and correct any legal issue with the purpose of avoiding future problems regarding the incorporation of the startup. Also, if the company is not incorporated, YC facilitates the incorporation process.
- 3 Co-location: YC does not provide office space. The cohorts work at their own locations, but they are required to attend to all the events and meetings in person.
- 4 YC cycle: during the program, YC provides startups with the necessary help to grow rapidly into the best shape possible in three months to raise money on a larger scale. During these three months, YC's partners work intensively with founders performing one on one meeting in order to solve problems and questions (related to better shaping the product, raising money, the company itself). Also, founders have 'group office hours' during which they can meet up with partners and other founders and talk about the challenges or problems they are facing as well as to report their progress. YC organises a weekly dinner and a talk with an eminent person from the startup world (startup founders, venture capitalists, journalists and executives from well-known technology companies) who ends up advising founders or investing in their companies. Moreover, YC facilitates different types of events or tools in order to promote the ability to learn with/from peers of the same batch and alumni. YC's startups have access to a large YC community which allows founders to benefit from the connections with YC stakeholders (deals with technology companies, contact with specific communities). Close to the end of each batch, YC hosts a demo day where startups present their products or services to investors and the press. After demo day, founders have one on one meeting with the investors that are interested in their companies.
- 5 Alumni support: according to its webpage 'YC does not end after three months; only the dinners do'. YC follows up the fundraising negotiations of the batch companies or contacts investors facilitating it. Also, YC's partners continue giving advice to alumni in individual sessions as long as they need. Moreover, YC organises mini-conferences and workshops for alumni as well as events in order to help founders to attract talent or to strengthen relations among them. YC started a 'continuity fund' in order to invest in the startups' subsequent funding rounds.

In this regard, we propose that the YC mix of resources and services embedded in specific routines presented above results in the generation of the following dynamic capabilities in their startups: sensing the market, absorption, integration, and innovation.

The capability of sensing the market is related to the ability to recognise and evaluate opportunities (Teece, 2012). Absorption capacity relates to the ability to gather new knowledge, transform it into embedded knowledge and use it for organisational advantage (Lane and Lubatkin, 1998; Zahra and George, 2002; Lumpkin and Katz, 2007). Integration capability refers to the ability to recombine both existing resources and those obtained to improve processes and practices (Pavlou and El Sawy, 2011) and finally innovation capability relates to the ability to create new products or markets by being able to combine both an innovative strategy and innovative behaviours and practices [Wang and Ahmed, (2007), p.16].

#### **4 The value of an accelerator regarding dynamic capabilities generation**

The following subset of capabilities is embedded in the YC program. These capabilities allow YC startups to develop new products and services and to adapt to a dynamic market.

##### *4.1 Sensing the market capability*

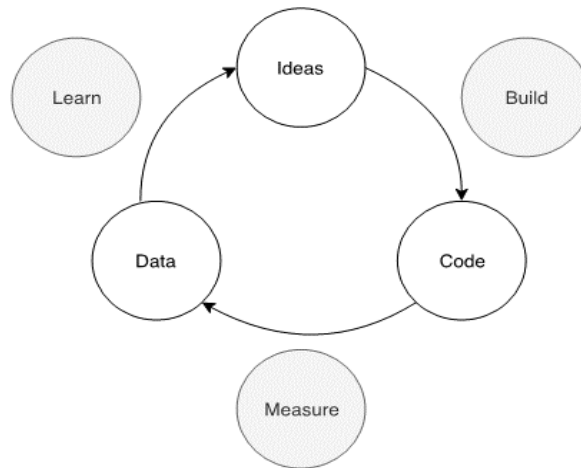
Not all opportunities are viable (Song et al., 2008) hence succeeding at choosing the right ones for the business is a very important trait of a good entrepreneur (Ardichvili et al., 2003). When an opportunity shows up, entrepreneurs should be able to understand new developments, choose the right technologies and focus on the right segment to serve (Teece, 2007). This situation creates the need of continuously probing markets and listening to customers in order to interpret the real demand, how the market is evolving and how suppliers and competitors are acting (Leih et al., 2014).

Acceleration programs include an initial phase (or discovery phase) in which teams are focused on refining their business opportunities to match the startups value proposition and the environment needs (Liao et al., 2009; Kohler, 2016). Then, the teams are expected to work intensively with their ideas spending a considerable amount of time with potential customers with the purpose of validating the market acceptance for their products or services (Barrehag et al., 2012; Kohler, 2016). Thus, being able to identify client needs is an important pillar of any prosperous business (Ries, 2013) and the firm's attitude towards that becomes crucial (Landroquez et al., 2011).

Putting organisational mechanisms in place in order to gather new information, track customer needs and competitor practices strengthens the dynamic capability of sensing the market (Teece, 2007), which is developed during the YC cycle.

YC encourages their startups to work intensively on their ideas in order to bring them to their potential customers as soon as possible (Barrehag et al., 2012) in order to solve the market uncertainty they face (Harms et al., 2015). YC advises its founders to 'launch fast and iterate' (Fowle and Tyne, 2017) by 'pivoting' (Barrehag et al., 2012). This iteration is a process for discovering the market, finding their right customers, and validating their hypotheses (Trimi and Berbegal-Mirabent, 2012). Figure 1 provides a schema of this process.



**Figure 1** Build-measure-learn feedback loop

*Source:* Diagram adapted from Ries (2013)

Startups evaluate the opportunities by placing processes in order to obtain feedback from potential customers and initiate actions responding to this feedback and then adjust quickly, discard or replace what does not work (Ries, 2013). The aim is the continuous improvement of what is offered so that the new firms will eventually deliver what customers want. It begins at the build stage in which the minimum viable product (MVP) is developed. An MVP is a prototype showing just a subset of core features needed to attract potential customers and test first hypotheses as quickly as possible. Once the MVP is developed, it is presented to customers and their responses are collected using different techniques. The data obtained provides specific learning useful in the validation or rejection of the proposed hypotheses which in turn initiates the next iteration process and a new version of the product or service is tested again (Trimi and Berbegal-Mirabent, 2012). By using this approach teams learn whether to pivot or persevere on their product or service. Perseverance means that the hypothesis was correct, so the same goals are kept and the feedback loop is repeated to continue the improvement and refinement of the idea. Furthermore, pivoting means changing or shifting some or all of the characteristics of the product or service because the test has refuted the hypothesis. During the test, the main goal is the collection of valuable knowledge regarding what doesn't work so that the path can be corrected and the loop repeated by using the acquired learning's in order to test new hypotheses and adjust the product or service accordingly.

It is inferred that YC helps their startups to develop their capability of sense by establishing a set of routines for finding and assessing their business opportunities, enabling them to produce the right products or services, target the right markets and address consumer needs leveraging the opportunity found.

#### 4.2 Absorptive capability

Once entrepreneurs have identified a business opportunity, a new product or service must be developed, which requires updating the current capabilities through the acquisition of new knowledge and skills (Teece, 2007; Pavlou and El Sawy, 2011).

Accelerator programs include events focused on intense interaction, monitoring, and education (Pauwels et al., 2016). These intense mentorship and education programs allow the startups to develop their absorption capability, which can be defined as the capacity to use newly acquired knowledge to gain competitive advantage (Lane and Lubatkin, 1998; Zahra and George, 2002; Lumpkin and Katz, 2007). The use of this new knowledge entails a process that starts with its recognition and comprehension, followed by its acquisition and assimilation to finally being able to apply its learning's in a commercially viable way (Cohen and Levinthal, 1990).

Since its beginnings, YC hosts events (Table 1) in which their accelerator management team or guest speakers talk about the common problems and issues startups will need to consider, such as their company growth, enabling them to access information of great potential value (Christiansen, 2009).

YC startups also acquire knowledge through discussions with potential stakeholders thanks to expert's databases they have access to that allows them to be in contact with domain expertise and get targeted feedback (Freel, 2005; Y combinator, 2018).

In addition, YC offers mentoring services, provided by the accelerator management team. Sessions vary from individual introductions on an as-needed basis to a programmed weekly group meeting (Y combinator, 2018). These individual and group advising sessions provide startups with business assistance, guidance to solve problems and questions, analyse failures, learn from peers who have overcome similar obstacles and enable the accelerator management team to monitor their progress (Stross, 2012; Pauwels et al., 2016). These sessions help teams to absorb and apply the knowledge they gathered throughout the program as they allow them to adequately understand and process this knowledge for its future application (Lumpkin and Katz, 2007; Chen et al., 2009).

Thus, YC's education and mentorship program helps with the generation of the startups absorptive capability as it enables it to expand its knowledge base, improving its ability to assimilate and utilise information consequently enhancing its future development.

Table 1 provides a description of the YC practices which foster the absorptive capability.

**Table 1** Description of YC practices which foster YC ventures' absorptive capability

| <i>Practice</i>    | <i>Description</i>   |
|--------------------|--|
| Welcoming event    | Group event for participants to create networks and meet each other  |
| Prototype day      | Showcase of project ideas between participants to identify possible synergies and practice pitch skills.   |
| Dinners            | A weekly event where an eminent person of the startup world talks about his or her experience and teams report their progress.   |
| Workshops          | Conferences about a specific subject or other's experiences  |
| Demoday            | Pitch presentation for top startups investors/customers/press  |
| Office hours       | Individual intensive sessions with YC Partners to solve problems and doubts and asses of failures (with the purpose of improving the shape of the product, raising money, the company itself). |
| Group office hours | Weekly group sessions between peers and YC Partners to report their progress and challenges.   |

*Source:* Adapted from Y combinator (2018)

### *4.3 Integration capability*

As an emerging business gradually becomes defined, continuous adaptation and market validation is needed (Roseno et al., 2013). Thus, the firm creation process is not a simple linear process since it requires the venture to constantly iterate (Juntunen, 2017). These iterations or reconfigurations rely on the firm's capacity to integrate new resources including knowledge with those internally generated in order to revamp routines and practices (Pavlou and El Sawy, 2011). Due to the fact that new knowledge created is mostly owned by individuals, it must be integrated into a collective level to deploy the new configurations (Teece et al., 1997).

YC encourages their startups to 'launch fast and iterate' (Barrehag et al., 2012; Fowle and Tyne, 2017) which requires both to acquire and to integrate knowledge. Based on the startups existing knowledge and the new knowledge acquired through the mechanisms explained in illustration 3, they would generate different solutions by combining these different sources of knowledge. The different iterations undergone until the product or service is defined and allow team members to internalise the knowledge acquired as tacit knowledge. After its integration with existing knowledge, different solutions may be created as explicit knowledge. The knowledge integration process of YC startups would be repeated until their targets are achieved.

YC implements routines to make it happen. On the one hand, at the end of each event, YC startups report their progress and challenges which forces them to show progress and evolve in each session (Stross, 2012) thanks to what they know as the 'the power of shame avoidance', this prods them to work harder as 'they would not want to shame themselves by having little progress' (Stross, 2012). Thanks to these evaluation moments, teams are pressure to combine their new knowledge and their existing one in solutions to confront their obstacles quicker and solve uncertainties as they emerge. This continuous knowledge integration allows startup teams to explore different options to define their business model and eventually create a profitable business. Evaluation moments are repeated on a weekly basis until the end of the program where a final event 'demo day' takes place. In 'demo day' founders present their business to investors and potential customers followed by formal and informal networking opportunities (Cohen, 2013; Pauwels et al., 2016). This event is aimed at promoting the startup and signing pilot projects, partnerships, or acquisitions (Kohler, 2016). Thanks to YC routines' continuous evaluation and surveillance within a short period of time, the integration capability of startups is enhanced.

### *4.4 Innovation capability*

A firm's ability to innovate is a critical factor for its survival and success (Wang and Ahmed, 2004; Akman and Yilmaz, 2008; Monferrer et al., 2013). The innovation capability perspective focuses on the outcomes of organisations (i.e., products, services, markets, business models) (Saunila and Ukko, 2014). However, the innovation capability of a company can be understood from a more global perspective taking into account all its dimensions (Wang and Ahmed, 2004). In this sense, the innovation capability of a firm is its capacity to create new products or markets by being able to combine both an innovative strategy and innovative behaviours and practices (Wang and Ahmed, 2007).

Based on the above definition, the innovation capability is a multi-faceted construct (Saunila and Ukko, 2014) to technological and human aspects (Prajogo and Ahmed,

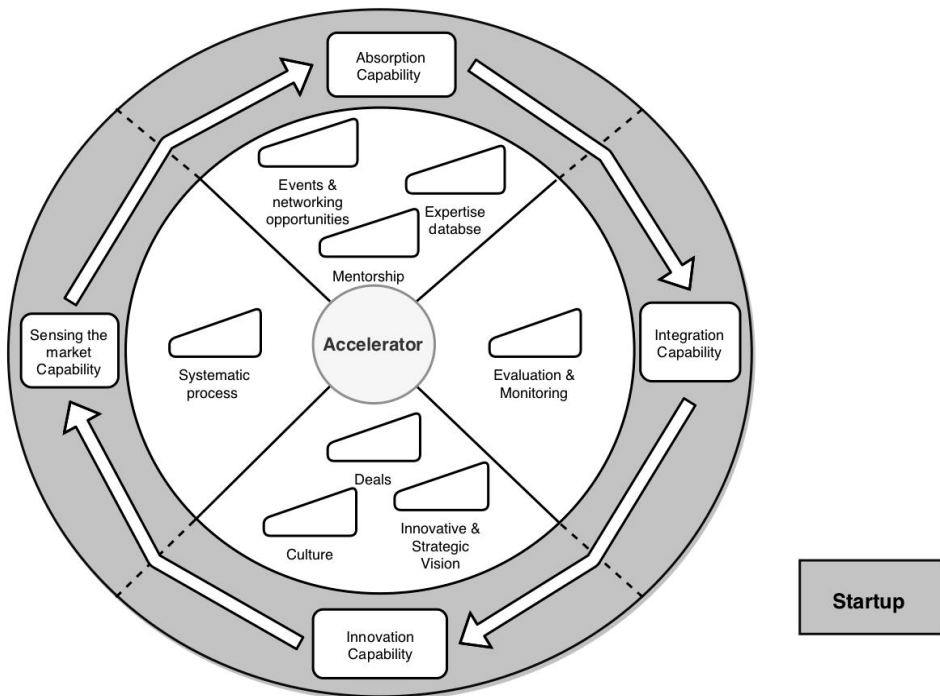
2006). The innovation capability of YC startups is developed thanks to YC processes and resources that firms experience and acquire throughout their lifecycle.

YC has deals with many companies at the forefront of technology which supports YC startups' during their development process through different means such as free services or special access (Y combinator, 2018). These deals facilitate the technological requirements and constraints of YC startups' when creating new products or processes.

Also, the iterative process applied by YC startups (Barrehag et al., 2012; Stross, 2012; Fowle and Tyne, 2017) during the YC cycle is strategically innovation oriented. This is because the process aims to go after the opportunity found and performs the necessary adjustments throughout several iterations in order to make the idea fit the market and become profitable until it creates value for the firm (Besanko et al., 1996; Wang and Ahmed, 2004).

YC culture also plays a vital role in developing its firm's innovation capability. This is because YC culture has several principles that promote the empowerment of YC startups' founders which is an essential input to foster innovative behaviours (Prajogo and Ahmed, 2006) and thus innovation capacity (Wang and Ahmed, 2007). YC startups' works independently and come to YC headquarters usually once a week for meetings in which they receive advice but not command (Miller and Bound, 2011). The flexible structure of the program, with no office space and no close supervision routines, allows founders to possess a certain level of autonomy to not feel diverted of their focus (Stross, 2012; Kohler, 2016) promoting the generation of their innovation capability.

**Figure 2** Conceptual framework of the proposed model of the dynamic capabilities generated in startups through YC accelerator



Source: Own data (2018)

Figure 2 provides a conceptual framework of the proposed model of the dynamic capabilities generated in startups through YC accelerator.

## **5 Conclusions and discussion**

The purpose of this paper has been the review of the business accelerator concept and its processes in order to identify those specific practices that help portfolio firms generate dynamic capabilities. Plainly, an accelerator is an organisation aimed at assisting new technology based ventures early in their lifecycle by providing a combination of capital and specific resources focused on intense interaction, monitoring, education and networking opportunities in order to help them to grow rapidly and to scale their business idea during the limited duration of the program. This speed up the learning cycle of the startups team and enables rapid progress and iteration when facing fast-changing environments (Hathaway, 2016). However, these positive effects of accelerators (Fehder and Hochberg, 2014; Smith and Hannigan, 2015; Hallen et al., 2017) are not equally distributed among all programs, meaning that depending on the accelerator, the quality of the impact on the startups varies widely (Hathaway, 2016). In this sense, YC is considered one of the most established accelerators that have become a senior model (Smith and Hannigan, 2015) suggesting that YC is an optimal benchmark for the identification of a successful acceleration process.

By analysing YC, a combination of resources and services embedded in YC' specific routines were identified, these resources and services result in the generation of different dynamic capabilities in the portfolio companies. More specifically, the process of continuous iteration and contact with customers promoted by YC enables startups to design and produce the right products or services, target the right markets to address consumer needs and leverage the opportunity found by developing their sensing capability. The YC's education and mentorship program combined with planned events and networking opportunities help expand the knowledge base of the portfolio firms, improving their ability to assimilate and utilise that information enhancing their future development and thus, strengthening the generation of their absorptive capability. Besides that, the capability of integration is enhanced thanks to the YC routines of continuous evaluation and surveillance within a short period of time which encourages teams to combine the different knowledge sources, internalise them and create different solutions, again and again, until their targets are achieved. Finally, the innovation capability is also fostered as a result of different elements: deals with companies at the forefront of technology facilitating the technological requirements and constraints of YC startups', the strategic innovation vision embedded in the iterative process applied by YC startups and the principles of YC's culture.

Our findings suggest that business acceleration programs might play a role in enhancing startups' dynamic capabilities through the mechanisms described above. However, since this study is based on a theoretical analysis, we need additional research to make further statements. The lack of prior research and data on the topic represent our main limitation. However, this paper plays a fertile ground for future research. Future work will be directed towards case studies and empirical analysis to produce in-depth insights about business accelerators impact on startups' dynamic capabilities.

## References

- Akman, G. and Yilmaz, C. (2008) 'Innovative capability, innovation strategy and market orientation: an empirical analysis in Turkish software industry', *International Journal of Innovation Management*, Vol. 12, No. 1, pp.69–111, DOI: 10.1142/S1363919608001923.
- Alexander, M., Johan, W. and Jeremy, C.S. (2007) 'The new venture innovation process: examining the role of absorptive capacity', *Entrepreneurial Strategic Processes (Advances in Entrepreneurship, Firm Emergence and Growth)*, Emerald Group Publishing Limited, Bingley, Vol. 10, pp.159–185.
- Ardichvili, A., Cardozo, R. and Ray, S. (2003) 'A theory of entrepreneurial opportunity identification and development', *Journal of Business Venturing*, Vol. 18, pp.105–12, DOI: 10.1007/s00128-017-2113-7.
- Baker, T. and Nelson, R.E. (2005) 'creating something from nothing: resource construction through entrepreneurial bricolage', *Administrative Science Quarterly*, Vol. 50, No. 3, pp.329–366, DOI: 10.2189/asqu.2005.50.3.329.
- Barrehag, L. et al. (2012) *Accelerating Success: A Study of Seed Accelerators and their Defining Characteristics*, Chalmers University of Technology.
- Battistella, C., De Toni, A.F. and Pessot, E. (2017) 'Open accelerators for start-ups success: a case study', *European Journal of Innovation Management*, Vol. 20, No. 1, pp.80–111, DOI: <https://doi.org/10.1108/EJIM-10-2015-0113>.
- Bergek, A. and Norrman, C. (2008) 'Incubator best practice: a framework', *Technovation*, Vol. 28, Nos. 1–2, pp.20–28, Emerald Group Publishing Limited, Bingley, DOI: 10.1016/j.technovation.2007.07.008.
- Besanko, D., Dranove, D. and Shanley, M. (1996) *The Economics of Strategy*, John Wiley & Sons, Inc., New York.
- Block, J.H. et al. (2018) 'New players in entrepreneurial finance and why they are there', *Small Business Economics*, Vol. 50, No. 2, pp.239–250, DOI: 10.1007/s11187-016-9826-6.
- Bruneel, J. et al. (2012) 'Technovation the evolution of business incubators: comparing demand and supply of business incubation services across different incubator generations', *Technovation*, Elsevier, Vol. 32, No. 2, pp.110–121, DOI: 10.1016/j.technovation.2011.11.003.
- Chen, Y.S., Lin, M.J.J. and Chang, C.H. (2009) 'The positive effects of relationship learning and absorptive capacity on innovation performance and competitive advantage in industrial markets', *Industrial Marketing Management*, Vol. 38, No. 2, pp.152–158, DOI: 10.1016/j.indmarman.2008.12.003.
- Christiansen, J.D. (2009) *Copying Y Combinator, A Framework for Developing Seed Accelerator Programmes*, University of Cambridge.
- Clarysse, B., Wright, M. and Hove, J.V. (2015) *A Look Inside Building Businesses*, Nesta, London.
- Clarysse, B., Wright, M. and Hove, J.V. (2015) *A Look Inside Building Businesses*, Nesta, London.
- Cohen, S. (2013) 'What do accelerators do? Insights from incubators and angels', *Innovations: Technology, Governance, Globalization*, Vol. 8, Nos. 3–4, pp.19–25, DOI: 10.1162/INOV\_a\_00184.
- Cohen, S. and Hochberg, Y.V. (2014) 'Accelerating startups: the seed accelerator phenomenon', *SSRN Electronic Journal*, pp.1–16, DOI: 10.2139/ssrn.2418000.
- Cohen, S., Fehder, D.C., Hochberg, Y.V. and Murray, F. (2019) 'The design of startup accelerators', *Research Policy*, Vol. 48, No. 7, pp.1781–1797, DOI: <https://doi.org/10.1016/j.respol.2019.04.003>.
- Cohen, W.M. and Levinthal, D.A. (1990) 'Absorptive capacity: a new perspective on learning and innovation', *Administrative Science Quarterly*, Vol. 35, No. 1, pp.128–152, DOI: 10.2307/2393553.

- Corner, P.D. and Wu, S. (2012) 'Dynamic capability emergence in the venture creation process', *International Small Business Journal*, Vol. 30, No. 2, pp.138–160, DOI: 10.1177/0266242611431092.
- Debrulle, J. (2012) *Start-up Absorptive Capacity: Does the Owner's Human and Social Capital Matter?*, No. 30, Katholieke Universiteit Leuven.
- Dempwolf, C.S., Auer, J. and D'Ippolito, M. (2014) 'Innovation accelerators: defining characteristics among startup assistance organizations', *Small Business Administration*, October, pp.1–44, DOI: <https://doi.org/10.13140/RG.2.2.36244.09602>.
- Dilts, D.M. and Hackett, S.M. (2004) 'A systematic review of business incubation research', *The Journal of Technology Transfer*, Vol. 29, pp.55–82, DOI: 10.1023/B:JOTT.0000011181.11952.0f.
- Eisenhardt, K.M. and Martin, J.a. (2000) 'Dynamic capabilities: what are they?', *Strategic Management Journal*, Vol 21, pp.1105–1121, [https://doi.org/10.1002/1097-0266\(200010/11\)21:10/11<1105::AID-SMJ133>3.0.CO;2-E](https://doi.org/10.1002/1097-0266(200010/11)21:10/11<1105::AID-SMJ133>3.0.CO;2-E)
- Fehder, D.C. and Hochberg, Y.V (2014) 'Accelerators and the regional supply of venture capital investment', *Social Science Research Network*, pp.1–40, DOI: <http://dx.doi.org/10.2139/ssrn.2518668>.
- Fowle, M. and Tyne, N. (2017) 'Critical success factors for business accelerators: a theoretical context', in *British Academy of Management Conference 2017*, pp.1–23.
- Freel, M. (2005) 'Patterns of innovation and skills in small firms', *Technovation*, Vol. 25, No. 123, pp.123–134.
- Goswami, K., Mitchell, J.R. and Bhagavatula, S. (2018) 'Accelerator expertise: understanding the intermediary role of accelerators in the development of the Bangalore entrepreneurial ecosystem', *Strategic Entrepreneurship Journal*, Vol. 12, No. 1, pp.117–150, DOI: <https://doi.org/10.1002/sej.1281>.
- Hallen, B.L., Bingham, C.B. and Cohen, S.L. (2017) 'Do accelerators accelerate? If so, how? The impact of intensive learning from others on new venture development', *SSRN Electronic Journal*, No. 1, DOI: 10.5465/AMBPP.2014.185.
- Hallen, B.L., Cohen, S. and Bingham, C. (2016) *Do Accelerators Accelerate? If So, How? The Impact of Intensive Learning from Others on New Venture Development*, SSRN <https://doi.org/10.2139/ssrn.2719810>.
- Harms, R., Marinakis, Y. and Walsh, S.T. (2015) 'Lean startup for materials ventures and other science-based ventures: under what conditions is it useful?', *Translational Materials Research*, IOP Publishing, Vol. 2, No. 3, p.035001, DOI: 10.1088/2053-1613/2/3/035001.
- Hathaway, I. (2016) *Accelerating Growth: Startup Accelerator Programs in the United States*, Brookings, 17 February, pp.1–12 [online] [https://static1.squarespace.com/static/568398f1a2bab87f93f6958b/t/56c46628c6fc08abb15044ea/1455711786853/Accelerating+growth+Startup+accelerator+programs+in+the+United+States+\\_+Brookings+Institution.pdf](https://static1.squarespace.com/static/568398f1a2bab87f93f6958b/t/56c46628c6fc08abb15044ea/1455711786853/Accelerating+growth+Startup+accelerator+programs+in+the+United+States+_+Brookings+Institution.pdf) (accessed 10 November 2019).
- Heinemann, F. (2015) *Corporate Accelerators: A Study on Prevalence, Sponsorship, and Strategy*, Massachusetts Institute of Technology.
- Hochberg, Y.V. (2016) 'Accelerating entrepreneurs and ecosystems: the seed accelerator model', *Innovation Policy and the Economy*, pp.25–51, DOI: 10.1086/684985.
- Hochberg, Y.V., Cohen, S. and Feher, D. (2015) *Seed Accelerator Ranking Project* [online] [http://seedrankings.com/pdf/sarp\\_2016\\_accelerator\\_rankings.pdf](http://seedrankings.com/pdf/sarp_2016_accelerator_rankings.pdf) (accessed 3 December 2019).
- Hochberg, Y.V., Cohen, S. and Feher, D. (2016) *Seed Accelerator Ranking Project* [online] <http://seedrankings.com/2015-rankings.html> (accessed 3 December 2019).
- Hochberg, Y.V., Cohen, S. and Feher, D. (2017) *Seed Accelerator Ranking Project* [online] <http://seedrankings.com/#research> (accessed 3 December 2019).

- Hoffman, D.L. and Radojevich-Kelley, N. (2012) 'Analysis of accelerator companies: an exploratory case study of their programs, processes, and early results', *Small Business Institute Journal*, Vol. 8, No. 2, pp.54–70.
- Isenberg, D.J. (2010) 'The big idea: How to start an entrepreneurial revolution', *Harvard Business Review*, Vol. 88, No. 6, DOI: 10.1353/abr.2012.0147.
- Jones, O., Macpherso, A. and Jayawarna, D. (2014) 'Learning to grow: dynamic capabilities in new technology-based firms', Paper presented at the *British Academy of Management (BAM) Conference*, Aston University, Birmingham, Vol. 44, No. 1, pp.1–5, DOI: 10.1007/s13398-014-0173-7.2.
- Jones, O., Macpherso, A. and Jayawarna, D. (2014) 'Learning to grow: dynamic capabilities in new technology-based firms', Paper presented at the *British Academy of Management (BAM) Conference*, Aston University, Birmingham, Vol. 44, No. 1, pp.1–5, DOI: <https://doi.org/10.1007/s13398-014-0173-7.2>.
- Jones, O., Macpherson, A. and Jayawarna, D. (2013) *Resourcing the Start-Up Business: Creating Dynamic Entrepreneurial Learning Capabilities*, Taylor & Francis.
- Jones, O., Macpherson, A. and Jayawarna, D. (2013) *Resourcing the Start-Up Business: Creating Dynamic Entrepreneurial Learning Capabilities*, Taylor & Francis. London, Routledge.
- Juntunen, M. (2017) *Business Model Change As a Dynamic Capability* [online] <http://jultika.oulu.fi/files/isbn9789526216621.pdf> (accessed 10 July 2019).
- Kohler, T. (2016) 'Corporate accelerators: building bridges between corporations and startups', *Business Horizons*, Kelley School of Business, Indiana University, Vol. 59, No. 3, pp.347–357, DOI: 10.1016/j.bushor.2016.01.008.
- Landroguetz, S.M., Castro, C.B. and Cepeda-Carrión, G. (2011) 'Creating dynamic capabilities to increase customer value', *Management Decision*, Vol. 49, No. 7, pp.1141–1159, DOI: 10.1108/00251741111151181.
- Lane, P.J. and Lubatkin, M. (1998) 'Relative absorptive capacity and interorganizational learning', *Strategic Management Journal*, Vol. 19, No. 5, pp.461–477, DOI: 10.1002/(SICI)1097-0266(199805)19:5<461:AID-SMJ953>3.3.CO;2-C.
- Leih, S., Linden, G. and Teece, D.J. (2014) 'Business model innovation and organizational design: a dynamic capabilities perspective', *Business Model Innovation*, pp.1–22, DOI: 10.1093/acprof.
- Liao, J., Kickul, J.R. and Ma, H. (2009) 'Innovation: an empirical examination of internet firms', *Journal of Small Business Management*, Vol. 47, No. 3, pp.263–286.
- Lumpkin, G.T. and Katz, J.A. (2007) 'Entrepreneurial strategic process', in *Advances in Entrepreneurship, Firm Emergence & Growth*. Vol 10, Emerald Group Publishing Limited, Bingley, DOI: [https://doi.org/10.1016/S1074-7540\(07\)10003-9](https://doi.org/10.1016/S1074-7540(07)10003-9).
- Miller, P. and Bound, K. (2011) *The Startup Factories*, London, Nesta, DOI: 10.1017/CBO9781107415324.004.
- Monferrer, D., Blesa, A. and Ripollés, M. (2013) 'Orientación Al Mercado De La Red Y Capacidades Dinámicas De Absorción E Innovación Como Determinantes Del Resultado Internacional De Las Nuevas Empresas Internacionales', *Revista Española de Investigación en Marketing ESIC*, pp.29–52, DOI: 10.1016/S1138-1442(14)60023-1.
- Newbert, S.L. (2005) 'New firm formation: a dynamic capability perspective', *Journal of Small Business Management*, Vol. 43, No. 1, pp.55–77, DOI: <https://doi.org/10.1111/j.1540-627X.2004.00125.x>.
- Pandey, S. et al. (2017) 'The appeal of social accelerators: what do social entrepreneurs value?', *Journal of Social Entrepreneurship*, Vol. 8, No. 1, pp.88–109, DOI: 10.1080/19420676.2017.1299035.
- Paradkar, A., Knight, J. and Hansen, P. (2015) 'Innovation in start-ups: ideas filling the void or ideas devoid of resources and capabilities?', *Technovation*, Vol. 41, pp.1–10, DOI: 10.1016/j.technovation.2015.03.004.



- Pauwels, C. et al. (2016) 'Understanding a new generation incubation model: the accelerator', *Technovation*, pp.50–51, DOI: 10.1016/j.technovation.2015.09.003.
- Pavlou, P.A. and El Sawy, O.A. (2011) 'Understanding the elusive 'black box' of dynamic capabilities', *Decision Sciences Journal*, Vol. 42, No. 1, pp.239–273, DOI: 10.1111/j.1540-5915.2010.00287.x.
- Prajogo, D.I. and Ahmed, P.K. (2006) 'Relationships between innovation stimulus, innovation capacity, and innovation performance', *R and D Management*, Vol. 36, No. 5, pp.499–515, DOI: 10.1111/j.1467-9310.2006.00450.x.
- Rhett, M. (2014) *Mentors are the Secret Weapons of Successful Startups*, Techcrunch.
- Ries, E. (2013) *El método Lean Startup: Cómo crear empresas de éxito utilizando la innovación continua*, p.23, Grupo Planeta, Spain.
- Roseno, A., Enkel, E. and Mezger, F. (2013) 'Distinctive dynamic capabilities for new business creation: sensing, seizing, scaling and separating', *International Journal of Technology Marketing*, Vol. 8, No. 2, pp.197–234, DOI: 10.1504/IJTMKT.2013.054072.
- Salunke, S., Weerawardena, J. and Mccoll-Kennedy, J.R. (2011) 'Towards a model of dynamic capabilities in innovation-based competitive strategy: insights from project-oriented service firms', *Industrial Marketing Management*, Vol. 40, pp.1251–1253, DOI: 10.1016/j.indmarman.2011.10.009.
- Saunila, M. and Ukko, J. (2014) 'Intangible aspects of innovation capability in SMEs: impacts of size and industry', *Journal of Engineering and Technology Management – JET-M*, Vol. 33, pp.32–46, DOI: 10.1016/j.jengtecman.2014.02.002.
- Schilke, O. and Helfat, C.E. (2018) 'Quo vadis, dynamic capabilities? A content-analytic review of the current state of knowledge and recommendations for future research', *Academy of Management Annals*, Vol. 12, No. 1, pp.390–439, DOI: <https://doi.org/10.5465/annals.2016.0014>.
- Smith, S.W. and Hannigan, T.J. (2015) 'Swinging for the fences: how do top accelerators impact the trajectories of new ventures?', *DRUID Conference*, p.29.
- Smith, S.W., Hannigan, T.J. and Gasiorowski, L. (2017) 'Peering inside: what is the impact of cohorts, peers, and founding teams on entrepreneurial outcomes?', *Academy of Management Proceeding*, 2015, pp.1–35.
- Sommer, S.C., Loch, C.H. and Dong, J. (2008) 'Managing complexity and unforeseeable uncertainty in startup companies: an empirical study', *Organization Science*, Vol. 20, No. 1, pp.118–133, DOI: <https://doi.org/10.1287/orsc.1080.0369>.
- Song, M. et al. (2008) 'Success factors in new ventures: a meta-analysis', *Journal of Product Innovation Management*, pp.7–27, DOI: 10.1111/j.1540-5885.2007.00280.x.
- Stross, R. (2012) *The Launch Pad: Inside Y Combinator, Silicon Valley's Most Exclusive School for Startups*, Portfolio/Penguin, USA.
- Teece, D., Pisano, G. and Shuen, A. (1997) 'Dynamic capabilities and strategic management', *Strategic Management Journal*, 18(7), pp.509–533, DOI: 10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z.
- Teece, D.J. (2007) 'Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance', *Strategic Management Journal*, Vol. 51, No. 2, pp.315–334, DOI: 10.1002/smj.
- Teece, D.J. (2012) 'Dynamic capabilities: routines versus entrepreneurial action', *Journal of Management Studies*, Vol. 49, No. 8, pp.1395–1401, DOI: 10.1111/j.1467-6486.2012.01080.x.
- Trimi, S. and Berbegal-Mirabent, J. (2012) 'Business model innovation in entrepreneurship', *International Entrepreneurship and Management Journal*, Vol. 8, No. 4, pp.449–465, DOI: 10.1007/s11365-012-0234-3.
- Wang, C.L. and Ahmed, P.K. (2004) 'The development and validation of the organisational innovativeness construct using confirmatory factor analysis', *European Journal of Innovation Management*, Vol. 4, No. 7, pp.303–313, DOI: 10.1108/14601060410565056.

- Wang, C.L. and Ahmed, P.K. (2007) 'Dynamic capabilities: a review and research agenda', *The International Journal of Management Reviews*, Vol. 9, pp.31–51, DOI: 10.1111/j.1468-2370.2007.00201.x.
- Weiblen, T. and Chesbrough, H.W. (2015) 'Engaging with startups to enhance corporate innovation', *California Management Review*, Vol. 57, No. 2, pp.66–90, DOI: 10.1525/cmr.2015.57.2.66.
- Wright, M. and Drori, I. (Eds.). (2018) *Accelerators: Successful Venture Creation and Growth*, Edward Elgar Publishing, Cheltenham, UK.
- Y combinator (2018) [online] <http://www.ycombinator.com> (accessed 15 November 2018).
- Yang, S., Kher, R. and Lyons, T.S. (2018) 'Where do accelerators fit in the venture creation pipeline? Different values brought by different types of accelerators', *Entrepreneurship Research Journal*, Vol. 8, No. 4, pp.1–27, DOI: <https://doi.org/https://doi.org/10.1515/erj-2017-0140>.
- Yin, B. and Luo, J. (2018) 'How do accelerators select startups; shifting decision criteria across stages', *IEEE Transactions on Engineering Management*, DOI: 10.1109/TEM.2018.2791501.
- Yusubova, A. and Clarysse, B. (2016) 'Success factors of business accelerators in three European cities – Paris, London, Berlin', in *Technology Entrepreneurship and Business Incubation: Theory, Practice, Lessons Learned*, Vol 1, No. 8, pp.35–56, DOI: <https://doi.org/10.1109/msr.2009.5069473>.
- Zahra, A.S. and George, G. (2002) 'Absorptive capacity: a review, reconceptualization, and extension', *Academy of Management Review*, DOI: 10.4135/9781412956246.n1.
- Zahra, A.S., Sapienza, J.H. and Davidsson, P. (2006) 'Entrepreneurship and dynamic capabilities: a review, model and research agenda', *Journal of Management Studies*, Vol. 43, No. 4, pp.917–955, DOI: <https://doi.org/10.1111/j.1467-6486.2006.00616.x>.