

From Failing Forward to Thriving: How Entrepreneurial Learning Shapes Ecosystems

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Abstract: Drawing on entrepreneurial cognition and experiential learning theories, this article explores the complexities of entrepreneurial learning from business failure and its reflections on the entrepreneurial ecosystem. Qualitative research was conducted through individual in-depth interviews and focus groups, and data were subjected to content analysis using NVivo software. The analysed data relate the nature of the failure to its reflections on entrepreneurial learning and the most relevant contents used in the resurgence of the entrepreneur. How the entrepreneurial ecosystem absorbs and recycles learning from failure impacting new business creation was analysed. This study explored emerging economies' themes based on the triangulation of data from startups from different industries and maturity levels from the perspective of founding partners, directors and employees and incubator and accelerator managers. The article offers a vision of entrepreneurial learning due to exceptional failure. The results presented in this paper demonstrate that learning from a critical event profoundly impacts the performance of entrepreneurial ecosystems and influences their vocation and the accession of new ventures to the industries analysed. These results encourage research in areas such as learning to model or replicating the proposed approach in other ecosystems. In practical terms, the findings can support policymakers in identifying localised factors that can be leveraged to produce macro-level change by identifying appropriate incentives for social networks and experiential knowledge sharing. The article presents a new perspective on entrepreneurial learning. It offers evidence that micro-learning strategies adopted and developed after critical events impact the performance of the entrepreneurial ecosystem related to the creation and diffusion of new ventures.

Keywords: Fail; Failure; Startups; Entrepreneurial Learning; Experiential Learning; Entrepreneurial Ecosystems.

1. Introduction

Failure is one of the most critical events an entrepreneur can face. It plays a crucial role in entrepreneurial learning, and knowledge about the learning process, which enables an entrepreneur to resurface after a failure, is considerably fragmented in the literature (Lattacher & Wdowiak, 2019). The entrepreneurial ecosystem can profit from vibrant learning after critical events (Cope, 2011; Espinoza-Benavides & Diaz, 2019).

Failure can be considered a common phenomenon, considering the high risks and uncertainties inherent in entrepreneurial activity (Politis, 2008). However, the reflexes generated from their learning improve the knowledge stock of the individual since they can facilitate successful entrepreneurial resurgence. Moreover, these entrepreneurs can remain in the ecosystem by creating new businesses and becoming serial entrepreneurs, mentors, and employees of other companies or institutions (Lattacher & Wdowiak, 2019; Ucbasaran et al., 2013).

In several entrepreneurial ecosystems, most startups are not creating major innovations or significant technological breakthroughs. Shane (2009) defines as dangerous the belief that simply encouraging more startups is the key to the future economic vibrancy of society or to revitalising economic stagnation or decline in regions. Instead, we argue that successful or unsuccessful entrepreneurship within an ecosystem generates critical entrepreneurial resources such as investment capital, skilled workers and entrepreneurial knowledge. This, in turn, supports the creation of future high-growth ventures. Essential ecosystem resources such as entrepreneurial knowledge, financial capital, successful mentors and skilled workers are created or attracted over time by entrepreneurial activity and public investment (Cannavacciuolo et al., 2017).

As success or failure cases are recycled across the ecosystem, other entrepreneurs can use them to avoid similar failures. The recycling of learning from failure is a crucial process for better managing the flow of resources in ecosystems. (Bahrami & Evans, 1995). The knowledge, skills and talent associated with failed ventures are also recycled through the larger ecosystem. Business failure is usually a function of market timing, meaning failed entrepreneurs can gain valuable experience. Workers from failed ventures are also returned to the workforce, taking the skills and insights they developed in previous incidents (Corona et al., 2006).

However, recycling talent and knowledge from failed enterprises depends on a local culture that does not punish failure but treats it as a learning experience. If cultural attitudes punish failure, the remaining entrepreneurs

associated with failure cannot use the knowledge and skills they have developed (Cardon et al., 2011).

From a research perspective, entrepreneurial learning from failure is interesting for a few reasons: (1) it constitutes an emerging field (Ucbasaran et al., 2013); (2) it links the context of failure to learning theories that can, in addition to improving understanding under the phenomenon, enable theory advancement (Liu et al., 2019) and (3) it facilitates a dynamic view of entrepreneurship (Cope, 2005).

From a practical perspective, understanding the reflexes of failure allows us to look at its manifestations over time to manage the impact on the failed entrepreneur and the ecosystem in which they are embedded to manage its multi-level effects (Klimas et al., 2020). Furthermore, entrepreneurial cognition following a critical event usually affects the knowledge structures people use to make evaluations, judgments or decisions involving opportunity assessment, venture creation and growth (Mitchell et al., 2002). Hence, to explore how learning processes are shaped by a context of fault or failure (Ucbasaran et al., 2001), we apply a process-focused lens of entrepreneurial cognition that moves towards a view of entrepreneurial cognition embedded within specific social situations with specific social actors (Mitchell et al., 2011) from a processual perspective informed by experiential learning theory (Kolb, 1984).

This article aims to explore the complexities of entrepreneurial learning from failure and its reflections on the entrepreneurial ecosystem through the research question: How do the effects of entrepreneurial failure manifest in entrepreneurial ecosystems? Specifically, (1) what is the nature of failure and its impact on entrepreneurial learning? (2) What are the contents of learning from failure? (3) What is its application in an entrepreneurial resurgence? (4) How does EE recycle learning from failure, and how is this learning absorbed?

This research is justified by offering insight into entrepreneurial learning due to the exceptional failure circumstance. Furthermore, this study also advances by presenting a new perspective on entrepreneurial learning and providing evidence that microlearning strategies adopted and developed after critical events impact the performance of the entrepreneurial ecosystem related to the creation and diffusion of new ventures (Cao & Shi, 2020).

To provide a coherent picture, the content of the study is represented as follows: the next section presents the theoretical framework associated with entrepreneurial failure and entrepreneurial learning. Then, the criteria used in sample selection, content categorisation, and the techniques applied to analyse the interviews are indicated. This is followed by the presentation of the research results and, finally, the considerations of the work carried out and the implications of the results obtained.

2. Theoretical Background

2.1 Entrepreneurial learning

Entrepreneurship is a learning process, and entrepreneurs can experience vibrant learning after critical events (Minniti & Bygrave, 2001). Entrepreneurial learning focuses on how and when learning occurs, is a promising field of research at the interface of entrepreneurship and encompasses a wide diversity of theoretical perspectives: experiential learning, organisational learning, social cognitive theory, population ecology and configuration theory (Wang & Chugh, 2014). Among these approaches, experiential learning has been increasingly influential in research about entrepreneurial learning (Fust et al., 2018).

Experiential learning defines entrepreneurial learning as a subjective updating of knowledge grounded in experiences (Cope, 2005; Politis, 2005). In this perspective, learning emerges through personal reflection and direct action, and the nature of the experience significantly influences the learning process and its outcomes (Lattacher & Wdowiak, 2019). Insignificant experiences involve incremental and adaptive changes and cause a lower level of learning. In contrast, critical experiences involve a considerable reflection process and can lead to a high level of learning and significant changes in the entrepreneur's mind and behaviour (Pittaway & Thorpe, 2012).

As a critical event in the entrepreneur's life, this study will pay attention to entrepreneurial or perceived failure. The research findings will be related to the experiential learning framework proposed by Kolb (1984) as it is the dominant theoretical framework used to understand the entrepreneurial learning process (Morris et al., 2012) and because it understands learning as the process by which knowledge is created through the transformation of experience. From this perspective, for the entrepreneur to effectively learn from a critical experience, they must first be exposed to a concrete experience and subsequently analyse it through reflective observation. The

insights generated will shape new knowledge through abstract conceptualisation and should be tested via active experimentation, as shown in Figure 1.

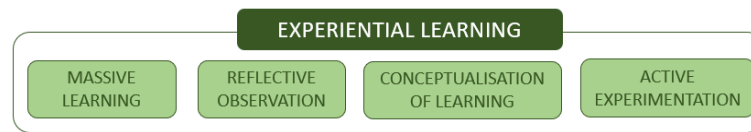


Figure 1: Experiential learning framework - adapted from Kolb (1984)

Although the process is cyclical and non-sequential, the concrete experience is the starting point and basis for learning by acting as a reference to test abstract concepts (Kolb & Kolb, 2018). The initial reaction to the critical event is the formative element of experiential learning and comprises a preliminary assessment and comparison of the event with existing abstract concepts. The next step involves deeper analysis and reflective observation conducted deliberately with the inclusion of diverse perspectives. For abstract conceptualisation to occur, creativity is required to integrate observations into logically sound theories, and finally, the application of conceptual knowledge generates active experimentation (Lattacher & Wdowiak, 2019).

2.2 Entrepreneurial failure

Manifested as an essential field of research in the late 1990s, business failure was considered an inherent part of entrepreneurship (McGrath, 1999). Despite ambiguities regarding its understanding, this study adopts the perspective of He et al. (2018), which treats failure as any harmful deviation from the actual outcomes expected by the entrepreneur. In this sense, it includes: (1) non-survival of the company, which may mean its closure or change of market and products; (2) organisational failure by not reaching the minimum thresholds of economic viability; and (3) the entrepreneur's perception of failure by insufficient objective (financial) or subjective (individual goals) development (Josefy et al., 2017; Ucbasaran et al., 2013).

Many understandings exist about business failure (Jenkins & McKelvie, 2016). Failure is measured objectively, primarily by economic performance (Yamakawa et al., 2015). The subjectivity of measurement lies in comparing individually defined targets and actual results. Another way of subjectively measuring failure considers the personal attitude and situation of the entrepreneur by differing in how deeply failure impacts them psychologically and financially (Cope, 2011).

In summary, the lens of this study focuses on failure, defined by the fact that it is cognitively perceived as such by the entrepreneur, regardless of whether the firm survives. Hence, fault and failure are adopted here as critical experiential learning events. It follows Ucbasaran et al. (2013) going beyond the narrow failure criterion.

2.3 Entrepreneurial ecosystems and startups typology

The functionality of an ecosystem is determined by the ability of entrepreneurs to access the resources within it. Well-functioning ecosystems are dense networks between entrepreneurs, investors, advisors and key players based on long-term trust and a localised culture that encourages networking and connections for knowledge exchange. This structure supports the flow of resources and facilitates access for entrepreneurs (Spigel, 2018).

On the other hand, malfunctioning ecosystems lack dense social networks that allow entrepreneurs to access critical resources. Depending on the ecosystem, this may be due to a lack of community trust or cultural perspectives that punish failure and discourage intensive networking between entrepreneurs and other actors. As a result, entrepreneurs may find it challenging to sustain or re-enter the entrepreneurial ecosystem after an episode of failure (Spigel, 2017).

Entrepreneurs create ventures that take many forms, suggesting a very heterogeneous landscape (Davidsson, 2005) that, even in post-failure episodes, if treated as a learning experience and shared with other ecosystem elements, can reflect in the opening of new ventures led by more mature entrepreneurs.

Considering the full range of possibilities, focusing on for-profit sectors, at least four main categories of ventures can be identified. As Morris et al. (2015) articulated, these categories of startups include survival, lifestyle, controlled/aggressive growth or high-growth ventures.

The four categories are differentiated based on their relative emphasis on growth, innovation and reinvestment in the business, their means of extracting revenues or returns, the main types of stakeholders involved with the business, and the main managerial challenges faced by the founder (Morris et al., 2015). Surviving startups:

Provide bare subsistence for the entrepreneur and their family, allowing little more than a precarious existence. These ventures may or may not be formally registered, typically have no premises, few assets, and no commercial banking relationships, and operate on cash or barter. They exist to meet financial needs, and there is usually no ability to reinvest. Launching these ventures is often necessary, driven or motivated by demand factors, and the companies typically operate in highly competitive, price-based and largely undifferentiated markets.

Lifestyle startups: Provide a relatively stable environment and income stream for owners based on a business model and a maintenance approach to management. Reinvestments are relatively modest and made to maintain market competitiveness. These ventures typically have facilities in a single location and do not seek expansion or growth. As a result, the number of employees remains relatively constant. Given limited capacity, it is difficult for these startups to achieve savings from operations.

Managed growth startups: have a viable business modelled to seek steady growth over time, as reflected in occasional new product launches, periodic entry into new markets, steady expansion of facilities, locations and staff, and development of a solid local and regional brand. Reinvestment in these businesses is usually continuous despite moderate regional growth. Aggressive / high-growth startups are often technology-based ventures with solid innovation capabilities that seek exponential growth and are equity-funded. The launch of these ventures is driven by the opportunity to create markets. Their market focus is typically national or international, and they often become candidates for initial public offerings or takeovers.

Following Shane's ideas (2009), the start-ups selected for this study belong to distinct categories, all utilising and generating technology for the ecosystem, creating innovations and technological advances in different proportions and stimulating employment and income for the region where they operate.

3. Methodology

This study is classified as exploratory-descriptive research (Prodanov & Freitas, 2013), with a qualitative approach (Creswell, 2010) and a multiple case study (Yin, 2015) was conducted as a scrutiny strategy in which one or more processes, activities or individuals were explored over a limited period. The objects of study were eight startups of distinct industries of the exact geographical origin with validated and marketed products. All of them had founders, managing partners or team members directly involved in episodes of failure in previous ventures within the same entrepreneurial ecosystem where they are inserted, and some of them also had episodes in other ecosystems.

The choice of the sample, characterised in Figure 2, was based on the classification of each startup in different stages of maturity (Morris et al., 2015), as explained in the theoretical framework, so that it was possible to verify whether there were similarities or not in the way they processed experiential learning from failure.

	Age (years)	Domain (focus)	Nº employees	Business type	Market situation	Product stage	Interviews
SURVIVAL	2	product	3	B2C	not commercialized	prototype	all team
SURVIVAL	3	service	6	B2C	not commercialized	prototype	all team
LIFESTYLE	3	product & service	7	B2B	fewer customers	beta	founder & manager
LIFESTYLE	3	product & service	10	B2C	fewer customers	beta	founder & manager
MANAGED GROWTH	5	product & service	62	B2B	growth in selling	live	manager
MANAGED GROWTH	7	product & service	37	B2B	growth in selling	live	manager
HIGH GROWTH	7	product & service	23	B2B	growth in selling	live	founder
HIGH GROWTH	8	service	17	B2G	growth in selling	live	founder & manager

Figure 2: Characterisation of the startups

For data collection, the sources of data evidence highlighted by Yin (2015, p. 74) were considered: "in-depth interviews and participant observation". It was also conducted via Skype, eight semi-structured in-depth interviews, a method which, according to Yin (2015), is one of the primary sources of knowledge for the study, three of them individually and others in a focus group (Morgan, 2010) with the entire startup team in order to realise information and feelings that individuals have about certain specific issues and map, through data triangulation (Denzin & Lincoln, 2008) the institutional practices performed and their perceptions about the experiential learning process (Josefy et al., 2017).

The pre-test interview to validate the research instrument was discarded after adjustments. A new startup at the same maturity stage was interviewed instead to avoid bias and information bias. The content analysis was structured in categories defined a priori from the literature about the themes of failure and entrepreneurial learning so that the investigation of core meanings and subsequent recognition of clusters in themes (Bardin, 2009) were carried out (Figure 3).

CAUSES	Background	cultural aspects	EXPERIENTIAL LEARNING	massive learning	type of failure
		social aspects		reflective observation	learning opportunities
		legal aspects		conceptualisation of learning	personal conclusions
		economic aspects		active experimentation	application of new learning
		educational aspects			
	technological aspects				
Drivers	determinists	ENTREPRENEURIAL LEARNING	personal & social emergency	entrepreneurial identity development	
	voluntary			past life	
	emotive			family experiences	
EVENT	Nature of failure			social relations	
	fault			entrepreneurial education & training	
Indirect	failure/ fail		participation in communities of practice		
	pain/ mourning	immersion in the industry			
Direct	learning	recognition of opportunities			
	recovery	cultural adherence in networks			
	economic aspects	negotiated venture	shareholdings and mergers		
psychological	negotiation of structures and practices				
social	negotiation of roles				
environmental	engagement in the network				
Long-term results	organisational	external relationships			
	individual				

Figure 3: Categorisation tree

The data from each startup was analysed individually in NVivo software. In addition, the interview excerpts were crossed for each node (analysis group) seeking to establish relations and verify contradictions to understand the complexities of entrepreneurial learning from failure and its reflections on the entrepreneurial ecosystem.

Based on existing theories and findings in the literature and to facilitate the understanding of data interpretation, a framework was developed to study experiential learning from failure and its effects on entrepreneurial learning. The study framework presented in Figure 4 favours the visualisation of its process, antecedents, effects and perceived results for the entrepreneur, startup and ecosystem.

All interviewees, independent of position, had already experienced or perceived failure and were in their career’s second or more venture. All belonged to the same entrepreneurial ecosystem of Ceará – Brazil. Although they used information technology in their solutions, they belonged to different industries and startups at different stages of maturity.

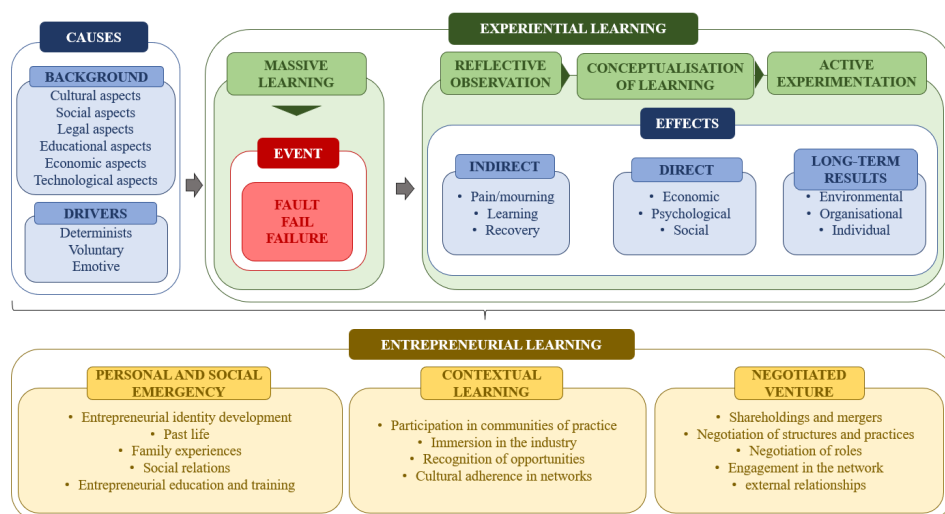


Figure 4. Framework for studying entrepreneurial learning from failure - adapted from Lattacher & Wdowiak, 2019; Klimas et al., 2020; and Rae, 2005.

4. Results analysis

4.1 Causes of failure

The leading causes of failure or failure are related to economic, legal and educational aspects, such as financial instability, legal insecurity due to loopholes in current legislation and lack of entrepreneurial education. As all of them had higher education in technology and complementary courses in management, educational and technological aspects were not barriers to the success of previous ventures. Although not enough, cultural and social aspects were pointed out as fostering success. The engagement with actors in the ecosystem and support from public agencies, development agencies and universities were listed as the primary motivators for the entrepreneurial resurgence, whether with the opening of new ventures or with the reinsertion in the ecosystem as mentors, consultants or employees of other startups or institutions.

4.2 Drivers of Failure

None of the interviewees alleged emotional drivers for closing the business venture. Previous ventures were not closed due to a change in professional path, family or personal aspects. Legal and economic support failures were pointed out among deterministic drivers, with a lack of specific credit lines and public institutions with specific post-acceleration programs. Only the founders of the fast-growing startup narrated voluntary drivers for the closing of the previous venture, listing the possibility of selling the company for a value above the market value, which enabled the opening of two new firms.

4.3 Massive Experience

The startup in the survival phase had a previous failure episode where the form closed before reaching the commercial balance of operations. All the others terminated activities due to economic infeasibility with some subsequent financial commitment to creditors. Only the high-growth startup presents a previous failure event with the company's abandonment by commercial decision. The papers were traded and exchanged for stakes and mergers with more significant ventures.

4.4 Reflective observation and indirect effects of failure

Regardless of whether they considered their previous experience a failure, all affirmed having gone through a period of pain and mourning since the leading personal and organisational objective was to turn the business into a unicorn. The first, second and fourth startups pointed to the proximity with incubation and acceleration programs of universities and public institutions as fundamental for the recovery and opening of new businesses and the proper reflection of the barriers to success.

4.5 Conceptualisation of learning and direct effects of failure

The most significant direct effects cited were psychological. As the interviewees, at the time of the previous venture's failure, were university students or recent graduates and had the support of family and the university, there were no significant economic and social traumas. All of them mentioned the support of public institutions as fundamental for reducing social traumas since they were encouraged to reinsert themselves in the entrepreneurial ecosystem as mentors or part of new ventures. The great learning pointed out was the strengthening of the feeling of belonging to the ecosystem and the sharing of learning about which path not to follow with other startups.

4.6 Active experimentation and long-term results

The results ranged from a greater maturity to better networking within and outside the entrepreneurial ecosystem. Incubation and acceleration programmes were listed as fundamental for organisational outcomes such as opening new firms, encouraging young entrepreneurs and acting as mentors. Knowledge sharing, improved individual and organisational reputation and excellent proximity to key players were listed as the primary long-term outcomes of the entrepreneurial ecosystem.

4.7 Personal and social emergence of entrepreneurial learning

Only the founders and managers of later-stage startups stated that they had family influence and a prior history of entrepreneurship. All cited the university as the leading promoter of the development of entrepreneurial identity. All had gone through one or more incubation and acceleration programmes within Ceará's entrepreneurial ecosystem. Startups two, three and four have already been accelerated by other external and international ecosystems and point to this experience as the most responsible for developing solid social relationships with clients and intermediaries.

4.8 Contextual entrepreneurial learning

Participation in communities of practice and insertion were listed as fundamental for entrepreneurial recovery, and their absence was the most significant cause of failure and failure by all interviewees. All pointed to networking and cultural adherence as fundamental for expanding contacts at all ecosystem levels and improving the recognition of new growth opportunities.

4.9 Negotiated enterprise and entrepreneurial learning

Only startups three and four, in stages of greater maturity and growth, have already undergone processes of paper sales, participation in other businesses and mergers, and angel investment from individuals and companies. Startups one and two, in survival stages, did not trade papers but only terminated business activities and returned to activity in other ventures by engaging in the network of relationships external to the previous organisation.

5. Conclusions

The effects of failure manifested themselves positively in the entrepreneurial ecosystem of Ceará since all entrepreneurs shared their experiences in a welcoming environment, with institutional support at various levels and were reinserted as mentors and employees of other firms and institutions, opening in the future, new ventures that are spread in various industries and at different stages of maturity. All generating employment, income and technological advancement for the region.

The nature of the failures and failures was presented objectively, with the closure of firms, and in a subjective manner, the sale or abandonment of the company due to non-economic factors. All these experiences generated entrepreneurial learning in developing individual entrepreneurial identities and improving network relations. The learning contexts, although diverse, had in common the previous participation in incubation and acceleration programmes linked to universities.

The primary learning contents were improved managerial practices, better recognition of opportunities, expanded relational connections within and outside the ecosystem to give new ventures greater robustness, and increased peer recognition that positively influenced individual and organisational reputation. The learnings were applied to an entrepreneurial resurgence in various ways, some in the form of mentoring and consultancies, others through sharing of experiences and contacts in communities of practice, and finally, with the opening and maintenance of new ventures that reached high development stages with technology diffusion and employment and income generation.

The most significant impact of entrepreneurial resurgence from failure was the welcoming attitude of the ecosystem and the culture of learning recycling at both individual and peer organisational levels.

From a research perspective, entrepreneurial learning from failure systematised through the experiential learning process makes it possible to link the context of failure to learning theories to enhance understanding of the phenomenon and enable theory advancement in addition to facilitating a dynamic view of entrepreneurship (Liu et al., 2019; Cope, 2005).

From a practical perspective, our research highlights the value of a highly interactive mode of knowledge transfer, starting from a critical event and reverberating throughout the entire entrepreneurial ecosystem. Indeed, founders and intermediaries (incubators and accelerators) help develop the ecosystem by accelerating the failure of some companies. In this sense, our findings suggest that government policymakers should judge startups based on the experience of their team; that is, their experience in building connections, developing founders, coordinating mentors, and selecting participants (founders and mentors). These evaluation standards should benefit individual founders and the broader entrepreneurial ecosystem. The sample could be expanded to include more gender diversity and age variations to identify cultural differences between generations and

multicultural teams, given the advent of today's ease of remote working and hiring foreigners. Such differences could point to new multicultural perspectives that foster psychological contracts with new perspectives.

References

- Bahrami, H., & Evans, S. (1995). *Flexible re-cycling and high-technology entrepreneurship*. California Management Review, 37(3), 62-89.
- Bardin, L. (2009). *Content analysis* (ed.). Lisboa: Editions, 70.
- Birley, S., & Westhead, P. (1990). *Growth and performance contrasts between 'types' of small firms*. Strategic management journal, 11(7), 535-557.
- Cannavacciuolo, L., Iandoli, L., Pongiglione, C., & Zollo, G. (2017). *Learning by failure vs learning by habits*. International Journal of Entrepreneurial Behavior & Research.
- Cao, Z., & Shi, X. (2020). *A systematic literature review of entrepreneurial ecosystems in advanced and emerging economies*. Small Business Economics, 1-36.
- Cardon, M. S., Stevens, C. E., & Potter, D. R. (2011). *Misfortunes or mistakes?: Cultural sensemaking of entrepreneurial failure*. Journal of Business Venturing, 26(1), 79–92.
- Carree, M. A., & Thurik, A. R. (2005). *Understanding the role of entrepreneurship for economic growth* (No. 1005). Papers on Entrepreneurship, Growth and Public Policy.
- Cope, J. (2005). *Toward a dynamic learning perspective of entrepreneurship*. Entrepreneurship theory and practice, 29(4), 373–397.
- Cope, J. (2011). *Entrepreneurial learning from failure: An interpretative phenomenological analysis*. Journal of business venturing, 26(6), 604–623.
- Corona, A., Slisko, J., & Planinsic, G. (2006). *Freely rising bottle of water also demonstrates weightlessness*. Physics Education, 41(3), 208.
- Creswell, J. W. (2010). *Mapping the developing landscape of mixed methods research*. SAGE handbook of mixed methods in social & behavioral research, 2, 45-68.
- Davidsson, P. (2005). Paul D. Reynolds: *Entrepreneurship research innovator, coordinator, and disseminator*. Small Business Economics, 24(4), 351–358.
- Denzin, N. K., & Lincoln, Y. S. (2008). *Introduction: The discipline and practice of qualitative research*.
- Espinoza-Benavides, J., & Díaz, D. (2019). *The entrepreneurial profile after failure*. International Journal of Entrepreneurial Behavior & Research.
- Fust, A.P., Jenert, T. and Winkler, C. (2018). *Experiential or self-regulated learning: a critical reflection of entrepreneurial learning processes*, Entrepreneurship Research Journal, Vol. 8 No. 2.
- He, W., Meng, T., He, X., & Ge, S. S. (2018). *Unified iterative learning control for flexible structures with input constraints*. Automatica, 96, 326-336.
- Jenkins, A., & McKelvie, A. (2016). *What is entrepreneurial failure? Implications for future research*. International Small Business Journal, 34(2), 176–188.
- Josefy, M. A., Harrison, J. S., Sirmon, D. G., & Carnes, C. (2017). *Living and dying: Synthesizing the literature on firm survival and failure across stages of development*. Academy of Management Annals, 11(2), 770–799.
- Klimas, P., Czakon, W., Kraus, S., Kailer, N., & Maalaoui, A. (2020). *Entrepreneurial Failure: A Synthesis and Conceptual Framework of its Effects*. European Management Review.
- Kolb, A., & Kolb, D. (2018). *Eight important things to know about the experiential learning cycle*. Australian educational leader, 40(3), 8.
- Kolb, D. A. (1984). *Experiential Learning: Experience as the Source of Learning and Development*. Prentice Hall.
- Lattacher, W., & Wdowiak, M. A. (2020). *Entrepreneurial learning from failure. A systematic review*. International Journal of Entrepreneurial Behavior & Research.
- McGrath, R. G. (1999). *Falling forward: Real options reasoning and entrepreneurial failure*. Academy of Management review, 24(1), 13–30.
- Minniti, M., & Bygrave, W. (2001). *A dynamic model of entrepreneurial learning*. Entrepreneurship theory and practice, 25(3), 5–16.
- Mitchell, R. K., Busenitz, L., Lant, T., McDougall, P. P., Morse, E. A., & Smith, J. B. (2002). *Toward a theory of entrepreneurial cognition: Rethinking the people side of entrepreneurship research*. Entrepreneurship theory and practice, 27(2), 93–104.
- Mitchell, R. K., Randolph-Seng, B., & Mitchell, J. R. (2011). *Socially situated cognition: Imagining new opportunities for entrepreneurship research*. Academy of Management Review, 36(4), 774–776.
- Morgan, A. (2010). *Discourse analysis: An overview for the neophyte researcher*. Journal of Health and Social Care Improvement, 1(1), 1–7.
- Morris, M. H., Kuratko, D. F., Schindehutte, M., & Spivack, A. J. (2012). *Framing the entrepreneurial experience*. Entrepreneurship theory and practice, 36(1), 11-40.
- Morris, M. H., Neumeyer, X., & Kuratko, D. F. (2015). *A portfolio perspective on entrepreneurship and economic development*. Small Business Economics, 45(4), 713-728.
- Pittaway, L., & Thorpe, R. (2012). *A framework for entrepreneurial learning: A tribute to Jason Cope*. Entrepreneurship & Regional Development, 24(9-10), pp. 837–859.

- Politis, D. (2008). *The process of entrepreneurial learning: a conceptual framework*.
- Prodanov, C. C., & de Freitas, E. C. (2013). *Metodologia do trabalho científico: métodos e técnicas da pesquisa e do trabalho acadêmico-2ª Edição*. Editora Feevale.
- Rae, D. (2005). *Entrepreneurial learning: a narrative-based conceptual model*. Journal of small business and enterprise development.
- Sexton, D. L., & Bowman-Upton, N. B. (1991). *Entrepreneurship: Creativity and growth*. Macmillan Pub Co.
- Shane, S. (2009). *Why encouraging more people to become entrepreneurs is bad public policy*. Small business economics, 33(2), 141–149.
- Spigel, B. (2017). *The relational organization of entrepreneurial ecosystems*. Entrepreneurship Theory and Practice, 41(1), 49–72.
- Spigel, B. (2018). *Envisioning a new research agenda for entrepreneurial ecosystems: Top-down and bottom-up approaches*. In Reflections and Extensions on Key Papers of the First Twenty-Five Years of Advances. Emerald Publishing Limited.
- Ucbasaran, D., Shepherd, D. A., Lockett, A., & Lyon, S. J. (2013). *Life after business failure: The process and consequences of business failure for entrepreneurs*. Journal of Management, 39(1), 163–202.
- Ucbasaran, D., Westhead, P., & Wright, M. (2001). *The focus of entrepreneurial research: contextual and process issues*. Entrepreneurship theory and practice, 25(4), 57–80.
- Wang, C. L., & Chugh, H. (2014). *Entrepreneurial learning: past research and future challenges*. International Journal of Management Reviews, 16(1), 24–61.
- Wiklund, J., & Shepherd, D. (2003). *Knowledge-based resources, entrepreneurial orientation, and the performance of small and medium-sized businesses*. Strategic management journal, 24(13), 1307–1314.
- Yamakawa, Y., Peng, M. W., & Deeds, D. L. (2015). *Rising from the ashes: Cognitive determinants of venture growth after entrepreneurial failure*. Entrepreneurship Theory and Practice, 39(2), 209-236.
- Yin, R. K. (2015). *Qualitative research from start to finish*. Guilford publications.