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Strategic improvisation as a process:
a multiple case study of entrepreneurial firms in the course of maturity

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Abstract

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Fast-changing environments have imposed a new way of strategizing, in which improvisation takes an important role. This study examines two clusters of entrepreneurial firms, nascent and maturing, with the aim to understand how the process of strategic improvisation evolves as companies reach more maturity. The literature is rich in studies regarding improvisation but does not offer a procedural approach of how it can be applied to strategy and how it evolves with time. To build upon this, interviews have been conducted and results demonstrated differences between clusters, from the causes and conditions to the impact and implications of strategic improvisation.

Keywords: Improvisation; Strategy; Strategic Improvisation; Entrepreneurship

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Introduction

In fast-changing environments, where change is the name of the game, strategy is temporary, problematic, unpredictable and it is difficult to predict the significance of change as it is occurring (Bourgeois & Eisenhardt, 1988). Rather than planning and then acting, companies strategize in permanent flux, learning from successive iterations (Eisenhardt &

Bingham, 2017), capturing opportunities sooner, faster and better than rivals, blending between planned and spontaneous action (Bingham et al, 2007).

This dynamism is especially relevant for entrepreneurial companies that are themselves in flux internally and are simultaneously required to develop a broad view of the strategic playing field and to continuously translate their experience into articulated heuristics to develop an organizational process, which usually comprises both few and simple rules and flexible constraints (Bingham & Eisenhardt, 2007, 2017).

Furthermore, as the inevitable result of growth, this small, personalized and highly flexible companies may evolve, over time, into larger and more systematic ones (Mintzberg & Waters, 1982) and be pushed to redesign their structures in order to adapt to the emergent challenges.

One way firms use to design and redesign themselves is improvisation, i.e. the deliberate choice of activities that are spontaneous, novel, and involve the creation of something while it is being performed (Miner et al., 1996).

Studies relating strategy to improvisation have been neglected, namely concerning fast-changing environments where long-term foresight is of dubious value and there is pressure to constantly change and innovate, since they diverge from both the planning and the learning views of strategy and strategic management, which emphasized structure and implementation (Cunha & Cunha, 2006). A dynamic, process-based framework is needed (Cunha et al, 2011), one that incorporates the dynamic role of emergent improvisational processes.

This study aims at building on previous constructs, namely improvisation in the organizational context (from its necessary conditions and influencing factors to its outcomes) and the strategic process. The old representation of the latter is challenged with a new one, in which improvisation assumes an important role.

There is also the purpose of bringing a new perspective into the field by targeting entrepreneurial companies as an object of study, analyzing how the strategic improvisation

process evolves with time in firms that have not developed an institutionalized set of habits and routines. The following research question is then asked: How does the process of strategic improvisation evolve over time as companies reach more maturity?

This study contributes to the literature on strategic improvisation and entrepreneurship by showing that entrepreneurial companies lose some capability to strategically improvise as they reach more maturity.

It is organized as follows: We start with a literature review section, exposing the main topics concerning the subject of study. Later, the methodology will be presented, along with the main findings and their discussion. Finally, the main conclusion is presented, as well as the study's managerial implications, its limitations and suggestions for future research.

Literature Review

“Improvise” comes from the Latin *providere* and involves dealing with the unforeseen without the benefit of preparation (Hadida, 2014). Attempting to situate improvisation in organizations, Crossan et al (1996) described it as a balance between the need to plan for the predictable and the ability to respond simultaneously to the unpredictable.

A company improvises when it faces unexpected occurrences, which can be present in its external and internal environments, for which there is no pre-planned course of action (Cunha et al, 1999). Although this action may be partially planned, its emergent part has been found to be answerable by means of improvisation (Crossan et al, 1996, Perry 1991).

Given the importance of understanding the process of improvisation, Cunha et al (1999) defined its necessary conditions to occur within the organizational context, namely the existence of both an experimental culture – characterized by tolerance to mistakes, action promotion and a sense of urgency –, and a minimal structure – integrating invisible controls, clear goals and short-term milestones.

Building on the extant literature studies, Crossan et al (2005) and Cunha et al (1999) described the factors influencing the quality of improvisation. Among the highlighted categories, there are the style and expertise of leadership; the members' skills, creativity, diversity and teamwork; real-time and fluid communication; and the organizational configuration. These factors do not determine whether organizational improvisation will happen or not; instead, they affect its extent and quality (Cunha et al, 1999).

Lastly, improvisation is not inherently good or bad (Crossan et al, 2005). According to Fisher and Barret (2018, p.31), "the experience of improvisation is both fearful and exhilarating, holding within both the possibility of transcendence and failure". Its positive outcomes incorporate flexibility, learning, affection, and motivation – not only to work but also to keep improvising. In contrast, negative outcomes may arise in the forms of biased learning, opportunity traps, amplification of emergent actions, addictiveness to improvisation, and increased anxiety (Cunha et al, 1999).

This study contributes to the literature by integrating several concepts that have previously been explored. First, it centers on the causes and conditions for strategic improvisation. Second, it discusses how strategic improvisation is put into action by the analyzed entrepreneurial companies. Lastly, it addresses the consequences of strategic improvisation, both the people and work-related impact.

Across the literature, improvisation has been applied to the strategic field, e.g. strategic renewal (Vera & Crossan, 2005), strategic performance (Moorman & Miner, 1998) and strategic decision making (Eisenhardt, et al, 1997). Strategic improvisation – the subject of this study's research question – refers to the "ability to integrate, build, and reconfigure internal and external resources and capabilities to address rapidly changing environments" (Teece et al, 1999, p. 517). According to Perry (1991), it may take the form of both vision-guided and opportunity-guided competitive strategies.

The reason why strategic improvisation assumes greater importance is that effective strategic planning is not a simple process and companies gain little value from their annual strategic planning procedure (Beinhocker & Kaplan, 2002). Especially in volatile environments, due to the inherent dynamism of the external environment, planning should be both specific and flexible (Brews & Hunt, 1999). Subsequently, instead of relying too much on planning, companies should be flexible enough to adapt, creative enough to innovate, and responsive enough to learn (Crossan et al, 1996). Having this in mind, Bakar et al (2015) found strategic improvisation to be the best strategy to cope with rapid changes in environmental demands.

A successful strategy is then conquered by fusing thinking and doing, taking advantage of simple rules, and actively engaging via trial-and-error to update a company's understanding of its playing field (Eisenhardt & Bingham, 2017). Particularly in conditions of time pressure and uncertainty, when it is impossible to anticipate all challenges in advance and planning orientation is insufficient, improvisation becomes an alternative or complementary orientation towards the future (Crossan et al, 2005).

More recent studies also focused on the entrepreneurial process as an improvisational activity (e.g. Baker et al., 2003; Hmieleski & Corbett, 2008). It is in the scope of the entrepreneurial context that this study will analyze the strategic process, as entrepreneurial firms have more potential room for improvising given that they need to conquer marketspace in the absence of well-established procedures and routines.

While external and internal constraints may prevent entrepreneurial companies from executing their plans as expected, these companies must be able to effectively adapt to constantly changing conditions (Baker et al, 2013). Adding to this perspective, Hmieleski & Corbett (2008) concluded that entrepreneurs “must be able to work efficiently with limited resources and under intense time pressure” and “to extemporaneously compose and execute

novel plans” due to the unique problems and opportunities they face and for which they have no pre-constructed plans.

Entrepreneurs typically need to change course from their original plans, remain flexible, and continually evolve their business (Mullins and Komisar, 2009) and therefore, they must be able to formulate and execute novel strategic decisions in the moment, i.e. improvising, in order to capitalize on opportunities to move their companies in a more promising direction.

Strategic improvisation in the field of entrepreneurship is then highly associated to Baker et al (2013) previous conclusions that entrepreneurs do indeed spend a significant amount of time formulating and executing strategic decisions, using only the resources available to them in the moment.

Over time, creating structure is often vital to entrepreneurial companies, especially to reinforce coherence, direction, and control (Bingham & Eisenhardt, 2007). Without enough structure, it is impossible to improvise effectively and so to capture opportunities (Davis et al, 2009). This study will bring the major contribution of evidencing how strategic improvisation evolves as nascent companies become more mature.

Method

The current study took entrepreneurial companies as its object, since they seemed to provide an adequate setting to study the process of strategic improvisation as organizations evolve over time reaching higher levels of organizational maturity, being the latter defined as the extent to which an organization has explicitly and consistently deployed practices or processes that are documented, measured, controlled and continually improved (Kock, 2008).

Research Design. Given the limited theory on how companies embrace strategic improvisation, the research design is an inductive, multiple case-study (Eisenhardt, 1989), which is a good methodological approach to create theory. This design is especially adequate when the research question is process-related, as in this case, allowing the possibility to look

not only at the outcomes of the phenomenon of interest but also at *how* the phenomenon unfolds (Yin, 1993). Moreover, the nature of improvisation incorporates “the inherent difficulty of structuring and conducting an empirical study in unplanned situations” (Cunha et al, 2003), for which theory from cases is useful.

Multiple cases enable the collection of comparative data, and so are likely to yield more accurate, generalizable theory than single cases (Eisenhardt, 1991; Yin, 1994). Moreover, they favor the “replication” logic (Yin, 1994), by treating the cases as independent experiments that might confirm or disconfirm previous inferences. Hence, there was the goal to find evidence from the cases that could be generalized to a larger population or to different situations in the scope of strategic improvisation.

Sampling. This study targeted twelve entrepreneurial companies (*Appendix B*) and tracked how they embrace the process of strategic improvisation from their foundation until the time of the study.

For each company, information was gathered on the perspectives of two types of informant profiles (*Appendix C*): (1) founders and CEOs, for having an inordinate impact on the strategic direction and performance of their companies (Wright et al., 2007) and (2) informants suggested by the former, those with greater impact on the company’s strategy, in order to gain a holistic vision of the company’s strategic evolution over time on the basis of the working experience inside the company of different informants.

For the purpose of analysis, companies were divided into two clusters, nascent and maturing, according to their years in operation: 50% have been established between 5 to 10 years and 50% have been in operation in less than 5 years. This segmentation range is consistent with the traditional standard and is often used by start-up companies as part of the documents provided to potential investors or bankers (Leonard, 2018). Therefore, it seeks to provide a good comparison for the evolution of these companies’ strategies over time.

Data Collection. Data were collected from multiple sources (*Appendix D*): (1) corporate materials (e.g. corporate presentations, press releases, internet sources...), (2) semi-structured interviews at two levels, (3) informal observations during site visits, and (4) informal follow-ups with e-mails, LinkedIn messages and phone calls. We defined the cases following a logic of theoretical sampling: data was collected, coded and analyzed as it emerged, giving orientation to what data to collect next and where to find it (Glaser & Strauss, 1967).

Firstly, a database of potential participants was made considering personal networks and, as interviews started taking place, the participants' network. The Interview Protocol (*Appendix A*) was adjusted in a flexible way according to the participants' responses (Gioia et al, 2012), looking for a deeper understanding of specific topics.

Semi-structured interviews: Invitations were sent to participants through email and LinkedIn messages. As a result, 44 invitations to participate were sent, from which 30 were answered back and 26 resulted in effective collaborations. Semi-structured interviews were conducted for a period of five months, during which contact with the participants continued. Interviews with second participants were valuable to deepen perspectives on specific topics.

In order to ensure the robustness of the case studies, interviews with companies in which it was not possible to interview at least a second person were not considered. For this purpose, from the 26 conducted interviews, 24 were included, including two interviews per company, composing a sample of twelve companies.

The interviews were taped and transcribed verbatim, resulting in 138 pages of data. The average length of interviews was around 45 minutes, ranging from 30 to 90 minutes. From the total of interviews, 10 of them were performed via Skype, mostly due to geographical dispersion, and the others took place at the companies' own offices. During site visits, corporate materials were asked, to triangulate the information.

Data analysis. Based on inductive research, each case was analyzed as a standalone entity (Eisenhardt, 1989; Yin, 1994), data was triangulated, and follow-up was made with e-mails, LinkedIn messages, and phone calls, in order to fill missing details.

The data was analyzed using the Gioia methodology for being a method that seeks rigor in qualitative research tools through a systematic inductive approach to concept development (Gioia et al, 2012). Although similarities and differences across cases were noticed, further analysis was left to maintain the independence of the replication logic. Lastly, there was a comparison across cases to build the conceptual model (Eisenhardt, 1989).

This methodological approach allowed us to build the data structure, divided into three levels of analysis: first-order concepts (which emerged directly from the interviews' transcripts), second-order themes (theory-centric) and aggregate dimensions, in a funnel perspective. Moving back and forward while coding data and consulting literature was vital to ground the coding conceptually (Weston et al., 2000). The resulting data structure provided a visual representation of how the data was treated and permitted an easier comparison between clusters (Tracy, 2010).

Findings

Figure 1 depicts the four main dimensions emerging from the data analysis along with second-order themes and the first-order concepts which originated these themes. The interplay among these dimensions, themes and concepts was not straightforward, as suggested by the data structure; *Appendix E* provides representative supporting data for each second-order theme, analyzing the constituent themes individually.

**Figure 1. Data Structure: strategic improvisation as a process
(and differences among clusters)**

Causes and conditions of strategic improvisation	Clear goals and KPIs Clear vision Short-term milestones Constant feedback	(a) Agile methodologies	Minimal structure
	Sense of urgency Tolerance to errors Iterative testing	(b) Experimental culture	
	Strategic intent Internal resources Reactiveness vs Planning Realization vs Predictability	(c) Internal drivers	Internal and external drivers
	Market analysis Benchmark Clients' requests In search of product-market fit	(d) Impact of the external environment	
Strategic improvisation in action	Members' entrepreneurial mindset Leaders' strong leadership guidance	(e) Cultural fit enhancement	Practicing improvisation
	Open and real-time communication Relevant partnerships Outsiders' support	(f) Fluid communication internally and with the external environment	
	Look for opportunities and collect information Isolate to brainstorm and prioritize Test, measure and retrospect	(g) Generation of new strategic insights and translation into a roadmap	
	New processes and methods Clarified roles Stronger decision making center	(h) Organizational transformation	
Consequences of strategic improvisation	Motivation to work (+) Strong bonds (+) Confusing positioning (-) Lack of focus (-) Anxiety and frustration (-)	(i) People-related impact	Transversal impact of strategic improvisation
	Flexibility and speed (+) More opportunities (+) (Biased) Learning (- / +) Weak exploitation/exploration (-) Lack of quality (-) Unstable environment (-) Confusing positioning (-)	(j) Work-related impact	
	Increased focus Accelerated learning Fortified culture Higher results	(k) Increasing potential for success and challenges to keep the pace	
	More risk-aversion Less spontaneity Less agility Less flexibility		

CAUSES AND CONDITIONS OF STRATEGIC IMPROVISATION

What changes in the causes of strategic improvisation as entrepreneurial companies reach more maturity? In attempting to understand the differences, both nascent and maturing companies were found to implement a minimal structure. The drivers for improvisation were found to be both internal and external.

Minimal Structure: The data analysis showed entrepreneurial companies operate with minimal structures built on both agile methodologies and an experimental culture.

(a) Agile methodologies. Implementing an agile methodology, defined by an iterative development methodology in which small and multidisciplinary teams, when confronted with large and complex problems, “place more value on adapting to change than on sticking to a plan” (Rigby et al, 2018), was a prevalent theme across these companies.

When describing how it looks like to work at Aptoide, the CEO mentioned “We work in agile, which means that each person has autonomy and the team is very empowered to define its own objectives, aligning them with the general ones”. Clear goals and their respective Key Performance Indicators (KPIs), a clear vision, short-term milestones, as well as constant feedback, were mentioned as part of this agile methodology.

At Aptoide, clear goals are translated into Objectives and Key Results (OKRs) that are drawn for one year and then decomposed in three to four main goals and respective key results. These broader company goals are later translated into OKRs for teams and are defined quarterly. However, the Head of Android clarified that “a key result never tells us how we will achieve something”, meaning the path was not sharply defined – in contrast, it was built along the way. Consequently, it requires “each team to subdivide the quarterly planning by months in order to understand the meaning of 1/3 of what needs to be accomplished” (FL).

A clear vision is critical since it provides continuous guidance while the future is uncertain. Forall Phones’ CEO explained “We have set a very clear vision for Forall. Our vision is more than clear to everyone”. Whatever the country, the market or the product

offered, this company's goal is to "make it possible for everyone to have access to everything". However, there is adaptability in these companies' strategic path, as illustrated by iMatch's Chief Implementation Officer when stating: "Where we want to go is something that we all have very clear, although sometimes we change a little the way to arrive there".

Because they are set in advance, short-term milestones exist to check current actions and find appropriate corrections, providing a sense of structure (Brown & Eisenhardt, 1997). In these entrepreneurial companies, they take the form of sprints. At Attentive, the sprints last two weeks and their goal is to check if the strategy is working, if it should be replicated, if it needs more development or if it is to forget.

A strong feedback culture is one where individuals continuously receive, solicit, and use formal and informal feedback to improve their job performance (London & Smither, 2001). Constant feedback was mentioned as a fundamental component of this agile environment, especially when the degree of improvisation increases. While describing one of the key characteristics of Landing.jobs – feedback – the Account Manager mentioned the constant touch points for this practice, "even if after a project which only lasted a week".

(b)Experimental culture. A sense of urgency, tolerance to errors and iterative testing are characteristics of the experimental culture that emerged from the data analysis. The Chief Implementation Officer described how fast new ideas arise at iMatch, challenging existing strategic conceptions – "Once you start implementing a strategy, it starts changing. You thought it could be something and suddenly it is another thing, and you test it, validate it and redo it" – and characterized the process as a set of little iterations that together lead to a result.

A sense of urgency was described by Follow Inspiration's CEO as the quick realization of how markets are evolving, being decisive to understand how much effort the company should put into new strategies. Building on this perspective, GetSocial's Advisor pointed out the balance needed: "There must be awareness of when one should really try, knowing it can

go wrong”. iMatch also embraces this openness to try: “We assume we won’t always make the best decision. There’s the openness to fail” (PC).

Internal and external drivers for strategic improvisation: Concerning the drivers for strategic improvisation, the data displayed the conclusion that they can be both internal and external, being the latter related to the impact of the external environment.

(c)Internal drivers. Being moved by a strategic intent and the existing resources were the most common aspects raised as internal drivers of strategic improvisation.

According to Perry (1991), the ideal strategy is realized when different managers improvise successful strategies around a common strategic intent. At GetSocial, this strategic intent is well defined: “We don’t have a written vision statement, but we know what we would like to be, we know which mark we want to leave in the industry” (JR).

Internal resources, positively or negatively, have an impact on the capability of strategically improvise, for good and for worse. In the case of Attentive, after “hiring one more person from business, one of the great strategic changes was to start having a greater vision of the brand”, explained the Head of Growth.

What was not a consensual aspect between clusters were the paradoxes of realization vs predictability and reactivity vs planning.

Although both clusters revealed a great sense of the future, the maturing claimed not only to react but also to plan it at some level, result of its know-how and experience, evidencing that, as entrepreneurial companies reach more maturity, they gradually lose their ability to improvise. In the words of Aptoide’s CEO, “80% of what is done is already planned and 20% reactive” and “planned and emergent must be complementary”. Nonetheless, a certain degree of improvisation remains important: “There were many things we planned but we had to improvise a lot on the way” (PC).

Comparatively, while nascent companies try to plan and predict more, they end up reacting. As the CEO described, despite Forall Phones’ efforts to plan, unexpected challenges

arise, diverting the team from this goal. The same happens at GetSocial, where “the team had to react in real-time for things to change, the result of a set of decisions and strategies that failed” (JR).

In the dichotomy between realizing and predicting, the nascent cluster highlights the power of realizing certain aspects over time. Over time, these entrepreneurial companies tend to strategize in a more predictable way, which was exemplified by Landing.jobs’ COO reflection: “I predict that in 1 year, we will have another location. Now we know it’s not the ideal time, but these possibilities are on the roadmap for the right time to come”.

(d)Impact of the external environment. By having awareness of the market’s opportunities and threats, benchmarking competition and analyzing the clients’ requests, these companies are shown to be impacted by their external environment when strategically improvising, regardless of their maturity. Nevertheless, the external environment is felt even stronger in the nascent cluster, in which entrepreneurial companies fight to find their product-market fit.

After 10 years of Boost’s foundation, the CEO concluded that although “the vision has always the same, the new brands were not always planned”, resulting from a constant adaptation to the market. He explained that “there is a problem in tourist animation: people always want the ultimate Coca-Cola”. The General Manager recalled that one of Boost’s brands came from benchmarking: “I was checking at TripAdvisor the Top 3 of London and two of were Escape Hunts. There was none in Lisbon and we thought it made sense to bring it”, which happened a few months later. Conforming to the CEO, Swonkie’s best ideas always come from its customers – “They are the ones who draw the product, not us. Our job is to be very close to them”.

In its turn, the nascent cluster is strongly driven by the search for the product-market-fit. Tap my Back’s CEO built on this aspect: “Tap my Back will be a company rather than a

startup once it finds its product-market fit. Up there it's a research process, and from there it's scaling. Then the goal will be to discover what it can offer to add more value to the market”.

STRATEGIC IMPROVISATION IN ACTION

How entrepreneurial companies put strategic improvisation into action is quite transversal among clusters.

Practicing improvisation: While practicing improvisation, these companies continuously enhance their culture, promote a fluid communication – both internally and with their external environment –, and keep generating new insights and translating them into a roadmap. However, in the path of achieving higher maturity, maturing companies embrace organizational transformation as a way of reinventing themselves and being able to continuously improvise.

(e)Cultural fit enhancement. To create the necessary culture of commitment, risk-taking, and innovation, these companies develop of an entrepreneurial mindset among the team members and bet on a strong leadership guidance.

“I believe more in the teams that can do anything with what the world throws at them, that can adapt to something that emerges, which makes them entrepreneurial companies and distinguishes them from large companies”, told the CEO when talking about Attentive. Among this entrepreneurial mindset, several characteristics were pointed out: be agile and adaptable, take ownership and embrace diversity.

At Boost, team members are even encouraged to create their own entrepreneurial companies. The CEO explained: "We set up in Boost a kind of incubator where employees can propose business ideas that they want to develop for themselves. We tell them that we can create their business together because we are a company that sponsors and supports ideas".

The Manager at StartUp Braga invoked that teams must adapt their route to the rules the market is dictating and reinforced that it requires resilience. To cope with this, during

onboarding, GetSocial invests heavily in accountability and autonomy and the CEO believes everyone must be able to take ownership which requires that each one “perceives and balances what we gain or lose as a company, in each situation”.

Mutual characteristics were invoked as indicators of strong leadership guidance in the process of strategic improvisation: having a small loss mindset, showing great expertise and having complementary profiles.

At Attentive, the CEO’s small loss mindset is clearly expressed in his words: “I am especially interested in the learning my team experienced. If they found their work interesting, it means we are probably on the right track”. The same mindset is shared at Boost, where the CEO’s focus is on the worst-case scenario: “We think about what we can miss and not from the point of view of what we have gained.” (JM).

Expertise is equally important. Over time, Aptoide invested on it by hiring three expert VPs to join the Executive Board, along with the two founders: a VP of Product, who had a Silicon Valley background, a VP of Corporate Strategy, who had a seven-year profile of McKinsey, and a VP of Asia. They are the ones who sit together to talk about strategy.

Additionally, complementary profiles provide added value in the case of companies with more than one leader. GuestU’s CEO explained: “While partners in various companies, we can bring a lot of value. The fact that we are not totally part of the day-to-day of every business makes us look at things in a different way”. The same is felt by Boost’s CEO: “I am more strategist and Leonel is more operational. We complement ourselves, perfectly”.

(f) Fluid communication internally and with the environment. For a successful process of strategic improvisation, these entrepreneurial companies ensure an extensive and fluid communication, both within the team and with the external environment. Internally, entrepreneurial companies embrace open and real-time communication. Moreover, the outsiders’ support assumes a great relevance, who can even assume the role of mentors and support these companies’ strategic path based on their previous experience and learnings.

At Follow Inspiration, when a team member comes up with a new idea, it is deeply debated – “We must realize whether we have what it takes or not, at all levels, to move forward. We must realize in what timing it can happen, together, which requires that we know, in real-time, what each one is doing and the importance of what is being done” (LM). Priorities are brought to the table, reflected into objectives and confronted with these companies' strategy.

To facilitate real-time communication, most of these companies take advantage of tools. Slack was the most commonly mentioned, assuming special utility to communicate with remote teams, e.g. at Aptoide, the four employees working Shenzhen absorb the inputs from the local manufacturers and constantly share it with the Portuguese team.

In the last ten years of existence, a strong community has been built around iMatch – “It’s already a matter of saying ‘we’re here!’ and they come to help us” (PC). In its turn, Boost’s community constantly brings inputs about new opportunities. The CEO has an old habit to consult professionals from different backgrounds who can make a simple SWOT analysis for the strategies thought. The nascent companies strongly emphasized the role of mentors, e.g. Swonkie’s CEO invoked: “It’s important to be surrounded by experienced professionals to realize what pains and challenges they faced”.

(g)Generate new strategic insights and translation into a roadmap. In a first stage, entrepreneurial companies look for opportunities, collect information, brainstorm, get isolated in strategic retreats and prioritize the actions to take. Later, they follow-up on the new strategic insights, translating them into an implementation roadmap.

Regardless of their maturity, companies look for opportunities in several different ways. In some cases, they attribute this responsibility to a specific function (e.g. “We have two people from the technical area who, at least monthly, realize the context and bring inputs”, told the COO at Follow Inspiration). In others, it is a top management responsibility (e.g. “My work and Leonel’s is to identify market failures and how to fill them”, expressed Boost’s

CEO), or even an informal and shared process (“We all look at opportunities continuously”, stated Aptoide’s CEO).

Besides that, collecting information may take different forms, such as reading books, making research, listening to interesting podcasts, talking with clients to understand their pains, approaching partners to collect feedback and promoting focus groups.

Much of the strategic reflection occurs in isolated moments destined to brainstorming, a shared practice among these companies. At Science4You, the COO reported, “Last week we had our partners’ weekend, composed of sixteen people, a retreat in which we sat around the table in an informal atmosphere and we debated a lot about our strategy”.

In a second stage, the generated insights are incorporated into a shared roadmap. Landing.jobs’ Account Manager explained: “If after we find some ideas make sense, a roadmap is set, and they become part of our strategy”. Later, ideas are tested, and results are measured. As an illustration, the Head of International Business at Science4You mentioned: “In the holiday camps we have, we gather kids to play with some of the products we imagined”; “We all sit down and try to analyze not only weekly KPIs, starting from the small details to the analysis of our strategic vectors, in order to keep this change continuous”.

Finally, retrospective sessions take place with the goal to reflect about the past to chart the future path. As described by the Account Manager, “there is an interesting monthly meeting in which the entire Landing.jobs team joins and talks about what was done to achieve the quarterly goals”.

(h)Organizational transformation. As these companies reach more maturity, they show to undergo organizational transformations that allow them to readjust to the challenging conditions and keep improvising.

Across time, entrepreneurial companies create new processes and methods, clarify the roles and build stronger decision-making centers. Reflecting about Boost, the General Manager explained: “Today, we are moving towards the direction of a typical company, with

one person focused on Marketing, one in Human Resources, one in Operations... and each person absorbing all the operations of each brand. All brands go to processes that are implemented so that they don't depend so much on people and the company becomes a mechanism that works on its own.". The CEO added "We took last year to clean the house. We hired second lines of the Big 4 in order to help Boost to stabilize and consolidate.".

There is also the need to clarify the existing roles. When reflecting about her experience at Landing.jobs, the Account Manager recalled: "When I entered, there was an Operations team divided by regions. They worked on the matching between companies and candidates. The Operations team is now organized differently: divided between a Business team and a Talent team, each focused on one side of the platform".

Ultimately, decision making is reinforced by the centralization and involvement of more stakeholders. At Science4You there is now a greater centralization of the decision making and there must be a lot more people involved in the noise since there are bigger concerns regarding the quarterly goals and much more risk involved.

CONSEQUENCES OF STRATEGIC IMPROVISATION

This analysis indicated that there are both an impact of strategic improvisation and growth-related implications which contribute to the consequences of strategic improvisation. Taken together, they might result in positive or negative outcomes to these companies and have a decisive role in their ability to keep improvising.

Transversal impact of strategic improvisation: The two maturity clusters highlighted similar favorable and unfavorable impacts of strategically improvising, both people and work-related. The consequences of strategic improvisation are felt differently in companies with greater maturity, in which the benefits and challenges of growth become more evident. Over time, it is possible to observe entrepreneurial companies becoming more structured and achieving greater stability. In parallel, they face more challenges to keep the growth pace.

(i) People-related impact. Strategic improvisation brings motivation to work for several reasons, such as: feeling the impact and taking ownership (e.g. “One of the great advantages of working at Follow is the autonomy that we have, it's knowing that we make all the difference, that we have a big impact on the company's results, for good and for worse”, explained the COO), performing diverse tasks (e.g. “It's more creative and it seems that we can better use our human abilities as we perform different functions, less equal on a daily basis”, highlighted GuestU's CTO), and being constantly learning (e.g. “The best part is that there are no routines, we are constantly learning”, described the Chief Implementation Officer at iMatch).

Moreover, this process strengthens the bonds between people. The CEO explained that strategic improvisation brought Forall Phone's team a sense of belonging – “We happen to have more confident people because they joined a company which trusts them to do what is right”. However, there is a reverse. According to the Financial and Operational Controller, “these strategic changes affect everything, from the way Forall works to its positioning”.

Other non-favorable aspects are related to lack of focus (e.g. “There is difficulty in focusing for a long time, because there are always new things coming up”, explained Follow Inspiration's COO), anxiety (e.g. “The pressure to move forward often doesn't give space to the desirable open mentality”, invoked Boost's General Manager) and increasing frustration (e.g. “I didn't know it was going to take so long, to require so many changes and be so frustrating”, expressed Attentive's CEO).

j) Work-related impact. Flexibility and speed, more opportunities, and learning are revealed as positive outcomes of strategic improvisation in both maturity clusters. At Tap my Back, “one of the advantages of coming to work is the speed of execution” (PS). At iMatch, the Chief Implementation Officer built on the advantage to find new opportunities – “Being constantly with this mindset helps you to look at other realities daily. It's not an extra job you have to do but something you continually do”.

Strategic improvisation leads entrepreneurial firms to engage in a continuous learning process – e.g. “In this way we accelerate our ability to learn from the mistakes of others, realize the tactics that have worked and make bold decisions from outside perspectives” (SB) – and to achieve bold conclusions – e.g. “I see we were very reluctant to talk to customers at the beginning” (EM).

However, there is a downside. For instance, learning may arise in the form of biased learning. When looking back, GetSocial’s CEO reminded: “Not only we were developing the product in the image of what we thought correct, but we weren’t also validating it, measuring its impact on business metrics. We transformed a B2C platform into a B2B one, hired more people, and made the mistake again”.

Moreover, a weak exploitation or exploration of opportunities, an unstable environment, the already abovementioned confusing positioning and the lack of quality in execution can be harmful aspects when these entrepreneurial companies take strategic improvisation as a reality. At GetSocial, the co-founders described the difficult line between not having sufficiently developed a strategy and starting to implement another – “We are so focused on execution that sometimes we don’t remember that we should change” (PM). Furthermore, the constant and sudden changes in direction generate an unstable internal environment, e.g. at Landing.jobs, “sometimes there are processes that are not organized, which makes it difficult to realize the cause and effect of some situations” (RG).

In parallel with these harmful aspects, quality in execution is threatened and may even be felt by the external stakeholders. Follow Inspiration’s COO shared his concern: “Sometimes we have things that remain to be done, or that are not so well done – there’s no time. Sometimes this inadvertently passes to the market”.

(k)Increasing potential for success and challenges to keep the pace. The most commonly mentioned benefits which arise from strategic improvisation are related to an increased focus, an accelerated learning, a fortified culture, and higher results.

Aptoide's CEO highlighted that, curiously, autonomy has risen with maturity, since people who are ahead of the current teams have assimilated ownership throughout time. Moreover, the Head of Android shared that the team shows now a greater capacity to realize what the market demands. At iMatch, the increasing internal alignment is felt in the moments of sharing ideas, the result of years of accelerated learning – “Our maturity, our knowledge, our experience, and our market perception have changed. At this point, we see very well the dynamics of the industry” (PC).

Growing in an entrepreneurial company is also a synonym of increasing challenges to keep the pace – e.g. “We are slower than we used to be. We will need to become increasingly more and more competitive with scale, not losing innovation and flexibility. Now, we need to find the perfect match of it all” (TP). The risk is higher and so entrepreneurial companies become more risk-averse, less spontaneous, less agile and less flexible – in a way, less capable of improvising.

Discussion

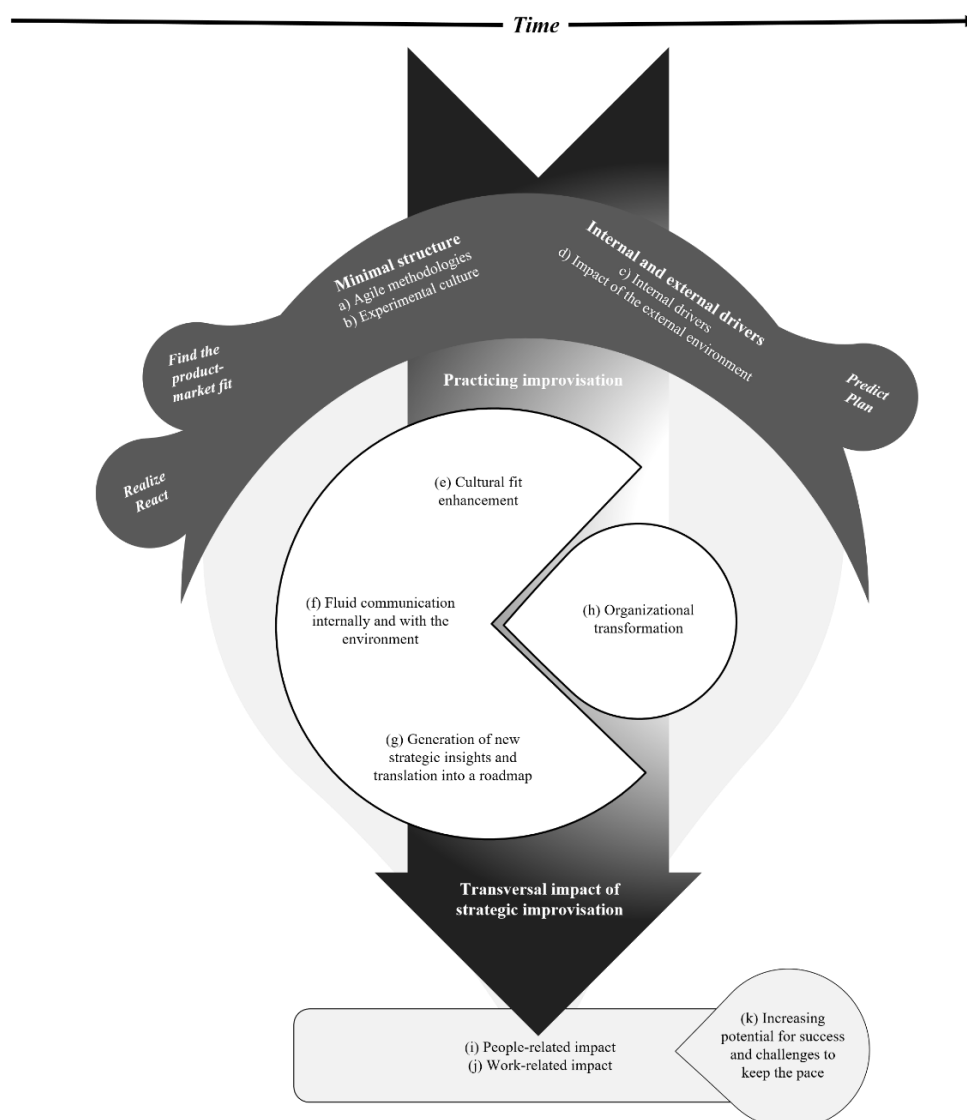
The evidence from data brings a new insight into strategic improvisation and emphasizes how this process evolves as entrepreneurial companies reach more maturity. While *Figure 1* exhibited the strategic data structure for the key concepts that emerged from this study, *Figure 2* provides the dynamic procedural relationships among them, which are the basis for a grounded theory of strategic improvisation as a process.

The findings are in line with what research has shown about conditions for organizational improvisation, the factors that influence it and its outcomes. It also builds on the concept of strategic improvisation and how it is embraced by entrepreneurial companies, showing that organizations adapt mostly through response and interaction rather than through analysis and reflection (Perry, 1991). However, soon from the causes and conditions of strategic

improvisation, it is notable that these companies lose some ability to improvise as they become more mature, which is the major contribution of this study.

The study offers several key findings. First, the concepts of a minimal structure emerged as a key condition to the process of strategic improvisation. Aligned with Brown and Eisenhardt (1997) and Kamoche and Cunha (2001), a semi-structure, defined by the former as an organization in which some features are prescribed or determined (e.g. responsibilities) but other aspects are not, is needed to help companies make sense of a fast-changing environment, through continuous interaction that enables them to explore future options.

Figure 2. *A process of strategic improvisation*



This study's analysis showed these companies operate with minimal structures built on both agile methodologies and an experimental culture, which is consistent to Brown and Eisenhardt (1997) conclusions that minimal structures are sustained by experimental cultures that can help to maintain a great balance between improvisational action and organizational goals. In the words of Crossan et al (1996), "improvise in real-time requires an environment that does not punish mistakes". When confronted with a complex environment, agile teams break it into modules to develop oriented-solutions to each component by rapidly prototyping and sharing feedback. In this way, they are largely self-governing (Rigby et al, 2018).

Second, the data showed that improvisation can have either an internal or an external origin. Usually, it comes from the company's perception of a mismatch between expected and actual reality (Cunha et al., 1999). One of this study's contribution is in line with Crossan et al (1996) observation that improvisation requires individuals to be shaped by the environment, rather than trying to control it, since nascent companies appear to be strongly adaptable to what market dictates and improvise in order to survive, moved by the search of their product-market fit. However, such a conclusion cannot be applied to maturing companies, since evidence suggests that, over time, they increasingly tend to plan and predict the future, rather than react to it.

Third, based on our empirical evidence, creating a safe environment for practicing improvisation appears to be part of the process and these companies put in place several activities such as looking for opportunities and brainstorming, which help their individuals to build the skills for an effective improvisational activity (Cunha et al, 1999).

Fourth, throughout the process of strategic improvisation, entrepreneurial companies enhance their cultural fit, by both developing an entrepreneurial mindset among team members, and providing strong leadership guidance, which is consistent with previous literature (Crossan et al., 2005; Cunha et al., 1999) which described the factors influencing the quality of improvisation. Equally consistent with the previous arguments is the evidence that

there is a fluid communication both internally and with these companies' external environment.

Fifth, the findings suggest that maturing companies undergo organizational transformations which allow them to stay nimble and adaptable to new opportunities, however in a safer way, since there are more variables to take into consideration and risks are higher. Over their cycle of maturity transformation, entrepreneurial companies experience shifting their simple structures into more formalized ones (Mintzberg & Waters, 1982).

Sixth, organizational improvisation can have both positive and negative outcomes, the findings highlighting the fact that strategic improvisation can have both an upside and a downside, both people and work-related.

Finally, the implications of strategic improvisation increase over time. On the one hand, there is a greater potential for successful strategies, namely by reaching greater focus, an accelerated learning curve and superior results. On the other hand, the challenges increase concerning the maintenance of the growth pace and the ability to keep improvising, since there are both more risk aversion and less spontaneity, agility and flexibility.

Conclusion

Maturing entrepreneurial companies express less capability to strategically improvise when compared to the nascent ones. We aimed to understand how the strategic improvisation process evolves over time, resulting in a theoretical model which shows how strategy can be portrayed as a process in permanent flux, in which improvisation plays an important role.

Managerial Implications. Understanding how strategic improvisation evolves over time allows companies to confront their strengths and weaknesses with the fast-changing conditions of their environment, by gaining flexibility and enhancing their ability to adapt. Moreover, it supports managers to review their companies' structure and policies so that they can better suit improvisational activities.

Limitations and Future Research. Analyzing the impact of maturity in the process of strategic improvisation revealed to be a relevant indicator of comparison among different clusters. For future research, it might be interesting to have a more distinctive sample, since additional research is needed to investigate which other variables impact strategic improvisation (e.g. funding, team size). It would also be interesting to make a comparison between the entrepreneurial and the corporate contexts. However, as a boundary condition, it is important to emphasize the need to be cautious in generalizing the results of this study to non-entrepreneurial companies.

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Appendices

Appendix A: Interview Protocol

1) Introduction: Overview of the study

2) Questions:

<u>Context</u> - How long have you been with [company x] and which functions have you performed? - How do you describe the evolution of the strategies that have been adopted since [company x] was founded? What were the main turning points?	<u>Causes and conditions</u> - Which drivers most conditioned the path you have been adopting? - Do you consider the way you defined your path as having been mostly planned or somewhat emergent? What were the biggest surprises along the way?
<u>Improvisation in action</u> - How would you describe your organizational culture? - How do you look for new opportunities? - How are decisions made and actions taken? - How are decisions tied into strategy? - [If applicable] What has changed in your structure with maturity?	<u>Consequences</u> - What are the negative tensions in living in this kind of environment? And the most positive aspects? - If you went back, what would have been done differently? And what would be repeated? - Now, is there a clear vision of where [company x] wants to go? - [If applicable] What's the impact of the investment in more structure and processes in the company?

3) Wrap-up: Are there other aspects that you find relevant, which have not been covered in this conversation?

4) Final Regards

Appendix B: Description of Case Data

Table 1a. Description of Case Data

ID	Years in operation	Case	Core business	Strategic changes' fields	Number of employees	Raised investment
1	Less than 5 years	Swonkie	Social Media Platform	Positioning (from B2C to B2B) & Internationalization	9	✓
2		Forall Phones	Cheap and refurbished mobile phones	Positioning (materializing the mission) & Internationalization	40	✓
3		Attentive	Personalized Mobile Messaging Platform	Positioning (from B2C to B2B) & Internationalization	9	✓
4		Tap My Back (by BuildUp Labs)	Employee Engagement Software	Positioning (go-to-market strategy & product valencies)	3 (+7 at BuildUp Labs)	
5		GuestU	Mobile Software for Hotels and Apartments	Positioning (building on the existing assets)	14	✓
6		GetSocial	Dark Social Media Analytics Platform	Positioning (from B2C to B2B)	6	✓
7	5 to 10 years	Landing.jobs	Tech Jobs Marketplace Platform	Positioning (more focused targeting) & Internationalization	28	
8		Aptotide	Independent Android App Store	Positioning (B2C to B2B) & New Core Business	70	✓
9		Follow Inspiration	Robotics and Image Recognition	New Tech Applications & Internationalization	12	✓
10		iMatch	Collaborative Consultancy Company	New Core Business	13	
11		Boost	Tourism Entertainment	Acquisition of New Brands	60	✓
12		Science4You	Toys & Educational Games	Internationalization, Operations & Partnerships	80 (+ 245 in the factory)	✓

Appendix C: Participants' Inventory

Table 2a. Participants' Inventory

ID	Company	Gender	Job position	Starting year at the company	Abbrv. (mentioned in the study)
1	Swonkie	M	Founder & CEO	2016	JC
2		M	Manager at StartUp Braga	2014	RP
3	Forall Phones	M	Founder & CEO	2016	JCR
4		M	Financial and Operational Controller	2018	BC
5	Attentive	M	Co-Founder & CEO	2015	DA
6		M	Head of Growth	2016	FL
7	Tap my Back	M	CEO	2016	SB
8		F	Business Dev. Manager	2018	PS
9	GuestU	M	Co-Founder & CEO	2014	EM
10		M	CTO & Head of Product	2016	MM
11	GetSocial	M	Co-Founder & Advisor	2013	PM
12		M	Co-Founder & CEO	2013	JR
13	Landing.jobs	M	COO	2016	DO
14		F	Account Manager	2018	RG
15	Aptoide	M	Co-Founder & CEO	2011	PT
16		F	Head of Android	2013	AS
17	Follow Inspiration	M	Founder & CEO	2011	LM
18		M	COO	2016	MP
19	iMatch	M	Chief Relation Officer	2008	PD
20		F	Chief Implementation Officer	2012	PC
21	Boost	M	Co-Founder & CEO	2008	JM
22		M	General Manager	2011	TM
23	Science4You	M	Head of International Business	2011	TA
24		M	COO	2013	TP

Appendix D: Data Sources

Table 3a. Data Sources

Company	Nr of semi-structured interviews	Informal observations (during site visits)	Corporate materials
Swonkie	2		2 press releases, internet sources
Forall Phones	2	X	7 press releases, internet sources
Attentive	2		2 press releases, internet sources
Tap my Back	2	X	1 press release, internet sources
GuestU	2	X	1 press releases, CEO Challenges' article, internet sources
GetSocial	2		4 press releases, GetSocial learnings' presentation internet sources
Landing Jobs	2	X	2 press releases, internet sources
Aptoid	2	X	2 press releases, company's OKRs, internet sources
Follow Inspiration	2		3 press releases, internet sources
iMatch	2	X	Internet sources
Boost	2	X	Internal sources
Science4You	2		Press releases, 1 magazine publication, internet sources

Appendix E: Representative Supporting Data (for each second-order theme)

Table 4a. Representative supporting data for “causes and conditions of strategic improvisation” (nascent companies)

Years in operation	Case	(a)Agile methodologies	(b)Experimental culture	(c)Internal drivers	(d)Impact of the external environment
Less than 5 years	Swonkie	Not mentioned.	"It means working in a company that has to achieve many results quickly, making many proofs of concept." "It requires people adaptable to the trial and error mindset." "The course of Swonkie has always been to test what are the most interesting hypotheses by doing little upgrades to the platform." "The best option is to launch the product and test it in the market." "We advise to test the product as soon as possible. Going to the market even with a rough and very simple version, and then improving it with the feedback of the public."	"The vision never changed in terms of what we wanted to do, what changed was the business model and the users." "No matter how much planning is done, there are always many twists and turns when a startup is under development and Swonkie was not an exception."	"Anyone who has a business idea, has to realize if the product or service effectively solves a problem, because if it doesn't, right from the beginning it'll not succeed." "It took us about 6 months to realize this, much from customer feedback, because we have always been very close to our customers." "The best ideas come from our customers. They are the ones who draw the product." "We must always be on top of which new social networks are emerging, which are the most successful ones."
	Forall Phones	"A new idea from that person came up this week and we're going to have a meeting because we realized that maybe the strategy we have is not the right one." "We know that, in order to reach the main goal, we have sub goals that we must fulfil." "We have set a very clear vision for Forall. Whatever the country and the market in which we are present, whatever the product, our goal is to make it possible for everyone to have access to everything. Our vision is more than clear to everyone." "We live in a culture with few rules - the rule is: working for Forall Phones."	Not mentioned.	"We've changed our vision a bit and the way we see our future." "There was a big change, due to our people and their background, because they come up with valuable conclusions." "In this world, 40% are issues that you must solve and that you didn't know that would arise. When something unexpected comes up, improvisation is needed." "Maybe we fail 40% of the times we try, and then we must react to solve it. We try to plan in order not to react but then challenges arise even when we weren't." "Success was a synergy of both planned and emergent strategies. There's a great discrepancy between what has been thought and what is happening."	Not mentioned.
	Attentive	"We subdivide the quarterly planning by months, so that teams understand the meaning of 1/3 or 2/3 of what they have to do." "Everyone knows exactly what their role is in the big picture." "There is a clear vision: to take information to people wherever they are." "Everyone gives feedback." "We started with kanban in the product part. Now we use the scrum methodologies." "We have sprints of two weeks, to see if it's working, if it should be replicated, if it needs more development, if it is to forget. Almost every week we have a team presenting a finished sprint. There is a certain tendency to get the work done for the sprint."	"The way we are now using software is just one way, because it could be used in 10 different ways. We never felt that either we were following a path, or we closed doors. On the contrary, we always felt that we were choosing an option but that there was the opportunity cost of not doing something else. We have to find a way to ensure that the path we choose is better - not necessarily the perfect one (because we will never know it)."	"We try to guide ourselves much more by our vision than by what other companies do." "Having one more person from Business inside the company, one of our great strategic changes was to start having a more vision of Brand."	"The biggest driver for our strategic shift was the customers' feedback. When we added our initial vision, which was not tangible, to a very clear problem that all companies have, we found the product we are doing today." "There was a first stage when we started collecting all our mentors and clients' inputs - it was when we began to realize our path. What we are today has emerged as we've been talking to the companies and they've been telling us what they need."

Less than 5 years	Case	(a)Agile methodologies	(b)Experimental culture	(c)Internal drivers	(d)Impact of the external environment
	Tap my Back	"We want to finish the the year with several goals fulfilled." "Lean startup is a huge base of our structure, based on a philosophy of listening, to grow the product, to measure results, to be given customer feedback, all of this so we can always grow according to what we can learn from the market."	"All of our features that came out always came out in a super-scratch version. The idea is that it is scratchy, but it solves a problem. If it solves the problem and we have very positive feedback, then it is worth improving. We put a minimal version of these features on the market, we ask people what they think and then we analyze the data." "Maybe that's how we'll be able to give more confidence to the users. But there it is, the "maybe", because it's a hypothesis that we have to validate." "Tap my Back is very lean and everything is implemented in a "let's see if it works" logic."	"We have to do business to support ourselves because we don't have many resources that allow us to be faster, besides having the ones that allow us to keep the business stable." "Our path is defined by our philosophy and vision." "Indeed, we already had the perception our strategy was not working. Through our database we could see if we were succeeding or not." "Our ideas come from frustration. When there's low traction, we begin to wonder if we're going in the right direction." "Much of our changes have to do with the knowledge that we are gaining from the market, the patterns that we begin to identify from what our customers say."	"Much from the market's feedback, but also with the ability to identify what makes sense and what doesn't, we have been evolving." "One thing is the vision that we want to implement, the other is what the market demands... the contrasting forces that we have to balance in order to survive." "We realized by the feedback from customers that the current strategy was closing us the market and then we asked ourselves: "What other relevant things can we change?"
	GuestU	"Right now, we have a process to implement the ideas that are coming up. It's a common process in agile methodologies." "Our execution time is very agile. We typically make deliveries every 2 or 3 weeks." "The vision has always been the same: to improve the way tourists explore the city." "Bringing value to the customer and bringing value to the hotel, these are the goals."	"We plan but leave the margin to change." "A new pivot came from the need to be attentive to the market and also to look at what we were doing and try to figure out the path that would lead to more success."	"Our success came from some willingness to change." "We started talking to hotels and then we realized hotels are actually the main door in the city for a tourist. We thought there was room to change the tourist experience." "We realized that this technology had much more value beyond the typical paddy paper." "Although at the outset it went quite well, we started questioning: how can we become a much larger company? We noticed we were facing two major problems: 1) host engagement, 2) revenue per customer." "The inputs to change come from people internally who have an idea or who also use the system and think it could be improved."	"Being close to customers is important and. It was crucial to conquer Grupo Pestana." "We must try to always find this product-market fit, no matter how difficult it is to define it." "We knew we had to change. We looked at what was happening in the market and an idea came up among the team: "What if we put our own mobile phones in the rooms?" "And it was an idea that came from the hotel itself, from the conversations in which we tried to understand the client's pains and what they would like to see solved." "In this market, we need to compete by pricing, always seeing what others are doing, what the market is asking for (be it here or in China). The main cause for us to change is the fact that the market is dynamic and changes every day."
	GetSocial	"What we test in sprints are simple ideas that come from improvisation. The idea with the sprints is to realize whether the ideas we have designed worked or not. Then we collect our learnings from others, list everything and adapt to our reality."	"Our success came from a mix of emergent and planned strategies." "In order to test it, we launched a very basic product that already exists in the market." "We established a new hypothesis and validate it. We test and then we see if it worked." "And there has to be awareness of when one should really try, knowing that it can go wrong." "You must have the courage to experiment, to have an extra cost when you try it out. It's important to create a culture of "let's test this" and a great decision making."	"If you ask today, we don't have a written vision statement, but we know what we would like to be, we know which mark we want to leave in the industry, and that is totally different from 2 years ago and 4 years ago." "The company was growing but at a slower rate - it was a sign it was necessary to change." "We had to change, we had to react in real-time for things to change, the result of a set of decisions, actions and strategies that failed." "We didn't get investment or customers, the money was running out and the motivation of the people too."	Not mentioned.

Table 5a. Representative supporting data for “causes and conditions of strategic improvisation” (maturing companies)

Years in operation	Case	(a)Agile methodologies	(b)Experimental culture	(c)Internal drivers	(d)Impact of the external environment
5 to 10 years	Landing.jobs	"We have it clear that we want to be the best players in tech recruitment in Europe. The way it works is what changed a bit." "Every quarter we have goals to meet. As a startup we are, we have a lot to take care of in the short term." "In one year we have four sprints. A quarter is a good indicator of traction, so we wait for the quarter to decide whether to move or kill." "There are constant touch points and feedback is continuous. Even if after a project that only lasted a week, there is always feedback." "There are not many rules but there are methods, e.g. it is necessary to place the tasks in Trello for planning and transparency purposes."	"Here we work a lot by trial-error: we have an idea, we try and if we see that it went well, we repeat. And on and on, we are always improving."	"We knew a priori that we didn't have the money for the massive acquisition we needed, and in that space, we had (40 000 users on the platform and 1 000 jobs), there were not enough applications ... all indicators of a mismatch - we had to change again. " "We predicted that this could happen naturally, just as I predict that in 1 year, we will have another location. Now we know it's not the ideal time, but these possibilities are on the roadmap for the right time to come." "We went to big stores, everyone loved them, but then nobody bought them. This made us realize something was not working."	"We started with startups, moved on to something more tailored to boutiques, expanded to scale ups, and now we're almost done with start-ups (because they do not give us money). It all depends on the maturity of the market."
	Aptoide	"We have sprints that last fifteen days (...)" "We want to be the worldwide system for all these channels outside of Google Play." "We work in agile, which means that each person has autonomy and the team is very empowered to define its own objectives, aligning them with the general ones." "We started working in scrum." "We use a methodology called OKRs and we draw them to 1 year. They are composed by 3 or 4 goals and the key results of each goal." "The decisions we make are really decisive, which forces each employee to have a very clear vision of what we want to achieve."	"After trying different opportunities, we realized there was a huge potential of incorporating different product types." "We knew the best and the worst scenario, it was practically everything on the table. I believe that "planned" and "emergent" must be complementary. The sustained growth we have had is only possible with planning."	"Because that's what we've always reacted to: short runaways and lack of resources."	"We analyze our beliefs and the market's needs to see if our strategy is aligned." "We didn't do much pivoting of our main vision; what we did was some adaptations to the market. AppCoins had enormous potential since the distribution channels are huge."
	Follow Inspiration	"We are now adopting more agile work methodologies. In our teams of 5 to 9 people, the ideal size for implementing agile, we have the roles well defined and there's no imposition of what each one has to do." "Now the vision is clear: to internationalize our technology and apply it to various functionalities."	"The versatility and perceived change were very important to us because many companies would probably have rejected this challenge. For us, not accepting would mean losing an opportunity."	"Another typically driver for our change comes from the team. Our product Curator resulted from a series of ideas that were coming up and beginning to make sense all together, about how to apply our technology to a different scenario." "Our path had a mix of planned and emergent." "The company's vision continues to be very focused on our technology and its application to products that aim to improve people's lives, but I think we may eventually have some shifts in the near future that have to do with new markets and new businesses. We may have to stop working to put up shopping carts in the supermarket and move on to work in a specific industry."	"It's about quickly realizing how markets are evolving and quickly changing our teams and our mindset - that's been the key to success." "If the strategy is not working, we'll have to plan another strategy. For some reason what we had planned is not going as expected, e.g. we have a product that is not selling or having the acceptance that was expected. What most influenced our strategic path was the market."

5 to 10 years	Case	(a)Agile methodologies	(b)Experimental culture	(c)Internal drivers	(d)Impact of the external environment
	iMatch	"Where we want to go is something that we all have very clear, although sometimes we change a little the way we do or the way we say we do."	"But then, once you start implementing it, it starts changing, because you thought it could be one thing but now it's another, and you test again what you want to do, you validate it and you redo. All these iterations lead to a result." "Now we are at a stage where, maybe yes, maybe not, we'll have to rethink the logic of Creative Collaboration and bet something more on the human centered transformation." "We assume that we'll not always make the best decision. We may never make the right decision. But we have openness to try and fail and learn always. We'll not point the finger at anyone." "We do the planning at 1 year but then everything changes. There were many things we planned but we had to improvise on the way."	"Over time, we realized that the same methodology we used was also very interesting to discuss things that really had nothing to do with new products and new services. Something emerged and was a bit different from what we've planned: we went from Innovation Ignition to Creative Collaboration." "We always have a strategic intent. We started there, focusing on the idea of innovation for new products and new services. That was our first intention." "There's a vision, indeed several, of where we want to go, but there are different possible paths. One is the human dimension of digital transformation... it's not what we do today, although we can go there!"	"It's a pain of ours that has to do with a certain reading that we do of the market fluctuation, a set of things that makes us reflect and realize that it's time to discuss everything again." "Our changes come from our combination of market opportunities and what we want to build. We are always doing new things, and much emerges from what clients are asking us for and how we interpret information in the light of what our fundamentals are." "We hear the clients' needs, then interpret them with the ingredients we have and often afterwards, give them something new."
	Boost	"No doubt, we want to move away from the paradigm of adding more GoCars, TukTuks, etc. Boost will be a company always linked to tourism but won't keep creating alternative means of transportation" "Now the strategy is to look at opportunities that don't require being stuck with assets."	Not mentioned.	"I once gave an idea that generated a new brand." "Our strategy was not linear, it was not planned with a deadline. We always had the perspective of being attentive to the market and reacting very quickly." "Boost's success depended mainly on keeping us always top of mind, always ahead of the offer, even before the market demanded us. Reacting was crucial." "The vision was always more or less the same, but the new brands were not always planned." "Now it is crucial that you (...) make a predictable business plan to realize whether it makes sense to invest or not."	"We are actively studying different strategies to keep growing outside our scope. We are attentive to what happens outside, to test if it works here." "The fact that we are in Portugal, which is not at the top of innovation and implementation of new ideas, is an opportunity for us. There's a problem in tourist animation - people always want the ultimate Coca-Cola." "In Portugal there were no solutions for groups of 100/150 people, and this was probably our game changer." "We had to be very attentive to what the market was doing and its rapid fluctuation in order to create new business areas."
	Science4You	"It was our agility that allowed us to find new solutions. We have always been very agile."	"I would say 80% of what we do is already planned and 20% reactive."	"At one of our weekly meetings we talked about feeling that this was not the way... we had to find a way to scale our strategy faster and become more profitable."	"We've been learning a lot from clients. I would say that they turned out to be who shaped us our way." "Our biggest reason to change was our competition." "We realized there was a great resistance from the Spanish to buy from Portuguese companies. That made us stay alert. Our strategy was somehow questioned. And so the opening of the Spanish branch ended up being a turning point to a new strategy that was not part of our plan." "In 2013 there was a great turning point (...) because China began to be expensive, the exchange rate too, and China's salaries began to rise. We are in a sector where we must continually launch products and rebrand ourselves."

Table 6a. Representative supporting data for “strategic improvisation in action” (nascent companies)

Years in operation	Case	(e) Cultural fit enhancement	(f) Fluid communication internally and with the external environment	(g) Generation of new strategic insights and translation into a roadmap	(h) Organizational transformation
Less than 5 years	Swonkie	"We ask for the speed of adaptation." "In Swonkie's case, there's a very positive aspect (...): the ability to overcome, the right motivation and some can in a good way to talk to who is needed." "The teams have to adapt their route to the rules that the market is dictating." "We would rebuild and start over after the 9 months of effort." "At the beginning, most teams have only programmers, but then you realize that you also must have a voice, someone who is capable of selling. In the case of Swonkie, João is a very good seller, he's a good CEO." "I love to follow all areas and big projects, to ensure that at the end of the day we moved well, fast and on many fronts."	"In Slack we have several channels like Team, Sales, Office Braga, Office Porto (because we already had more than one office) where we can talk about specific themes." "We have a timeline inside the office and use other tools like Slack and Trello, where we have everything that is being done and shared documents. As I am often out, it's through these tools that we can always follow up on the team." "It's important to surround ourselves with people who are more experienced than we are, and I always like to talk to other startups' founders (...) to talk about strategy." "It's good to talk to those who are doing the same path as us to realize what the pains and challenges are." "It's a set of decisions that must be shared with other people who have already done so, to have some answers." "We are part of two communities of startups, Startup Braga and Vodafone PowerLabs, which allows us to have several approaches with many entrepreneurs like us."	"We collect all customer inputs and discuss them in a meeting every fifteen days." "We collect all our ideas, organize them and send them to some agencies. Then we ask these agencies to organize their issues in order, according to what is a priority." "We tried to start doing some monetization approaches, running some tests. We had about 10 agencies to test our solution. And we promote events so that people can test the products."	Not mentioned.
	Forall Phones	"We all know that X or Y person has certain tasks, but everyone manages their own time." "We have a great capacity for execution." "We create a feeling and a mindset of demand and excellence." "José (CEO) takes 80 to 90% of his time thinking about the future" "I am always thirsty for more knowledge, for more network." "We have a policy: we lose nothing in testing everything, if it makes sense." "I guarantee the vision and the culture are aligned between all."	"We always involve the person who had the idea and who thought outside of what was stipulated." "From time to time, more strategic issues are introduced, for people who sometimes have no opportunity to give inputs." "It often happens that the teams are giving inputs, which end up impacting the strategy. All people nurture the future of the company." "Our strategy is top down to the managers; the latter define their goals together with the teams." "This happens for several reasons: because we have regular customers in these geographies and because we have found very strong partners there also. At the top, we have Forall Family (our community, our 40 full-time employees, our 250 shapers), which is to us the most important because they are our people. we have managed to make the community understand that we have a broader mission than selling mobile phones."	"It's a mixture of reading, trying to meet interesting people that I admire, and surrounding myself with my team, listening... listening is the most important." "We have meetings every week where we talk about various strategic topics." "It may or not advance, we test." "Every week we have retrospective meetings with the whole team where we discuss progress and where new goals are set." "We have a platform monthly and weekly goals are defined for the company and departmentally."	Not mentioned, however, stated: "Probably, as we grow, we'll have to create methods and procedures for this. Today is still a lot by word of mouth. We aren't a multinational with processes already installed - we here have to create them!" "Because we are creating from scratch, there's no structure, we don't have managers to give indications, we have to get out of the shell and to create."
	Attentive	"I believe in the teams that can do anything with what the world throws at them, that can adapt to something that emerges, which makes them entrepreneurial companies and distinguishes them from large companies." "In the way, we choose people for our team, we take into consideration whether people are averse to risk and if they are able to deal with error and frustration." "A lot of my job is to try to remove the barriers to test our ideas and try to do it faster and faster." "I am especially interested in the learning that my team took or how interesting they found the task, because if the work is interesting, we are probably on the right track."	"The goal is for all teams to have the big picture." "We use WhatsApp to share interesting topics. To retain our spontaneous ideas, we use Slack. We also use a platform to share our tasks with all the company." "Anyone can spontaneously give ideas. If there's an internal need, an alert is sent on Slack and we all focus on that need." "We have about twelve mentors and we weekly send them an email with the news. They reply quickly, whenever we ask them." "There are several people to whom we ask advice on an ongoing basis. They are a kind of mentors, people that we come across and are part of our journey." "Our mentors have helped us providing important feedback. If we can have outside people with us it's ideal because these people will always put obvious doubts that internally we avoid."	"We have quarterly meetings where we go out for a retreat. After, we feel we have a strategic compass that guides where we want to go." "So that the good ideas are not lost, we document them continuously." "We collect the feedback from the customers and check what the industry is doing." "There are monthly retrospective meetings in which we share solutions and discoveries." "We set our course for the next 3 months, we define what our goals are and how to measure them." "We try to make sure there's always a roadmap but there is always a great level of improvisation."	Not mentioned, however, stated: "The next moment of inflection will be the moment when everything improves, when we'll know better what our product is serving, when we'll already have a list of loyal customers, and we'll achieve a new structure, a new dimension."

Less than 5 years	Case	(e) Cultural fit enhancement	(f) Fluid communication internally and with the external environment	(g) Generation of new strategic insights and translation into a roadmap	(h) Organizational transformation
	Tap my Back	"To test the market we are always very fast." "I made the decision by my own, implementing the logic of <i>Build Measure Learn</i>" "We are very quick at developing and testing. To be developed, one week maximum. To test, maybe two." "After everyone sharing his/her opinion, who gives the final word is the CEO of BuildUp Labs because he has more know-how and experience. He is always informed about what goes on out there." "Salvador gives us ownership and empowerment. If it works out, we implement the solution, otherwise, we change."	"Everyone freely gives inputs." "We use Slack among all, where we have the daily stand-up in which each one says what he/she's going to do on this day." "Growth Meetings are shared by the entire team of Build Up Labs." "Partners help us with the implementation part." "We are now assessing what our customers expect from renewing the contract with us so that we can evolve accordingly." "We made two focus groups with our partners, one to leaders and one to users, in order to understand why people don't engage that much with our product."	"We are very oriented to do research, to advance over this research, to exchange many ideas." "We do Growth Meetings every week that allow us to tackle weekly opportunities and challenges that we have, and so discuss them and pull by decision 1, 2 or 3 weeks later." "I look at what our clients do, focus on the surveys, and try to cross the value." "Once an idea is validated, there's a brainstorm with the whole team and then we make the final decision. We decide whether or not it's worthwhile to go ahead, to test and to validate hypotheses."	<i>Not mentioned, however, stated:</i> "It's still very much based on qualitative feedback because we have not yet found the product-market fit. Once we find it, we'll decide to invest in climbing and making decisions based on quantitative data." "We'll be a company rather than a startup once we find our product market fit. Up there it's a research process, and from there it's scaling. Then the goal will be to discover what adds more value to the market."
	GuestU	"In our culture there's autonomy, also because of the scrum we're implementing." "We tested the GuestU Phone very quickly, as we tested the GuestU Bot and the Clarisse App. Being fast was our biggest advantage." "While partners in various companies, we can bring a lot of value. The fact that we are not all totally in the day-to-day of every business makes us look at things in a different way. No doubt, we have brought a lot of value to each brand."	"When we decide to test a pivot, we have to communicate to the team, we need the alignment of all." "There's enough room for anyone to get to me and say, <i>Look, I've been thinking, I've got this idea...</i>" "All inputs: we register, send each other, and discuss in our weekly sessions." "If you can talk to people with whom you have no relationship with and sit down with them, tell them that about your ideas for 10, 20, 30 minutes of your time... it can give you more perspective." "In addition, from X to X time, I meet with some more special clients, so they can also give me feedback."	"We have something called GuestU Stories, meetings with people who are not part of the Product team once a week for an hour. At these meetings, anyone can suggest changes to the product." "We are always, in each sprint, defining what we are doing." "It's crucial to validate as much as possible and in the end almost simulate a sale." "It is important to have metrics about everything." "We started performing some tests to see why the hotels didn't want to make this push and why users didn't want to download the application."	<i>Not mentioned.</i>
	GetSocial	"In onboarding, we invest heavily in accountability and autonomy." "It's necessary that our employees perceive and balance what we gain or lose with each client and know how to play." "What is curious is that João was much younger than me, but our evolution as entrepreneurs was not as dissimilar as it could indicate by the difference of experience. João was 22 or 23 and I was already 35 or 36, but in practice we were both learning and complementing each other."	"Everyone in the team should give inputs." "The path has to be something declared between the team - that must be the path we identify with a potential risk but also a potential gain." "It's important to have someone to aware you from outside. The role of mentors is fundamental. They are people who have gone through many of our challenges." "It's important to surround ourselves with people who are more experienced than we are, and I always like to talk to other startups' founders (...) to talk about strategy. It's good to talk to those who are doing the same path as us to realize what the pains and challenges are."	"To test hypotheses, sometimes a conversation is enough. You need to be in contexts where new ideas appear." "We do two to three times a year retreats where we go anywhere (offsite) so we're totally focused on our strategy." "We do a lot of brainstorming." "When people replied, we tried to understand what they were doing every day, what they were looking for, what their goals were. Any website that was minimally similar to what we wanted, a blog, an online store, a brand... we approached and asked questions."	<i>Not mentioned, however, stated:</i> "In a startup, you still don't know what you're selling, who your target is, if the product logic is right... nothing is known effectively." "With time, improvisation needs to be more and more controlled."

Table 7a. Representative supporting data for “strategic improvisation in action” (maturing companies)

Years in operation	Case	(e) Cultural fit enhancement	(f) Fluid communication internally and with the external environment	(g) Generation of new strategic insights and translation into a roadmap	(h) Organizational transformation
5 to 10 years	Landing.jobs	"We are not averse to change." "If we talk about more operational decisions, anyone can make a decision autonomously." "These squads are multidisciplinary teams." "As a rule, we are fast and agile." "We, in the Management Team, are more focused on thinking: according to the trajectory of the results we are having, about the next steps to take." "The Management Team prefers to see us fail, so we can realize by ourselves that we can improve."	"It's necessary that we all understand the strategic direction of the company." "There is openness for me to get to Diogo and tell him that I have realized a certain opportunity for us." "We use Slack to communicate, which is especially important for our remote teams." "We use a Wiki, which works as an internal Wikipedia, and where we put the information we want to last, so that anyone can consult at any time. Everything is there, from the most strategic to the operational, and we know that whenever there is a strategic update it will be added there." "It was sometimes necessary to have a more senior decision-making, to have someone from outside who had already had the same problem, to avoid trying many things, to have more focus and to shorten the process."	"We have people responsible for looking at the dynamics of the various markets, not only globally but also by country, even for locations that may have some potential." "We share news, suggestions, and challenges, in order to generate brainstorming... If after we find some ideas that make sense, a roadmap is set, and it becomes part of our strategy." "This meeting works both as a retrospective and as a look into the future. We are constantly looking at the results of the quarter in order to take the necessary steps."	"When I entered Landing.jobs, the structure was different. There was an Operations Department, divided by regions. They did sourcing and matching of both companies and candidates. The Operations team is now organized differently. We have a Business team that does business and job acquisition for Landing.jobs, and we have a Talent team that focuses on the acquisition and retention of candidates on the platform."
	Aptoid	"Within the team, we change our minds many times about a feature we want to launch, much by the diversity of discussions and perspectives we keep incorporating." "We handle the unexpected issues without fear. We deal with them very quickly, with little risk aversion, and agility as our main advantage." "We never go for the super safe solutions, we bet more on what's risky."	"If the team thinks they've found a way to do it better or to innovate, they should share it." "Everyone has got a word in some areas, which means that priorities are brought to the table, reflected into objectives and confronted with the company's strategy." "Our goals are also discussed by each team. At the teams' level, ideas are shared. Our colleagues (e.g. from Shenzhen) also add value with various inputs." "Working with partners to provide our content and our applications to their own stores."	"We have several meetings at the beginning and at the end of a quarter in which we define our path" "We have our colleagues in different markets (e.g. four people in Shenzhen), from whom we absorb different inputs from the local manufacturers (e.g. Huawei, Samsung, Xiaomi)." "Within the team, we all discuss how we will translate the broader OKRs into goals for our product. There is an opportunity to get ideas up and down and there is scope to change goals within the team." "We all look at opportunities continuously."	"Previously, we were organized by technology, and every tech team had a Lead. With the restructuring, we started to organize ourselves by all people needed for the development of a specific product. We have Android developers, designers, translators and data analysts (to check our product KPIs)." "It was a time of transition and change: we went from technology teams to product teams; we started having OKRs defined first for the company, then for the portfolio (a set of products), and, at a level below, OKRs for the team. Still on a lower level, we have personal OKRs, for each person individually."
	Follow Inspiration	"There's a lot of autonomy so people can decide for themselves. Then the team implements it in a completely autonomous way and decide whether to introduce stronger engines or whether to find another solution, as long as it results in greater speed." "This agility requires a very coordinated and crazy team." "The team has a very high and interesting dynamic. When you put a problem on the table, there are always several suggested solutions." "Everyone can make change proposals, but there's my validation first, and Luis's (the CEO's) before moving forward." "I do researches in the technical area (with Joana, who is Technical Director), Luis does more research in the area of strategic and business development."	"This strategic change has been taken by all which requires that we know, in real-time, what each one is doing, our roles and the importance of what they are doing." "If we come up with a new idea, this idea is debated internally by all. We must realize whether we have what it takes or not, at all levels, to move forward. We must realize in what timing it can happen, together, which requires that we know, in real-time, what each one is doing and the importance of what is being done." "Easily, in our Facebook group, I find business ideas in China. It facilitates our communication." "Once it's difficult to produce in Portugal, we have to find partners through which we can do it. These partners pay us to develop our technology. That's how we evolved a lot." "We have a distributor in Germany, one in Switzerland, we will have one in France, all of them are people who already know the market. We realized we don't need to have four or five people internally to sell the product."	"We are doing several retreats throughout the year." "Every 3 months we have brainstorming meetings where the whole team gives ideas." "We have two people from the technical area who, at least monthly, have to visit some websites of reference, realize what is happening in the world and give us some inputs."	"We already have defined processes which are perhaps not as rigid as in other big companies. People work according to these processes. We had this need because of our maturity but also because we are engineers, we have our own mindset, which is not a management one."

	Case	(e)Cultural fit enhancement	(f) Fluid communication internally and with the external environment	(g) Generation of new strategic insights and translation into a roadmap	(h)Organizational transformation
5 to 10 years	iMatch	"As long as we have the ideas until we start implementing them, it's a fairly quick process." "Each of us is responsible for his/her tasks, must find his/her solutions, ask for help without shame. We have this feeling of being self-governing and self-responsible." "We are dynamic and adaptive. There are no routines and so it's necessary to look at the past, realize what we did wrong and ensure we do much better the next time. It's a constant improvement and requires rapid adaptation." "In iMatch everyone is Chief Officer of something." "Every Monday we gather (Paulo, Diogo and I) in a one to two hours meeting, in which we discuss People, Projects, Finance and Prospects." "The search for new opportunities is a job that comes from everyone but much more from Paulo, Diogo, and me, who end up playing a more strategic role, while the others are very focused on their projects."	"That's why it's so important that everyone knows everything that's going on." "When we realize that we can partner with someone or see that one of our competitors is doing something similar, we share with each other." "We talk again, share on Slack what we are seeing outside - there, we have the channel "food for ideas", "inspirations" and everyone has openness to share." "People must feel they are part of the decision even if it's already decided." "On the strategic issues, we try to be all aligned and build them together." "Everyone in iMatch thinks about everything, decisions are put on the table, everyone has this opportunity." "We have many people over the last ten years who have been with us." "We decided that we would also include our customers, partners and suppliers in the discussion of our strategic path, using a logic of design thinking, in order to co-create with them." "Talking to outsiders makes us see alternatives that we had not thought about." "In the retreat we made this year, there were also two external people (...) to talk about the positioning issue." "There are outsiders of the organization who accompany us constantly."	"We make a strategic retreat of two days every semester, to revisit <i>Who we are? Where are we going?</i> " "To rethink our positioning, we're going to develop a creative problem solving. We will evaluate different alternatives and list different hypotheses." "In the midst of it all, we are looking for new opportunities." "We meet to share our learnings, and so we design the following year." "We make a SWOT of each of the hypotheses and have our pipeline and we use post-its of different colours that are fixed on the wall to give priority to the tasks."	"Over time, we came to realize that the same methodology we used to help people create new products and services (which is a stolen methodology of design thinking) was also very interesting to discuss the positioning of a brand, to launch a new product on the market, to solve logistics' problems, to get people to discuss customer service... So, something emerged and was a bit different from what we've planned: we went from Innovation Ignition to Creative Collaboration, which had a formal repercussion on the company."
	Boost	"We set up in Boost a kind of incubator where employees can give their ideas or even propose business ideas that they want to develop for themselves. We tell them that we create this business together because we are a company that sponsors and supports ideas." "It is crucial that to run fast (...) and do not expect another person to make a better decision for us. There will always be special requests which require the staff to think for themselves, decide on its own and, through what you already have, create something tailored to the client. Autonomy is inevitable." "I am more strategist and Leonel is more operative in terms of being able to read the structure in a way that I'm not able to. We complement ourselves, in my opinion, perfectly." "What we look at is the worst-case scenario. We think about what we miss and not from the point of view of what we have gained."	"We always exchange ideas with the team because in most of the cases it's rare that they don't add value to something." "For the idea to be well established, we exchanged inputs with all the employees." "Boost's community constantly brings inputs about new opportunities." "João talks to people outside Boost several times which is vital because we are so focused on our business that sometimes we get blinded and, in this way, these people can help us on making a simple SWOT analysis."	"João is focused on the strategic issues. He's aware of what is out there by reading articles and checking if there are opportunities for us." "We take 3 days a year to make an isolation in which we join all together and go through a Word document full of all the issues that we have to solve." "Once we have an idea, we do stress tests. For the Beetle, the market study came from talking with our girlfriends and our friends." "We have pricing tests." "Once we have an idea, we always validate. We call other people, explain the idea and ask, "What am I not seeing?"	"We took the last year to clean the house. We went to look for second lines of the Big 4 in order to stabilize." "Today we are moving more towards the direction of a typical company, with one person focused on Marketing, one in Human Resources, one in Operation ... and each person absorbs all the operations of each brand." "Nowadays, it's just the opposite: all brands go to processes that are implemented so that they don't depend so much on people and so that the company becomes a mechanism that works on its own."
	Science4You	"I still think this company has a very large entrepreneurial dimension. We are constantly trying to innovate." "We have a very strong decision-making centre that met every week and made things move very quickly."	"We try to take those ideas up." "We are quite democratic and participatory within our teams." "We have a meeting of consolidation in which everyone talks about their projects so that everyone is aware of what is going on." "Before we solicit feedback from distributors, ideas are discussed among the team." "We started going to the Hong Kong fair, not because we are producing there, but mainly to keep in touch with the world's makers of the toy world. We always end up talking to several people there." "We have our agents and distributors, who are from the world of toys, who have their network and who do the prospecting for us." "It's our partner distributors who define our range, our pricing, and even the way we define ourselves as a company."	"We have a Board meeting every week in which the representative of each area is present." "We can absorb ideas and make small brainstormings." "We've always been holding these weekly meetings as a forum for making the big final decisions." "In the holiday camps we have and on birthdays, we gather kids to play with some of the products we imagined." "We all sit down and try to analyze not only weekly KPIs but what we often call macro management, starting from the small details of our teams to the analysis of our strategic vectors, in order to keep this change continuous."	"When I walked in, we didn't have basic charts of cash flows. At that moment, more methods and processes were needed to keep pace with the company's growth." "After having already conquered Spain, we established the International Department to have a group of people responsible for prospect." "There is greater centralization of decision making now. To bet on an idea, we already bet with much more force, and for that reason we involve many more agents." "We started having a lot more operations and to involve a lot more people in the decision."

Table 8a. Representative supporting data for “consequences of strategic improvisation” (nascent companies)

Years in operation	Case	(i) People-related impact	(j) Work-related impact	(k) Increasing potential for success and challenges to keep the pace
Less than 5 years	Swonkie	Not mentioned.	"Growing a team, recruiting the best people, being everywhere, having the best way to sell... these are all complicated issues and as long as these things are not all perfectly aligned, I can't say the product is okay."	Not mentioned.
	Forall Phones	"This daily struggle makes us stronger and stronger and more aligned as a team." "It gives us a sense of belonging, of empowerment, of 'I trust you, and I trust that you can deliver.' And we happen to have good, more confident people in themselves. They know that they leave their companies to be part of a company in which trusts them to do what is right." "What's most positive about living in such environment is that you get here and you don't know how your day will look like." "This life is much more tiring than a monotonous day-to-day life."	"There are many unexpected difficulties we don't know how to solve because we've never faced certain obstacles." "I'd have made a better management of expectations: to promise less, because the day itself is what tells us the future." "There are new things coming and projects in parallel, which makes you give the extra mile each day. The point is, it's every day!" "People can't focus in culture because they don't have time in the middle of all the new challenges they face." "These strategic changes affect everything, from the way we work to how we position ourselves." "It's this strategic change that is allowing us to grow a lot."	Not mentioned.
	Attentive	"This is good, because no two days are alike. What is most positive is living in a very attractive environment. We must constantly reinvent ourselves and do new things." "In our ecosystem, everything happens very fast. Things happen that divert us from focus." "One of the main surprises we had on this path was how available people who have had immense success are, without any kind of commitment, available to help us." "As the implementation time is short, we are better able to incorporate new ideas." "I didn't know it was going to take so long, require so many changes and be so frustrating."	"It's very rare for us to reach 100% because new things are always arising." "We've tried not to get anything less than 80/20 but it's complicated: new challenges appear, others are half way through - it's hard not to blur. It can be tricky to find the time to ensure the quality we want." "We are never sure if what we want will have the results we think. I wish I had talked to some of my mentors before because they could help get us started earlier. We have much to learn..." "We realized we'd have to incorporate some more rules."	Not mentioned.
	Tap my Back	"Autonomy and ownership are very positive aspects." "(...) for him it means lack of focus and loss of rational."	"Another of our mistakes was that we were so focused on our challenging day-to-day that we didn't collect feedback or data on previous customers." "In this way we accelerate our ability to learn from the mistakes of others, realize tactics that have worked, make bold decisions from outside perspectives." "The disadvantages have to do with focus, time, disorganization and failures both execution and quality." "One of the advantages of coming to work in this kind of environment is the speed of execution."	Not mentioned.

Case	(i) People-related impact	(j) Work-related impact	(k) Increasing potential for success and challenges to keep the pace
GuestU	"It's intellectually more stimulating to work in this kind of context where a person is forced every day to think of new things and new challenges. It's more creative and it seems that you can use your human abilities more as you do different functions, less robotic, less mechanical, less equal on a daily basis." "It's something that wasn't planned from the beginning and this creates tension within the team."	"These pivots and these changes we make create a lot of instability in the team." "There's a difficult border to manage between yet we have not sufficiently developed an idea and we are already trying another." "As a big positive surprise, the GuestU Phone was completely game changer. Finally, we have found the real product-market fit here: something made sense to those who were paying, something made sense to the end customers. It had a giant potential." "When you have this ability to innovate, you can't always measure results."	Not mentioned.
GetSocial	"There's a lot of autonomy in the team which is good, because otherwise, in a team of 6 people, we would have many risks or, if I was on a bad day, it would all stop." "The negative part regards people feeling pressure."	"The ideas appeared every day but there were no formal processes that led to a better use of ideas." "There was no deep reflection on what was happening and our meetings' discussions were mostly based on our best judgment." "We made the mistake again... at the time we were very attached to the idea that an entrepreneur needs to be resilient and fight until the end." "nowadays I see clearly that it was something completely wrong. Because? Because we are in Portugal, because it was B2C and because it was me and João (he computer engineer and I manager), none of us a programmer."	"But this new pivot has already come with greater control and quality. There was a better sense of what one wanted to do, of how and where to expend the energies, of when to give up or go further after testing a hypothesis. This shift was made in a much more controlled way."

Table 9a. Representative supporting data for “consequences of strategic improvisation” (maturing companies)

Years in operation	Case	(i) People-related impact	(j) Work-related impact	(k) Increasing potential for success and challenges to keep the pace
5 to 10 years	Landing jobs	"This autonomy is a very positive factor, especially at such an early stage of your career." "These discussions also generate a lot of internal alignment."	"Sometimes you don't even have time to communicate internally because everything is happening at the same time. It's confusing, even for the purpose of organization." "In the market dimension, as we are volatile, fast and agile, sometimes our positioning is not very clear. For the external market, our potential customers, this can be confusing. But not only, even internally." "There are opportunities we don't exploit enough because we have to be delivering." "Sometimes we have the feeling of instability, of too much stress. There were very sudden changes in direction and strategy, which is not healthy for a company."	"Our maturity, our knowledge, our experience and our market perception have changed. At this point, we see very well the dynamics of the recruitment industry." "Today we do this in a much more structured way. Today we have more stability in the team because we have more experience." "We've been more stable for 1 and a half years and we know what directions we can evolve." "This period took about 2 years. Not because we were less agile... but because we were inexperienced. It took more time than it would be in the current model, with the knowledge we have now and the processes we have now." "Because of our new structure, our results have risen and there is a greater focus."
	Aptuide	"Sometimes we lose our focus." "There's this difficulty in focusing for a long time, because there are always new things coming up." "The priorities within the teams are confusing and it's more difficult to deliver what we want when changes in the roadmap occur."	"There are unexpected challenges we have to incorporate in the middle of our day-to-day challenges that were planned to solve." "We were so focused on execution that sometimes we didn't even remember that we should change." "We never asked the right questions in terms of business validation." "Although we all know the problem exists, we let it go until the point where it reappears." "The products we offer are not 100% finished when launched, which can impact their quality."	"Of the 38 million monthly users in August, 50% have already come from our B2B business - from a change we made already along the way."
	Follow Inspiration	"I like the stress that we live here, the responsibility that I have." "We have already made a great contribution, both to our country and to the people who have passed through us." "One of the great advantages of working with Follow is the autonomy we have, it's knowing that you make all the difference, that you have a big impact on the company's results, for good and for worse." "It's about knowing that we are engineers and we have to be good technically, but we'll never be doing the same thing every day."	"On the delivery date the product is working but there are small things that fail." "The good thing is getting things noticed quickly and changing quickly." "Five years ago, we should have considered moving to the United States. With the product and the technology we have, we would have more opportunities there." "Sometimes there are tasks for which we would need more time. We certainly don't have it." "Sometimes we have things that remain to be done, or that are not so well done - there's no time... This inadvertently passes to the market."	Not mentioned.

5 to 10 years	Case	(i) People-related impact	(j) Work-related impact	(k) Increasing potential for success and challenges to keep the pace
	iMatch	"The most positive thing to live in this context is that there are no routines, we are constantly learning." "This helps a lot in growing the team." "It's very interesting to put these 10 years in the present and bring the heritage of relationships, people and projects to the present - they were so intense."	"We don't have the stability that allows us to make concrete planning." "The positive consequence is being flexible to meet the client's needs." "We could be producing more and we don't do it because we don't have the time." "If you are always answering, you are not expert of anything... (...) sometimes we feel some fragility in what we do." "Being constantly with this mindset helps you to look at other realities constantly on a daily basis - it's not an extra job you have to do." "We are good at incorporating the emergent strategies but not always at formalizing our opportunities. It's an obvious opportunity to commercialize this expertise but we never did it because we are often very short at delivering."	"We'll learn from mistakes and try not repeat the mistakes of others." "We already have experience, we know that we can evolve into different areas with a more pronounced positioning." "We started 4 and today we are 14 employees even more addicted to what we see. We have discussions and ambitions because of that."
	Boost	"Our team feels the impact we have and that motivates them to work with us." "The fact that we are always at the limit of our capacity raises questions among the staff like 'How can I take one more task?'" "The work pressure to move forward often doesn't give space to the desirable open mentality."	"This is my biggest fear, to have 2 guys like we were who see something that we're not seeing, because we are immersed in what we do." "We can't stop looking at what we want to do 2 years from now. If we did so, we would be mortgaging the company. The balance of the two has to happen: continue to clean the house and create new businesses that will again create a shock, that will not let you clean the house again..." "We have to clean the house, but we are in an area where it's difficult to stabilize. We are always growing and, in many cases, (...) processes and services that we already had were not 100% and we would like to optimize them."	"We already have the modus operandi and so it's quite fast to implement a new brand." "The biggest challenge was to grow, to move from a structure in which all employees give what they have and what they don't have, because they feel the project as theirs and that they are part of a family, and to climb to a team with more than 60 employees, it's impossible to have a constant proximity and also to maintain (...) the will to always do better." "There are also all the problems of scaling, creating new processes, creating new IT tools... all this becomes very difficult when you start to scale the business." "We are much more risk-averse now than we used to be. Now we have to be very careful because we can lose 200 000 euros <i>like this!</i>"
	Science4You	Not mentioned.	"Later, in England, we had 4 of our people going from store to store trying to sell the product. We were again unsuccessful. In France and Italy, we ended up following a similar strategy, which we had to abandon because it didn't work, again."	"Now we have a much better level of service and responsiveness. We can be more efficient." "The fact that we've established in the last two years certain rules helped us to understand we can produce the same units with half of the people. Not only because of process automation but because we have reached a stage where we can establish procedures also at a scale level." "Now we to present results, we have to manage quarters. Before, if we didn't sell on a quarter, we would sell the next, everything was fine." "With maturity, the testing time of our ideas is getting slower and slower. We can't put our ideas into practice so quickly." "We are slower than what we used to be. We will need to become increasingly more and more competitive with scale, obviously not losing innovation and flexibility. Now, we need to find the perfect match of it all." "What's worst of becoming more stable is the reduction of agility and flexibility: we no longer do things just 'because yes'. It makes us more rigid and leads us to drop sales."