FUNDAÇÃO GETULIO VARGAS
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LUIS ALBERTO SCANDELARI BUSSMANN

OPEN INNOVATION:

THE CASE OF SMALL AND NEW FINANCIAL TECHNOLOGY FIRMS IN BRAZIL

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Tese apresentada à Escola de Administração de Empresas de São Paulo, da Fundação Getulio Vargas, como requisitos para obtenção do título de Doutor em Administração Empresas.

Linha de Pesquisa: Competitividade em Gestão

Orientador: Prof. Dr. Tales Andreassi

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To my parents, for forging the person I am.

To my family, my safe harbor, source of inspiration and love.

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"We have no issues with sharing ideas, sharing is not the problem. People have ideas and lots of them the same ideas. Many even have the same idea at the same time. Execution is the problem!"

Firm#10's founder
(in interview for this project.)

Resumo

É fato que o termo "inovação aberta" criado por Chesbrough em 2003 tem recebido atenção da academia e é frequentemente mencionado na media. Em um mundo cada vez mais conectado, há uma abundância ideias e de conhecimento sendo criados todos os dias, tanto sendo disponibilizados para internalização e utilização dentro das organizações, quanto sendo criados e disponibilizados por estas para utilização externa. Mas será que o termo e os conceitos relacionados com inovação aberta são realmente compreendidos e utilizados pelas empresas no Brasil ? Em estudo recente, constatou-se que este não é o caso, que a inovação aberta é fracamente utilizada, e que falta compreensão dos preceitos de inovação aberta em empresas do setor industrial. Será que o mesmo se aplica também no setor de serviços ? Vários estudos apontam uma lacuna na investigação do fenômeno de inovação aberta no setor de serviços Mais especificamente, há uma necessidade de mais estudos sobre a utilização do conceito de inovação aberta em empresas de serviços no mercado financeiro. Com base nas lacunas e oportunidades apresentadas pela literatura, este trabalho investiga pequenas novas empresas do setor de serviços, operando no mercado financeiro brasileiro. Avalia por que e como os conceitos de inovação aberta são utilizados por estas organizações, assim como desafios e benefícios observados quando estes conceitos são implementados. Seguiu uma pesquisa qualitativa de cunho exploratório baseada em estudo de casos múltiplos por meio de entrevistas semiestruturadas com executivos de pequenas e novas empresas do setor de serviços no mercado financeiro (FinTech). Os resultados propiciam uma ampliação do conhecimento sobre a utilização da inovação aberta no Brasil, particularmente em pequenas novas empresas do setor de serviço no mercado financeiro. Os principais resultados incluem um conjunto de práticas de inovação aberta utilizados pelas startups, quatro pilares que guiam a implementação do seu modelo de inovação, constatação do papel da execução em contraste ao das ideias no mundo das startups, descrição de como as startups encontram atalhos em seu processo de desenvolvimento de modo a se tornarem mais ágeis. Também discutimos como assuntos de cunho jurídico, a cultura do mercado e as regulamentações, pressões para crescimento e aumento de receita agem como desafios na implementação da inovação aberta.

Palavras Chave: inovação, inovação aberta, inovação em serviços, inovação no mercado financeiro, pesquisa e desenvolvimento, tecnologia, pequenas e medias empresas, Fintech

Abstract

The term "open innovation" coined in 2003 by Chesbrough is receiving attention by the academy, and is frequently mentioned in the media. In a word more and more connected, there is an abundance of ideas and knowledge being created every day and becoming available. They can be imported and used within firms that didn't necessarily participate in the creation of such ideas, or exported for use by firms outside of the one where the ideas and knowledge were created. But are the term and concepts related to Open Innovation used by firms in Brazil? A recent study reached the conclusion that this is not the case, that Open Innovation is weakly used and that Brazilian firms in the industrial sector with significant R&D activities don't actually understand the concepts behind Open Innovation. Would the same also apply to Services? To begin with, the literature points to a deficiency in Open Innovation studies as they relate to services. Furthering it, very few studies on Open Innovation in financial services exist. Based on the opportunities presented by the literature, this study investigates small and new financial services firms in Brazil, evaluating why and how the concepts of Open Innovation are used, as well as identifying benefits and challenges firms face when implementing Open Innovation. To reach the proposed objectives, the study used an exploratory qualitative design based on multiple case study where senior level executives in small and new financial service firms in Brazil (FinTechs) were interviewed so as to collect their perceptions and perspectives on the subject. Results promote a better understanding on the usage of Open Innovation in Brazil, particularly in small and new financial service firms. Main findings include a set of open innovation practices actually used by startups, the four pillars guiding the implementation of their innovation model, the realization that execution thumps ideas in the world of startups, how startups shortcut their product creation process and bring about agility. We also found how legal matters, market culture and regulation, pressures for scaling and revenue growth act as challenges to implementing open innovation.

Key Words: innovation, open innovation, services innovation, financial services innovation, research and development, technology, small and medium enterprises, Fintech

LIST OF EXHIBITS

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1 INTRODUCTION

In this chapter we summarize the structure used in our exploratory work on the phenomena of open innovation, placing it in a context and describing research objective and questions.

Actually, what is open innovation? Chesbrough (2003) describes it as a phenomena where organizations search for innovation both inside and outside of their own boundaries.

Under the traditional innovation model, innovation happens in R&D - research and development centers and labs located within the boundaries of the firm. Knowledge obtained is considered source of competitive differential and advantage. As such, it is locked and protected for exclusive use on the firm's own products. This model is defined by Chesbrough as closed innovation. The concept of open innovation considers that there is an abundance of knowledge and ideas generated outside of the firm, and those could be captured and integrated with the firm's own ideas as a way to generate innovation and competitive advantage. This model where ideas are brought from the outside is described by Chesbrough as inbound innovation (CHESBROUGH, 2003).

Still in the traditional innovation model, knowledge generated internally isn't always entirely used. As result, the effort and capital used to obtain such amount of unused knowledge is potentially lost when not applied to the firm's products. Chesbrough suggests that internally developed knowledge could be offered for use outside of the firm. Examples like licensing or spin-offs could generate additional value, and enhance the firm's R&D center effectivity. This model of innovation is described as outbound innovation (CHESBROUGH, 2003).

The object of the study, open innovation, represents a paradigm change to the discipline of innovation. It became popular catching the attention of scholars worldwide. In Brazil, a recent study by Pitassi (2014) concludes that Open Innovation is neither understood nor used by stablished R&D based industrial firms - there is a need for change in the mental models of R&D managers regarding business models. Intuitively, such result is more or less expected: why would a firm with a well stablished R&D lab believe that someone outside could innovate better than themselves? The classical instantiation of the not invented here syndrome! But is the same also valid for firms that don't traditionally have or invest in R&D as for example firms in the financial services sector? Would we obtain the same conclusion in firms that don't have the capital to create R&D labs, or in firms that are just starting ?

The investigation of open innovation in smaller, new firms is very recent (CHESBROUGH; BRUNSWICKER, 2014; VAN DE VRANDE; VANHAVERBEKE; GASSMANN, 2010). In

fact, Greul et al (2016, p. 2) raise awareness to the fact that "there has been almost no research on how open innovation is practiced by new or young firms". But their focus has been again on industrial product based organizations. Chesbrough (2011) suggests that the concepts of open innovation are not restrict to products and the industry, that they actually are directly applicable to services as well. Despite that, several studies claim that there is a deficiency in the investigation of open innovation in the services sector (VAN DE VRANDE; VANHAVERBEKE; GASSMANN, 2010; HUIZINGH, 2011; WEST et al., 2014; VIRLEE; HAMMEDI; PARIDA, 2015). In addition, Gianiodis et al (2014) as well as Schueffel and Vadana (2015) suggest the need for more studies on the usage of the open innovation concept in financial services firms.

1.1   Research Objective and Questions

Based on the opportunities presented above, we derive our research questions:

Q1: How are small and new financial services firms like the FinTechs positioned with regards to open innovation?

Q2: Why do the decide to used it (or not)?

Thus the study aims at getting better understanding for (1) why firms select the innovation models they use, (2) how firms implement their innovation models. Also, it looks to identify (3) how the firm benefits from the innovation models they use, (4) what are main obstacles and challenges perceived in the firm's innovation model.

The author expects this study will contribute to the advancement of open innovation knowledge, in particular:

1. Extend the knowledge on the degree by which the concept of open innovation is understood and used in small and new financial services firms in Brazil;
2. Understand why firms select the innovation models they use in the sector which is the target of the research;
3. Present how the firms implement their innovation processes;
4. Present how the firms benefit from the innovation models they use;
5. Identify main obstacles and challenges perceived in the firm's innovation model.

1.2   Outline of the work

The work will be structured as follows:

Chapter 1 will provide an introduction to the proposed subject and its relevance, describing the research question, main objectives and expected results.

Chapter 2 will present a review of the literature focused on the development of innovation theory, and how open innovation plays in such context as well as its relevance in theory and practice. The review will continue to place innovation in the context of change, environments and choice and how it relates for the firm's innovation strategy and business models. The chapter concludes with a literature survey of open innovation cases.

Chapter 3 will present the research methodology to be used, describing methods that we used during the data collection phase, and the procedures used to conduct data analysis, as well as validity and reliability considerations.

Chapter 4 outlines the fintech environment, which is the focus of our investigation and source of our subjects. It continues presenting case narratives for each of the firms studies, followed by a cross-case analysis of common themes found in each case and how they relate with the research questions.

Chapter 5 concludes our study, summarizing our findings and suggesting potential additional research to further enhance knowledge in the field.

2 LITERATURE REVIEW

2.1 What is Innovation?

When one speaks about innovation, it is rather common to associate the concept with that iconic image of entrepreneurs working in a garage, or in a university dorm while developing the next breakthrough product. Examples as Apple, Microsoft, Google or Facebook probably come to mind. Others instead, associate innovation with the big research laboratories as IBM Watson, Xerox PARC or Bell Labs as these brought about significant technological advancements, and are home to several Nobel prize recipients.

The innovation phenomenon fascinates and exerts an inexplicable power on people. New products it brings might be a new opportunity, or the difference between success and failure. Innovation is seen as a sign of leadership. Surpassing competitors requires innovation, the capacity to create new products which are even better than the existing ones. Innovation is a strategic imperative. But what is truly behind organization's drive to innovation? What causes entrepreneurs and organizations to dispend time and capital in their quest for innovation?

We'll start answering these questions by looking back in time, shedding light in to how the concepts we use nowadays came about.

2.1.1 A brief review of the theory of Innovation

Innovation became a buzzword used anecdotally in different contexts. Such freedom of use ends up provoking confusion, as the lack of rigor and precision implies innovation means different things to different people. Faberberg and Verspagen (2009) alert us to the increasing diversification of themes, and somehow current weak structuring, perhaps even disjoint "cognitive communities" observed in the emerging field of innovation study.

In this section, the work of Godin (2012), Fagerberg and Verspagen (2009) and Martin (2008) will be used to provide us a frame of reference on the field of innovation studies. As mentioned by Godin (2012), "*for over 2500 years, innovation has been understood as the 'introduction of change' in individual behaviors, social practices and groups or organization's activities*". But since the mid of the last century, a paradigm centered on an economic understanding of innovation became dominant, and is the one used in the context of this study.

The study of innovation has usually followed schools of thought rooted on the economic discipline (GODIN, 2012). Even though they share the common roots of the economic paradigm, different metaphors are used as foundation for each of the schools.

The first one is mainly concerned with *technological change* and its use in the industrial production process. It doesn't care with the actual origin of the technological innovations, but rather with its use. As innovation itself is considered a black-box, focus of this tradition is on the adoption of inventions. Godin links the *technological change* tradition with its American origin in the 1930's, and a fundamentally quantitative framework based on neoclassical economics. Topics studied where those of economic theory as factors of production, market structure, economies of scale, growth ... When the Technological Change tradition emerged in the 1930's, technologies were sources of unemployment, but also source of productivity. As such, the main concern was with process innovation, and how the use of technology could impact industrial productivity. Technological change is a production function, where firms are users of technology as it will allow them to have a better output by combining factors of production. The *technological change* tradition was passive and stationary, "*dominated by highly mathematized, static, equilibrium exercises*" (FAGERBERG; VERSPAGEN, 2009, p. 220).

The second tradition has a European origin and started in the early 1970's. Opposed to the *technological change* tradition, the *technological innovation* one was "*concerned with innovation as commercialization of technical inventions*" (GODIN, 2012, p. 398). As it was not based on an established conceptual framework as the first tradition did, it had to develop one, and did so by combining insights from economics, sociology and history (FAGERBERG; VERSPAGEN, 2009). It is descriptive as opposed to econometrical; it studies product innovation more than process innovation; has major concerns with policy matters; and tasked itself to develop a theory of technological innovation. The technological innovation tradition is broad. It is concerned with the study of the process of technological innovation where, firms are suppliers (instead of merely users) of technological innovations hence its focus is on innovation as commercialization of an invention. As it focuses on products, it is interested in understanding how new products come about, what are the conditions for success and difficulties firms face to introduce new products to the market, firm size and how it relates to innovativeness, strategies … It is not surprising that the study of business models as they relate to innovation and its focus on commercialization and adaptation derive from this tradition as well as diffusion also does. The technological innovation tradition makes use of an organismic metaphor where different parts of the "organism" combine in an attempt to survive in their environment. Survival depends upon an appropriate relationship being achieved between the organization and the environment.

So, innovation studies should consider the existence of two traditions with different research agendas, which are focused on different metaphors to investigate the phenomena: one rational and mechanistic, the other contingent and organicist.

Within both of such traditions, several themes became focus of research by prominent scholars, some of them drawing more attention and their own traditions than others.

Among all, the work of Chesbrough started to challenge the traditional view of innovation based on well-developed R&D centers as the only way to effectively innovate. He posits that through what he called open innovation, firms can harness knowledge flows across firm's boundaries. By debunking the "not invented here syndrome", and the need of expensive R&D innovation became available to all. The next section presents a brief discussion about open innovation and its main premises.

2.1.2 Open Innovation

In his book "*Open Innovation: the new imperative for creating and profiting from technology*" Henry Chesbrough (2003) observed that despite being dominant for decades, closed innovation - the traditional model of innovation suffered from several eroding factors. Exhibit 1 below depicts the typical functioning of a traditional firm following the closed innovation model, and the effect of the eroding factors.

As described by Chesbrough (2003), traditionally firms hired the cream of the cream, the best of the best from top universities to fit their Research organizations. They had capital to fund all sorts of research, and ensure their Labs were attractive to the professionals they were hiring. Ideas and knowledge would be created, and placed in a buffer for further use by Development departments. For example, Development department *Dev A* makes use of research idea *R3* to launch a product.

Chesbrough (2003) explains that obtaining top talent was difficult and expensive as only a limited number of people would have the knowledge and skills to fit the requirements of research organizations. However, the rise in the number of post-graduate students, and support for the expansion of higher education programs increased the supply of high skilled workers. Other firms could now gain access to useful knowledge, sparking new ventures. The wide spread of knowledge ended up causing professionals until then working in Research Labs to leave and join other firms as they now could find other places offering possibly more interesting work. Depicted by (1) in the exhibit, the mobility (and wider availability) of skilled professionals is Chesbrough's (2003) first eroding factor to Closed Innovation.

Professionals that moved, looking perhaps for less bureaucratic firms which would allow them to further develop ideas, or the attractive risk/rewards they could amass by joining / funding startups encountered a favorable environment provided by a growing presence of Venture Capital. Depicted by (2), this is what Chesbrough (2003) describes as the second eroding factor.

Typically, Research departments created knowledge, ideas which could be used for the firm to sustain their competitive advantage. Investments in Research were substantial, and formed a barrier to entry as smaller or not so well funded firms couldn't necessarily mimic what was created inside these Labs. However, ideas produced where not necessarily always considered to be suited for the firm's products, thus placed in an internal buffer where they would wait for the right time to be used (or discarded). This is for example what happened with research ideas *R1* and *R2* in Exhibit 1. This situation added to the frustration of Researchers which were working on such projects. That, added to the booming environment made from startups, abundance of knowledge, and funding precipitated these professional's decision to leave their firms. They brought their knowledge with them, and ended up finding a way to further develop their ideas which would otherwise be sitting unused in the buffer of a research lab. That was the third eroding factor described by Chesbrough (2003), where leaving professionals found external options to ideas sitting on shelves which is represented by (3) in the figure.

Other times, ideas were not yet fully developed by the Research department, and not ready by when the firm's Development departments needed them, causing tension between Research and Development, as depicted by research idea *Rn* not being available for Development department *Dev N*. As firms would not consider sourcing ideas from external firms, and were typically verticalized, they wouldn't trust external suppliers either. However, given all the factors mentioned above, external suppliers evolved, and in many occasions surpassed the capabilities of the firm itself. On top of that, these increasing capable external suppliers could also source to the firm's competitors – the fourth eroding factor (CHESBROUGH, 2003) depicted as (4) in the exhibit.

In addition to rendering the closed innovation model unsustainable, the eroding factors ended up acting as key elements supporting the rise of a new paradigm called Open Innovation (CHESBROUGH, 2003: pp xxiv)

> *"Open Innovation is a paradigm that assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as the firms look to advance their technology … Open innovation assumes that internal ideas can also be taken to market through external channels, outside the current businesses of the firm, to generate additional value"*
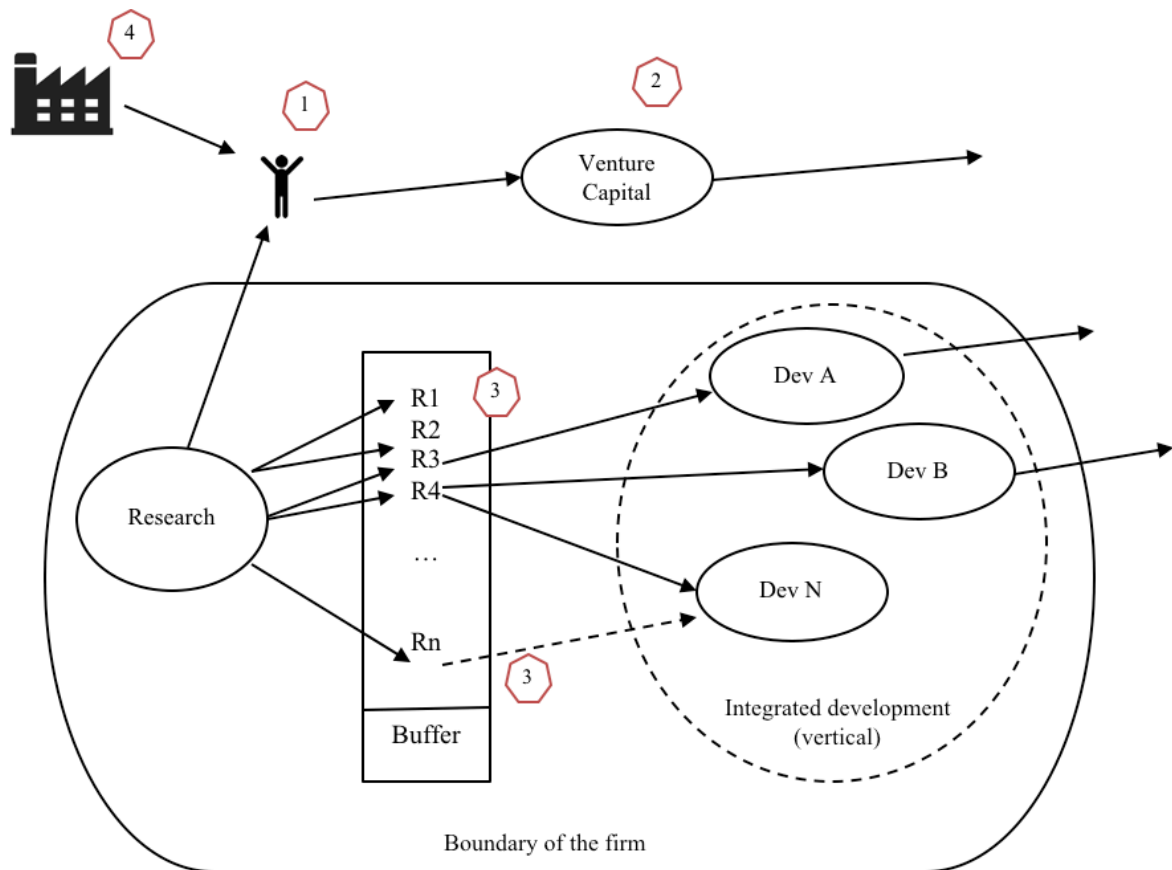
Exhibit 1 – Closed innovation and the eroding factors
Source: Adapted by the author from Chesbrough (2003)

Chesbrough (2003) continues, making explicit the importance of business models to guide the innovation choice of the firms:

> *"Open innovation combines internal and external ideas into architectures and systems whose requirements are defined by a business model. The business model utilizes both, external and internal ideas to create value, while defining internal mechanisms to claim some portion of that value."*

Recent Open Innovation work

Given all the fuss around the concepts of "open", and "openness" as well as a prominent confusion around terms as open source software (OSS), open innovation, collective invention, Penin decided to investigate the meaning and importance of such concepts (PÉNIN, 2013). Openness acts as an enabler for innovation where higher levels of openness lead to more efficient methods of knowledge production. Penin stresses however that "*openness focuses on the conditions of availability of the produced knowledge*". To be open, knowledge "*must be available under identical and reasonable conditions*".

Collective invention (ALLEN, 1983) describes a setting in which competing firms share their knowledge, making their designs available to competitors, in such a way that competitors can further enhance them by including extensions creating a virtuous cycle. In such settings, innovations introduced by a firm where clearly visible by other, not novel in a strict legal sense thus not subject to patent protection. Also, firms didn't rely on R&D, and their inventions where a consequence of experimentation under normal operations. When investments in production were high, experimentation, information exchange, and productivity growth was also high. Added to the easy of borrowing from an existing design was the fact that the engineers working on such inventions were rather mobile across firms which facilitated knowledge exchange. As argued by Penin, collective invention clearly exhibits a strong form of openness. It is relevant to note that collective invention is based on worker mobility, which is one of the closed innovation eroding factors already shown on Exhibit 1.

OSS grants to everybody rights to use, copy, modify and distribute free software. All improvements must however be reverted back and made available to the community. OSS also exhibits a strong form of openness.

Based on his argument that openness requires broad availability under identical conditions, Penin posits that Open Innovation is "*mostly a matter of information sharing*", thus a weaker form of openness as access to knowledge is somehow restricted to setups as joint ventures. Firms use patents to control their knowledge which is neither strongly open of nor free, an innovation is strongly attached to the firms innovation business model.

Despite of questioning as whether or not open innovation is truly open, since its introduction in 2003, the Open Innovation literature has evolved, and a range of trends emerged (VAN DE VRANDE; VANHAVERBEKE; GASSMANN, 2010). As mentioned by those authors, traditionally, research on the phenomena focused on large, multinationals technology intensive firms in the industry sector, leveraging the outside-in model of open innovation. More recently the literature has broadened and encompasses both, outside-in and inside-out models of knowledge flow, corporate venture capital, university collaboration just to mention a few. Prospects for new research in the field was also perceived as being broad, with main opportunities being in areas as external knowledge acquisition, practical aspects of open innovation, innovation business models, development of complex products, patterns of competition in different industries, firm assets and culture, the role of innovation projects in establishing open innovation, integration with other fields as for example transaction costs, resource based view, dynamic capabilities, relational view, organizational learning, absorptive

capacity. Authors also make it clear that there is a need to further the knowledge of open innovation in the creation of new services, or businesses.

But should a firm's technological strategy continue to focus on closed innovation, or should firms embrace open innovation? Several case studies suggest that openness stimulate innovation and influence the trajectories technology take over time. Open innovation requires enhanced discovery mechanisms and coordination to be truly effective. Also, it influences firm's choice and freedom to establish technology trajectories (ALMIRALL; CASADESUS-MASANELL, 2010). Through a simulation, Almirall and colleagues evaluate the effect of discovery, coordination, freedom, industry environment and learning influence the choice of the firm's innovation model as well as the outcome the firm would obtain from their choice They posit that the interaction between the divergence of interests among distinct industry players, and the different discovery mechanisms which exist in each firm would affect tradeoffs between opening and losing control but being exposed to complementary outside knowledge vs remaining in control, but losing enhancements and complementarities which would be introduced as result of opening it.

Their general conclusions are presented below:

	Environment Characteristics	Open Innovation	Closed Innovation
Fixed partnerships	*Low and medium levels of complexity*	⬆	⬇
	Rugged landscape, high complexity	⬇	⬆ Controlling industry players is a better approach.
Flexible partnerships	*As complexity and ruggedness grow and large amount of complementary options exist*	⬆ Firms recombine with the best possible partner, allowing firms to optimize decisions through partner selection	⬇ Limited ability to select right complementarities

Exhibit 2 – When to use Open vs Closed innovation

Source: Based on Almirall and Casadesus-Masanell (2010)

The authors conclude that discovery can emerge not from strategic freedom, but from restriction of available choices and the learning that comes from such choices. Open innovation strategies allow for firms to discover areas in the landscape where products or combinations of product characteristics would be difficult to imagine otherwise. External and extensive networks ready

to collaborate for innovation are highly beneficial, but being able to manage and coordinate interactions in such settings is essential. Ecosystems which promote actions as venture capital, startup support and incubation end up generating innovation positive benefits to innovation.

As we saw, discovery impacts the firm's orientation towards open innovation. West and Bogers (2014) evaluate how firms profit from open innovation, also suggesting that discovery plays an important role in the process. They formalize their findings through a model which describes steps from the creation of the external innovation to its delivery to customers.

(1) Obtaining   (2) Integrating   (3) Commercializing

Innovation Sources
Suppliers
Rivals
Complementors
Customers

Focal Firm
R&D
Other Functions

Customers

(4) Interaction
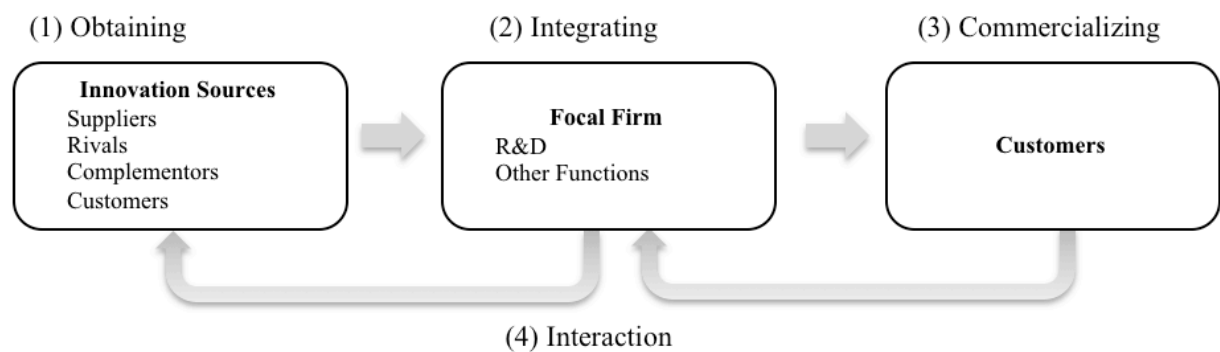
Exhibit 3 – Four-phase model for profiting from external sources of innovation
Source: Based on West and Bogers (2014)

The 4 steps presented in Exhibit 3 are described here: (1) obtaining innovation from external sources, which requires finding external innovation and internalizing it into the firm. Sources can be suppliers, customers, competitors or universities. As described by Almirall, complementarities will influence the choice. Information and communication technologies act as facilitators for the search process by enabling technology intelligence, online communicates and crowdsourcing. Search is limited by costs, effectiveness, communication and control capabilities as well as attitude towards external sources. Knowledge is typically acquired through licensing. Integration of external knowledge is also mediated by the firm's perception and attitude towards substitution, and how such knowledge can influence the competencies of the firm. Research on obtaining innovation is perhaps the most vibrant in open innovation. (2) Once innovation is obtained is has to be integrated, and this is where the firm's cultural orientation and level of absorptive capacity comes to play. There is a recent surge on research linking open innovation and absorptive capacity. When internal and external ideas are combined, they need to aligned with the firm's strategy so that the (3) commercialization of innovation is in close alignment with the firm's business model. Research with explicit references to firm's business model are limited. Business models describe how innovation will

create value, and how such value will be captured. The authors also posit that (4) levels of interaction exist among the three steps previously discussed.

In this brief review, it is apparent that open innovation brings new opportunities and potentially can even be seen as a factor of increase in performance and efficiency. However, the concepts of open innovation aren't always understood or used, even when the environment might be the appropriate one. In a recent study, Pitassi (2014) identified low use of open innovation in Brazilian industrial firms with strong R&D focus. According to Pitassi, there is a need for change in the mental models of P&D managers regarding business models. R&D managers end up under estimating the benefits of outside-in knowledge flows. Slowinski and Sagal's (2010) claim that Open innovation is a process that many firms struggle to implement corroborate Pitassi's findings. However, Slowinsky and Sagal observed that firms which are successful in their Open Innovation initiatives follow a set of good practices structured in phases: the firm needs to know what it wants, where to find it, how to get it and manage it. More recently, Chesbrough (2014) shows that large firms are actively using open innovation, leveraging both inbound and outbound flows. He didn't approach particular challenges and shows what the prevalent practices are:
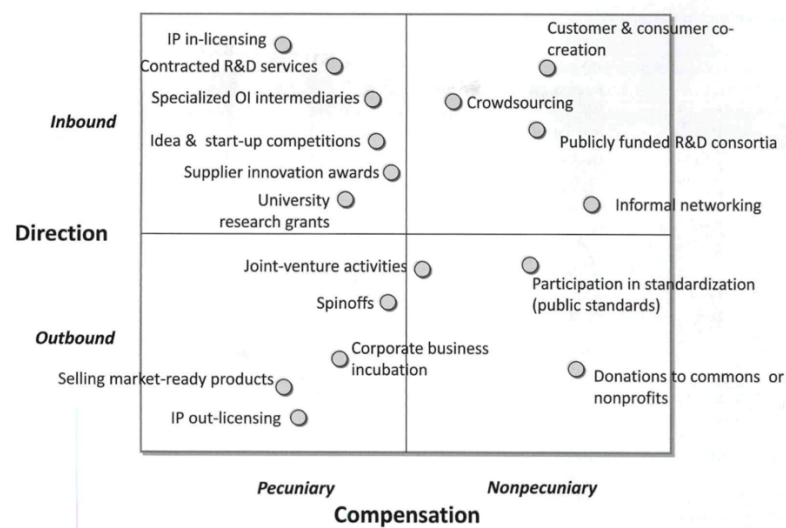
Exhibit 4 - Common open innovation practices
Source: Obtained from Chesbrough and Brunswicker (2014)

We can see from the picture that in large firms, inbound practices are most commonly used. It is necessary to expand research to examine SMEs as well, as the conclusions obtained for large firms are not necessarily applicable in smaller firms (SILVA; DACORSO, 2013).

2.1.3   Innovation in Services

Innovation in services differs from innovation in industry. It is even said that "*innovation is intrinsically easier in industries that produce physical products than in those the produce services*" (NELSON; WINTER, 1977).

Kuosa and Westerlund (2012) produced a comprehensive work on Service Design, where they argue that "*Service refers to the idea that specially skilled people dedicate themselves to help other people for economic incentives in tasks in which the clients are not as skilled or in tasks where the clients are not willing to do themselves*". They tell us that service resulted from the evolution of mankind. When nomad tribes settled, creating the first cities, people began to move from activities like hunting and gathering to farming and other kinds of activities as commerce and craftsmanship, thus sparking the creation of professions, division of labor. As people started to accumulate wealth, status activities like the ones related to painting, sculpture, or leisure activities like theater, poetry started to flourish. The growth of the cities also brought need for planning, engineering and design. These activities and professions relate very much to the definition of service presented above.

The word service derives from the Latin word *servitium* and means slavery. That is the same origin of the word servant. Service traditionally didn't have a so positive connotation, as it suggests somehow mundane, low status work activities (CHESBROUGH, 2011b).   More recently, however, the term service has been defined as "*a change in the condition of a person, or a good belonging to some economic entity, brought about as the result of the activity of some other economic entity, with the approval of the first person or economic entity*". As mankind transitions from being nomad, to agriculture, to industry, to service so the importance of service changes from merely a servant's type of work to a knowledge intensive, able to leverage knowledge to improve effectiveness and quality. Acquiring a good is no longer the end of an economic activity. This is an opportunity for firms to continue their relationship with their customers through a series of additional interactions as customers' needs and expectations nowadays go beyond the physical product. The rise of income prompts people's needs to be less material, and more oriented towards services. This is the context where service innovation flourishes.

As people tend to imagine innovation as *product innovation*, confusion arises. Services are intangible and many view service innovation as the creation of new service processes. However, customers don't consume the process. Process is merely the delivery mechanism for the service

(BARRAS, 1986). As described by Barras, technological innovation will lead to service innovation, however the innovation life-cycles for both sectors will be out-of-phase in what he refers as "reverse product cycle". This out-off-phase, reverse product cycle is depicted in Exhibit 5.

Product life-cycle

Cheaper	Emergent	New	Improved	Cheaper

Stage in innovation cycle

...	Maturity	Transition	Introduction	Growth	Maturity	...

Service life-cycle

New	Improved	Cheaper	Emergent	New

Stage in innovation cycle

...	Introduction	Growth	Maturity	Transition	Introduction	...
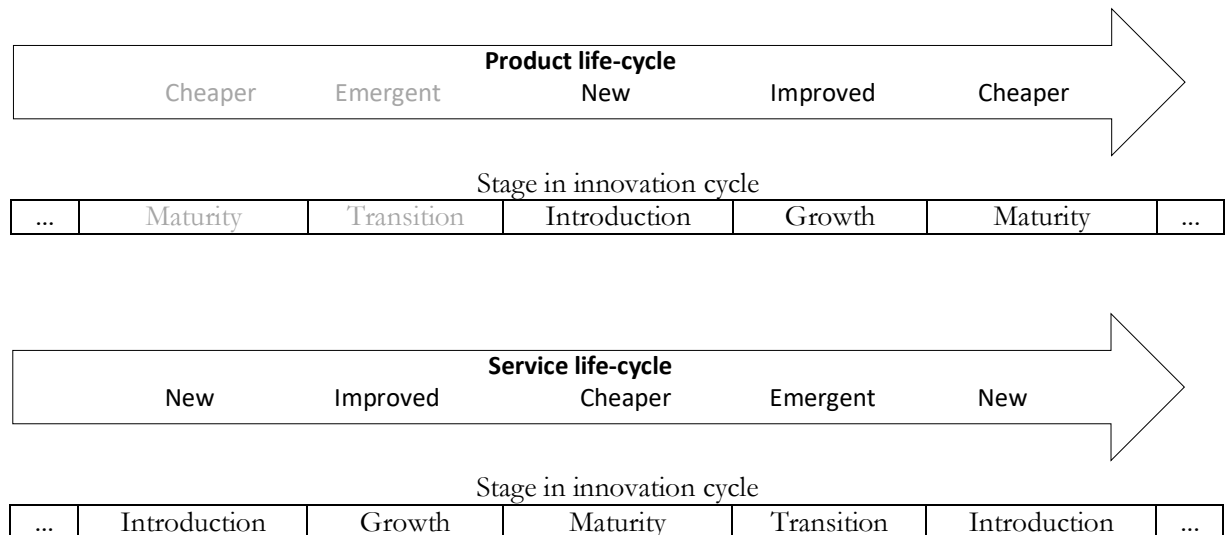
Exhibit 5 – Barra's out-of-phase innovation cycles

Source: Based on Barras (BARRAS, 1986)

To thrive in an environment each day more oriented towards services, a new paradigm is needed. Chesbrough argues that Open Services Innovation is the new business imperative (CHESBROUGH, 2011b).

However, Open Innovation in services has remained under investigated (VIRLEE; HAMMEDI; PARIDA, 2015). In a study focused on SMEs from high-tech and knowledge intensive service industries, Virlee and colleagues identified that these firms are comfortable in establishing collaboration relationships with universities and public organizations, as they perceive that such organizations won't establish themselves as competitors. SME's use mainly inbound licensing as means to source knowledge which is not developed or available in their own firms. Customer co-development was found to be prioritized as form of inbound open innovation practice. In their search for knowledge SMEs also leverage both formal and informal networking. Firm size, sector and knowledge intensity also influence firm's use of open innovation strategies.

Regarding the use of open innovation in financial services, Gianiodis and colleages (2014) conducted a study where they compared micro practices and micro foundations of two global firms. Even though a debate exists on how to strengthen the banking sector, it failed to acknowledge service innovation as a means to develop and capture sustained competitive

advantage. One of the challenges is that when one talks about innovation in financial services, most end up thinking about innovation of financial instruments, neglecting the importance and relevance of service innovation. Through their work they found evidence that service innovation actually occur in banking, and acts to spark growth, serving as foundation for competitive advantage. In that context, user innovation is a strong component in the banking service innovation process. The two banks studied showed significant use of open innovation practices. Santander moved from their strategy of acquisitions to an outside-in model as way to capture opportunities. BBVA also changed the strategy based on M&A to the creation of an innovation initiative. Their goal was to create a culture of innovation in the firm. An Innovation Department with three sub-departments was created and given the freedom to deviate from current operational and financial norms. The departments of new Business Models, Technology and Management Innovation ended up creating several partnerships and business opportunities. Differently from Santander which used outside-in strategies, BBVA focused on inside-out strategies. In both banks, above average ROA and efficiency were observed after they started they open innovation programs.

Despite the successful examples above, the concept of open innovation is only scarcely applied in the financial sector, mainly due to organizational factors, but also for monetary reasons (SCHUEFFEL; VADANA, 2015). Also, it has been observed that there is a potential lack of integration in the field, where researchers are not considering or incorporating previous research and their conclusions in their own (DAHLBERG; GUO; ONDRUS, 2015). Research has not been cumulative and this has a negative impact in advancing the theory: when focusing on areas already studied, researchers are missing the opportunity to explore and integrate areas which were not studied. Among other suggestions, the authors demand researchers to focus on ecosystems as these tend to be integrative in nature.

It seems that with all changes in the world we live in, the very nature of what we know as innovation is also changing. It is becoming risky to innovate at the same time that technological advancements makes it easier for organizations to collaborate (SCHUEFFEL; VADANA, 2015). In the next section we'll discuss the environment, uncertainty and competition as elements that can allow us to understand the need for innovation.

2.2   Innovation and the environment

The concepts described in this section are key to understanding innovation in a specific setting and were used to instrument our discussions with our subjects as described in chapter *Research Methodology*, to conduct the evaluation of the firms investigated in chapter *Evaluating Small*

and New Financial Technology Firms as well as to guide our conclusions in the chapter *Conclusions*.

Godin (2012) reminds us that "*for over 2500 years, innovation has been understood as the 'introduction of change' in individual behaviors, social practices and groups or organization's activities*". The fact is that change is one of the most elemental components in our lives. One of the few certainties we have is that things will change. The world is in a dynamic and continuous evolution, and the down side of it is that we still pretend we can survive without being capable of changing. Intuitively people relate the ability to change to survival; the problem is that even so it continues being one of the biggest challenges for management.

Given such dynamic environment, people try to come with propositions that would help them evolve, overcome change, adapt, be successful. Managers are constantly faced with the same sorts of concerns. The most basic one has traditionally been about the best direction for a firm to take, and how to best organize the firm to accomplish that (THOMPSON, 1967; CAVES, 1980). Today's dynamic environments where changes happen at speeds never seen before impose strong pressures on firms (VOLBERDA, 1996). Traditional economic theories of the firm have focused on profit maximization when addressing such concerns (CAVES, 1980). Firms go where profits are, they strategize to maximize profits, they organize and allocate resources to maximize profits. It was probably easier to *be* a firm in the 30's , when Coase (1937) published his theory of the firm. From a pure economic view, firms existed to maximize efficiencies. Being a firm nowadays is a lot more complex. Maximizing profits might be the opposite of being environmental conscious, social conscious … Firms need to be innovative!

Burgess (1994) explains that today many other concerns are to be considered in addition to that of maximizing efficiencies. Firms also have to consider ethics (HOSMER, 1994; PRAKASH SETHI; SAMA, 1998). Firms have responsibilities to their shareholders, but they also have responsibilities to the human-beings that make the firm productive and profitable, and to the society and the environment (CARROLL, 1979). The maximization of profits is relevant, but it is tied to an additional set of interrelated and interdependent variables: small changes in one variable might lead to highly undesirable overall consequences. Firms have choices (NELSON, 1991); firms have to be able to accommodate change, molding according to the pressures of the environment; they have to be able to interact with the environment and mold it according to their desire and capability, they have to be adaptable and flexible to understand the effects of change, the implication if its choices (MINTZBERG; WATERS, 1985). They have to be able to learn and act on the knowledge they possess in order to bring about flexibility and

adaptability (JANKOWICZ, 2000; TSOUKAS, 1996) (GLOVER et al., 2002; GLOVER; FRIEDMAN; JONES, 2002)

Drucker (1954) mentioned that the real goal of any business is to create customers, and that marketing is the whole business seem from the point of view of its final result. Aligned with such concepts, Levitt (1960) argued that firms are *customer-satisfying* organisms who *buy* customers by doing the things that make people *want* to do business with them. He pointed out that in order to survive, firms must act on their customers' needs and desires and satisfy them. Satisfying customer needs does not imply that firms must keep doing what they are used to do … this actually represents what Levitt called marketing myopia.

The market is full of examples of *myopic* organizations that end up challenged because they do not pay attention to the signals of the market.

Next, we'll investigate the environment, uncertainty, turbulence and competition as elements driving change, fostering or hurting innovation. As such it will provide us with a background to decipher particular innovation orientations in the firms subject to the study.

2.2.1   The environment, uncertainty, turbulence and competition

Today's dynamic competitive environment is constantly challenging firms' abilities to perform successfully. Such environment imposes reduced periods of competitive advantage, and to be successful firms are required to act boldly and vigorously to create a state of competitive disequilibria that they can exploit. The imperative being dynamic and always ready to change certainly affects firm's orientation toward strategy formulation and execution. The problem is that too much change might be perceived as lack of identity, lack of objective. Too little, might lead to rigidity, to poor response to environmental events, to loosing opportunities and competitive advantage.

Organizations are not isolated entities. They interact with customers and suppliers, face competition, obey government regulations, employ people, and participate in social matters. They exist and interact in a setting we call environment.

The importance of the environment in the study of organization began in the early 50's with the emergence of systems theory (BERTALANFFY, 1968; BOULDING, 1956; WIENER, 1948); and has been broadly discussed by many authors as Chandler (1962), Emery and Trist (1965), Thompson (1967), Lawrence and Lorsch (1967). As an example, Lawrence and Lorsch (1967)

posit that organizations should not be viewed in isolation, but in relation to their specific environments, and that different environment place diverse requirements on organizations.

Defining an environment

But what exactly is the environment? Scott (2002) characterizes different levels of environments. For example, the deli in the corner will probably relate the environment with its customers, suppliers, and neighbors. The environment is thus the *relationship set* of the organization, since the organization participates in a variety of relationships and acts differently depending on the identity of its specific partners and competitors. This is actually how Blau and Scott (1962) define an environment.

According to Scott (2003), another way to characterize the environment is through the range or domain of products / services and types of clients served. The act of producing goods / providing services will relate the organization with multiple others (like suppliers, customers, competitors) and such relationships will affect the organization outcomes. The environment is thus the *organizational domain* from which the organization derives its relationships (Thompson 1967).

Scott (2003) reminds us that a characteristic of both, *relationship sets* and *organizational domains*, is that the environment is viewed from the standpoint of a specific organization. In such context, any relationships among other organizations are of no importance (unless they affect any interest of the focal organization). As an example, Porter's strategic decision making (PORTER, 1980), and Pfeffer's resource dependence model (PFEFFER; SALANCIK, 1978) are explained in the context of the organization that is the focus of the study.

Other authors examine the environment from the standpoint of the relationships of multiple organizations. DiMaggio and Powell (1983) for example characterize the environment by the constraints if offer to organizations. In this context, organizations tend to reflect the institutional structure of the field and are bounded by regulative, normative and cognitive structures. As time passes organizations converge towards a dominant form, and their goals start to drift in the direction of where they can obtain legitimacy. They become expressions of social values due to normative dimension of institutional structures (SELZNICK, 1948). Organizational choice is limited since coercive, normative and mimetic forces regulate the amount of change and diversity possible in the environment (DIMAGGIO; POWELL, 1983).

The idea that organizations have difficulty devising and executing changes fast enough to meet the demands of uncertain and changing environments is also explored by Hannan and Freeman

(1977). The subject of their study consists of organizations that are similar to some respect. They group these organizations together to further study this *population of organizations*. By observing organizations at the *population* level Hannan and Freeman (1984) concluded that the environment is dominating, and that organizations have no choice since the speed of reorganization is much lower than the rate of environmental change.

Defining uncertainty

Independently of how we define it, the significance of the study of the environment resides in the fact that it is source of uncertainty and complexity. As one of the main concerns with the environment is that it is source of uncertainty, further definition of the term *uncertainty* and identification of its relationship with the environment is necessary.

Milliken (1987) searched for a concise and definitive definition of uncertainty and its relationship with the environment. According to her, uncertainty is defined as "*an individual's perceived inability to predict something accurately*" (1987:136). She continues by stating that "*an individual experiences uncertainty because he/she perceives himself/herself to be lacking sufficient information to predict accurately or because he/she feels unable to discriminate between relevant data and irrelevant data*" (1987:136). It follows that it is important to understand the source, but also the type of uncertainty. Three types of uncertainty were defined by Milliken: (1) state uncertainty, which means that one does not understand how components of the environment are changing, or the understanding of the interrelationships between elements of the environment is incomplete; (2) effect uncertainty, which relates to one's ability to predict how environmental changes will impact the organization. It involves lack of understanding of cause-effect relationships; and (3) response uncertainty, which is associated with the lack of knowledge of the response options available, and to the difficulties to evaluate outcomes of each option.

Milliken posits that "*it is not change per se, or even a fast rate of change, that creates uncertainty about the environment; rather, it is unpredictable change that will be associated with this type of uncertainty*" (1987:135). So, if one follows strictly that statement, the problem with today's dynamic environments faced by some organizations is not only related to the speed they have to act/react when pressured by competition, it is also related to the fact that it is very difficult for an organization to predict what is going to be the next change, how the change is it going to affect the organization, and what is necessary in order for the organization to be always ready to act.

Turbulence and the environment

In addition to the amount of uncertainty they can impose on organizations, environments also vary regarding how they determine organizational behavior or on how they are influenced by organizational choice. An organization that has to make choices while faced with rapid changes and different levels of uncertainty certainly ride in a turbulent environment.

Turbulent environments, however offer more constraints and opportunities to organizations than stable environments (Scott 2003). Constraints and specially the opportunities offered by turbulent times could be explored by firms as a mechanism for competitive advantages. But not every firm is flexible enough and prepared to have this type of response to the forces of the environment. Firms react differently.

Depending on the amount of choice available to firms, and on the amount of determinism imposed by the environment, firms have different strategic options and different approaches to innovation. Hrebiniak and Joyce (1985) further describe the effect of choice and determinism on organization behavior. In that case, the firm's approach to strategy matters and the need for innovation increases.

2.2.2 The dynamic of competition

Competition is another major characteristic of the environment, since competitive conditions facing an organization determine opportunities, thus potential for appropriating above average rents in exploiting these opportunities.

Barney (1986) furthers the study of competition by defining and describing types of competition and how they relate to the theory of strategy. Following Barney's typology, environments are characterized by three types of competition, described below.

Industrial Organization competition, mostly known from Porter's study on competitive strategy posits that returns of organizations are determine by the structure of the industry where they belong (Porter 1980). In that context, above average returns come from creation and/or modification of structural characteristics of the industry. Once organizations succeed in that endeavor they have to protect themselves from rent-reducing competitive entry, so they can enjoy longer periods of superior returns. It contrasts with the open innovation model as it posits that abundance of information makes "protecting a discovery" challenging, and is one of the eroding forces of closed innovation models. Strategy is thus related to becoming kind of different in a *homogeneous* setting and then creating barriers to entry so as to sustain their

advantage. It is related to pursuing a *state of equilibrium* that allow for the organization to enjoy monopolistic rents.

Chamberlinian competition focuses on the unique assets and capabilities the organization possesses, and how the organization can best exploit such resources to obtain above average rents. This approach fits the precepts of the resource based theory of the firm (NELSON; WINTER, 1982; PENROSE, 1959; WERNERFELT, 1984). According to the resource-based theory, an organization is viewed "as a bundle of tangible and intangible resources and tacit know-how that must be identified, selected, developed, and deployed to generate superior performance" (VOLBERDA, 1999, p. 64). Opposed to the industrial organization theory that looks for strategic opportunities outside of the organization, the resource-based theory looks for opportunities in its resources, inside of the organization. Competition happens between firms possessing different (although overlapping[1]) resources. Competing is about finding a way to be different, so resources that are unique to an organization become the source of competitive advantage. In this context strategy relates to the search of combinations that best exploit their uniqueness. Also, since resource mobility might exist, organizations rarely enjoy pure monopolistic rents, "*rather, relations between firms are almost always partly monopolist and partly competitive*" (Barney 1986). Open innovation also talks about mobility as one of the eroding forces of traditional closed innovation models.
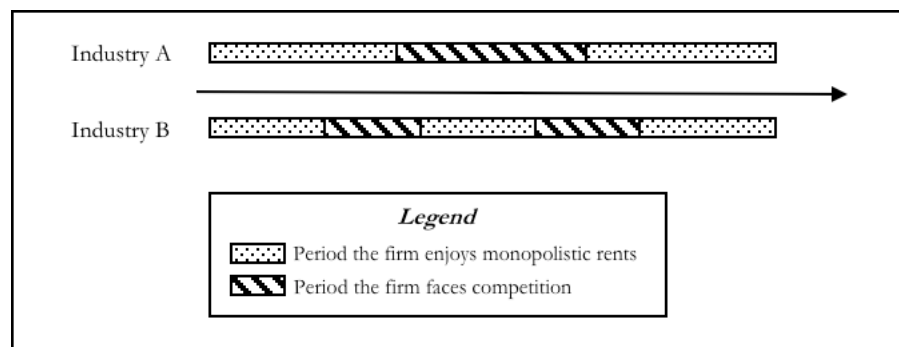
Exhibit 6 – Alternate periods of monopoly and competition
Source: Based on Barney (1986)

Exhibit 6 depicts the alternating periods where the firm enjoys monopolistic rents and is faced by competition. It also suggests that different industries might have different dynamics, thus shorter / longer periods of monopolistic rents and competition.

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[1] In this context *resource overlapping* can be translated as *resource mobility*.

Barney (1986) suggests that in the same way that industrial organization and the resource based view are complementary to each other, industrial organization and Chamberlinian approaches to competition are also complementary: when combined they address competition taking in consideration external and internal factors affecting the firm capability to appropriate rents.

Schumpeterian competition disregards the relative stability assumed in both Industrial Organization and Chamberlinian types of competition. Based on the engine of creative destruction, competition, as characterized by Schumpeter (1942) in addition to being not so stable, is certainly a lot less predictable. Barney (1986) argues that due to their characteristics of stability and relative predictability, Industrial Organization and Chamberlinian types of competition were easily translated in theories of strategy. However, Schumpeter argues that equilibrium, stability and predictability cannot exist for long time:

> *"Capitalism, then, is by nature a form or method of economic change and not only never is but never can be stationary. The fundamental impulse that sets and keeps the capitalist engine in motion comes from the new consumers' goods, the new markets, the new forms of industrial organization that capitalist enterprise creates. This process of Creative Destruction is the essential fact about capitalism"*

So, to be successful when facing Schumpeterian competition, organizations would have to become more innovative and embrace creative destruction.

2.2.3 Reading the environment

Drucker (1994) posits that every management works in what he describes as a *theory of the business*, a set of assumptions about how the environment in which it operates, the specific mission, and the core competencies. Eventually every theory of the business becomes obsolete. When it happens, managers must embrace change, letting go the obsolete theories. What will make the difference between "*Here today, gone tomorrow*" (DRUCKER, 1985) is the approach people takes to *reading* the environment. Such market intelligence will allow the firm to develop their missions and competencies., to select the direction they need to take to survive, to innovate.

Absorptive capacity

Cohen and Levinthal (1990) posit that the "*ability to evaluate and utilize outside knowledge is function of the level of prior knowledge*". That prior knowledge is also known as the legacy of the firm (LEWIN; LONG; CARROLL, 1999). The main argument relies in the fact that in order to recognize value in new information, to internalize it and foresee its application requires some level of existing knowledge. This is what Cohen and Levinthal (1990) characterize as absorptive

capacity. But since knowledge has to be reviewed and updated, search itself has to be *adaptable*; otherwise bias will take place and lead the firm to blindness and paralysis.

The Exhibit 7 below helps us to further understand the dynamic interaction between absorptive capacity and the legacy of a firm. It acts as a controlling valve allowing new knowledge to *enter* the firm legacy, and releases dated knowledge.
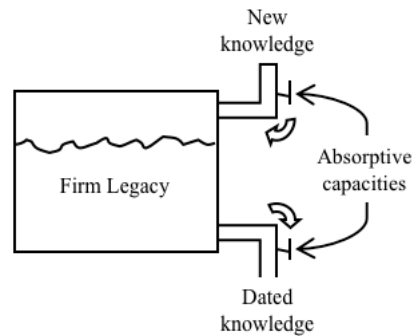
Exhibit 7 - Absorptive capacity and the legacy of the firm
Source: Adapted by the author

Absorptive capacity also depends on further communication [transfer of knowledge] among the components of an organization; and the organization's ability to exploit it (COHEN; LEVINTHAL, 1990)). The absorptive capacity of a firm isn't characteristic of a single person; it is rather a distributed network of knowledge (NELSON; WINTER, 1982). The way people communicate and the messages they are able to share internally will have deep impact on how the firm perceive the environment.

Since all necessary information and knowledge is never in the domain of a single person, the processes are not function of a single person either. Instead, they inherently results from social interactions, interactions that happen through the multiple channels

2.2.4 The dynamic of strategy

Change spreads around different dimensions of the organization. It depends on people, groups of people, the institutional setting, uncertainty, markets and competitors; and affects the theory of business (DRUCKER, 1994) and the strategic orientation of the organization. Depending on the time duration of different environmental conditions and on organizational orientation to choice, different approaches and interpretations to strategy will exist.

Classifying strategy

A framework proposed by Whittington (1993) characterizes strategy based on two basic dimensions, (1) the goals of strategy, and (2) the nature of strategy formation. The resulting classification template categorizes strategy in four different types depending of the combination of these two dimensions. The four basic categories are: (1) classic, (2) evolutionary, (3) process, and (4) systemic as shown in Exhibit 8 below.

The *classic approach to strategy* presents strategy as a rational process of deliberate analysis where the main goal is to find an answer to the quest for profit maximization. The process is a rather comprehensive and detailed one, where strategy is crafted after the organization is able to gather information about the environmental context, and conduct rational analysis (ANSOFF; MCDONNELL, 1988; MINTZBERG, 1990).

The *evolutionary approach to strategy* completely discards the possibility of any kind of rational planning. Environmental changes are difficult to predict, thus organizational choice has no impact whatsoever in influencing the organizational destiny. The environment selects who is more capable of surviving (HANNAN; FREEMAN, 1977, 1984, 1986).
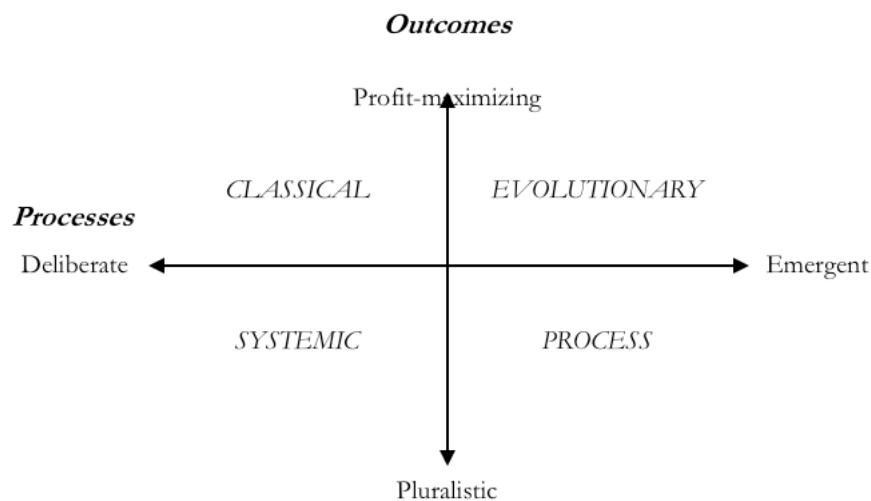
Exhibit 8 - Four categories of strategy

Source: Based on Whittington (1993)

The *process approach to strategy* posits that organizations do have choice, even though choices might result from imperfect decisions due to bounded rationality (CYERT; MARCH, 1963).

The *systemic approach to strategy* posits that the institutional environment affects strategy formulation. In this context, as a rational process, strategy emerges from a diversity of objectives, where profit maximization might be only one of them (Whittington 1993).

In reality companies adopt a mixture of all four styles.

Mintzberg et al (1985) also offer a typology for classifying different types of strategy. In this typology nine strategic schools of thought are considered and classified according to the prescriptive / descriptive orientation, and also regarding the role the environment play in the strategic process. The first three (design, planning and positioning) are predominantly prescriptive. They consider the static characteristics of the environment which makes it more or less constant and analyzable.

The next three schools (entrepreneurial, cognitive, and learning) are descriptive and emergent by nature. They consider the environment as something dynamic, complex and very difficult to understand. The last three schools (political, cultural, and environmental) are also descriptive. The political and the cultural schools consider strategy an incremental process, and the environmental school considers the environment dominant, and the potential for management to formulate strategy as non-existent.

The typology is summarized in Exhibit 9.

Strategy and the environment

The relationship between the environment and strategy is believed to have different impact on strategic orientation. That approach has been explored by Miles and Snow (1978), where the authors posit that firms can have four different types of strategic orientations: reactor, defender, prospector and analyzer. What makes them distinct is the way they enact their environments. Hrebiniak and Joyce (1985) also make it clear and show in their model of choice and determinism that different types of strategies might be required or appropriate depending upon the level of determinism and choice the organization faces. Their model associates different strategic profiles to organizations depending on the amount of choice the environment gives to organizations. The model greatly enhances the comprehension of the effects of environment and choice on organizations. It allows for classification of the strategic orientation of organizations, and / or prediction of the strategic profile organizations will end up taking given the environment they enact. However, the model does not explicitly takes in consideration the dynamic nature of environment and choice, and how organizations could (or should) move from

the quadrant they currently are to one that is more appropriate for their goals, or ultimately to their survival.

Orientation	School	Basic characteristics	Role of the environment
Prescriptive	Design (Andrews, 1965)	SWOT model Fit between internal (strengths and weaknesses) and external (opportunities and threats) circumstances is central	The environment is constant The environment can be analyzed, and opportunities and threats can be derived from it There is time available for the organization to realize the potential of a strategy
	Planning (Ansoff, 1965)	Strategic formation is the development, formalization and implementation of an explicit plan	
	Positioning (Porter 1980)	Based on the Industrial Organization approach	
Descriptive	Entrepreneurial (Schumpeter, 1934)	Entrepreneurs bring innovation to the market Based on Schumpeter	The environment is not stable The environment can be influenced and manipulated The entrepreneur vision of the future determines the environment (and not vice-versa)
	Cognitive (Simon, 1976)	Strategy based on mental maps and subject to bounded rationality Strategy is incremental and emerging	The environment is overwhelming
	Learning (Quinn, 1980)	Strategy is not linear process, but and incremental process of *muddling through* Management defines broad strategic visions	The environment is very demanding and difficult to understand
	Political (Perrow, 1970)	Strategy is choosing you position in terms of move and counter move	The environment is malleable
	Cultural (Normann, 1977)	Strategy is developing a common perspective for the organization	The environment is incidental
	Environmental (Hannan and Freeman, 1977)	Strategies are positions in the market	The environment is dominant

Exhibit 9 – Typology for classification of strategy

Source: Based on Mintzberg et al (1985)

Environmental uncertainty impacts the strategic behavior of organizations for it influences determinism and choice.

The study conducted by Milliken (1987) shows that *state uncertainty* will affect both, the process and the content of strategic planning. Regarding the strategic planning process, state uncertainty will cause (1) more time to be spent in scanning and forecasting as resources to

understand the environment; (2) "muddling through" and the garbage can approach to decision making will tend to be prevalent. As for strategic planning content:, state uncertainty main impacts on organizations relate to (1) focus on protective responses aimed at shielding the organization from sudden changes; (2) no commitment of resources to a particular strategic direction; (3) tendency to diversification oriented responses

Effect uncertainty will affect the strategic planning phase dedicated to identify threats and opportunities. An organization will be unable to respond to threats and opportunities if it the perception of such is not clear, or obfuscated by uncertainty.

Response uncertainty will impact strategy implementation due to lack of understanding about the available strategic responses, thus it will be noticed when administrators are faced with the need to make decisions or act.

In addition to presenting a concise definition and classification model for uncertainty, Milliken (1987) helps explaining why organizations "get stuck" in undesirable strategic positions due to uncertainty. From that study we can also derive that the organization which can recognize the type of uncertainty that is more prevalent in its organizational environment will have the initial motivation to mitigate that type of uncertainty and as result, the way uncertainty affects their strategic behavior. From that conclusion we can also say that organizations with that kind of understanding would have higher potential to dynamically adjust its strategy and reposition themselves where innovation will be the defining factor of their success.

The concepts described in this section provided us with key concepts and a clear framework for proceeding with our research. Initially they were applied in chapter *Research Methodology* for devising our data collection and interview protocol as presented in Exhibit 12 in order to structure and guide discussions with our subjects. They were also used to guiding the evaluation of the firms investigated in chapter *Evaluating Small and New Financial Technology Firms* as well as our conclusions in the in the chapter *Conclusions*.

3   RESEARCH METHODOLOGY

In this chapter we'll describe how we conducted our research about open innovation in the segment of financial services firms described as FinTech.

3.1   Research Questions

The object of the study, open innovation, represents a paradigm change to the discipline of innovation. It became popular catching the attention of scholars worldwide. In Brazil, a recent study by Pitassi (2014) concludes that Open Innovation is neither understood nor used by stablished R&D based industrial firms - there is a need for change in the mental models of R&D managers regarding business models. Intuitively, such result is more or less expected: why would a firm with a well stablished R&D lab believe that someone outside could innovate better than themselves? The classical instantiation of the not invented here syndrome! But is the same also valid for firms that don't traditionally have or invest in R&D as for example firms in the financial services sector? Would we obtain the same conclusion in firms that don't have the capital to create R&D labs, or in firms that are just starting?

The investigation of open innovation in smaller, new firms is very recent (CHESBROUGH; BRUNSWICKER, 2014; VAN DE VRANDE; VANHAVERBEKE; GASSMANN, 2010). In fact, Greul et al (2016, p. 2) raise awareness to the fact that "*there has been almost no research on how open innovation is practiced by new or young firms*". But their focus has been again on industrial product based organizations. Chesbrough (2011) suggests that the concepts of open innovation are not restrict to products and the industry, that they actually are directly applicable to services as well. Despite that, several studies claim that there is a deficiency in the investigation of open innovation in the services sector (VAN DE VRANDE; VANHAVERBEKE; GASSMANN, 2010; HUIZINGH, 2011; WEST et al., 2014; VIRLEE; HAMMEDI; PARIDA, 2015). In addition, Gianiodis et al (2014) as well as Schueffel and Vadana (2015) suggest the need for more studies on the usage of the open innovation concept in financial services firms.

Based on the opportunities presented above, we derive our research questions:

Q1: Why small and new financial services firms decide to used (or not) Open Innovation?

Q2: How are small and new financial services firms like the FinTechs positioned with regards to open innovation ?

Thus the study aims at getting better understanding for (1) why firms select the innovation models they use, (2) how firms implement their innovation models. Also, it looks to identify (3) how the firm benefits from the innovation models they use, (4) what are main obstacles and challenges perceived in the firm's innovation model.

The author expects this study will contribute to the advancement of open innovation knowledge, in particular:

1. Extend the knowledge on the degree by which the concept of open innovation is understood and used in small and new financial services firms in Brazil;
2. Understand why firms select the innovation models they use in the sector which is the target of the research;
3. Demonstrate how the target firms implement their innovation processes;
4. Demonstrate how the firms benefit from the innovation models they use;
5. Identify main obstacles and challenges perceived in the firm's innovation model.

3.2   Research setting

We selected a set of firms aiming at presenting their innovations and providing their services in the financial services industry in Brazil. The firms selected met the following criteria: (1) are focused on providing services related to the financial services industry; (2) are already in the market.

3.3   The research strategy

Philosophically, the conception of the research is based on the constructivist tradition and follow a qualitative design. Schueffel and Vadana (2015, p. 45) mention that "*Qualitative studies may yield additional valuable insight on why open innovation is still been neglected in the financial services. In a similar way additional empirical information would be desirable on the question of why some companies prefer to use a closed innovation approach and ignore the added benefits of collaborating with third parties*".

The research strategy is exploratory and based on a multiple case study with the goal of gaining understanding of the phenomena of open innovation in services, the setting being that of small new financial services institutions in Brazil.

The information obtained will be analyzed so as to identify why and how open innovation concepts are used in the target firms. We also expect to investigate what caused the subject firms to use either open or closed innovation, as well as identify potential patterns that

influenced the firms to take the decisions they did towards the innovation model they selected, and any patterns related to the firm's perceptions of benefits and challenges to implement the innovation model they selected

The research will follow the inductive process pictured in the Exhibit 10 below.

Inductive Process $\Rightarrow$	*Inductive logic to be followed*
Search for patterns, generalizations or theories from themes or categories	• Investigate possible motives which caused the firm to use open (or closed) innovation • Evaluate the potential existence of patterns which might have influenced the firm towards the innovation model they selected. • Evaluate potential patterns in each firm's perception of benefits and challenges in the innovation model they use.
Analysis of data and information from themes and categories	Obtained information will be analyzed according to the level of understanding and used of the open innovation concepts in the target firms.
Information and data collection from observation, interview, questionnaires, etc.	Data collection through semi-structured interviews with senior level executives from small and medium financial services firms in Brazil (as for example broker-dealers, insurance firms, technology providers, market integrators, FinTech). Interviews look for answers to the following questions: 1. Are the innovation process used in the firm based on open or closed innovation concepts? 2. Why did the firms decided consider using concepts of open innovation (or continue using closed innovation concepts)? 3. Which aspects of open innovation were considered, and why? 4. Which are the perceived benefits obtained from the use of open innovation (or closed innovation)? 5. Which are the main perceived challenges during the use of open innovation (or closed innovation)?
Researcher looks for the understanding of a phenomena	How financial services firms in Brazil use the concepts of open innovation?

Exhibit 10 – Inductive process to be followed

Source: Based on Cresswell (2014)

As defined by Eisenhardt (1989), "*the case study is a strategy which focuses on understanding the dynamics present within single settings*". In her explanation, Eisenhardt mentions that case studies can involve either single or multiple cases, employ multiple levels of analysis in each

single case combining data collection approaches as archives, interviews, questionnaires and observations.

When multiple cases are selected, the objective is to confirm results or the see whether or not they can be replicated. In such approaches, it is possible to select a non-exemplary case to confirm whether or not predictions can be made based on the exemplary cases (YIN, 1981). Cases are selected based on theoretical reasons, and while random case selection is possible it is not recommended (EISENHARDT, 1989, p. 537).

Typically case studies are used to obtain an explanation, test or generate theory. In this work we are investigating why a firm uses or not the concepts of open innovation, and how they use them. The phenomenon of open innovation exists in the context of a firm and its environment. It matches the typical application for case study based research, where the phenomena is inseparable from its context, and the intent is to obtain answers to "why" and "how" questions (YIN, 1981).

Yin (YIN, 1981, p. 102) suggests that in multiple case designs, the use of three or four cases has been found sufficient. Yin also mentions that when using multiple cases, each can build upon and even change findings from previous cases: "*Typically, the earlier cases had produced certain facts whose full significance was only realized after a subsequent case had been completed; thus, such reinterpretations were still consistent with the facts of the earlier cases, but facilitated the emergence of a more general explanation*".

The design of a case should contemplate at minimum the main topics to be covered, from whom (their roles) the information will be obtained, and the unit of analysis as appropriate.

3.4   Data Collection protocol

When in the field, we followed standard data collection procedures as prescribed by existing textbooks: face-to-face interviews, illustrative material, and on-site observations as relevant. A well-defined protocol was followed during the data collection.

For each of the case firms, we captured their name, name of the founders / main executives; their offering, any relevant sponsors, firm size and age.

To collect information from each firm's situation regarding open innovation, we interviewed senior executives / founders for each firm. Industry experts, accelerators, funding and larger firms were also be interviewed for independent views on the subject of open innovation. Each interview was recorded and transcribed. On-site observation was also used.

During the analysis we evaluated and integrated facts observed during the data collection phase. Initially we looked for potential patterns which could assist us in answering our "why" and "how" questions for each one of the cases independently. Subsequently, we conducted a cross-case comparison looking for similarities among cases as these could provide a more general conclusion. One final step which was to compare the general conclusion with those obtained from the interviews with specialists, incubators/investors, large firms and clients (non-exemplary cases) for further conclusions, as for .

To help us answering the research questions our study was informed by the relevant topics in the literature, focused on themes like the environment, knowledge management, strategic orientation and innovation as pictured in Exhibit 11 below.

As we saw starting on page 27, each firm exist in an environment defined by their relationship set (BLAU; SCOTT, 1962), their organizational domain (THOMPSON, 1967), the constraints these offer to the organization (DIMAGGIO; POWELL, 1983). Environments bring uncertainty to firms and affect the firm's relationship with the environment and the amount and type of choices available to firms (MILLIKEN, 1987). In the Exhibit 11, firms are symbolized in dashed lines to represent their permeability to the environment.

Starting on page 30 we saw that competition might be defined by the structure of the industry (PORTER, 1980), by the resources the firm possess and how it uses it (WERNERFELT, 1984) or by constant reinvention, manipulating and influencing the environment through the engine of creative destruction (SCHUMPETER, 1942). The nature of competition also affect choice available to the firm, and their orientation towards innovation.

Firms need to be able to "read" to environment (DRUCKER, 1954), and to make sense, process and integrate the information obtained they need to possess previous knowledge (COHEN; LEVINTHAL, 1990). As we saw on page 32, internal communication practices influence the firm's abilities to perceive the environment.
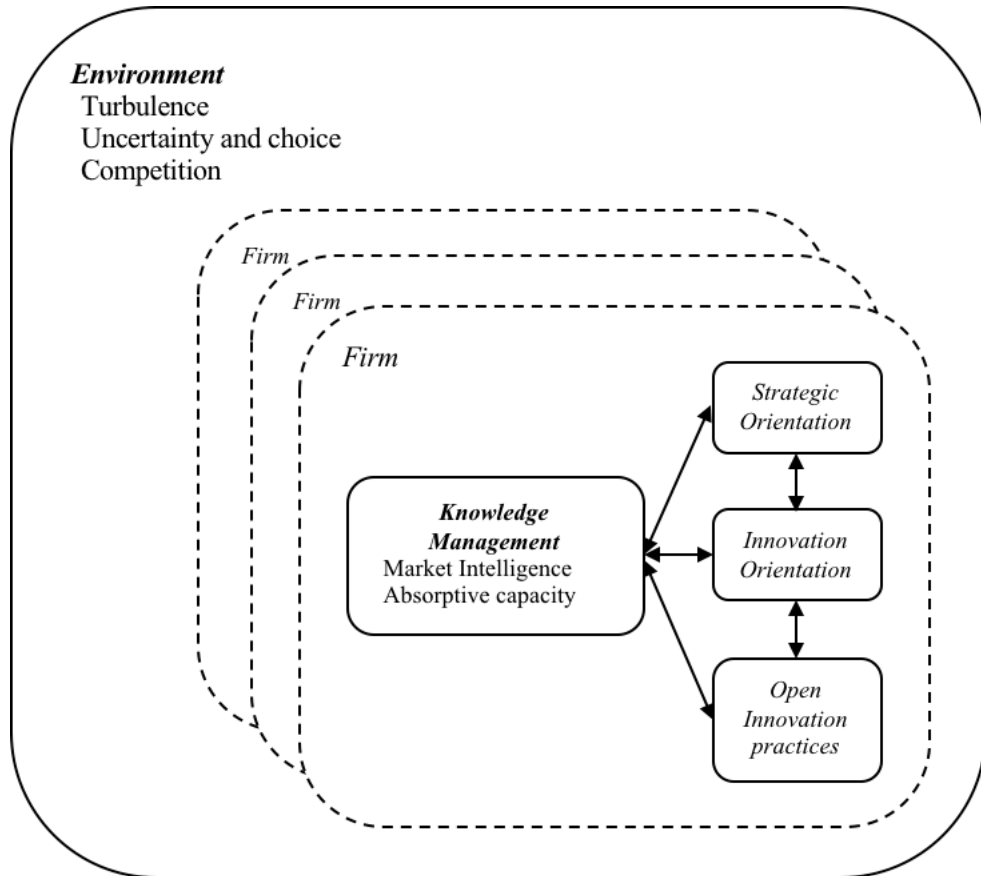
Exhibit 11 – Conceptual framework
Source: Crafted by the author

Uncertainty, one of the several characteristics of the environment, influences the behavior of organizations and how they strategize. On page 33 we saw that strategy can follow either deliberate or emergent processes, with either profit-maximization or pluralistic goals (WHITTINGTON, 1993). It can have prescriptive or descriptive orientation being modulated by the environment (MINTZBERG; WATERS, 1985) so that different types of strategies might be required or appropriate depending upon the level of determinism and choice the organization faces (HREBINIAK; JOYCE, 1985).

Below we describe how research questions on page 38 and each of the selected themes in Exhibit 11 informed the interviews based on our objective to understand how small and new firms use the concept of open innovation.

Research Questions	Theme	Questions which answer the research objective	References
General Background		Name of the firm, name of the founders / top executives, offer (product / service) of the firm, current and past sponsors, size and age of the firm	(EISENHARDT, 1989; YIN, 1981)
(1) why firms select the innovation models they use	Environment: uncertainty and choice	Do you think it was easier to be innovative in the past than today? And in the future? What has changed? What are the key factors in the business environment that have the potential to affect your firm (both positively and negatively)? In your view, how can the factors cited affect your firm? How would you respond to changes in these factors?	(BLAU; SCOTT, 1962), (THOMPSON, 1967) (DIMAGGIO; POWELL, 1983) (MILLIKEN, 1987)
	Environment: competition	How would you describe the competitive environment? How do you keep your firm competitive? How do you ensure that your firm is ahead of the competition? Taking into account your competitive environment, what makes you unique? Do you consider having resources, unique knowledge?	(SCHUMPETER, 1942) (PORTER, 1980) (WERNERFELT, 1984)
	Knowledge management: market intelligence	What aspects of your company's culture favor innovation? And which ones make innovation difficult? What do you do to ensure that your team operates in an integrated manner? How do you deal with the dissemination of information among your team members? How do you keep up to date on the market and its needs? How do you keep up to date with your competitors?	(DRUCKER, 1954, 1985) (NONAKA, 1994) COHEN; LEVINTHAL, 1990)
	Knowledge management: absorptive capacity	Typically, where does the human capital employed in your firm come from? What are the main difficulties in obtaining talent? What is the turnover level? How do you and your team keep up to date technically?	
	Strategy	Why did you decide to define a strategy for your firm? How do you deal with the definition of the strategy for the firm? Do you follow any specific process? What types of information do you consider relevant to the definition of the strategy? Who participates in the definition of the strategy?	(MINTZBERG; WATERS, 1985) (HREBINIAK; JOYCE, 1985) (WHITTINGTON, 1993)

Research Questions	Theme	Questions which answer the research objective	References
(2) how firms implement their innovation model	Innovation orientation	How would you define innovation? Do you consider your firm innovative? Why ? How do innovations appear in your firm (own ideas, collaboration, external events - congresses, competitions, ...)? Do you think your firm is achieving commercial success? Could you please elaborate? How long did your service / product take to market? How long does it take you to introduce innovations to your existing offering?	(GATIGNON et al., 2002)
	Open Innovation orientation and practices	In an industry that depends on innovation, what is your opinion on the sharing of ideas between participants in this industry? Do you share ideas with other institutions (firms, universities, ...)? Could you please elaborate? What are the forms of collaboration adopted? Do you involve your customers in generating, validating and testing ideas? In your opinion, what are the difficulties for collaboration? Do you offer existing knowledge in your services / products to others in order to increase your profitability? How do you decide the type of knowledge you will develop internally and which one will you seek outside the firm? How do you assess whether external resources / knowledge will meet your needs? How do you decide what kind of knowledge you are going to make available to other firms? What kind of processes do you have to internalize external resources / knowledge? and for the internalization of internal resources / knowledge? Please elaborate on any legal aspects. How do you assess the effectiveness of your internalization / externalization choices?	(ALMIRALL; CASADESUS-MASANELL, 2010) (CHESBROUGH, 2003) (CHESBROUGH; BRUNSWICKER, 2014) (SLOWINSKI; SAGAL, 2010) (TSAI; LIAO, 2014) (VIRLEE; HAMMEDI; PARIDA, 2015)

Research Questions	Theme	Questions which answer the research objective	References
(3) how the firms benefit from the innovation models they use		Why did you decide to use the innovation model you described? In your opinion, what are the main benefits obtained? Do you believe that using this model makes your firm more competitive? More profitable? Do you believe that your decision makes your firm more / less attractive in the job market? Do you believe that it facilitates talent retention? Could you please elaborate?	Author's conception
(4) what are main obstacles and challenges perceived in the firm's innovation model		What are the main difficulties you encountered to implement your innovation model? Have you overcome them? Could you please elaborate?	
Conclusion		Thank you statement Schedule the next interview (as appropriate) Propose that the draft narrative will be shared for further validation	

Exhibit 12 – Data Collection / Interview protocol

Source: Created by the author, adapted from the methodological association matrix (MAZZON, 1981, 2018)

All interviews were conducted in Portuguese, which was the mother tongue of all interviewees.

3.5   The data collection phase

For the data collection phase, we followed the guidelines provided by Yin (2009).

The researcher relied on interviews as the first source of evidence.

Interviews were conducted in person by the researcher himself over a period of 13 months, starting on 26 of September, 2018 and finishing on 17 of October, 2019.

The interviews were conducted in the form of a guided conversation following the directions provided by the interview protocol on page 46.

All interviews were conducted in Portuguese, and with the exception of 02 interviews that were conducted in a coffee shop / restaurant, all other 10 were conducted in the interviewee's place of work, either in a meeting room or in an office. All interviewees were male.

Each interview started with a brief conversation, where the researcher introduced himself succinctly, described the work being done and the objectives of the research. That conversation was also an opportunity to go over the term of informed consent and to ask permission to have the interview recorded. We reserved 10 minutes for this first part of the interview. Overall interviews took an average of 49 minutes. During the interviews, the researcher took brief notes on relevant topics that required further clarification, or the he wanted to highlight.

All recorded interviews were submitted to and external independent firm for transcription. The firm returned two files with the same content, one in format MS-Word and another in format PDF for each interview.

At the end of this phase a we conducted a total 9 hours and 49 minutes of interviews, which resulted in a total 269 pages or transcript produced.

As additional source of evidence, we used documentation as described in Yin, p. 86 in the form of article appearing in the mass media, company websites, social media, references in AppStores like the Google and Apple ones, references in CNPJ registries. This documentation is used to corroborate information obtained through the interviews and enhance reliability. A total of 46 pieces of evidence where captured for this purpose. Exhibit 13 below pictures a treemap with frequencies for each types of additional evidence captured.

Type	Frequency
News	38,1%
Social Media	21,4%
Institutional Web Page	21,4%
Software Repository	7,1%
AppStore	7,1%
CNPJ Registry	4,8%
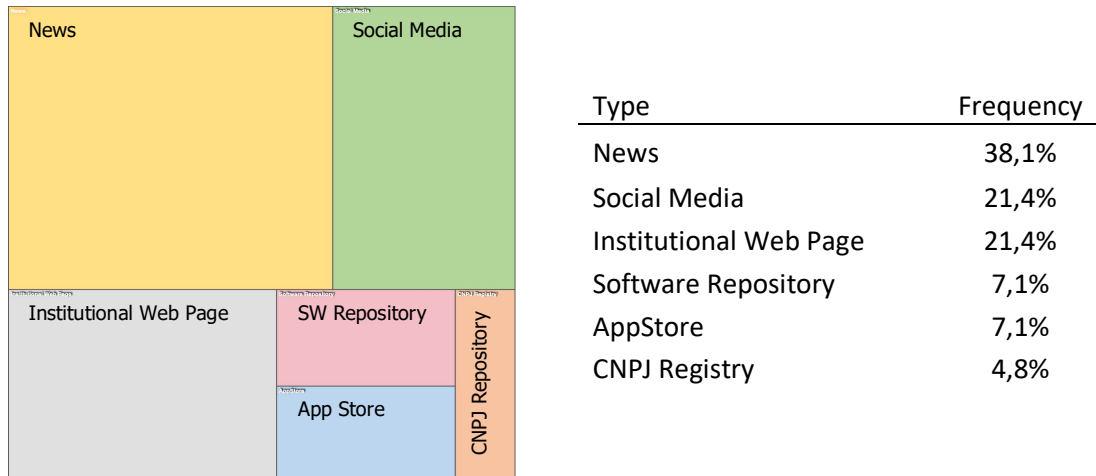
Exhibit 13 – Treemap showing frequency of additional sources of evidence,

Source: Created by the author using NVivo12

To organize the evidence obtained and also to ensure that source of evidence used for each of the cases and the respective reports are kept separately so that their integrity is maintained, we created a case study database. Each of the transcripts and additional sources of information described above were imported in NVivo12. This procedure ensures that raw data for each one of the specific sources was kept intact in its original form. For the creation of such database, we used a resource of NVivo12 denominated Case. Exhibit 14 below shows a screenshot of our NVivo12 case database.

NVivo12 also helped us document our chain of evidence, explicit links between the questions asked, the data collected and the conclusions drawn.

3.6 Data Analysis

As Yin explained in his book (2009, p. 109), the analysis is one of the most difficult aspects of a case study. Isn't uncommon for the research to stale for months at this phase after having already collected the data. Such difficulties come from the lack of formulas or recipes that can lead the researcher to finishing his job.

To overcome such challenges, we decide to pursue a specific strategy based on the following steps:

1. Produce a case narrative for each case, describing main aspects and characteristics of each of the firms studied (R. PONELIS, 2015),

2. Perform within-case analysis (YIN, 2009, p. 116) to identify how each case answer each of the research questions

3. Perform cross-case comparison to seek for similarities among the cases, which could strengthen our findings.
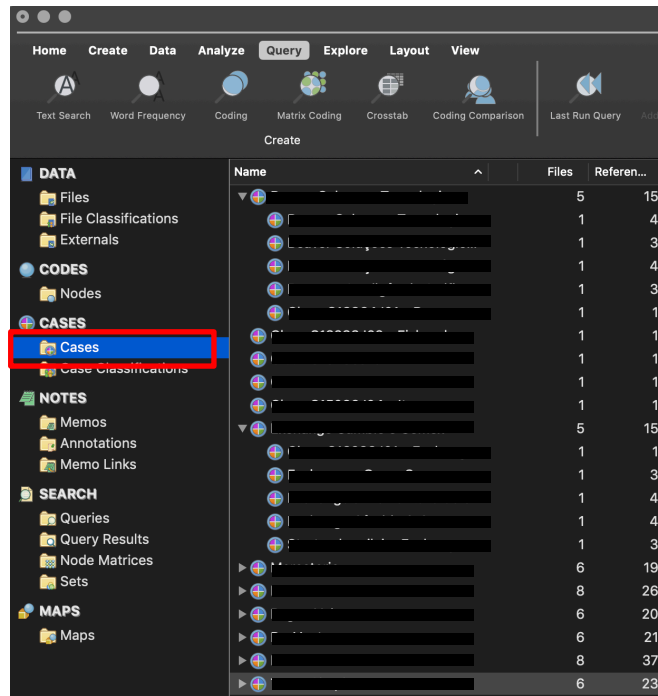
Exhibit 14 – Overview of the case database in NVivo12

Source: Produced by the author

The narratives are descriptions of the evidence obtained that will support the analysis of the case, and the cross case analysis. "*Rich descriptions in the form of narratives allow the reader to judge the transferability of the interpretation and also the results, thereby also increasing dependability*" (R. PONELIS, 2015). The narratives are used to introduce each one of the firms, and the main observations made given what was obtained during the data collection phase. To assist with the analysis of the material collected during the data collection phase, we decided to use the NVivo12 software package. A sample of NVivo nodes created in the process is picture in   Exhibit 15 below. The right inside section of the diagram shows nodes for each of the research questions and themes. The top left section of the diagram pictures nodes representing additional documentation used for triangulation.

Following the narratives, we performed an within-case analysis of each one of the individual firms to assist us identifying how each one of the firms answered our research questions thus further summarizing the case.
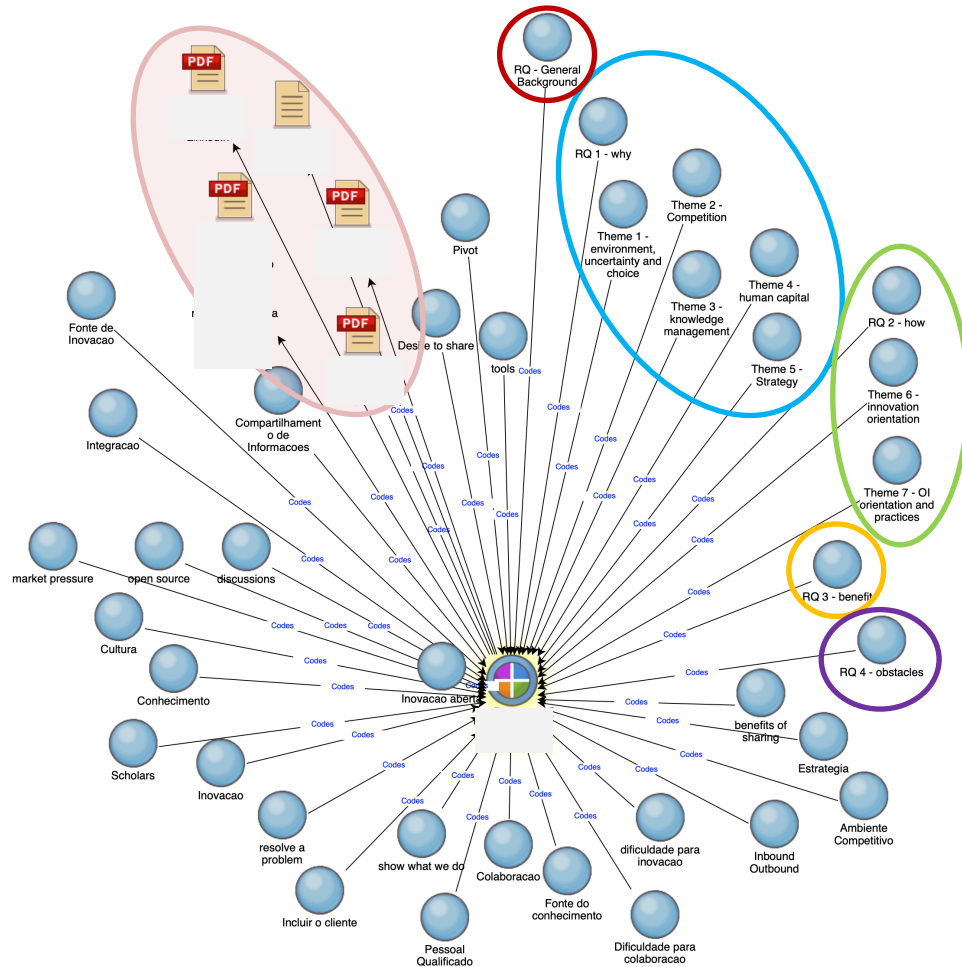
Exhibit 15 – Sample of Nvivo nodes (codes) for a firm

Source: Produced by the author using Nvivo 12

The next step was a cross-case analysis where we look for common themes and differences as well as patterns when comparing each individual cases. Findings were clustered together in word clouds to assist in the interpretation.

Finally, to validate our findings and confirm our conclusions, a workshop organized by the author with the startups took place in the month of August 2020.

Before we dive into each one of the cases, it is important to get background about the environment where the subject firms exist. The next section starts with a description of the FinTech landscape in Brazil and performs a brief overview of the competitive setting. Then it describes the firms studied and the profiles of the interviewees. The section continues with the assemblage of the cases, insights obtained from case comparisons, concluding with the case report.

4 EVALUATING SMALL AND NEW FINANCIAL TECHNOLOGY FIRMS

Subjects of our research, Financial Technology firms, the FinTechs are perhaps one of the most relevant recent phenomena affecting the financial services industry. They are said in the media to be transforming the industry and challenging the very existence of the incumbents by delivering highly innovative offerings. In this section we'll explore the FinTech phenomena.

4.1 The FinTech phenomena

We'll start with a brief description about what a FinTech is, and how we can group them based on the specific business function they target. That will be followed by an overview of the FinTech landscape in Brazil, and by a competitive analysis.

4.1.1 What is FinTech, and how is it classified

The term FinTech has been widely used and originates from the contraction of the words **Fin**ancial and **Tech**nology – FinTech. It is used to refer to technological innovations and technological development in the financial services, introduced by firms that have origin not in the financial sector, but in Information Technology. FinTech firms are known for challenging incumbent financial services players with creative new ways of providing services that fulfill needs previously not (or not sufficiently) addressed, disrupting existing ones trough business digitalization (GOMBER; KOCH; SIERING, 2017). In short, FinTech "*encompasses innovative financial solutions enabled by IT*" (PUSCHMANN, 2017, p. 70) and the term can be used both for start-ups or established financial services firms.

FinTech firms focus at resolving a particular financial services opportunity, and from classification purposes they could be grouped according to the business area they target. In this work we'll use the framework presented by Gomber et al (2017) to classify the FinTechs in terms of what they call "Digital Finance Business Functions". Such functions are explained in Exhibit 16 below.

4.1.2 Fintech landscape in Brazil

Several references to the FinTech environment in Brazil can be seen in the media. Valor Econômico reports that the FinTech scene in Brazil is heated, and over 244 firms were active in Brazil as of September 2016 (BRIGATTO, 2017). The Wall Street Journal posts arguments that "*Brazil is experiencing a wave of growth in financial technology that will most likely eat into the market share of the country's huge and long untouchable banks*" and that

"the more than 200 financial technology companies in Brazil should generate a potential revenue pool of about US$24 billion over the next 10 years" (SREEHARSHA, 2017).

Digital Finance Business Function	Rationale	Keywords
Digital Money	Digital Financing embraces all digital types of making available financial capital. Today, various platforms offer digitalized services in the area of factoring, invoicing, leasing, and crowdfunding.	Digital money, e-money/electronic money, digital currency, virtual currency, cybercurrency, cryptocurrency, bitcoin
Digital Finance Advices	Digital Investments support individuals or institutions in investment decisions and in arranging the required investment transactions on their own by use of the respective devices and technologies. Digital Investments include mobile trading, social trading, online brokerage, and online trading in the B2C area and high- frequency and algorithmic trading in the B2B context.	Trading community, investment community, stock community, financial product review, financial product comparison, robo-advice
Digital Financing	Digital Money as digital currencies that are newly established, exists only electronically and is mainly used on the Internet. Digital Money serves as a medium of exchange, unit of account, and store of value but—unlike traditional money—exists only digitally.	Crowdfunding, crowdlending, peer-to-peer lending/P2P lending, person-to- person lending, peer-to-peer business lending/P2P business lending, online business lending, online alternative finance/online alternative financing, social lending, crowdinvesting, equity-based crowdfunding digital factoring, e-factoring/electronic factoring, online factoring, e-invoicing/electronic invoicing, invoice trading, digital leasing, e-leasing/electronic leasing, online leasing
Digital Insurance	all payments that are initiated, processed and received electronically	Digital insurance, e-insurance/electronic insurance, peer-to-peer insurance/ P2P insurance, friendsurance, online business insurance
Digital Investments	peer-to-peer concept applied to the insurance market, where individuals which seek for insurance ally with family members and friends instead of turning to insurance companies	Mobile trading, social trading, online broker
Digital Payments	algorithms that provide investment proposals with no or minimal human intervention based on pre-defined parameters regarding investment goals, financial background and risk aversion	Digital payment, e-payment/electronic payment, mobile payment, peer-to- peer payment/P2P payment, digital wallet, e-wallet/electronic wallet

Exhibit 16 –Digital Finance Functions, rationale and keywords

Source: Defined by Gomber et al (2017).

A report by FintechLab (BRADASCHIA, 2017) consolidates and summarizes the state of FinTech in Brazil, offering details about players in each of the digital finance functions. FintechLab's report distributes FinTechs according to what it calls "financial sectors". As those "sectors" do not directly match Gomber's classification we clustered the firms according to the appropriate Digital Finance Business Functions as seem in Exhibit 17.

4.1.3 A competitive analysis

Back on page 30 we discussed competition according to the three types suggested by Barney (1986). Considering the Industrial Organization competition point of view, the structure of the industry is one of the main components determining opportunities available to its constituents.

It is shaped by competitive forces, and within the industry-based view a competitive analysis should account for the number and size of competitors (industry concentration), degree of rivalry, degree of differentiation, ease of entry (and exit), information accessibility and setup costs of already established firms (BAMIATZI et al., 2016).
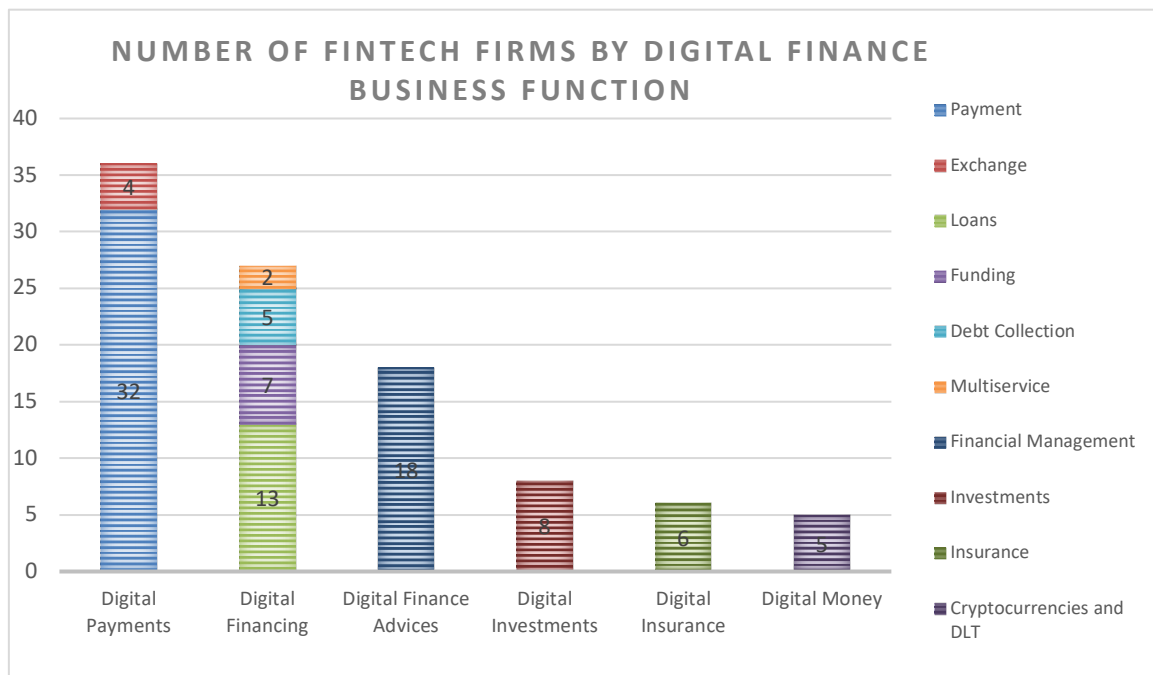
Exhibit 17 - Distribution of Fintechs by Digital Finance Business Functions
Source: Created by the author with FintechLab data

Above average returns come from creation and/or modification of structural characteristics of the industry. Once organizations succeed in that endeavor they have to protect themselves from rent-reducing competitive entry, so they can enjoy longer periods of superior returns. Strategy is thus related to becoming kind of different in a *homogeneous* setting and then creating barriers to entry so as to sustain their advantage.

Fintechs are shaking the structure of the industry looking to capture a significant part of the US$ 24 billion potential revenue pool. The financial system in Brazil is particularly susceptible to the development of FinTech firms. We summarize the structural characteristics of the industry in Exhibit 18 below.

Technology savvy startups can exploit a highly concentrated market through technology, as for example leveraging smartphones as a new distribution channel. In such example, technology (smartphones) will severely reduce the importance of branches, increase penetration to a share

of the population which was until then unserved and act as a mechanism for providing differentiated services.

Factor	Level	Rationale
Market Concentration	high	The banking market is very concentrated. In retail branch banking, the top five banks have 90 percent of branches and hold 84 percent of total loans. Prices and spreads are among the highest in the world(SREEHARSHA, 2017).
		Highly attractive for new entrants leveraging technology.
Rivalry	high	Rivalry is high as the incumbents know what is at play, and as such will respond by mimicking the solutions developed by the Fintechs.
		The big banks (Banco do Brasil, Bradesco, Caixa Economica Federal, Itau and Santander) all launched digital initiatives, and most created incubators and acceleration programs for startups as well as investment funds targeted at Fintechs (RODRIGUES, 2017)
Degree of differentiation	low	Services provided by the incumbents are highly similar, and a significant part of the population doesn't have access to banking services particularly among the lower income classes.
Easy of entry and exit	easy	Despite the inherent challenges facing any entrepreneurial venture, one cannot say that there is a shortage of funding: over R$ 1 billion was invested in Fintechs in Brazil by 2016. Fintech are in general able to attract investors, and72% already received capital (14% of which over than R$ 20 million) ("Fintechlab Report Brazil", 2017).
		Fintechs requires human capital with computer science / software engineering backgrounds. Cities as Sao Paulo, Belo Horizonte, Rio de Janeiro, Recife and Florianopolis are developing as centers of innovation and are the main contributors for the development of this industry ("Fintechlab Report Brazil", 2017).
		The regulatory bodies as the Central Bank, CVM (the Brazilian Securities Commission), and SUSEP (who provides oversight for private insurance) are all actively engaged, and with a positive view towards innovation.
		Several associations and initiatives emerged in the last year to assist Fintech initiatives as for example in the generation of business or navigating the regulatory environment ("Fintechlab Report Brazil", 2017).
		Number of smartphone users is steadily growing, and the new generation more technologically savvy which facilitates acceptance of fintech solutions.
		Banks starting to hire services from fintechs
Setup costs	low	Accelerators and incubators, as well as co-working setups provide for relative low setup costs, and computing resources provided by cloud firms as Amazon's AWS are cost effective alternatives to physical, bare metal computing servers.

Exhibit 18 – Overview of the financial services industry from a competitive point of view

Source: Created by the author

FinTech's are quick to react to market conditions, where the incumbents tend to have a much slower response. Dynamism is a valuable resource / capability, particularly when considering that the potential revenue of US$ 24 billion in 10 years is significant, as is the amount of funding available to the FinTech's.

In short, FinTech's are changing the structural characteristics of the industry, carving opportunities, exploiting technology and agility as differentiators while increasing penetration in the financial services industry in Brazil. All of this while capturing substantial returns. They operate in a rather turbulent environment, and the high degree of uncertainty ahead of them

place challenges in the development of their strategies. They must rely on innovation, as *"Innovation is a necessity for firms that compete in environments where change is pervasive, unpredictable, and continuous"* (BROWN; EISENHARDT, 1997). If they are to continue capturing the substantial returns ahead of them they need superior responsiveness, and innovation can be a source of responsiveness when turbulence is present (HAN; KIM; SRIVASTAVA, 1998).

What are the innovation strategies used by the FinTechs? Why do they use (or not) open innovation, and how they use it? What are the benefits and challenges they face using open innovation? In the following section we'll describe each one of the firms studied, and look for patterns that could help providing answers to our research questions.

4.2   The firms studied

For this study, a total of 12 firms were contacted as presented Exhibit 19 – Anonymized list of firms and interviewees. In that exhibit they were grouped as:

- startup – small and new firms, the actual subject of our research;

- investor – firms which provide support and funding for the startups;

- client – firms that use services / products provided by the startups; and

- industry specialist – person with significant exposure and insight into the field under investigation.

Yin (YIN, 1981, p. 102) suggests that in multiple case designs, the use of three or four cases has been found sufficient. Given the access, the diversity of businesses, and the richness of the insights provided we ended up studying a total of seven startups. Most of the startup studied here are firms listed in the Fintech Lab report ("FintechLab | Mapeamento, advisory e informações sobre o mercado de fintechs nacional", [s.d.]), and also in the Distrito report ("Distrito - Inovação para startups", [s.d.]).

We interviewed representatives from two relevant firms which classify themselves as investors for their perceptions on the subject of innovation, and as a way to compare their perspectives on the subject with those of the startups.

Two firms which are clients were also interviewed. One is a large Brazilian bank known for promoting the startup environment, and the other one overtly labels itself as an open innovation firm and promotes startups as service providers as a way to increase their portfolio of value added services.

Ref	Interview Details			Firm Details			Group
	Date	Interviewee	Title	Firm	Year Founded	Size[2]	
1	30-Nov-18	GE	Founder, CEO	RC	2016	40	Startup
2		RG	CFO				
3	15-Dec-18	MA	Co-Founder, CEO	EC	2015	10	
4		DT	Co-Founder, Head of Marketing				
5		BR	Co-Founder, CEO	MC	2016	7	
6		JI	Co-Founder, Head of Business	NX	2016	17	
7		FB	Co-Founder & CTO				
8		LP	Co-Founder & COO				
9		JK	Co-Founder, Chairman & CTO	PV	2013	52	
10		NN	Co-Founder, COO				
11		RG	Co-Founder & CFO	TS	2017	14	
12	19-Dec-18	AL	Co-Founder, CEO				
13	19-Feb-19	MA	Co-Founder, CEO	EC	2015	10	
14		DT	Co-Founder, Head of Marketing				
15	22-Mar-19	RF	CTO	MC	2016	7	
16	12-Apr-19	JI	Co-Founder, Head of Business	NX	2016	17	
17	23-Jul-19	RB	Founder, CEO	BV	2017	4	
18	13-Sep-19	PG	CEO, Chief Product Officer	PV	2013	52	
19	26-Sep-18	AM	President	RT	Not Applicable		Client
20	17-Oct-19	TO	Enterprise Architect	BI			
21	18-Sep-19	MM	Founder, Consultant	PV			Industry Specialist
22	27-Nov-18	RD	Partner	FV			Investor
23	29-Sep-19	GG	Founder & Managing Partner	DT			

Exhibit 19 – Anonymized list of firms and interviewees

Source: Created by the author

In Exhibit 19 above, firms are represented in order of the dates they were interviewed, flowed by an alphabetical order in the context of the segment they belong. When interviews concluded in 2019, the oldest firm was six years old, one was 4 years old and the remaining of the firm were three years old or less. The oldest firm was also the largest one: 52 people; and while it might be intuitive to imagine that older firms will be larger, that wasn't the case in our sample. Two of the youngest firms were slightest larger than some of the firms older than then. For all startups contacted, interviews included founders and C-level executives. Some conversations with founders took place at a startup gathering in Florianopolis organized by an accelerator where this researcher acted as a coach. This first contact served as a way to get introduced to

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[2] Size is represented as the number of employees at the date of interview

the subjects, learn about their firms and some of their pain points. Subsequent interviews took place at each firm location in Sao Paulo.

4.3 Assembling the Cases

Below we assemble case discussions for each one of the individual firms contacted. Each case is starts with a narrative which is used to introduce the firm and the main observations obtained during the data collection phase. Narratives are based on all sources of evidence collected, as informal conversations with subjects, unstructured interviews, observation and relevant news about the firm. For each firm, the narrative is followed by an analysis that investigates how the evidences collected relate (or not) with the research questions. Each case ends with general conclusions for the firm investigated.

The first section will discuss the firms which are the subject of this research: the small and new fintech firms. We'll then discuss the firms which provide additional insights about the fintechs and innovation: clients, investors and a market specialist.

As the actual interviews were conducted in Portuguese, the fragments displayed in this section are a free translation to English. The original answers from the interviewees are showed in the Appendix where we present the actual oral answers as obtained, preserving the individuality of the participants and all characteristics of the oral answer provided, including errors and repetitions inherent to the oral speech.

Also, form consistency and anonymity, firms will be numerically identified based on the alphabetical order or their names as follows in Exhibit 20:

	Anonimized name mapping						
Firm Initial	BV	EC	MC	NX	PV	RC	TS
Firm Number	Firm #1	Firm #2	Firm #3	Firm #4	Firm #5	Firm #6	Firm #7

Exhibit 20 – Mapping firm initials to firm numbers

Source: Created by the author

4.3.1 The Fintechs

Case #1 – Making sense of real estate contracts

The case narrative

Our first case is about a firm that uses artificial intelligence – AI, to make sense of real state contracts. Firm #1 leverages the knowledge of his founders, a specialist in the real estate market, and a software developer and artificial intelligence specialist to craft a software application

system – from here on referenced as system, to collect relevant information from contracts, to structure it and to perform specialized analysis. Important aspects of the contract as assets, purchase details (credit given, loan terms, credit takers, outstanding debt …) are some of the components used to make investment / credit decisions given a specific contract. Such analysis is typically done manually and takes a significant amount of time to complete. When an analyst finished inspecting a contract and provides his evaluation, it is uncommon that history about his motives and decision making process are stored and reused. Process is lengthy, cumbersome and antiquate. With AI, evaluating a contract takes minutes as opposed to days. The solution provided by Firm #1 allows for drastically reducing time and difficulties for transacting in the real estate market.

To learn more about Firm #1, we conducted an on-site interview with the founder and CEO to understand the firm's take on innovation.

According to RB, the current CEO, the firm started as result of a series of discussions in an accelerator / investor setting as investors were considering opportunities for new ventures:

> *The firm actually started before I joined, it started inside Fisher. The idea was for the firm to be a platform for trading real estate assets, mainly receivables. They had started developing the marketplace for real estate receivables but traction was slow, then they brought me to the firm to try and transform it in a technology firm, with a focus more oriented towards technology.*[i]

After RB joined the firm, the strategy changed completely to be one more focused on technology and AI, and to work on the specific problem of extracting and structuring relevant information from the contracts. The original founders left and RB took over. He brought to Firm #1 the understanding that innovation is about using tools, either existing or new, but using the tools differently to resolve a problem that wasn't being resolved, or that was being resolved inefficiently. According to his definition, Firm #1 is an innovative one:

> *So in our case you have a problem that has existed for a long time, which is when you are going to buy a portfolio of real estate receivables for example, you have a huge pile of documents to read and you put a lot of people in a room to read the documents and they will take a long time to read and they will make mistakes, because everyone makes mistakes. On the other side you have tools that have been around for a long time, but that weren't used because we didn't have the computational capacity that we have today, but you have ... machine learning is not a new thing, but you can apply machine learning to interpret documents written in natural language is a relatively new thing, and even more so you apply it to the Brazilian real estate market, you apply it in Portuguese, which also doesn't have a lot of tools in Portuguese, so this is the part I think it is true innovation that we are bringing. So we are addressing a problem that has been around for a long time, using tools that already exist, but in a way that was not being used yet to bring efficiency to the market.*[ii]

Innovations at Firm #1 come from different sources, were discussions on new ideas is one of the key:

In our case, the idea to use machine learning came from our own discussions[iii]

The firm also leverages the open source community for technological innovations, and for ways to use existing tools differently to resolve problems:

Now the product development itself comes from several sources, first there are many, many open source tools available for us to use, so we are using several of them, so there is a lot that we don't need to develop because it has already been developed by others and these others have made available to anyone who wants to use.[iv]

Collaboration is a key concept, and benefits are clear as several people are thinking about similar problems and solutions, and when people work together the solution might become easier and its implementation quicker:

Collaborating has a lot of advantages, it brings the company closer to this world of innovation, it brings to the people who work in the company a mentality to look out also, that has a lot of people thinking about similar problems and that sometimes manages to solve easier to bring everyone together and that if you think about it, in fact, it will not disturb the business, on the contrary.[v]

RB also believes that collaboration makes the product better, as the size of the community acts as an improvement mechanism:

It is much better than it would be if the company developed alone and stayed there, because the company may have, I don't know, ten brilliant guys there in research and development, but the world has a million. So it is easier for you to have a very good product if it is developed by 1 million people than if it is developed by ten people. There's no escaping it.[vi]

The practice of collaborating, leveraging information, knowledge initially developed by others seems to be broadly disseminated and used:

So this is my experience, this world of machine learning, people like to talk, people are all available to you or exchange an idea or else hire as a consultant, as I did with him, and we develop from this way, understand? So it's a much more friendly and accessible world than the corporate world I think, that people are afraid to reveal secrets and things like that, in this world everyone likes to talk about what they have developed, likes to make things available.[vii]

In addition to taking from the community, thus leveraging inbound flows of information, the firm also considers outbound flows important, so as to give code, enhancements and new developments back to the community:

So, in my mind, a lot of what we are doing should be made public. [viii]

However at the current stage, the firm consider itself as a tools user, more or less like assembling Lego parts to compose a solution that will address their objectives. The firm decided to focus on the main business problem, but as their system and their knowledge evolve they consider sharing important, even as a way to demonstrate to others what they are doing and to publicize their competency and technical relevancy:

We haven't done it yet, in fact, there are few things that we really developed, what we do is apply, as I said, it is to apply tools. There are things that we have developed here and that I think are applicable in other cases and that we will, for sure, in the near future leave this open to the community also because we want to show what we are doing, we want to write about it, we want to do this kind of thing, but we haven't done it yet, which for now is focusing on having a product and having a customer. [ix]

The firm also considers important to involve clients in the discussion and validation of their ideas, and as additional source of knowledge:

We are doing this now, this is the moment when we are going after customers to, as you said, to test what we have already done, but also to guide us on the right path. So we have an idea of what the banks need, but sometimes the banks have a slightly different idea of what they need, so we need this partnership, we are in this phase now. [x]

Despite all the drive and benefits of collaborating and sharing information and knowledge, RB recognizes that there are obstacles for sharing and collaborating, mainly in the form of confidentiality concerns, or fear of sharing information related to strategy:

So the problem of confidentiality that really exists and is not very useful. The other problem is strategy, so companies have data that they consider strategic that they don't want to disclose. [xi]

Today's environment is based on openness and sharing. A large amount of information is made available at ever growing speed. Such setting enables an ease of reach, facilitates dissemination. Innovation is not threatened by such environment, but instead it is enhanced as it is not based only on ideas but more importantly on execution. Execution is the characteristic that defines a successful firm:

Before you had an idea and that idea had a value, because you were going to set up your business and based on that idea of yours and it was more difficult for someone to see your idea in time to compete with you. Today the idea has very little value, you have an idea you are competing with the whole world, most likely someone has had this idea before, it is very difficult for you to have an original idea really. But if you have an original idea, the time you start to develop and people get to know it is very easy for someone to copy. So the idea itself today has very little value I think, what has value is how you execute it, so your ability to turn that idea into a real product, your ability to reach the right market, to reach the right people in the market this is much more important than the idea nowadays, because it's like you said, the idea is easy to copy, what's hard to copy is… It's execution, it's your relationships with the market, how much you ... how you approach your customers, this is much more difficult to copy. [xii]

Competition is currently not a concern for RB, as in his view the market is large and currently players leverage traditional methods. It will take time for a new entrant to reach the same level of technological development Firm #1 possesses. He is not concerned about others having similar ideas and trusts Firm #1 execution capability, thus its competitive advantage:

We are going back to the real estate market, which is a very large market with very little innovation. So even if there are competitors, even if five equal companies appear there, we have a lot of space for everyone. So that makes us much more relaxed in relation to our competitive environment there, which we know has space. But even so, because it is coming from a development, it has been a long time, even though the idea was different,

but we already have two years of studying this market, of forms of relationships with people in that market, of understanding of the market needs that a new company will take a while to achieve. So this is one thing. The part of the technology itself, as I said, the technologies, the tools are there, but the part of how we use these tools and the things we had to develop at home to be able to tie all these tips together, that is harder to copy I think. There was a lot of training process, the product design itself is a process that took us a long time to understand how we make more efficient, this is not an easy thing to copy, this is a thing that takes time. So I also think, I mean, there will be a competitor, there are already, I think, one or two competitors, but competitors that appear now will take time to get to the point where we are and these competitors may have good contacts and can be that have a good way of activating the market and may not. So I think that in the end is what I said, today is execution and not the idea, the idea is worth little.[xiii]

Given the size of the firm, culture is still a thought, without much definition at this stage. It seems it will be based on enabling people to learn and find solutions to problems at hand, to empower them be drive execution:

The company's culture is something that my partner and I have discussed since the first day we entered here. And when we ... we just hired a person and we ... certainly the team in the coming months it will grow.... What we even wanted, my way of interviewing these people, was to give them a problem that I knew they didn't know how to solve, but that I wanted to understand how they would find information by talking to people or not talking to people, to find the that they need to develop this business. So for me it is much more important how the person can find the right information, whether by calling someone who knows, whether by searching the internet, or in any way, but being able to get to the information than the knowledge that person already has. I think the company's head will always be this, it will be like this, we will find a team of people who are not afraid to face a problem that they do not know, who want to go after solutions and who do not want to try to invent a wheel, because if they don't know how to solve it they don't know how to solve it, they have to find solutions. So I think the head of the company will be the same, it will always be trying to look for new things, trying to understand what is happening and using these tools instead of being locked in a room over there with a problem.[xiv]

RB describes their intent for the culture to mimic the concept of a blank sheet of paper, where people can look at alternative instead of coming with a preconceived idea, or insisting on something just because it was done before:

How to find the information she needs for her to solve. So at this point, the difficulty I had is the difficulty of anyone who will hire someone to sit next to them and such, it is a person that you have to get along with personally, it has to be a pleasant experience and for me it is essential a person with the ability to think and the ability to go after the things he will need to solve, much more than seeking. I even talked to some PhDs there in machine learning and such, but they were going to bring a culture, an idea already more ready for the business that was not what I wanted, I wanted to be with a blank sheet and we will find the best way looking at everything we have available.[xv]

Summarizing, RB consider ideas important, but posits that innovation comes from execution, from people with open minds focused on developing and integrating tools to do things differently, to solve problems by applying a different mindset.

In the next section we'll evaluate how Firm #1 relates to our research questions.

The case analysis

To assist us with the analysis, a case word table (YIN, 2009, p. 134) representing each of the research questions / themes was crafted so that the firm's statements about particular themes could be grouped. Exhibit 21 below summarizes our interpretation for how Firm #1 answered each of the research questions.

Our interpretation is based on our evaluation of their statements as represented in the narrative above.

That being said, Firm #1 defines innovation as the use of tools to resolve problems that were not yet resolved, or were inefficiently resolved. They seem concerned with how to use technology, or as they call it, the tools as a way to introduce change, to resolve a problem. Their view is consistent with that of technology change (GODIN, 2012) introduced on page 15: It doesn't care with the actual origin of the technological innovations, but rather with its use. Technological change is a production function, where firms are users of technology as it will allow them to have a better output by combining factors of production.

To find what could be changed, Firm#1 relies on the ecosystem for discussion and sharing. In that setting new ideas are brought to the table and scrutinized even with potential competitors. The sharing of ideas helps then select what to use or not, and which path to follow thus refining what they have in mind. Such practice resembles that of collective invention (ALLEN, 1983) discussed on page 19, where competitors share their knowledge and ideas so that competitors can help enhancing them.

The ecosystem is where they become aware of knowledge developed by others and already available, of tools available in the open source community that they can use – perhaps differently – to resolve the challenge at hand.

Large amounts of information are available, and a lot more created very day. With such rapid dissemination, access to large amounts of possibilities is not a problem. But as postulated by Cohen and Levinthal (1990), being able to make sense of what is valuable and what is not requires prior knowledge, adaptable search and transfer of knowledge among components of an organization. It results from social interactions through multiple channels. As we saw from the narrative, Firm #1 seems very successful with those skills, demonstrating to having what Cohen and Levinthal (1990) describe as absorptive capacity, and an effective one. Given their capability for scanning the environment and making sense of it, the environment becomes a

source of possibilities, and such openness and abundance are motives why Firm #1 implement the innovation model they use.

Questions	How the evidences relate with the research questions ?
What is Innovation	na página nº 58, innovation is about using tools, either existing or new, but using the tools differently to resolve a problem that wasn't being resolved, or that was being resolved inefficiently innovation is about using tools, either existing or new, but using the tools differently to resolve a problem that wasn't being resolved, or that was being resolved inefficiently
Why firms select the innovation models they use	On page 58, Innovations at Firm #1 come from different sources, were discussions on new ideas is one of the key The firm also leverages the open source community for technological innovations, and for ways to use existing tools differently to resolve problems The practice of collaborating, leveraging information, knowledge initially developed by others seems to be broadly disseminated and used na página nº 60, Today's environment is based on openness and sharing. A large amount of information is made available at ever growing speed. Such setting enables an ease of reach, facilitates dissemination. Innovation is not threatened by such environment, but instead it is enhanced as it is not based only on ideas but more importantly on execution. Execution is the characteristic that defines a successful firm Competition is currently not a concern for RB, as in his view the market is large and currently players leverage traditional methods. It will take time for a new entrant to reach the same level of technological development Firm #1 possesses. He is not concerned about others having similar ideas and trusts Firm #1 execution capability, thus its competitive advantage
How firms implement their innovation model	on page 59, Collaboration is a key concept, and benefits are clear as several people are thinking about similar problems and solutions, and when people work together the solution might become easier and its implementation quicker collaboration makes the product better, as the size of the community acts as an improvement mechanism In addition to taking from the community, thus leveraging inbound flows of information, the firm also considers outbound flows important, so as to give code, enhancements and new developments back to the community na página nº 60, The firm also considers important to involve clients in the discussion and validation of their ideas, and as additional source of knowledge na página nº 61, Given the size of the firm, culture is still a thought, without much definition at this stage. It seems it will be based on enabling people to learn and find solutions to problems at hand, to empower them be drive execution their intent for the culture to mimic the concept of a blank sheet of paper, where people can look at alternative instead of coming with a preconceived idea, or insisting on something just because it was done before
How the firms benefit from the innovation model they use	on page 59, the firm consider itself as a tools user, more or less like assembling Lego parts to compose a solution that will address their objectives. The firm decided to focus on the main business problem, but as their system and their knowledge evolve they consider sharing important, even as a way to demonstrate to others what they are doing and to publicize their competency and technical relevancy
What are main obstacles/challenges perceived in the firm's innovation model	on page 60, there are obstacles for sharing and collaborating, mainly in the form of confidentiality concerns, or fear of sharing information related to strategy

Exhibit 21 – How the evidences relate with the research questions for Firm #1

Source: Created by the author

They don't feel threated by the environment or by sharing ideas since in their minds execution capability is what really matters. We all have lots of ideas every minute, and end up discussing

some of them, but we do not execute on all ideas we have. No one can execute on all ideas they have or hear. You have to be confident on your execution capability. Form Firm #1, execution is the characteristic that defines a successful firm. As discussed by Hannan and Freeman (HANNAN; FREEMAN, 1977, 1986), we could say that Firm #1's view is one where their execution capability marks a position in the market as an indication of fit. Firm #1 reveals that competition is not a concern, as market is currently large and many players rely on traditional methods, where they are more open and collaborative. We saw however in Exhibit 18 on page 54 that rivalry is actually high in this environment. Firm #1 trusts their execution capability, in line with Wernerfelt (1984), they believe they possess an unique resource which can provide them with which Barney (1991) described as competitive advantage. At the end the environment will end up selecting those more fit to survive.

So it comes with no surprise that for implementing the innovation model they use, the culture they aim to develop is to be based on enabling learning, collaborating and driving execution. They want for people to be able to look for alternatives instead of becoming tied to an approach just because it was done before. They want to cultivate a culture that fully develops their absorptive capacity and their execution abilities.

They see the main benefit of their model, which they describe in terms of openness, collaboration and sharing, revealed in the form of efficiency. They don't need to invent what already exists. Instead they collect pieces and integrate them as if they were Lego parts so as to compose what will be their solution to a problem. Their clients are part of their solution, and clients are involved not only to validate the product but also as source of relevant knowledge.

Confidentiality concerns is listed as the main obstacle to their innovation model, followed by a fear of sharing information they might consider strategic.

Summarizing, according to our interpretation from evidence obtained for Firm #1 we can say that they do leverage open innovation in their practices and:

- Innovation is incremental change;

- Firm #1 selects the innovation models they use because the environment is open and information abundant in an environment which is dominant;

- They implement their innovation models based on a mindset of learning, collaborating and a strong execution capability; effective absorptive capacity;

- They benefit mainly by focusing on the problem, execution is like assembling Lego parts;

- Main challenges include confidentiality concerns and fear of sharing.

Paradigms seem above, where the firm uses external ideas and knowledge as well as internal ones to generate value very much matches what Chesbrough (2003) describes as open innovation.

Case #2 – Making foreign exchange transactions more efficient

The case narrative

Our next firm operates in the foreign exchange market, and considers the traditional way of doing business in this market antiquated. They decided to develop a platform which brings together all the players in this market, allowing transactions to take place entirely in their platform. The aggregate quotes so as to allow the user to compare the most attractive one. User can then go ahead and perform their desired transaction. They can then select where they want to receive their money – at home, at a bank of their preference or even in a different city when they are traveling.

To learn more about Firm #2, we had an informal discussion with the founders at a coaching session in Florianopolis followed by an onsite interview when they were back to their office in Sao Paulo.

For the founders, innovation is something that doesn't necessarily follows a preestablished model. It is doing something differently:

> *MA - Innovation for me is everything that people or companies can create that comes out of a model that ... actually brings a simplified model and at the same time a model that is digital. I see that everything that can be an innovation has a context...[xvi]*

> *DT - I think it really is something that departs from a pre-established model, I just do not consider it to be based on digital parameters because innovation it can be something physical as well, not only digital, but it comes to break a model or facilitate an already established model on the market, which is already established in a certain way.[xvii]*

In their opinion, innovation can be better described through examples, and their firm is a great example of innovation. They evaluated the foreign exchange market, and it is very traditional, done over the phone, exchanging messages and even using physical contracts. From their evaluation the opportunity to putting together a platform that enables easier knowledge exchange and a more agile process for foreign exchange dealing is an innovation. They are doing something differently in a much more effective manner.

The format we have today, as we studied the foreign exchange market that has existed for over 60 years, it has always had a very archaic format, either by phone or by exchanging messages or even using motoboys to take documents from a place for the other, as soon as you can build a platform where you bring together both market players and customers to do the entire exchange process through the platform, this is innovation. Through the moment that you can have the rates published in an application where the person does not need to go to a bank to consult the best quote, for me this is innovation, you can buy foreign exchange through the cell phone and receive at home or withdraw in another city where you will be, this is also innovation. So bringing the context to our daily lives is to transform the model that is in the bank today, which is that face-to-face badge and bring it to the digital world. This is how I defend the thesis of why <firm # 2> is innovative.[xviii]

In their firm, innovation comes initially from their own ideas, from their understanding about the market and the pains it inflicts to their users:

Initially they were our own ideas, we understand the market and know, knowing the pain, we also suffer from this pain ourselves, so that was how, through pain, the need arose, we built the product.[xix]

They also recognize that including their clients point of views allow for a better product:

It's our own idea and now through our customers' feedbacks we are improving the platform and also creating new features.[xx]

However, in their view the ideas from clients are mostly useful when developing something new. When the product is live, they leverage Big Data and Analytics to extract information about the client's experience and use that to work on product enhancements and new features:

Because when the product, the platform is already online, we receive feedback from customers about what is not working, so e-mails arrive with questions about the process or about the product and we measure it from there and with that we were able to create a solution. So, when you are developing the product in the beginning you really validate these pains with the market, but after the platform is in the air the feedback itself, the usability of the customers and with some specific tools you can identify what the pains are, where this audience is having difficulty, then it's easier for you to make improvements.[xxi]

Collaboration however is something done selectively. There is an apprehensiveness when communicating with larger firms, larger banks. Larger firms don't seem to share, thus don't deserve sharing. Differently, communication seems to flow freely when dealing with firms from the same size, from the ecosystem. It seems that there is even an environment of camaraderie among members of the ecosystem. This camaraderie is one of the benefits they see in an environment of openness, as they get access information, to specialist knowledge, to other firms that can leverage what they offer, or be leveraged for the implementation of their product:

MA - As soon as they are all close to the same size, the same structure, there is even an exchange of information "Wow, did you see that the Central Bank released a new law that will change the taxation of operation X? How are you analyzing this? You'll have to change the whole platform". So, some regulatory events we talk to, but from the moment that in the industry you start to communicate with banks, with big players you decrease the transmission of information a little.[xxii]

DT - Within the startup ecosystem there is a lot of exchange of information, there is an easy access, so I believe that when a person needs contact from another startup, this access is very fast because the startups are going through ecosystems, programs of acceleration, this facilitates the exchange of contacts and networking and I see that more than between large companies. Large companies hold each of their knowledge and they do not usually share it there, within the startup ecosystem it is much easier to network, this exchange of information, so I think this is a nice path that happened...[xxiii]

MA - we learned a lot and when we had some pain, "Let's talk a little about specific sales strategy, then there was a" No, no, let's take the opportunity to talk to this company here that sells a car, his experience can be reproduced in several other companies ", so we used it a lot, not only that, but also a guy who is more technical,... and then:" Who's a big guy here? ", then someone comes up and says:" No, boss and let me show you the colors of the moment ". So this exchange really exists.[xxiv]

According to MA and DT, culture can be one of the main obstacles to information sharing and collaboration. While in the startup environment, where the culture is inherently open, they reap the benefits of other opinions to validate their ideas, their model. Being open in the environment also gives them access to investment, to interesting partnerships. When outside of the environment, they feel the culture is not conducive to sharing, so in such situations they tend to be much more selective:

We take into account each place we pass, which is very cool to consider. We went first to a place that was Startup Farm that was a place to propel you, to really validate what you built makes sense, to put you to the test, to say: "Dude, are you sure these are the personas? Are you sure this is the best way to deliver the product? Is this the best sales strategy and such? ", So you feel there in a safe environment to really stimulate information. When you go to a side like Darwin, who has very strong corporate shareholders, you also say: "Gee, the more I demonstrate what I'm creating and I see that I have a feat with these shareholders, an interesting partnership can come out. So I'm going to open up more and more what I'm doing ". Now when you go for a government proposal, maybe you'll hold your hand a little bit of what you're really going to spend there, because there are many cowboys, so in an environment like this you say what's necessary, obviously you want to stand out, but you circulate a little less information.[xxv]

To share and collaborate is a function of trust, one needs to feel it, one needs to feel safe.

Their take on knowledge, and where it comes from is based on people and their experience level. They typically go to the market to find a person with the skills, the knowledge they need:

We see a need for people with skills, who already have prior knowledge before we develop the knowledge here, it make sense for us to have a product guy otherwise the operation wont hold, so I brought this background here, if I didn't know anything about foreign exchange, I don't have anything to do… And I have to add a point, which is that because I know that I will not improve, on the contrary, I also continue to evolve and seek knowledge to improve the company also ... let's get a more experienced guy and we don't train him in here.[xxvi]

They mentioned that Firm #2 is also conservative when it comes to sharing knowledge outside of the firm. In their view, sharing is more prevalent in the early stages of a startup, but when volumes start to increase, and revenue becomes the main focus, innovation and knowledge turn into strategic assets and Firm #2 more selective in terms of what it will reveal.

> *I believe that when you are in that initial stage participating in the acceleration programs, participating in events, networking, wanting to understand the market, this is more open, from the moment you enter your office, you start to focus, to focus on your billing, focus on your team, in the development of your business naturally you end up sharing information with those who seek information from your company, with those who seek a partnership which is strategic for your company, but you do not go around in the market opening it up.[xxvii]*

In their view, there is competition in this market, but there is also respect among the players so they have no reason to be concerned about it. But they are aware of other firms, banks, dealers are doing:

> *Today the competition is present, but there is respect between leaders and teams, I think this is the coolest thing and we never had any problems, we know where the neighbor is and the neighbor knows where we are too.[xxviii]*

> *We follow what are the steps that competitors are taking and what are the steps that banks and brokers are taking in our segment and we always try to be one step ahead.[xxix]*

According to the founders, Firm #2 culture is based on agility and on execution, and the main obstacle to their culture and to innovation is convention, beliefs from the traditional market.

> *Our culture for innovation is in this sense, we are very executors, much more than just understanding what others are doing we seek, we are often what we create in front of others. That's cool to talk too.[xxx]*

> *I would dare to say that what makes it difficult sometimes is the culture of people who leave a conventional market, because they ... are used to that way.[xxxi]*

> *Standard and for you to take away the culture, freeing this professional to be more disruptive is a process. So I think ... You are right, I think this is one of the difficulties I see, the traditional market itself and the way they work and the culture that we extract from this market.[xxxii]*

Summarizing, Firm #2 is more conservative in terms of knowledge sharing and a believer in agility and execution as mechanisms of competitive advantage.

In the next section we'll examine how Firm #2 relates to our research questions.

The case analysis

To assist us with the analysis, a case word table (YIN, 2009, p. 134) representing each of the research questions / themes was crafted so that the firm's statements about particular themes could be grouped.

Exhibit 22 below summarizes our interpretation for how Firm #2 answered each of the research questions. Our interpretation is based on our evaluation of their statements as represented in the narrative above.

Firm #2 defines innovation as doing something different, which is the very definition of change. Doing something different, not following a preestablish model – introducing change is a

common way to define innovation. As mentioned by Godin (2012), *"for over 2500 years, innovation has been understood as the 'introduction of change' in individual behaviors, social practices and groups or organization's activities"*.

Questions	How the evidences relate with the research questions ?
What is Innovation	On page 65, For the founders, innovation is something that doesn't necessarily follows a preestablished model. It is doing something differently
Why firms select the innovation models they use	On page 66, In their firm, innovation comes initially from their own ideas, from their understanding about the market and the pains it inflicts to their users They also recognize that including their clients point of views allow for a better product However, in their view the ideas from clients are mostly useful when developing something new. When the product is live, they leverage Big Data and Analytics to extract information about the client's experience and use that to work on product enhancements and new features On page 68, In their view, there is competition in this market, but there is also respect among the players so they have no reason to be concerned about it. But they are aware of other firms, banks, dealers are doing On page 68, culture is based on agility and on execution
How firms implement their innovation model	On page 66, Collaboration however is something done selectively. There is an apprehensiveness when communicating with larger firms, larger banks. Larger firms don't seem to share, thus don't deserve sharing. Differently, communication seems to flow freely when dealing with firms from the same size, from the ecosystem. It seems that there is even an environment of camaraderie among members of the ecosystem On page 67, To share and collaborate is a function of trust, one needs to feel it, one needs to feel safe On page 67, Their take on knowledge, and where it comes from is based on people and their experience level. They typically go to the market to find a person with the skills, the knowledge they need On page 67, Firm #2 is also conservative when it comes to sharing knowledge outside of the firm. In their view, sharing is more prevalent in the early stages of a startup, but when volumes start to increase, and revenue becomes the main focus, innovation and knowledge turn into strategic assets and Firm #2 more selective in terms of what it will reveal
How the firms benefit from the innovation model they use	On page 66, This camaraderie is one of the benefits they see in an environment of openness, as they get access information, to specialist knowledge, to other firms that can leverage what they offer, or be leveraged for the implementation of their product On page 67, While in the startup environment, where the culture is inherently open, they reap the benefits of other opinions to validate their ideas, their model. Being open in the environment also gives them access to investment, to interesting partnerships
What are the main obstacles and challenges perceived in the firm's innovation model	On page 67, culture can be one of the main obstacles to information sharing and collaboration When outside of the environment, they feel the culture is not conducive to sharing, so in such situations they tend to be much more selective On page 68, the main obstacle to their culture and to innovation is convention, beliefs from the traditional market

Exhibit 22 – How the evidences relate with the research questions for Firm #2

Source: Created by the author

For Firm #2 innovation – opportunities for introducing change – comes from the founders as they consider themselves to have a deep understanding of the market they operate in and of the pains their users face. They recognize that the point of view of the client can help in the

development of a better product, but they typically only engage with their clients when developing something new. After new features are deployed, they believe that extensive interaction with clients become unnecessary, even a distraction. When features are live they prefer to rely on big data to infer client experience, and use that to guide enhancements in their products. Such belief reinforces the trust they have in their own knowledge and their ability to understand what their clients need.

In their view, competition in the market they operate is intense. They perceive however that despite competition there is respect among players, and they see that indication as positive. As result they don't have to be overly concerned about competition. Once again, they trust their knowledge and judge their abilities to scan the environment as appropriate. They believe they have good insights about the market and know what other firms, banks and dealers are doing. So, we infer they selected the innovation model they use based on their trust on their own knowledge, agility and execution competencies.

When discussing knowledge sharing and collaboration, Firm #2's attitude is somehow conservative and they approach it selectively. There is an apprehensiveness when communicating with larger firms, larger banks … large firms don't seem to share thus don't deserve sharing. Differently, communication with firms of the same size, from the ecosystem seems to flow freely. In such settings there is an atmosphere of camaraderie. Sharing and collaborating is a function of trust, they say. If you don't trust, don't feel safe you don't share, there is no collaboration. In their view a lot of sharing was predominant in the early stages of their firm, but as things matured sharing and collaboration became less relevant. As products go live, focus turns towards operations duties. As the firm matures their own knowledge turn into a strategic asset.

It feels that the firm is at a stage where they started to leave behind that aura of creativity anecdotally associated with a startup and are now entering a phase where operational rigidities are become more apparent. This view reinforce that of the previous paragraphs: they trust and value their own knowledge, don't want to expose it as they fear that doing so would give others the keys to the kingdom – a form of rigidity in itself.

Firm #2 implemented the innovation model they use with strong reliance on the role of trust and reciprocity where sharing and collaboration is done selectively. Their strategy for knowledge acquisition is based on interacting with skilled, experienced people and specific for the type of knowledge in need at the moment. Their mindset, their practices seems to be introducing rigidities, transforming the firm from the archetypal startup innovator to a

conventional operations centric firm. Their core capabilities are turning into core rigidities (LEONARD-BARTON, 1992) as the firm integrates in the market and starts to experience pressures and constrains imposed by norms of the industry they participate, succumbing to mimetic influences of the environment (DIMAGGIO; POWELL, 1983).

But there is still hope, as the firm sees benefits in the collaboration and sharing practices they still maintain. Through openness they see inbound knowledge flows in the form of market information, specialist knowledge as mechanisms they leverage in the implementation of their products, and outbound flows they believe other firms can use in the implementation of theirs. When within the ecosystem, discussions with peers serve as mechanisms to validate and refine ideas and concepts, their model; and also gives them access to investment and other interesting partnerships in the form of other startups integrating Firm #2'sproducts in their own.

The overall culture of their market, which is very traditional and averse to sharing is seem as the main challenge they face when thinking about inbound and outbound knowledge flows.

Summarizing, according to our interpretation from evidence obtained for Firm #2 we can say that they do leverage open innovation in their practices and:

- Innovation is introducing change.

- Firm #2 selected the innovation model they use because of their trust on their own knowledge, agility and execution competencies.

- They implement their innovation models based on selective sharing and collaboration, based on trust and reciprocity. Inbound knowledge flows leverage skilled, experienced people surgically for addressing the problem at hand.

- They benefit of the model they use mainly by obtaining market information and access to specialists, and offering their products for integration with potential partners.

- Main challenges include the culture of the market they operate, which they see as very traditional and averse to collaboration.

Even though they leverage and benefit from inbound / outbound flows of knowledge, in my view Firm #2 is transitioning to a phase were rigidities predominate, which make effective use of open innovation somehow more challenging.

Case #3 – When the government judicially owes you money

The case narrative

Our next firm had the dream to become a legal clain (precatório[3]) marketplace as actuality receiving or trading such kind of debt is bureaucratic and cumbersome. The idea came as one of the founders received one as inheritance and faced challenges trading it.

To learn more about Firm #3, we had an informal discussion about the firm's main opportunities/challenges with their CTO while we both were at an startup event in Florianopolis/SC. From that initial conversation, a follow up interview on-site with the co-founder and CEO took place in Sao Paulo to understand the firm's take on innovation.

The firm was founded in 2016 and is headquartered in Belo Horizonte. It currently has 11 employees, and BR, the CEO and co-founder of Firm #3 is 31, and the oldest.

Their main focus is working on opportunities that surface given government inefficiencies. As BR, the CEO says, if the government and its agencies were efficient, we would not have an opportunity:

> *We work on government inefficiency, so if the government were more efficient, maybe there would be no room for a company like mine.[xxxiii]*

In their view, innovation doesn't need to be a disruption. Innovation is about enhancing things which are made in a particular way to make them better thus creating value to those who use it. It can be an enhanced process, product or even something completely new:

> *It is more to think a little and take things that were done in certain ways and try to improve them for a greater good, not necessarily a social good, but a good of some person, then generate more value for that person by generating a process, a product, or create something effectively new.[xxxiv]*

They believe that innovation comes from everyday challenges and opportunities, even from mundane things:

> *We talk like this: hey, it doesn't look like anything, but it's an innovation precisely because the guy took what didn't seem like anything and improved it and managed to make a profit on top of that.[xxxv]*

The founders say Firm #3 is an innovative one, as they take a product which is mandatory as it is part of our judiciary system, but very archaic in its execution and turn it into something much

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[3] A Brazilian 'precatório', here on referred to as "legal claim" is court-order debt issued by the judiciary against the government (municipality, state or federal) or its agencies.

more efficient and transparent, one which saves time for their clients and allows then to make informed investment decisions:

We take a product that is very archaic, very old-fashioned, which is mandatory and tries to provide the information that today exists, digitized, but scattered in various places on the internet and consolidates it all in one place, making it available to our client, so it is not at all descriptive, but we are able to help our client save time and effort to obtain the information from a specific Brazilian "precatorio", make a specific investment thesis.[xxxvi]

As already mentioned, the idea appeared through a challenge faced by one of the founders. Initially their objective was to create a marketplace, but one year and a half later they realized that the market really needed information and transparency. They listened to their mentors, to people that had more experience and similar clients to collect more information about their business case and the current opportunities. Ultimately, the founders end up making decisions about innovation and the direction of the firm:

We ended up seeing over the course of a year, a year and a half that the market didn't need a marketplace for this, because there was a lot of data, so that's when we became the key and said: oh, since data is missing we will be that company that provides the data to the market.[xxxvii]

We talk to more experienced people who have gone through similar paths or who have similar types of customers, so we collect ideas and end up forming our own idea, so I would say that it would be a mix of everything, but that the final decision, it's always the entrepreneur's, he weighs what he hears, "man it makes sense", if it doesn't make sense he formulates the very concept of how he could improve something or some product, some process.[xxxviii]

Ideas are shared freely, as success is not just the idea, it is the execution of such idea. Other than a few strategic matters which they keep to themselves, the firm has a lot to gain by having people critique their ideas, or by simply having discussion about their thoughts. Either because they might provide relevant insights about the market, or even helping them perceive blind spots in their model:

We say that it's okay for you to talk about an idea with a person, because what makes a company successful is not an idea is its execution, so sharing ideas is no problem..[xxxix]

At the end of the day, their execution capability is what really matter:

If you share an idea and the person does it effectively, it is because they had better execution power than yours, not because they did not have that idea. Good ideas, you can walk five minutes and have several good ideas, but as long as you don't put anything into practice...[xl]

The sharing of ideas involves their clients as well, and Firm #3 considers it an integral source of insights and innovation, with the added benefit of providing the client exactly what he needs:

We try to make small prototypes so that we can talk to the customer, but from the moment you have the product ready, "oh but that's not what I expected", so we do it with a little effort to do more quickly and validate it with him, instead of spending months trying to develop a product that when we finish...[xli]

In their case, in particular, the product they focus is very specialized, so involving the client from the beginning and listening to their ideas and insights is a critical success factor:

I have to listen to them because the market for legal claims (precatorios) is very limited, I can't have a huge number of customers, like, today it is around a hundred, so as I have this limitation I have to listen to my customer a lot more to be able to do things together.[xlii]

Humility is also key, as Firm #3 recognizes they have much to learn, and listening to other will increase their knowledge and effectivity:

So, as the product is specialized, there is no point in wanting to put everything you think you know, even because we don't have that much experience, I'm the oldest in the company, I'm 31 years old, so just put what you think will be the best for the customer, is a partnership.[xliii]

The knowledge they look for is typically related to the core of their business, or related to their strategic direction. Their approach to internalizing knowledge is either by learning themselves, sponsoring internal learning or by recruiting people with significant knowledge in the areas they consider relevant as a way to address knowledge debt.

We see what would be the company's core business, so what we think or expect it to be, in which the company will be formed, on top we try to internalize something that is not a priority in this sense, or that we do not have the necessary expertise, we try to internalize or else hire a new person to avoid this debt of knowledge that we would have.[xliv]

In general the firm is open to sharing knowledge externally, but restricts specific knowledge related to collecting info about the legal claims (precatorios) as it is their core business. They keep internally such processes as this is what makes then unique. If they were to outsource those processes they would become just an intermediary:

So we try to do what we can at home, and in the case of legal claims (precatorios) anything related to their collection I have to leave inside the house, because today this is our core business, so there is no way to externalize this because if I will depend on someone else, I end up just being an intermediary to my client.[xlv]

As for other parts of their process which are not core, they fell comfortable sharing and outsourcing:

There are people who ask us to arrive with the legal claim (precatorio) ready and I would have to make the call to find the owner of this precatory, man this is not our core, so it is easier for me to pass this on to someone else.[xlvi]

When information is available, innovation as they describe it becomes easier as it allows them to better perceive their environment. They consider important be aware of their market and what

stakeholders are doing / saying and invest in ways to acquire proper market intelligence. Internally, they support and sponsor diverse forms of learning, encouraging software developers to continue evolving and learning about new tools and technics. The fact is that there is always someone who knows more, and they need to be tuned to what is happening to be able to always learn:

> *So for what I consider innovation, which is small improvements today, it is easier to do this because if you have more information, you can understand things easier.[xlvii]*

> *You can from the perception that you had in the market, either through your experience, "man this can improve here", that you can either internalize people or acquire types of knowledge in conversation.[xlviii]*

> *From simple things like having a keyword tracking for us to see mainly in the legal claim (precatorio) market.[xlix]*

> *Our developers try without having to build the art of technology, so they try to update themselves, so we encourage them to take courses.[l]*

> *So it's a collection of things, from the most trivial information you see, the internet, to conversations with people you are never the person who knows the most, there will always be this person who knows the most.[li]*

Even though they operate in a market which is rather a niche, operating with a product which is very specialized, they continuously monitor the competition, and thinking about strategy, consider morphing their product into a cash cow while looking ahead for new opportunities, new business models:

> *The product we have doesn't have many people doing something as similar, as niche, there are some companies doing more in the sense of broader than judicial lawsuits, which makes it easier to meet customer expectations, but we know that our product is nothing to reinvent the wheel and that at any time a competitor can come and try to take our space, this is one of the reasons why we already think about new products while we have a cash cow.[lii]*

> *We had an idea of making a unique product to meet all needs and we saw: it is not better to separate it into several modules, I can monetize it more easily, "oh no, you don't need this, I won't pay to have it everything", got it?[liii]*

Flexibility, learn from their own mistakes, raise their hand for help when needed, collaboration, proactivity are keystones of their culture which allow their people to develop self-confidence and sense of ownership.

> *Flexibility, learn from mistakes, don't be ashamed to raise your hand and ask for help, collaborate, trust, because if you don't have confidence in the person who is executing the code, if he has to for each line of code, basically ask you , you end up having it, you end up pruning the person, putting a visor on it, so giving this greater freedom that we call freedom with responsibility, which is one of our values.[liv]*

They believe that when actioned, such concepts are innovation enablers. On the other side, because they are in a market which is very traditional and conservative, clients are not always

open to ideas radically different. Given clients low technical savviness, at times they even ask for low-tech, rather mechanical solutions. So innovation gets challenged by those who could potentially benefit more from it:

> *We can't try to innovate too much, do crazy things because we're in an extremely conservative market, so it's easier for me to try to win over the client by doing the basics, than to try to flourish things too much.*[lv]

> *We have clients who say: "man, there is no way to export this to an Excel spreadsheet", man this is better than Excel, understand? It's that kind of thing, so the guy is so ingrained, he's so… and they're relatively young people, but they're in such a conservative environment.*[lvi]

Another challenge they face is obtaining talent. Besides the fact that many developers want to invest in their own ideas, BR mentions that the market for developers is very heated and competition is intense. Developers became expensive, and big players as Google, Amazon end up making offers which are three times higher than what Firm #3 can make:

> *Anyone you know has an idea, "oh I'm going to make an app for this", in that sense, so it's very difficult to have developers.*[lvii]

> *So we have some difficulty to grow the team, because one thing is that we like the person, think that he has fit with our culture, with our values and another is the guy being offered three times more than the we can pay ... but here in São Paulo, I have Amazon, I have Google, I have several giant companies that people say: my dream is to work at this company.*[lviii]

Summarizing, Firm #3 sees innovation as opportunities to resolve simple everyday problems, bringing about efficiency and value to clients. Innovation isn't only about ideas as it is about the execution capability one possesses. Knowledge sharing is key as it enables learning and refining of their own ideas through critique and comments they receive. They actively listen to their clients and also consider them an integral part of their innovation model. Being in a niche market, competition is not as rough as in other markets, but they constantly monitor the market and review their business model for opportunities. Their culture is based on flexibility, empowerment, self-confidence, sense of ownership and collaboration and they believe these act as drivers to innovation. The market they operate on is very traditional, thus perceived as a challenge to innovation. Another challenge they face is obtaining skilled software developers.

The next section will present our case analysis for Firm #3.

The Case Analysis

To assist us with the analysis, a case word table (YIN, 2009, p. 134) representing each of the research questions / themes was crafted so that the firm's statements about particular themes could be grouped.

Exhibit 23 below summarizes our interpretation for how Firm #3 answered each of the research questions. Our interpretation is based on our evaluation of their statements as represented in the narrative above.

For Firm #3, innovation doesn't have to be a disruption, it is something that comes even from mundane, everyday challenges and opportunities. It is about enhancing something, a process, a product or something new so that it can add value to those who use it.

Even though still based on the concept of innovation as change shared with the previous firms examined, Firm #3 incorporates in their definition the concept of value. As described in section "2.1.1 A brief review of the theory of Innovation" on page 14, Firm #3 sees itself as supplier (instead of merely users) of technological innovations as a way to add value to their customers. By introducing the idea of "adding value to their customers", they implicitly added the concept of commercialization … aligned with the tradition of technological innovation (GODIN, 2012).

In their firm, innovation was initially a function of the founders, a way to resolve a problem one of them faced in the form of a solution that could add value to the larger community. As the firm evolved, also did their innovation model. They realized that they needed access to specialist knowledge on different fronts, being it relative to their core business or to strategic decisions to take and internalize it by sharing what they learned, by learning what is required by themselves, sponsoring internal learning of particular subjects of interest, or hiring for skills they need. Developers are encouraged to continue evolving and to share technical skills they are learning.

In addition, they believe in the important of having good market intelligence. Firm #3 operates a very specialized product, in a niche market. Despite that, they seem attentive to their market, to what stakeholders are doing and saying, to the direction competitors are taking and to investing in ways to continue acquiring proper market intelligence. They constantly review their model, and are open to morphing their current product into a cash cow while looking ahead for new opportunities, new business models. They seem very concerned to be always capable to adapt to their environment. Their attitude seem to embrace Drucker's moto "*Here today, gone tomorrow*" in his Discipline of Innovation (1985), and the very essence of Schumpeter's creative destruction (SCHUMPETER, 1942).

Questions	How the evidences relate with the research questions ?
What is Innovation	On page 72, In their view, innovation doesn't need to be a disruption Innovation is about enhancing things which are made in a particular way to make them better thus creating value to those who use it. It can be an enhanced process, product or even something completely new They believe that innovation comes from everyday challenges and opportunities, even from mundane things
Why firms select the innovation models they use	On page 73, As already mentioned, the idea appeared through a challenge faced by one of the founders. Initially their objective was to create a marketplace, but one year and a half later they realized that the market really needed information and transparency. They listened to their mentors, to people that had more experience and similar clients to collect more information about their business case and the current opportunities. Ultimately, the founders end up making decisions about innovation and the direction of the firm On page 74, The knowledge they look for is typically related to the core of their business, or related to their strategic direction. Their approach to internalizing knowledge is either by learning themselves, sponsoring internal learning or by recruiting people with significant knowledge in the areas they consider relevant as a way to address knowledge debt When information is available, innovation as they describe it becomes easier as it allows them to better perceive their environment. They consider important be aware of their market and what stakeholders are doing / saying and invest in ways to acquire proper market intelligence. Internally, they support and sponsor diverse forms of learning, encouraging software developers to continue evolving and learning about new tools and technics. The fact is that there is always someone who knows more, and they need to be tuned to what is happening to be able to always learn On page 75, Even though they operate in a market which is rather a niche, operating with a product which is very specialized, they continuously monitor the competition, and thinking about strategy, consider morphing their product into a cash cow while looking ahead for new opportunities, new business models
How firms implement their innovation model	On page 73, Ideas are shared freely, as success is not just the idea, it is the execution of such idea Other than a few strategic matters which they keep to themselves, the firm has a lot to gain by having people critique their ideas, or by simply having discussion about their thoughts. Either because they might provide relevant insights about the market, or even helping them perceive blind spots in their model At the end of the day, their execution capability is what really matter. At the end of the day, their execution capability is what really matter The sharing of ideas involves their clients as well, and Firm #3 considers it an integral source of insights and innovation, with the added benefit of providing the client exactly what he needs In their case, in particular, the product they focus is very specialized, so involving the client from the beginning and listening to their ideas and insights is a critical success factor Firm #3 recognizes they have much to learn, and listening to other will increase their knowledge and effectivity On page 74, In general the firm is open to sharing knowledge externally, but restricts specific knowledge related to collecting info about the legal claims (precatorios) as it is their core business. They keep internally such processes as this is what makes then unique. If they were to outsource those processes they would become just an intermediary
How the firms benefit from the innovation model they use	On page 75, Flexibility, learn from their own mistakes, raise their hand for help when needed, collaboration, proactivity are keystones of their culture which allow their people to develop self-confidence and sense of ownership They believe that when actioned, such concepts are innovation enablers
What are the main obstacles and challenges perceived in the firm's innovation model	On page 75, because they are in a market which is very traditional and conservative, clients are not always open to ideas radically different. Given clients low technical savviness, at times they even ask for low-tech, rather mechanical solutions. So innovation gets challenged by those who could potentially benefit more from it On page 76, Another challenge they face is obtaining talent. Besides the fact that many developers want to invest in their own ideas, BR mentions that the market for developers is very heated and competition is intense. Developers became expensive, and big players as Google, Amazon end up making offers which are three times higher than what Firm #3 can make

Exhibit 23 – How the evidences relate with the research questions for Firm #3

Source: Created by the author

So, Firm #3 didn't specifically select a model, but organically evolved towards the innovation model they use based on specific needs they faced in different phases of the development of their product. As they experienced a practice they considered positive, they ended up incorporating it in their toolbox.

Implementing the innovation model they use was a combination of learning and adapting. Firm #3 shares ideas freely, as they also see success is not in the idea but in their execution capability.

They encourage their employees to share and collaborate, as it ultimately results in learning. They constantly involve their clients in their discussions and consider clients and integral source of insights and innovation, with the added benefit that through active listening they are able to provide the client exactly what they need. This is key, as their product is very specialized, and their client needs also are. Firm #3 recognizes that the environment is full of knowledge, and that being able to effective internalize it is a critical differentiator. They seem mature and adept to the concepts of absorptive capacity (COHEN; LEVINTHAL, 1990) and seem to have developed effective capabilities to allow in and integrate inbound knowledge flows. They are aware, however of the type of knowledge which is strategic and unique to their firm, and restrict sharing of such core knowledge as this is what makes them unique.

They benefit from their innovation model thorough the flexibility it provides, their ability to learn from their own mistakes, discarding outdated knowledge and effective incorporating and integrating new. Openness encourages employees to raise their hands when needed in a collaborative setting. Openness also fosters a sense of ownership and proactivity that leads to execution.

Despite the fact they are introducing innovative products, the market is very traditional, so it takes time before clients understand their ideas and accept them. Clients are typically not technology savvy and as result end up asking for mechanical rather than technologically efficient solutions. Another challenge is the shortage of talent.

That being said, according to our interpretation of Firm #3's evidence, we can say that:

- Innovation is introducing change as a way to deliver value to their customers.

- Firm #3 didn't exactly select the innovation model they use, they evolved it through experimentation incorporating practices that they believed worked.

- They implement their innovation models based on learning and adapting, they test practices and select them if successful. Internal focus on continuous learning and

sharing, thus improving the firm legacy. Culture that fosters an effective absorptive capacity. Active involvement of their clients in idea generation and product development.

- They benefit mainly by the flexibility their model provides, openness encourage collaboration, sense of ownership, execution.

Main challenges include their clients lack of technology savviness, and the traditional market accustomed to traditional , no-technically efficient solutions.

Firm #3 seems adept to leveraging both inbound and outbound flows of knowledge as ways to develop and enhance their business, a clear aspects of open innovation.

Case #4 – Identity verification for efficiently onboarding people into your business

The case narrative

Firm #4 found its opportunity in streamlining the typically time consuming practice of verifying identity - client documentation during the client onboarding process required in the financial sector. Their initiative is key to avoid fraud:

> *LP - For example, we can quote an individual forging a document to impersonate another person, in order to open a bank account. Within this context, ensuring security in digital media is essential with the support of more innovative, fast and secure technologies.[lix]*

They use computer vision, optical character recognition, machine learning and other artificial intelligence techniques to quickly extract information from IDs, confirming the person's address and validating document integrity. They also use face detection and liveness detection in their solution. Clients include financial institutions and other firms looking to a sound onboarding process in place while bringing the time it takes to complete the whole process down to a few minutes:

> *FB - If, for example, when trying to open an account with a digital bank, the customer is faced with 15 or 20 steps, he will certainly give up. We reduced these steps to 7 or 8, encouraging the client to finish the process.[lx]*

The initial contact with Firm #4 took place at an startup event in Florianopolis/SC where this researcher had the opportunity to meet with the three co-founders, FB, JI and LP and discuss the firm and their main goals. A follow up interview took place at their headquarters in Sao Paulo where JI, their CEO provided additional insights about the firm and their take on innovation.

For Firm #4, the concept of innovation is very similar to the concept of a startup: resolving a problem in a way that wasn't yet considered. Innovation isn't necessarily linked to technology but to exploring a different way to resolve a problem:

> *Innovation, in my view, would be a concept very close to what we understand as a startup concept. I believe that you have a problem, a situation, and it is solved in a way that has not been resolved yet, regardless of the time it will take, no matter what tools you used to solve this problem, because sometimes you have the idea of innovation only through technology.*[lxi]

JI consider Firm #4 innovative, as it matches their definition of innovation – exploring a different way to resolve a problem:

> *The first reason is that we want to solve a problem that has not yet been solved. And the way we want to solve this problem… we have a pillar, and that pillar is the pillar of trust.*[lxii]

> *Today our purpose is to promote reliable relationships. And when we are saying this, we are not talking about a company that solves only identification problems.*[lxiii]

Innovation comes from insights they capture externally, as for example from clients describing their pain points; but it also comes from inside the firm, from their employees trough discussions and collaboration.

> *Innovation ends up coming primarily, the seed comes from the outside. It is our customer who is served in an X way, or is already served by us in a Y way, but he says: "look, I would like you to solve this problem for me", and based on this need, we raise a question different way of solving this problem. But not so far, on a scale, I believe that innovation also comes from within, but mainly from employees, mainly from our team, because I believe that the problem that we solve in general, is a problem which also affects us as citizens and as people. So the team ends up being very collaborative in saying: "look, we could solve this problem in an innovative way if we go along that line".*[lxiv]

Collaboration and knowledge sharing also happens with other firms in their segment as the market is still in its infancy and sharing helps with similar issues and challenges which are not related to the business core. As JI says, it is easier to be a trailblazer when you have someone helping you to open the path:

> *Fundamental, and I say more, even I signal that the sharing of ideas with other firms in the same segment, even considered competitors, is still very fundamental, because we are working with innovation in a market that is still untapped today.*[lxv]

> *Part of this innovation process is sharing not necessarily your core, your main strategy, but it is easier to explore a market that is still untapped, when you have more than one company, even a competitor.*[lxvi]

> *So we encourage a lot to share information, understanding that the ecosystem is easier when there is someone trail blazing with you.*[lxvii]

Despite the fact that nowadays the spirit is very conducive to collaboration, in their opinion barriers are mainly a matter of ego and vanity. Internally, fostering collaboration is the role of

the founders, and the managers. By sharing themselves they instill the culture of sharing, by providing incentives to sharing they make the interest of the team grow larger than individual interests:

> *I think the spirit, it is very conducive to collaboration, not only in our industry, not only in our segment, but the population is having a greater appetite to collaborate… I still see a more intrinsic difficulty to human beings, which is the question of ego and vanity, but I believe that this is gradually decreasing. Within the team, I believe that it is very much the role of managers and founders of the startup or company to disseminate what the strategic planning is, and to encourage that collaboration makes the team's interest greater than personal interest..[lxviii]*

Bottom line - sharing is positive to the image of the firm:

> *Today we think more about a strategic bias, understanding that sharing our architectures, our ways of structuring, which is not the core, it will bring a positive image to our company.[lxix]*

> *It is a company that collaborates in the ecosystem.[lxx]*

> *So I believe that if the best startup is the one that most collaborates with the ecosystem, the ecosystem will see that startup in a different way. The best professionals tend to work in the best companies, and the best companies are formed by the best professionals, so why they go there?[lxxi]*

Firm #4 consider sharing so important that one of the metrics they have internally which is aligned to their strategic planning relates to the amount of sharing each one accomplishes:

> *So much so that in our strategic planning, one of the indicators we have is knowledge, how many meet ups, lectures, that our employees do. So we measure here how much, we encourage knowledge sharing, and measure whether our team, if our company, is actually doing this, because we understand that this is one of the pillars of our growth, which is knowledge , innovation, and growth itself, because a startup needs to grow.[lxxii]*

The firm's philosophy for deciding what to develop internally versus what to look outside is relatively straight forward: if the knowledge they need does not exist outside, or if it is core they develop internally. For everything else they look externally and then integrate internally to compose their solution:

> *What we develop internally, is what we really believe, or it has a very positive financial impact, that is, it makes sense for me to develop it at home, and also because it doesn't have it in the market. But the main key, I develop at home, I consume in the Market.[lxxiii]*

> *The price, the cost-benefit of platforms like Microsoft, like Google, which have already become commodities, is so low, and the quality is so high, that it is part of our process as a solution, but it is not decisive in my core. So intelligence is before and after.[lxxiv]*

They consider that one of the main challenges they face is represented by the regulatory environment where they operate. Regulation can pose itself as cost to comply, but it can also be an opportunity since the firm is new and was born to enable digital firms to resolve their problems quickly. By investing in technology to resolve a problem affecting regulated firms

they can overcome the challenges imposed by regulation, acquire new clients and grow while at the same time complying to the regulations affecting them:

> *Today, what most could affect us the most are regulatory issues. But we believe that they can also be the push for opportunity. So I already have an answer from both sides, but why? We believe that privacy, information security, especially these two points, they need to be taken into account in any innovation process. In the old days, but not so old, you could think that they could be obstacles or even impediments, and we can see that they are not. I believe that care must exist, but it will not be that care that will prevent you from progressing or solving a problem that belongs to society.[lxxv]*

In their opinion, monitoring the market is key to the success for every startup, and they conducted a deep analysis of the market when they were developing their strategic plan. They have active mentorship relationship with key stakeholders and leverage such relationships as a tool for making sure they know where the market in going, and how they need to adjust:

> *Yes, we did a very interesting job of strategic planning, in the first round, for a startup this is fundamental. But that is exactly what serves as a guide, in addition to the mentoring processes that we do, the company as a whole, the professionals as a whole. The acceleration process helped us a lot with that. Our investors also bring this know-how, and this contribution.[lxxvi]*

JI considers that the competitive environment isn't as aggressive as in other segments. Particularly given how recent digitalization is, and how recent is their approach for resolving the problem of identity for the market. As the market evolves, and the path becomes clearer and less laborious other competitors might appear.

To navigate the market and maintain the competitive edge, they trust they possess a unique resource (knowledge). Their culture is based on four pillars, market intelligence and innovation, knowledge and people. But the culture only works if it leverages collaboration, if the goals of the team are taken as priority as opposed to individual goals:

> *Within our pillars, which are four. We call it intelligence and innovation, it's a pillar, we don't move both. Knowledge is another pillar, growth is a pillar, and people is the four pillar. Not necessarily in order of priority.[lxxvii]*

> *We start from a principle that there is nothing more important than the achievement of people, so we can give the possibility that the person who is fulfilled works with more creativity or he is more willing to do anything, including collaboration.[lxxviii]*

> *So what we prioritize within the company is that we can provide an environment in which people are fulfilled, personally or professionally, so that they feel more willing to collaborate with the whole.[lxxix]*

To date, they consider themselves successful finding talent, but see that in the next stages when they start to grow, finding talent, particularly technical might become a concern:

> *I see difficulties, but today it hasn't affected us yet, I believe this will be there on the next steps that we will climb when we need to scale.[lxxx]*

I believe that our talent challenges will come in the next stages, when we face the next growth boom.[lxxxi]

Their strategy comes primarily from the founders, but once they reach a first cut they share with their employees for additional insights:

We were three until July, today we are 14. In this process, we hired very well, as we had talent before. And we felt the need to be professional in strategy planning, in creating this strategic planning. Although there were some absolute truths among the founders, I think the big catch was that we had humility, or we conditioned our ego to have humility not only intellectual, but ego, vanity, so that the people who arrived could have the their space, and even one of these people could even be the driver, the mediator of the construction of this strategic planning, for competence, for having already done this, but also for that more neutral position.[lxxxii]

We did it primarily with the founders, and then we took it to the team, so that we could make these drivers, these values, these pillars more elaborate.[lxxxiii]

In summary, Firm #4 is adept to collaborating freely, and sees innovation as a different way to resolving problems. They develop internally components of their solution which they consider core, and go outside for knowledge, tools, components which are already available. They integrate what they obtained outside with their core to create their solution. They see regulation as a barrier, but also as one of the main sources of opportunities. Their competitive environment isn't very aggressive yet, and Firm #4 leverages the knowledge they possess to stay ahead of competition.

We'll continue in the next section with the case analysis for Firm #4.

The case analysis

As disclaimer, Firm #5 and Firm #6 are clients of Firm $4. Firm #12 uses its infrastructure to offer Firm #4 services.

To assist us with the analysis, a case word table (YIN, 2009, p. 134) representing each of the research questions / themes was crafted so that the firm's statements about particular themes could be grouped.

Exhibit 24 below summarizes our interpretation for how Firm #4 answered each of the research questions. Our interpretation is based on our evaluation of their statements as represented in the narrative above.

Firm #4 sees innovation as doing something new, as resolving a problem that wasn't yet considered, not necessarily linked to technology, but to exploring a different way to resolve a problem. Firm #4 is another firm to subscribe to the concept of innovation as change described in section 2.1.1 "A brief review of the theory of Innovation" on page 14.

Firm #4's founders had from the beginning the idea of fostering openness. They envisioned a culture they wanted to instill based on four pillars: market intelligence, innovation, knowledge and people. They meticulously devised a strategy for implementing each one of those pillars, as for example encouraging collaboration, starting by sharing and collaborating themselves, and having managers also give the example. Their belief was that with the right incentives in place they would be able to instill the right culture where sharing and collaborating make the interests of the team grow larger than individual interests. Internal metrics capture individual degree of sharing and collaboration. They also believe in collaborating and sharing externally results in positive impacts to the firm, so another reason to be open.

They based their business model around specific regulations, which is often seen as a challenge by many, but a source of opportunities when you decide to focus on it. Also, basing their model on effective use of technology was a way to differentiating them from the herd. Effective monitoring of the market was key to helping them decide which path to follow, and also in guiding them through the bumps of the road. Firm #4 is very active in their interactions with key stakeholders in the market, they have active mentorship relationships with key market participants and leverage such mentorships as tools for making sure they know where the market is going and how they can adjust. Strategy is initially a function of leadership, but they started to open aspects of it to employees for additional opinions and insights.

They believe that competition isn't as intense in this market segment as it was traditionally a manual process. Digitalization brings about new challenges, and few are positioned and exploring it actively as they are. Their approach suggests a more traditional, prescriptive orientation towards strategy. We saw they had a meticulous plan for how to implement their innovation model, where to position their firm somehow aligned with the Design, Planning and Positioning schools of strategy (MINTZBERG; WATERS, 1985). They believe they have the right capabilities to scan the environment and make sense of it. This focus on unique assets and capabilities follows the precepts of resource based theories (WERNERFELT, 1984).

Implementing their innovation model was a mix of following the plan they had developed, and adjusting to market realities. As mentioned above, they have effective metrics to track their situation with regards to each of the pillars of their culture, and use those to adjust their path. They actively listen to their clients, but also to their employees for opportunities and enhancements. They are also open to sharing and collaborating with other firms in their segment. Their decision model for obtaining knowledge is rather simple: if they have the knowledge they need internally they leverage it, if they don't, they look for ways to obtain it

externally. For everything else, they look for what already exists externally and integrate it internally to compose a solution. Their view matches that of Pénin (2013) where openness acts as an enabler for innovation where higher levels of openness lead to more efficient methods of knowledge production.

Regarding benefits of their model, in their view, as the market the operate in is still in its infancy, sharing helps finding answers to similar issues and challenges which are not related to their core business. As they say, trailblazing is easier when you have someone else to help you open the path. Previous research (DU, 2017) shows that this ecosystem actually features business relationships based on cooperation-competition among participants. That approach looks like a form of collective invention (ALLEN, 1983) where competing firms share their knowledge, making their designs available to competitors, in such a way that competitors can further enhance them by including extensions creating a virtuous cycle.

They list the cost to comply to regulatory matters and talent shortage as main challenges.

That being said, according to our interpretation of Firm #4's evidence, we can say that:

- Innovation is introducing change

- Firm #4 select the innovation model through careful design of behaviors and incentives so that a culture of market intelligence, innovation, knowledge and people would develop. They also carefully selected a niche in the market traditionally characterized by inefficiencies so that they could leverage their key competencies as differentiator.

- They implemented their innovation model by following the plan they developed and adjusting to market realities. They have effective metrics for core aspects of their culture, actively listen to clients, and have a defined yet simple decision model for where to look for knowledge.

- They benefit mainly by openness as a way to finding joint solutions to common problems.

- Main challenges include the cost to comply to regulatory matters and talent shortage as main challenges.

Firm #4 is adept ad collaborating freely. They develop internally components which are core to their business, and look externally for knowledge which is available and can be integrated in their solution. The purposive knowledge flows they support are aligned with Chesbrough's (2003) definition of open innovation.

Questions	How the evidences relate with the research questions ?
What is Innovation	On page 81, For Firm #4, the concept of innovation is very similar to the concept of a startup: resolving a problem in a way that wasn't yet considered. Innovation isn't necessarily linked to technology but to exploring a different way to resolve a problem
Why firms select the innovation models they use	On page 81, Internally, fostering collaboration is the role of the founders, and the managers. By sharing themselves they instill the culture of sharing, by providing incentives to sharing they make the interest of the team grow larger than individual interests On page 82, Bottom line - sharing is positive to the image of the firm On page 82, Firm #4 consider sharing so important that one of the metrics they have internally which is aligned to their strategic planning relates to the amount of sharing each one accomplishes On page 82, Regulation can pose itself as cost to comply, but it can also be an opportunity since the firm is new and was born to enable digital firms to resolve their problems quickly On page 82, By investing in technology to resolve a problem affecting regulated firms they can overcome the challenges imposed by regulation, acquire new clients and grow while at the same time complying to the regulations affecting them On page 83, In their opinion, monitoring the market is key to the success for every startup, and they conducted a deep analysis of the market when they were developing their strategic plan. They have active mentorship relationship with key stakeholders and leverage such relationships as a tool for making sure they know where the market in going, and how they need to adjust On page 83, JI considers that the competitive environment isn't as aggressive as in other segments. Particularly given how recent digitalization is, and how recent is their approach for resolving the problem of identity for the market. As the market evolves, and the path becomes clearer and less laborious other competitors might appear On page 83, To navigate the market and maintain the competitive edge, they trust they possess a unique resource (knowledge). Their culture is based on four pillars, market intelligence and innovation, knowledge and people. But the culture only works if it leverages collaboration, if the goals of the team are taken as priority as opposed to individual goals On page 84 Their strategy comes primarily from the founders, but once they reach a first cut they share with their employees for additional insights
How firms implement their innovation model	On page 81, Innovation comes from insights they capture externally, as for example from clients describing their pain points; but it also comes from inside the firm, from their employees trough discussions and collaboration On page 81, Collaboration and knowledge sharing also happens with other firms in their segment On page 82, The firm's philosophy for deciding what to develop internally versus what to look outside is relatively straight forward: if the knowledge they need does not exist outside, or if it is core they develop internally. For everything else they look externally and then integrate internally to compose their solution
How the firms benefit from the innovation model they use	On page 81, as the market is still in its infancy and sharing helps with similar issues and challenges which are not related to the business core. As JI says, it is easier to be a trailblazer when you have someone helping you to open the path
What are the main obstacles and challenges perceived in the firm's innovation model	On page 82, They consider that one of the main challenges they face is represented by the regulatory environment where they operate. Regulation can pose itself as cost to comply On page 83, To date, they consider themselves successful finding talent, but see that in the next stages when they start to grow, finding talent, particularly technical might become a concern

Exhibit 24 – How the evidences relate with the research questions for Firm #4

Source: Created by the author

Case #5 – Processing payments quickly

The case narrative

Firm #5 is the largest and oldest of the startups in this study: it has 52 employees, and is 6 years old in its current form. It is headquartered in Blumenau/SC where most of the software development takes place, and has an office in Sao Paulo mainly focused on sales and marketing. Firm #5 label itself as a digital payments firm that is revolutionizing how small, medium and large firms handle payments and receivables. They praise themselves for their agility, convenience and security.

To familiarize with the firm and its main objectives, this researcher had an informal discussion with JK and NN, co-founders while at an startup event in Florianopolis/SC. From that initial conversation, a follow up interview with PG their CEO took place in Sao Paulo.

For Firm #5, innovation isn't necessarily about radical change, instead it is about doing something in a different way, in a manner that others hadn't considered, filling gaps so that the approach is perceived as new:

> *Specifically, from the company we work for, innovation is a different way of doing, not necessarily doing something that didn't exist, a new technology, but in our mind it's a different way of doing that nobody noticed or had gaps and then you start doing it in a different way, and that, when the customer realizes it, he thinks it is a new company. Basically, in the financial market it is not even a technological leap, but a different way of doing.*[lxxxiv]

PG mentions that innovation comes to the firm predominantly from the vast experience of their executives and the understanding they have about the market, the pains of their clients and the opportunities that appear with new regulations:

> *First, there is an issue in the company that executives are executives with a lot of financial market background. This is a factor. The experience is because we always work in strategic areas. The strategic area in terms of thinking things over and listening to customer demands, understanding the legislation, because in the financial market you cannot do anything that is written in the law. It is well regulated. However, when you know financial products, when you meet customer demands, customer pain, when you know legislation, you can extract and assemble new things to help customers. I think this is the overriding factor, the knowledge that has been applied to things that nobody thought.*[lxxxv]

Clients are frequently part of the solution, and Firm #5 is constantly in touch with their clients to assess their needs and how their businesses [clients] can be improved by the solutions they [Firm #5] present:

> *In fact, we have a sales team and we monitor sales. We usually visit clients and understand the client's pain. Where it hurts, what bothers you, what would make your life better for you, what makes the business better for you. So, we do involve the customer. This is very common.*[lxxxvi]

Since in their mind no one can do everything alone, sharing is an important aspect of business. At times the big players are unable to provide a solution, then the small ones enter the game. In other situations, instead of fitting it is better to think about a different way to handling the issue at hand, and sharing is at the heart of such approach:

> *We understand our firm today, if we look at it in the structure, it is a sharing company, because in our concept, nobody does everything alone, nobody is good at everything. So, we share things. Our head is, instead of fighting with what is imposed on the current financial market, you join it and bring new things. There are things they can't do, the big ones, here are the little ones to help. This sharing is very important. We understand it as an important issue.[lxxxvii]*

Sharing and collaborating is a matter of finding in other firms solutions you need and don't have internally, adding and integrating different products and components to your offering so that you get better positioned to address your client's needs:

> *We share with companies that are similar to ours, but that have different products. So, there is a company that is strong in the market and changes. I don't change, so I take her solution and plug it into mine. She needs payment solutions, I take my solution and plug it into hers. It's not a problem. Unlike the current status quo, which the bank wants everything, it wants to have full banking, and there is no sharing. In minors this is not a problem, in my view. So, there is a company that operates with investments. I don't operate with investments, but I can put her solution on my platform and put my solutions on her platform. That exists.[lxxxviii]*

In their view, one of the main challenges to sharing and collaborating, to being innovative is when the firm is ready to scale, the growth of the firm and the revenue pressures the executives face. A smooth operation requires time, and as resources are scarce, focusing on sustaining the business takes priority over implementing new ideas :

> *The vast majority of companies that I look at and that already have customers, that already have revenues, the challenge is to scale that business, because then you have the executive team, which now has no salary. He needs his monthly compensation. So, everyone is running to put in new solutions, to get more customers. The biggest difficulty is time to implement that idea. Time and manpower to implement new ideas.[lxxxix]*

Another challenge they observed relates to obtaining the people they need to scale and innovate:

> *Today our biggest difficulty is human resources. I think it's not just ours, but what we talk about from everyone. In Brazil, there is a very large gap in technology and technology resources.[xc]*

Their executives are constantly monitoring the market for opportunities and threats, and they believe their experience is key to making sense of their environment:

> *They are, all the time, looking at the market. We were trained to do that, looking at the market, analyzing scenarios. So, when legislation comes out, a lot of people think "This is here to get in the way". People lean over it and try to extract good things. We were trained for this, so sometimes, which is bad for one, we find opportunities.[xci]*

Monitoring the market is key, as they consider the market they operate extremely competitive, mainly due to the hefty margins which are still available for firms to capture:

It is an extremely competitive environment. There is a reason, it is because it still has high margins. So, if you have high margins you have a lot of competition. In our case, this is the phenomenon, it is a market with a lot of margin. The market in which we operate, the payment market, until five years ago was extremely closed. It started to open in 2014.[xcii]

To maintain their firm competitive, Firm #5 focus on being close to their clients, understanding their needs and providing proper solutions on a timely basis:

A competitive firm is always looking to understand the client side. We understand that new things will come, price war will come, a lot of things will come, but we understand that those who are close to the customer remain in this war, in this battle. Who serves the customer well, who sees the pain he has and tries to resolve this pain by taking friction out of the process. The secret for us today is to be close to the customer.[xciii]

Firm #5's culture is based on meritocracy, ownership, flexibility, transparency and communication. They instituted learning and sharing programs where they invite external participants to share their views and experiences about a myriad of topics. They believe their culture instils a sense of belonging in their employees, and such feeling binds then to the firm, and help drive their productivity and proactivity:

We come from large corporations, executives, and what we do totally they did in the form of meritocracy, in the form of remuneration, in the form of dealing with employees. We try to make the employee feel good about it here, that he doesn't feel like an employee.[xciv]

Do you want to work from home? We have all the structure for him to work from home. If he is hitting goal after goal, I will not change the rules for him to earn less. Quite the opposite. I will encourage him to hit more goals. I'm going to give him instruments to grow much more.[xcv]

So, every month we have a <Firm # 5> Talk. We call people from other companies to attend a lecture, an event, and there we are always showing what <Firm # 5> is, what we do. This is a strategy for outsiders to get to know us, because today is no longer a salary, today is a purpose.[xcvi]

The main barrier to innovation in Firm #5 today is their implementation capacity. As already mentioned, resources are scares and focused on revenue producing activities as opposed to implementing new ideas:

In innovation, we have the difficulty of implementation. If we take projects of new things that one day we wanted to put live for customers, it is very big.[xcvii]

So, I think this is one of the biggest difficulties that it has, of putting innovation. What I see today in <Firm # 5> is the difficulty for you to deliver the solutions, the innovation you saw.[xcviii]

The idea is great, but considering these rules, you will not be able to implement. I think this is a difficulty too, not only in our case, but that I see in the market too.[xcix]

The firm considers collaboration and sharing important, and developed internal programs and provided internal tools to make it easier for employees to communicate. Among them are blogs, meetings and an institutionalized <Firm #5> Talks:

We have a blog that is for customers. So, everything that we see here, it is a market thing that for many seems like a difficulty and for us it is an opportunity, we put on the blog very detailed, well structured and very didactic. So, they read and we talk, hold meetings, then they keep up to date.

In summary, Firm #5 is the largest and oldest of the firms studied. They see innovation as an incremental opportunity to explore different ways to address a problem, to fill the gaps that currently exist. Competition is stiff, mainly due to the fact this is an untapped market and margins are high. Their executive are constantly monitoring the market for challenges and opportunities, and in their view new regulatory rules are beneficial as they allow smaller firms to participate in a market traditionally occupied by large institutions. They seem open to sharing and collaborating, and believe this practice can provide them with new opportunities. Firm #5 developed a culture of belonging, and believe that this will bind employees to the firm. Binding employees to the firm is important as finding people so that they can grow and scale is currently their biggest challenge, and also their main barrier to innovation.

The case analysis for Firm #5 will be presented in the next section.

The case analysis

To assist us with the analysis, a case word table (YIN, 2009, p. 134) representing each of the research questions / themes was crafted so that the firm's statements about particular themes could be grouped.

Exhibit 25 below summarizes our interpretation for how Firm #5 answered each of the research questions.

Our interpretation is based on our evaluation of their statements as represented in the narrative above.

With Firm #5 we get again a view that innovation is the introduction of change, aligned with what we saw in section 2.1.1 "A brief review of the theory of Innovation" on page 14.

Why did they select the innovation model they use ? Their executives came from large corporations, with extensive knowledge about the market. They had strong opinions about what worked and what didn't in their previous employers, so decide to bring to Firm #5 what they considered best practices. The market the operate is extremely competitive and substantial margins still available for firms to capture. Aligned with the theoretical approach to competition know as industrial organization (BARNEY, 1986; PORTER, 1980), to maintain their firm competitive they actively track the market for opportunities and threats, for ways to becoming different in this settings, trying to find ways to create differentiating factors. They believe their

experience is key to making sense of their environment. They also focus on being close to their clients, understanding their needs and providing proper solutions on a timely basis.

Questions	How the evidences relate with the research questions ?
What is Innovation	On page 88, For Firm #5, innovation isn't necessarily about radical change, instead it is about doing something in a different way, in a manner that others hadn't considered, filling gaps so that the approach is perceived as new
Why firms select the innovation models they use	On page 89, Their executives are constantly monitoring the market for opportunities and threats, and they believe their experience is key to making sense of their environment On page 89, Monitoring the market is key, as they consider the market they operate extremely competitive, mainly due to the hefty margins which are still available for firms to capture On page 90, To maintain their firm competitive, Firm #5 focus on being close to their clients, understanding their needs and providing proper solutions on a timely basis On page 90, Firm #5's culture is based on meritocracy, ownership, flexibility, transparency and communication On page 90, The firm considers collaboration and sharing important, and developed internal programs and provided internal tools to make it easier for employees to communicate. Among them are blogs, meetings and an institutionalized <Firm #5> Talks
How firms implement their innovation model	On page 88, PG mentions that innovation comes to the firm predominantly from the vast experience of their executives and the understanding they have about the market, the pains of their clients and the opportunities that appear with new regulations On page 88, Clients are frequently part of the solution, and Firm #5 is constantly in touch with their clients to assess their needs and how their businesses [clients] can be improved by the solutions they [Firm #5] present On page 89, Since in their mind no one can do everything alone, sharing is an important aspect of business On page 89, At times the big players are unable to provide a solution, then the small ones enter the game. In other situations, instead of fitting it is better to think about a different way to handling the issue at hand, and sharing is at the heart of such approach On page 90, They instituted learning and sharing programs where they invite external participants to share their views and experiences about a myriad of topics
How the firms benefit from the innovation model they use	On page 89, Sharing and collaborating is a matter of finding in other firms solutions you need and don't have internally, adding and integrating different products and components to your offering so that you get better positioned to address your client's needs On page 90, They believe their culture instils a sense of belonging in their employees, and such feeling binds then to the firm, and help drive their productivity and proactivity
What are the main obstacles and challenges perceived in the firm's innovation model	On page 89, In their view, one of the main challenges to sharing and collaborating, to being innovative is when the firm is ready to scale, the growth of the firm and the revenue pressures the executives face. A smooth operation requires time, and as resources are scarce, focusing on sustaining the business takes priority over implementing new ideas On page 89, Another challenge they observed relates to obtaining the people they need to scale and innovate On page 90, The main barrier to innovation in Firm #5 today is their implementation capacity. As already mentioned, resources are scares and focused on revenue producing activities as opposed to implementing new ideas

Exhibit 25 – How the evidences relate with the research questions for Firm #5

Source: Created by the author

Implementing their model was a matter of following the best practices their executives developed based on their extensive experience. Part of their modus operandi is to always include their clients in all aspects of product development, as it allows them to fully understand

their pains and needs, as well as maintaining clients close and aligned. With that they implemented an effective market intelligence function to help with strategic decision making, as well as implemented institutional learning events. One with external lecturers, talking about relevant business / regulatory / technology topics, and another one internal where employees lecture about their knowledge and experience on a myriad of topics relevant to the firm. Their take on strategy seems to follow a more prescriptive orientation, following the Design, Planning and Positioning schools (MINTZBERG; WATERS, 1985).

As for benefits of their innovation model, they see in sharing and collaborating a way to find in other firms and organizations solutions for problems they have and don't possess internally so that they can be integrated in their offerings. Another benefit is how their innovation culture instill in their employees a sense of belonging and ownership in their employees, a feeling that binds them to the firm and help drive their productivity and proactivity in the form of execution. Their practice seems related to the model described by West and Bogers on how firms profit from open innovation (WEST; BOGERS, 2014).

The main obstacle they see in their current model as firm is ready to scale and grow is the pressure on executives for revenue. A smooth operation requires time and as resources are limited, focusing on sustaining the business takes priority over implementing new ideas. They need to be careful not to kill their core capabilities in favor of what can become core rigidities (LEONARD-BARTON, 1992). Skill shortage is another challenge they face.

That being said, according to our interpretation of Firm #5's evidence, we can say that:

- Innovation is the introduction of change.

- Firm #5 chose the innovation models they use based on previous experience of their executives, brought to the firm in the form of best practices.

- They implement their innovation models based on the best practices developed by their executives. They involve clients in all aspects of product development. The have a process for obtaining market intelligence and scanning the environment for opportunities and threats. They implemented institutional programs for sharing knowledge: one where they bring external people to talk about relevant matters, and another one which is internal where their people talk about important relevant topics

- They benefit mainly from the innovation model they use by having access to external firms and organizations for knowledge they do not have internally, knowledge that can

be integrated in their offerings. Another benefit is instilling in their employees a sense of belonging and ownership which result in productivity and proactivity

- Main challenges include pressures of scaling and growth as resources are scarce and pressures on revenue and smooth operation take precedence over implementing new ideas.

Firm #5 has institutional processes for facilitating inbound flows of knowledge, disseminating and integrating them in their offerings, encouraging and sponsoring learning and sharing among employees. This model is certainly a form of open innovation, even if favoring outside-in flows.

Case #6 – Facilitating communication globally

The case narrative

Firm #6 was founded in 2016, and provides a marketplace for instant messaging and collaboration solutions. Their basic product leverages the concept of a chat and can be integrated with a multitude of customizations available in their marketplace. At the time of the interview, they were already 40 people, but leveraged their open model to obtain collaboration from thousands of engineers across the globe.

GE who is Firm #6's founder understands innovation as something that integrates ideas or technologies to resolve a problem in a new way. In his view innovation from the ground up almost doesn't exist anymore as we stand in the shoulder of giants that brought us here:

> *For me, innovation is when you take two different ideas or technologies, and you can apply them to solve a problem, in a new way. I think to innovate and create something from scratch, it almost doesn't exist anymore. The world has already reached a level where you will always be stepping on the shoulder of giants who brought us here. The innovation, perhaps is when you perceive a synergy between two technologies, in a way that someone has not yet realized, that you can solve a problem using those two technologies.[ci]*

In their opinions, Firm #6 is innovative for a multitude of reasons. Their business model is different, the way they use human resources is different, the approach they use leverage from open source:

> *Because since our business model, it is a different model from other companies that are in the same segment, we did not invent a business model, but we managed to look at large companies that use this market place, open source business model, in the up color, as they call it, in the field of collaboration and instant messaging. We are innovative in this sense, that we were the first to introduce this model in our segment.[cii]*

> *I also say that it is an innovative company, because it extends beyond the company's staff. We are 40 people, not even that, but there are thousands of developers who contribute with us, contribute to the project, and they bring applications to our tool, which we had not thought of. There's a lot that is on our roadmap today, or files that were made, that didn't even cross our minds, it wasn't in our plans, in a little while the community came and said: it would be really cool if you had this.[ciii]*

Because the code is open, it sometimes opens more than a suggestion, it comes as an implementation, from someone, somewhere, in a real use case, saying: I needed to do this, because I need to do it such a thing, here's the code back for you. This has happened hundreds of times.[civ]

They consider themselves innovators because they are open, and a platform that enables other to be innovative, to create on top of the innovations they provide:

We are innovative because we are open, there are many more developers than those who are part of the company, and we serve as a platform for people to create things on top. It turns out that we are even an innovation inabler of other companies, who create things on top of what we have already done.[cv]

Innovation in Firm #6 comes both from employees and from external collaborators, but GE and RG note that there is a disproportional flow of knowledge coming from the community, outside in.

Yes, it's a little bit of everything, we have people, we create things, but most of them are developers around the world, who use us to create other things and give us code. Of course, there are developers inside the company, we create things all the time, but the number of developers outside the company is simply disproportionate, with those inside.[cvi]

Their clients are also engaged in the process and important source of innovation for Firm #6:

The biggest contributors are customers. Because they are customers, they use it, most of the contributions come from large customers, <Client>, in Germany, the American defense department, the first version of our permission system was he who created and sent us the code.[cvii]

So, knowledge sharing is key for Firm #6, and the flow frequently happens on both directions: inbound and outbound with diverse participants: The open source community, clients, universities.

We have a lot of universities here in Brazil, the Federal University of Santa Catarina made a big project with us, right at the beginning, in their area. In the United States, there are some big universities that use it too, contribute back, help us test things they need.[cviii]

Despite all the openness which seems to be present in their daily activities, Firm #6 also noted challenges to collaboration in their interactions. Challenges mostly comes from firms which are more traditional in their approach to leveraging open source, and to sharing their knowledge. Such firms are afraid that if they use open source code, adjust it to address their needs and give it back they might be at risk of sharing parts of their intellectual property.

There are companies that we know have come up against internal legal barriers, there was one that we know made several improvements and never sent back to us, it is <firm>. It is a company that has no culture of contributing with code, it is a much more closed company, we even had a meeting there in San Francisco for the community and developers, two or three engineers came from the <product> team, to say : thank you, we use <RC>, in all <product> developers, they contribute, exchange ideas through your themes, we have three separate offices, we made some improvements, but <firm> lawyers don't allow to deliver. It's not even a monetary issue, when it comes up, because <firm>, but they're afraid that, if the employee used a library,

something closed from <firm>, a piece of code and he will publish it, that they lose more pieces of intellectual property than they have. The lawyer, instead of wasting time, thinking and seeing what it is, it's easier for them to say no and cut.[cix]

For Firm #6, this model based in openness and sharing comes way back from when the Founder was still and college, created a project and opened it on the internet. He was surprised by the amount of collaboration and dissemination the project received. It was then natural to use the same model when founding RC.

The story is much older. My first experience with open source, was when I was in college, at the very beginning, I had a development company, and I created a project for a text editor, to be able to edit html in the browser. There weren't many. There was one or the other that was good, I created one, published it, there was no github at the time, it was sourceforge. It had hundreds of thousands of downloads, it was translated into 30 languages, that was the beginning of the internet, so those numbers were proportionally much higher, hundreds of thousands were millions. They started to improve the product I had made. A company formed by students who started graduation, and now there are still some people from Silicon Valley coming to hire us for a project, how much would I have to spend on marketing to reach these people one day and try to get on their radar, publish the project? That was back in 1998, it left a little seed.[cx]

And almost 20 years later, we created this project. The RC had no name yet, it was a chat module, and it was part of another management system. Then we thought: if the chat part is going to get better and better and the community helps, better. And who knows, it will take us to the exhibition that the editor took that time, it will attract attention and in a little more people will want to understand what we do. This is exactly what happened, we published and in a little while there was a flood of people looking at what we are doing, participating, wanting to invest in the company and hire us to do a project. I had this experience that was very positive and now it was a thousand times even more positive with RC, I saw the power of open source for you to open doors, customers and the community perceive the project in a different way, it's a bit of everything.[cxi]

In their view, this model also makes the firm more competitive, more lucrative and more attractive in the job market, even boosting retention.

It came into existence the moment we opened the code, because it caught the attention of so many people. Investors looked and were impressed by the open source and penetration in the community. For us it is much more profitable and the biggest challenge sometimes of open source, people don't realize, is that they feel that they are generating value and sometimes they are not capturing so much value back.[cxii]

If the code were closed, it could capture 100 percent of the value, but you would get a fraction of nothing.[cxiii]

More attractive, this is a certainty. It is a challenge for us because, like everything, it has the pros and cons. The pro is that it really makes it more attractive, because employees feel: I will contribute to this code.[cxiv]

For the collaborator it is attractive because, although the intellectual property is not his, the results of what he does are linked to his name, he is known in the project community, respected. Often, in a closed-source company, who is the engineer who was responsible for such a thing? Customers cannot say who created it.[cxv]

Until today it has been very good, we never lost anyone because some company arrived and wanted to take it. First, we pay well, we have a participation policy.[cxvi]

In this new world of technology and digitalization the competitive environment is intense, there is an immense availability of resources that can be leveraged, the internet enabled access to

information in ways never seen before, access to compute became cheaper. In shorth, innumerous impediments that used to difficult innovation and entrepreneurship have been removed, entry barriers aren't as severe as in the past.

> *Today there is this compensation: it is much more competitive, because startup has become a word that is almost losing its meaning, any new company calls startup, the word is almost disappearing from meaning. The competition is very big, it became kind of fashionable, on the other hand, the amount of services and information that help a startup, for a person to get an idea of the role, before you had to have a datacenter, hire accountants, install servers, today you go to amazon, get credit to start for free, any idea, you can sometimes start a business without spending. He must have spent thousands of dollars to create, to reach the market, nowadays you can reach the market at zero cost. You have the information available to learn, produce, reach your client with mvp, without spending anything, before there was none of that. Much more competition, but also much less barrier to entry.[cxvii]*

Maintaining the firm competitive in such environment requires imagination, and the best people. People aligned to the ideas and vision of the firm. A team committed to sharing and collaborating, because when the community is large and focused on the vision, opportunities emerges for everyone, collaborations prevails, and competition struggles.

> *Nowadays you have a platform to create ideas, where the difference is much more in the ideas. The game has changed.[cxviii]*

> *First, it is keeping the best minds in the company that we find, motivated by the company's purpose, having a vision of what we want to do.[cxix]*

> *A vision that involves the community, the community has to participate and, sometimes, a lot of people who think about becoming our competitor, look at what we are doing and decide to be a collaborator, we created a market place that allows these people, instead of starting from scratch.[cxx]*

> *You end up creating an economically healthy ecosystem, where people who might have different ideas for our future of features, instead of having to start from scratch to compete with us, create your functionality, put it in the market place and let's collaborate. We created a strong system.[cxxi]*

> *What we have to do is create a large enough community, a sufficient number of collaborating people, so that it becomes unbeatable, more than the company alone. Open source has this power and the challenge is always: to create a large community, that it has the weight of the community. This is your competitive advantage, more than anything else. Whoever will start a project, compete with us, is one thing, competing with the community is another.[cxxii]*

As GE mentioned, the culture being created in Firm #6 somehow inherited the habits of the founder: being open and receptive to ideas, opinions and criticism. Being a good listener is a characteristic that matters a lot. If you decide to be open, to engage the community you need to spend time to hear what the community is saying. Of course you need to arbitrate and guide decisions, but you cannot be unreasonably contrary to others just because you are the owner, after all it was your decision to make it open in the first place.

It sometimes has characteristics even mine, because they say that the founder's habits end up being inherited by the company. There is one thing that I see that the company has adopted, which is to be very open and receptive to all kinds of opinions, even with criticism.[cxxiii]

But we don't have to be so restrictive in the way the guy decided to do it, as long as it works. We are giving the community more freedom to create add-ons, without impacting everyone, it will impact whoever wants to use that add-on. This will release this contribution bottleneck. But the concern with valuing what other people do, has always been a strong value that came from me, in the beginning with my programmers I fought, because they said: man, you don't accept anything. I can piss the guy off, even what he did reach a level of quality, but I won't say to him: I won't accept it. Transform it into a series, put the mode here, whoever wants to use it, until the end. If he wants to give up in the process, it's his problem. If he was frustrated, he saw that it is very difficult. This ended up incorporating in the company, everyone tries to be very receptive and help people to program, it became a very receptive community where everyone ends up imposing this and has this expectation of other people.[cxxiv]

Having an integrated team is key. With the current size, it is relatively easy for everyone to know what others are doing, and given the fact the core of the firm is instant messaging, integration is a deep value for all.

As we grew, the company went through moments where it started to feel disintegrated, because it started to have more people than it was used to. Four people work together in the same room, everyone knows what everyone is doing and when you turn 40, it starts to be distributed around the world, we are in seven countries, it starts to get more complicated. Our luck is that our tool is for chat, for team integration.[cxxv]

But other than that, it's a matter of processes, we started to work with processes, started to grow, started to create items based on Google, which they made on the Black Fridays, which everyone talks about. There is an hour without an exact agenda, but a list of what they want to discuss, everyone can ask anyone anything and line up, a weekly newsletter, where the leader of each team puts a summary of what he thinks students should knowing that his team made it, we have some tools that we started making, but the most important is our own tool.[cxxvi]

Obtaining the right talent hasn't proven to be a challenge for Firm #6 but as GE mentioned, there always room to get better.

Usually we open a vacancy, a lot of people apply, there are always very good people who are not looking for a job, but sometimes we have to go after them, we go with the person, sometimes they think the project is cool, they like what we are doing, it has several positive points and it becomes easier to attract talent. But it is always something that we are trying to improve and do more. There is no difficulty in attracting talent, but I am not satisfied.[cxxvii]

Keeping the team abreast of new developments and new technologies is also a key value. They typically attend events related to software development, and at times they are the ones behind the booth. In such situations in addition to answering questions they take the opportunity to probe the participants, to sense de market and the trends. They also support more formal training approaches when the subject or the technology they want to learn requires it. Another form of keeping up to date arises as result of the integration work they do, where they can learn about how different clients address the situation they are helping to resolve.

We end up participating in various development events, sometimes as exhibitors, where we see what is happening, so it ends up being very present with the community, sometimes we take specific courses, when we need to learn something about technology..[cxxviii]

The community brings technologies that they want to use, integrations, it ends up forcing us to study this part of the process of incorporating that..[cxxix]

It forces us to study, external innovation, so that we can analyze it, we end up having to learn about it, there is this motivator in always learning new things because innovation comes from outside, sometimes it does not come from within.[cxxx]

For Firm #6, even the strategy is based in the concepts of openness and collaboration. It is fluid, where ideas are discussed with the founders, the investors, and founders of other firms which are somehow similar. They try new ideas and watch the response from the community, adjusting the strategy as necessary. They try to leverage the best they can the experience of others, and see what works or not.

The company's strategic direction, the hypotheses sometimes come out of my conversations with the other founders and the fund, because the fund had a lot of know-how in open source project, so we try to apply it in our world, seeing what doesn't work, what the community is receptive or not. Most business strategies came out of conversations with founders of other similar companies, from different business models.[cxxxi]

It is not something of much discussion, they give ideas, we talk, or there is someone who says: this, this person has already been through this. They put us in contact with the portfolio of the company that has been there, we talk, it is a very simple thing, there is not much bureaucracy. We see if it works or not and it continues.[cxxxii]

Summarizing, Firm #6 truly embraces the concept of collaboration and openness. It was created with such concepts in mind, and their culture and even their strategy are based on knowledge sharing. They recognize the competitive environment is fierce, but see that their approach to collaborating and engaging the community a mechanism for defusing competition and making their firm even stronger.

In the next section we'll present the case analysis for Firm #6

The case analysis

To assist us with the analysis, a case word table (YIN, 2009, p. 134) representing each of the research questions / themes was crafted so that the firm's statements about particular themes could be grouped.

Exhibit 26 below summarizes our interpretation for how Firm #6 answered each of the research questions. Our interpretation is based on our evaluation of their statements as represented in the narrative above.

Integrating ideas or technologies to resolve a problem in a new way is how Firm #6 defines innovation. Their view seems related to that of "adopting inventions", how to use technology

to have a better output by combining factors, a view aligned to that of technological change school (GODIN, 2012) and the tradition of innovation as change.

The innovation model based on openness, sharing and collaboration comes from the founder's previous experience creating a project he opened on the internet. He was surprised by the amount of collaboration and dissemination the project received. It was natural for him to select the same model when founding Firm #6. Competitiveness is intense in this new world of technology and digitalization. There is an immense quantity of resources available that can be integrated with internal resources to compose a solution. Being competitive in this environment requires imagination and the best people. A team committed to sharing and collaboration, because when the community is large and focused on the vision opportunities emerge to everyone, collaborations prevails and the competition struggles.

This approach towards competitiveness aligns with that of the resource based theories (BARNEY, 1991; WERNERFELT, 1984) where competing is about finding a way to be different, to leverage resources that are unique as source of competitive advantage. In this case, the unique resource is the founder's ability to enlist the community towards a vision, and harvest the benefits that openness provides.

Firm #6 is creating a culture based on the values of the founder: being open and receptive to ideas opinions and criticism. Integration is another deep value, facilitated by their small size, but amplified by the tool they offer which is centered on communication / instant messaging. Keeping the team abreast of new technologies is also a key value. They frequently participate in technology events, and are often presenting their products. Such interactions provides them with the opportunity to listen to a myriad of ideas and suggestion, and to become aware of what is happening in their market and in the field of technology in general. Another form of keeping up to date comes from interactions with their clients and integration opportunities. Their strategy is also based in sensing the community, introducing new ideas and concepts and watching how the community reacts, adapting their strategy as needed based on feedback they collect. Their approach displays a strong form of openness (PÉNIN, 2013) and acts as an enabler for innovation where higher levels of openness lead to more efficient methods of knowledge production, a concept described in section 2.1.1 "A brief review of the theory of Innovation" on page 14.

Questions	How the evidences relate with the research questions ?
What is Innovation	On page 94, Firm #6's founder understands innovation as something that integrates ideas or technologies to resolve a problem in a new way. In his view innovation from the ground up almost doesn't exist anymore as we stand in the shoulder of giants that brought us here
Why firms select the innovation models they use	On page 96, For Firm #6, this model based in openness and sharing comes way back from when the Founder was still and college, created a project and opened it on the internet. He was surprised by the amount of collaboration and dissemination the project received. It was then natural to use the same model when founding RC
	On page 96, In this new world of technology and digitalization the competitive environment is intense, there is an immense availability of resources that can be leveraged, the internet enabled access to information in ways never seen before, access to compute became cheaper. In shorth, innumerous impediments that used to difficult innovation and entrepreneurship have been removed, entry barriers aren't as severe as in the past
	On page 97, Maintaining the firm competitive in such environment requires imagination, and the best people. People aligned to the ideas and vision of the firm. A team committed to sharing and collaborating, because when the community is large and focused on the vision, opportunities emerges for everyone, collaborations prevails, and competition struggles
	On page 97, As GE mentioned, the culture being created in Firm #6 somehow inherited the habits of the founder: being open and receptive to ideas, opinions and criticism
	On page 98, Having an integrated team is key. With the current size, it is relatively easy for everyone to know what others are doing, and given the fact the core of the firm is instant messaging, integration is a deep value for all
	On page 98, Obtaining the right talent hasn't proven to be a challenge for Firm #6 but as GE mentioned, there always room to get better
	On page 98, Keeping the team abreast of new developments and new technologies is also a key value. They typically attend events related to software development, and at times they are the ones behind the booth
	On page 98, In such situations in addition to answering questions they take the opportunity to probe the participants, to sense de market and the trends. They also support more formal training approaches when the subject or the technology they want to learn requires it. Another form of keeping up to date arises as result of the integration work they do, where they can learn about how different clients address the situation they are helping to resolve
	On page 99, even the strategy is based in the concepts of openness and collaboration. It is fluid, ideas are discussed with the founders, the investors, and founders of other similar firms. They try new ideas and watch the response from the community, adjusting the strategy as necessary. They try to leverage the best they can the experience of others, and see what works or not
How firms implement their innovation model	On page 95, Innovation in Firm #6 comes both from employees and from external collaborators, but GE and RG note that there is a disproportional flow of knowledge coming from the community, outside in
	On page 95 Their clients are also engaged in the process and important source of innovation for Firm #6
	On page 95, knowledge sharing is key, and the flow frequently happens on both directions: inbound and outbound with diverse participants: The open source community, clients, universities
	On page 97, Being a good listener is a characteristic that matters a lot. If you decide to be open, to engage the community you need to spend time to hear what the community is saying. Of course you need to arbitrate and guide decisions, but you cannot be unreasonably contrary to others just because you are the owner, after all it was your decision to make it open in the first place
How the firms benefit from the innovation model they use	On page 96, In their view, this model also makes the firm more competitive, more lucrative and more attractive in the job market, even boosting retention
What are the main obstacles and challenges perceived in the firm's innovation model	On page 95, Challenges mostly comes from firms which are more traditional in their approach to leveraging open source, and to sharing their knowledge. Such firms are afraid that if they use open source code, adjust it to address their needs and give it back they might be at risk of sharing parts of their intellectual property

Exhibit 26 – How the evidences relate with the research questions for Firm #6

Source: Created by the author

To implement their innovation model, Firm #6 followed the experience of the founder in previous project, with pillars based on being open and receptive to ideas and criticism, strong sense of ownership and proactivity, drive towards integration and intense communication among employees. Clients are also integral part of their model, and they listen to client's needs. They also listen to the community, arbitrate and guide decisions so that the product evolves according to their vision.

Main benefits of their innovation model are making the firm more competitive, more lucrative and more attractive to the job market, even booting retention.

On the challenges and obstacles camp they list some firm's aversion to products / projects that use open source and their fear to share intellectual property if they decide to embark.

That being said, according to our interpretation of Firm #6's evidence, we can say that:

- Innovation is combining ideas and technologies to resolve a problem in a new way, aligned with the tradition of innovation as change, rooted with the technological change school.

- Firm #6 selected the innovation model they use based on previous experience from the founder and positive collaboration, dissemination the project received after being shared on the internet. Openness acts as an enabler for innovation and efficient methods of knowledge production.

- They implement their innovation models observing pillars based on being open and receptive to ideas and criticism, strong sense of ownership and proactivity, drive towards integration and intense communication among employees. Listening to clients and to the community are also key pillars.

- Main benefits of their innovation model are making the firm more competitive, more lucrative and more attractive to the job market, even booting retention.

- On the challenges and obstacles camp they list some firm's aversion to products / projects that use open source and their fear to share intellectual property if they decide to embark.

Firm #6 truly embraces the concept of collaboration and openness. It was created with such concepts in mind, and their culture and even their strategy are based on knowledge sharing. They recognize the competitive environment is fierce, but see that their approach to collaborating and engaging the community a mechanism for defusing competition and making

their firm even stronger. As mentioned before, Firm #6 is characterized by a strong form of openness. They leverage open source and share freely ideas and knowledge with the community. They also receive from the community knowledge and improvements to their platform. The listen to clients and to the community. They model is characterized by both purposive inbound and outbound flows of knowledge. Firm #6 is a clear user of open innovation concepts.

Case #7 – What do you do when the merchant has no change?

The case narrative

Our last startup, Firm #7 found its opportunity in a common problem affecting all of us: what do you do when you buy something in cash, you tender a bill which is higher than the amount due but the merchant has no change to give you.

The initial conversation with Firm #7 took place at an startup event in Florianopolis/SC, where the researcher had informal conversations with RG, one of the co-founders and its CFO about the firm, its main objectives, as well as preliminary discussions about his view on innovation. From that initial conversation, a follow up interview with AL, co-founder and CEO took place at their office in Sao Paulo.

For firm #7, innovation is more about incremental changes that leverage on something that already exists. In his view innovation is aimed at simplifying, at making something more useable than that which currently exists thus making it available to the public in general.

> *I don't see innovation as that crazy thing that has to be highly disruptive. I see innovation as something that simplifies something that already exists, does not necessarily create something from scratch, but turns something into something more applicable. So, innovation for me is making things available to the general public.*[cxxxiii]

AL considers Firm #7 an innovative one, as it is in a constant search for making things simpler.

> *Because it is a constant search to simplify, both processes and products. Because innovation does not necessarily, has to be creating products and such, sometimes it is simply improving an existing thing, a small process, the way the customer interacts and such. So we are constantly looking to innovate, through this simplification.*[cxxxiv]

Innovation appears on firm #7 through a combination of attending to events, congresses, collaborating. Collaboration however is considered a key source of innovation. They tackle challenges at hand with the formation of squads, small and efficient teams focused on addressing that one particular challenge. Everyone in the squad is required to offer opinions on how to solve the problem, and team leads are responsible for collecting and organizing ideas for coaching and guiding team members. Key again is to simplify, to optimize.

We use the very concept of working with squads and setting up groups of projects so that we have constant communications and outline the macro objectives, and there everyone who is participating has to make propositions on how to work, then in addition to having leaders who are responsible for really looking for the best way to be executed, he spends a constant time bringing people close to do what they think, if it could be done in a better way. As we are still a startup, we have few resources, so we are in constant search of how we can do that in a simpler way, because I need to do this optimized so that I don't spend it all, right??[xxxv]

Firm #7 is also adept at collaboration with other participants in the industry. In their mind, it was intuitive to hide knowledge in the past where firms were focusing on disruption, but in today's world of incremental innovation firms are integrating small pieces, assembling Lego parts that already exist. In this context, communication will allow you to find parts you are not familiar with, or didn't know existed so that you can integrate them in your solutions.

For me there is no way for you to build an innovation inside a garage, as it was in the past. Today, it is not. In the past, anything you created, as it still had little structure, anything was already very disruptive. Today, anything you think about, already exists. So, for you to do something a little more robust, that generates more value for society, you have to communicate with everyone.[cxxxvi]

Firm #7 also shares knowledge with their clients, and is attentive to listen to their needs. In their view however there is a caveat: clients are frequently focused on their own pain, on resolving their own problem. So their view on how to address the problem might be shortsighted or biased. With that in mind, they consider that it is more efficient to get specialists to offer potential solutions, and invite the clients to opine about the proposed alternatives.

They are the primary factor. The client itself is a little more complex to involve, in my view. Because usually the client is so closed on his pain, that he is short of time or unwilling to contribute to solving his own problem. Usually because most people do not see that there is a solution to all problems. So, it is sometimes easier for you to bring in 3 or 4 external people who have different roles within the industry or within the ecosystem and these people think of propositions and invite the client to give an opinion on these propositions than to ask them to give an idea.[cxxxvii]

Being a startup, resources are most of the time scarce, so Firm #7 is unable to develop everything they need inhouse, and relies on collaboration and sharing as mechanisms to fulfill their knowledge needs. In this knowledge search they involve different people, providers, strategic partners, clients. In this web, there is always someone that detains part of your distributed knowledge.

Where I live today, which is a startup, we can't even have everything inside the house. So you end up having to involve many people, who are sometimes from third parties, or possible strategic partners, customers. You have to kind of involve everyone and keep making these constructions happen and you become more of a web or neural network concept, I don't know how to call it. You know that someone has some of your knowledge and that someone is not yours. Sometimes you are neither your collaborator nor have a link with you. And you depend on it, so it's a little bit more complex.[cxxxviii]

They observed that some of the most talented people they rely on want flexibility, freewill to make choices about their personal life. They live in different countries, work in non-traditional hours, prefer working from home instead of having to go to an office. They are averse to structure, hierarchy and the bureaucracy it postulates.

> *You have to learn to cope, we have highly strategic employees who lives in Suriname and the guy wants to live there because he wants to live closer to a different culture. He's one of the guys who produces the most.[cxxxix]*

> *Today I can't centralize anymore. The product guy, who is the guy who helps me define the core structure of the business, he works from home, he doesn't like coming to work at the company. The developers, is one in each corner. Because then, it is a matter of option. I can be average, sometimes I can fit the guy into one, but when I say I want the best, I have to give up some things. Usually give up what matters most to them, which today is being the issue of freedom of place, working hours and such.[cxl]*

> *There is a guy who wants to work at dawn and I do not pay the extra hour because he is working at dawn, but he wants that and how am I going to get into the legislation and say "man, my employee does not want to work for me, man".[cxli]*

They recognize that hierarchy exists and is the prevalent mode of operations in larger firms, but they had to learn to adjust to this new mindset and decided to embrace it, they are open to allow everybody to voice their opinions and they don't just listen , they act on them. They consider this cultural aspect of their firm – minimize bureaucracy, flattening of hierarchies, giving voice to people as one of the important elements to being innovative.

> *In a structure with hierarchies, you have the respect of which opinion is worth more, regardless if it is right or more innovative and you end up killing a lot of opportunity.[cxlii]*

> *You sometimes have an idea that changes the whole business ... She went and she found the problem and directors were involved, partners were involved, everybody and nobody had seen it. She just by stopping and looking she found a problem. In a hierarchical structure, her opinion would not even be heard. In our structure, her opinion was assumed to be correct and executed at the same time.[cxliii]*

> *One of the main concerns is not to bureaucratize and not to make the company rigid to the point that it stops being innovative. So, man, people have to have a voice. If they can't speak and feel pruned, I think the innovation ends, because the innovation comes from ideas that don't necessarily seem logical.[cxliv]*

Despite this distributed resource model they use, they believe that their culture and their focus on openness and communication ensures the firm acts as an integrated whole. In their view when you lay the basis, people respond in kind, and this is what they see in practice: effective communication despite different working hours, timezones, work locations. In their view, the commitment people has with their vision is what makes things work.

> *I have people producing in Germany today, Minas Gerais, I have a physical unit in Floripa, another physical unit in Curitiba. In each of these places everyone says that the issue of communication is the main problem. For me, communication is not the worst problem, because people, in general, they know how to communicate, they know how to say what they want or not and such.[cxlv]*

I think it is very much related to commitment, because when you can make people horny for what they are doing and they want that resolved, they will scream, they will speak, they will communicate and the thing will start to fit.[cxlvi]

Founders all came from the market and have exceptional market knowledge, which allow them to make sense of trends and opportunities. They have clearly in their minds which are the specific elements of the market that require their attention, their monitoring.

In our case, the partners are market people and have already come from a company, so there is a knowledge a little above the startup standard about the market, which already makes our life easier.[cxlvii]

So we also don't need to listen to the market as a whole, because the market, our specific market, does not change daily.[cxlviii]

I have to be more concerned with movements of palliative solutions that solve my problems and very up to date on the basic financial legal issues.[cxlix]

In their view competition is not as fierce as in other niches because they operate in a way which is symbiotic with the incumbent. The solution they offer complements the offering of established firms so they are careful to present themselves not as an offending organism, but as one that can add to what incumbents are providing in a long standing relationship. Their main concern is with highly leveraged fintechs operating in the environment, that if going down can take others with them. So they are careful to monitor such behaviors and find ways to protect their business model.

We are inserted in the roles of 100-year-old, highly traditional companies, where if, and what we are doing, you can align with them and not show yourself as an offending organism and you show yourself as an organism that will add up for her strategy for the next 100 years, you no longer have a competitor looking to fight, but work hand in hand.[cl]

They are doing all of this very leveraged and that every time you make highly leveraged innovation decisions in money, you make very abrupt bets as to which way it goes and they work, great, they go wrong, you burn the market as a whole . So this is the thing that we take care of the most: like these fintechs from different branches, they are behaving, because sometimes they can hurt our business model, not to create a solution, but to simply preserve something from them.[cli]

When looking for human capital to implement their vision, they typically look at people that already have some level of market experience instead of people that have exclusively the startup mindset. They typically look for people that already have market exposure and can embrace their vision.

So, I still couldn't bring in, accept very well the guy who since a very young age has focused on startup and wants to undertake without having experienced the market.[clii]

So many people who are with us are market people with an open mind. So they are people who have already experienced the traditional process, the straight process, companies that have already maintained themselves

and thought that it was not enough are seeing with us, seeing <Firm # 7> as an alternative to do something better, but not necessarily something simply based on being right or being public. Usually, the purpose of building a company.[cliii]

Their main challenge when looking for people is finding candidates which are truly multitasking, and do so with excellence. In their view it is easy to find the stereotypical startup person who pretend to have multitasking skills, but lacks excellence, or people from more traditional firms who can don one thing well, but get dispersed when asked to do multiple things at a time.

Today the most difficult, in my view, to find people who are multitask, multitasking, people who can identify themselves in more than one role. So you end up, when you have the pure entrepreneur, that the startap oriented guy already thinks that he does 20 tasks at the same time, only that this guy doesn't know how to do any with excellence or may know, some know, but on average, he doesn't know. And then you have a guy who tries to do everything, but ends up giving no results. At the same time, when you take these guys from the market, which is our strategy, they usually know how to do 1 with great excellence, but he ends up not knowing how to behave in several at the same time, and then they get blurred, they disperse when they start receiving 3 or 4 hats.[cliv]

The environment today is certainly more turbulent that in the past, but it brings much more opportunities to innovate. In the past access (to information, to resources, …) was way more difficult, and such challenges would result in innovations that were more, lets say, isolated and independent. Nowadays it is practically impossible for one to think about an innovation that operates independently from the ecosystem. There is always some level of integration, of information sharing, of connectivity.

Today, the difference is that everyone has access, anyone has access to almost everything. Today, I think the biggest issue is to innovate technically speaking as it is possible for anyone. Anyone has that access. Now we have another type, how you make ecosystems accept your innovation, because today there is so much at the same time, that you need to connect. Today, you can't do more an isolated innovation. You won't be able to launch an application that works alone.[clv]

From that perspective, Firm #7 believes it is well positioned in the market, and has what it takes to succeed. In the process of being where they are, they noticed what they consider to be the main challenge to innovation: finding the right value proposition and getting the commit to the value they provide. In their view, many fintechs in the market have a weak value proposition and believe they can overcome that by buying their customers – offering them monetary advantages for using their offerings. Such practice ends up molding the customers in such a way that they expect that every fintech will always offer them some kind of monetary return for the use of their products. So, whenever the fintech faces any challenge and stops paying their customer they leave and look for the next one that will offer then some monetary return.

In their view, this custom which is becoming ingrained isn't correct, as customer should embrace the firm because of the value proposition they offer.

> *The main difficulty, now talking about <Firm # 7>, specifically, was finding the right value proposition for the ecosystem that we needed to connect to, so that it would accept us.*[clvi]

> *So, it was not a technological issue, it was almost a political one. Because you need to make them accept small changes in the medium, long term, changes that will affect their businesses and they need to understand how it is managed.*[clvii]

> *Second, the consumer, the user, the individual, as I said before, they are almost unaccustomed, because there are a lot of fintechs, a lot of everything that is tech, launching solutions that are proposed to be disruptive, but perhaps wrongly and generating a weak value proposition and buying that user through money and benefits that are not, are not related to the value proposition.*[clviii]

> *So this is one of the barriers, because if you don't have infinite cash, you can't go out and buy a user and, not to mention that this user will not survive if he doesn't understand your value proposition.*[clix]

> *So, this, for me today, is the main point, because I don't necessarily need to innovate so much, sometimes it is cheaper for me to buy the guy and that doesn't stop. In the medium term, it breaks the company.*[clx]

Summarizing, Firm #7 was born with the concept of openness and sharing at the core of their values. They employ professional that look for flexibility in terms of work hours, work setting, place from where they work. They operate as a distributed team bound together by the commitment to the values of the firm. Innovation is something incremental that is deeply discussed and shared in the ecosystem. Their culture of openness is a key element of their approach to innovation. Market is monitored lightly as they believe their symbiotic relationship with incumbents and partners promotes collaboration rather than competition.

Next section presents the case analysis for Firm #7.

The case analysis

To assist us with the analysis, a case word table (YIN, 2009, p. 134) representing each of the research questions / themes was crafted so that the firm's statements about particular themes could be grouped.

Exhibit 27 below summarizes our interpretation for how Firm #7 answered each of the research questions. Our interpretation is based on our evaluation of their statements as represented in the narrative above.

For Firm #7, innovation is incremental change that leverages somethings that already exists and is aimed at making something more useable than the alternative.

Why did they select the innovation model they use ? In today's world of incremental innovation firms are integrating small pieces, assembling Lego parts that already exist. To be effective in

this setting they needed to be able to find and integrate proper knowledge. People that works effectively in this settings, some of the most talented people want flexibility, freewill to make choices about their personal life. They live in different countries, work in non-traditional hours, prefer working from home instead of having to go to an office. They are averse to structure, hierarchy and the bureaucracy it postulates. A new form is also necessary is this setting.

They recognize that hierarchy exists and is the prevalent mode of operations in larger firms, but they had to learn to adjust to this new mindset and decided to embrace it, they are open to allow everybody to voice their opinions and they don't just listen, they act on them. They consider this cultural aspect of their firm – minimize bureaucracy, flattening of hierarchies, giving voice to people as one of the important elements to being innovative.

Questions	How the evidences relate with the research questions ?
What is Innovation	Page 103 innovation is more about incremental changes that leverage on something that already exists. In his view innovation is aimed at simplifying, at making something more useable than that which currently exists thus making it available to the public in general
Why firms select the innovation models they use	Page 104 In their mind, it was intuitive to hide knowledge in the past where firms were focusing on disruption, but in today's world of incremental innovation firms are integrating small pieces, assembling Lego parts that already exist

Page 105 They observed that some of the most talented people they rely on want flexibility, freewill to make choices about their personal life. They live in different countries, work in non-traditional hours, prefer working from home instead of having to go to an office. They are averse to structure, hierarchy and the bureaucracy it postulates

Page 105 They recognize that hierarchy exists and is the prevalent mode of operations in larger firms, but they had to learn to adjust to this new mindset and decided to embrace it, they are open to allow everybody to voice their opinions and they don't just listen , they act on them. They consider this cultural aspect of their firm – minimize bureaucracy, flattening of hierarchies, giving voice to people as one of the important elements to being innovative

Page 105 Despite this distributed resource model they use, they believe that their culture and their focus on openness and communication ensures the firm acts as an integrated whole. In their view when you lay the basis, people respond in kind, and this is what they see in practice: effective communication despite different working hours, timezones, work locations. In their view, the commitment people has with their vision is what makes things work

Page 106 Founders all came from the market and have exceptional market knowledge, which allow them to make sense of trends and opportunities. They have clearly in their minds which are the specific elements of the market that require their attention, their monitoring

Page 106 In their view competition is not as fierce as in other niches because they operate in a way which is symbiotic with the incumbent. The solution they offer complements the offering of established firms so they are careful to present themselves not as an offending organism, but as one that can add to what incumbents are providing in a long standing relationship

Page 106 Their main concern is with highly leveraged fintechs operating in the environment, that if going down can take others with them. So they are careful to monitor such behaviors and find ways to protect their business model

Page 106 When looking for human capital to implement their vision, they typically look at people that already have some level of market experience instead of people that have exclusively the startup mindset. They typically look for people that already have market exposure and can embrace their vision

Page 107 The environment today is certainly more turbulent that in the past, but it brings much more opportunities to innovate. In the past access (to information, to resources, …) was way more difficult, and such challenges would result in innovations that were more, lets say, isolated and independent. Nowadays it is practically impossible for one to think about an innovation that operates independently from the ecosystem. There is always some level of integration, of information sharing, of connectivity |

Questions	How the evidences relate with the research questions ?
How firms implement their innovation model	Page 103 AL considers Firm #7 an innovative one, as it is in a constant search for making things simpler Page 103 Innovation appears on firm #7 through a combination of attending to events, congresses, collaborating. Collaboration however is considered a key source of innovation. They tackle challenges at hand with the formation of squads, small and efficient teams focused on addressing that one particular challenge. Everyone in the squad is required to offer opinions on how to solve the problem, and team leads are responsible for collecting and organizing ideas for coaching and guiding team members. Key again is to simplify, to optimize Page 104 Firm #7 is also adept at collaboration with other participants in the industry Page 104 communication will allow you to find parts you are not familiar with, or didn't know existed so that you can integrate them in your solutions Page 104 Firm #7 also shares knowledge with their clients, and is attentive to listen to their needs. In their view however there is a caveat: clients are frequently focused on their own pain, on resolving their own problem. So their view on how to address the problem might be shortsighted or biased. With that in mind, they consider that it is more efficient to get specialists to offer potential solutions, and invite the clients to opine about the proposed alternatives Page 104 In this knowledge search they involve different people, providers, strategic partners, clients. In this web, there is always someone that detains part of your distributed knowledge
How the firms benefit from the innovation model they use	Page 104 Being a startup, resources are most of the time scarce, so Firm #7 is unable to develop everything they need inhouse, and relies on collaboration and sharing as mechanisms to fulfill their knowledge needs
What are the main obstacles and challenges perceived in the firm's innovation model	Page 107 Their main challenge when looking for people is finding candidates which are truly multitasking, and do so with excellence. In their view it is easy to find the stereotypical startup person who pretend to have multitasking skills, but lacks excellence, or people from more traditional firms who can don one thing well, but get dispersed when asked to do multiple things at a time Page 107 main challenge to innovation: finding the right value proposition and getting the commit to the value they provide Page 107 In their view, many fintechs in the market have a weak value proposition and believe they can overcome that by buying their customers – offering them monetary advantages for using their offerings. Such practice ends up molding the customers in such a way that they expect that every fintech will always offer them some kind of monetary return for the use of their products. So, whenever the fintech faces any challenge and stops paying their customer they leave and look for the next one that will offer then some monetary return. In their view, this custom which is becoming ingrained isn't correct, as customer should embrace the firm because of the value proposition they offer

Exhibit 27 – How the evidences relate with the research questions for Firm #7

Source: Created by the author

Despite this distributed resource model they use, they believe that their culture and their focus on openness and communication ensures the firm acts as an integrated whole. In their view when you lay the basis, people respond in kind, and this is what they see in practice: effective communication despite different working hours, timezones, work locations. In their view, the commitment people has with their vision is what makes things work

Founders all came from the market and have exceptional market knowledge, which allow them to make sense of trends and opportunities. They have clearly in their minds which are the specific elements of the market that require their attention, their monitoring. In their view

competition is not as fierce as in other niches because they operate in a way which is symbiotic with the incumbent. The solution they offer complements the offering of established firms so they are careful to present themselves not as an offending organism, but as one that can add to what incumbents are providing in a long standing relationship. Their main concern is with highly leveraged fintechs operating in the environment, that if going down can take others with them. So they are careful to monitor such behaviors and find ways to protect their business model.

When looking for human capital to implement their vision, they typically look at people that already have some level of market experience instead of people that have exclusively the startup mindset. They typically look for people that already have market exposure and can embrace their vision

The environment today is certainly more turbulent that in the past, but it brings much more opportunities to innovate. In the past access (to information, to resources, …) was way more difficult, and such challenges would result in innovations that were more, lets say, isolated and independent. Nowadays it is practically impossible for one to think about an innovation that operates independently from the ecosystem. There is always some level of integration, of information sharing, of connectivity.

Among practices used for implementing the innovation model they use, we see a combination of attending to events, congresses, collaborating. Collaboration however is consider a key source of innovation. They tackle challenges at hand with the formation of squads, small and efficient teams focused on addressing that one particular challenge. Everyone in the squad is required to offer opinions on how to solve the problem, and team leads are responsible for collecting and organizing ideas for coaching and guiding team members. Key is to simplify, to optimize. They are also adept at collaborating whit other participants in the industry. Communication will allow you to find parts you are not familiar with or didn't know existed so that you can integrate them in your solution. Firm #7 also shares knowledge with their clients and is attentive to listen to their needs. In their view however there is a caveat: clients are frequently focused on their own pain, on resolving their own problem. So their view on how to address the problem might be shortsighted or biased. With that in mind, they consider that it is more efficient to get specialists to offer potential solutions, and invite the clients to opine about the proposed alternatives

In their knowledge search they involve different people, providers, strategic partners, clients. In this web, there is always someone that detains part of your distributed knowledge

Typically resources are scarce, so being able to find knowledge that already exist elsewhere and integrate it in their solution is seen as one of the main advantages of the innovation model they use.

Main challenges and obstacles they face while implementing their innovation model include finding personnel which can multitask with excellence, a requirement in a startup. They also describe that finding the right value proposition is a challenge, as well as the bad practices introduced by some startups to pay for clients to use their solutions, which in their opinion is a trap. The client gets attached to payments, not to value propositions. If another firms pays more, or if the firm faces difficulties and needs to stop paying clients will switch as they are not interested in the value proposition the firms offer.

That being said, according to our interpretation of Firm #7's evidence, we can say that:

- Innovation is incremental change that leverages something that already exists.

- Firm #7 selected the innovation models they use because being able to optimize knowledge, to leverage what already exists and integrate internally is key. Todays workforce requires flexibility and are averse to rigid structures and bureaucracy, nevertheless need to operate closely integrated and with the sense of a whole. Market is turbulent and needs monitoring

- They implement their innovation models based on collaboration and agile approaches, flexibility and intense communication. Clients are involved, but specialists tend to be more reliable when generalization is required.

- They benefit mainly by optimizing the use of their resources through the use of existing knowledge available externally.

- Main challenges include finding personnel with proper skills, as for example excellence in multitasking. They also consider finding the right value proposition a challenge, as well as the behavior of paying for client traffic which they see as a trap.

Firm #7 was born with the concept of openness and sharing at the core of their values. They employ professional that look for flexibility in terms of work hours, work setting, place from where they work. They operate as a distributed team bound together by the commitment to the values of the firm. Innovation is something incremental that is deeply discussed and shared in the ecosystem. Their culture of openness is a key element of their approach to innovation. Market is monitored lightly as they believe their symbiotic relationship with incumbents and

partners promotes collaboration rather than competition. The observed use of purposive inbound and outbound flows of knowledge characterize use of open innovation.

4.3.2 Obtaining additional insights: a specialist, investors and clients

In this section, we collect insights from a market specialist, investors, clients to add to our triangulation strategy.

What would the specialist say?

The case narrative

The specialist, here designated Firm #8 has extensive knowledge in the payments business, having also worked with technology and products. His main experience is in innovation, particularly in payments, like instant payments, open banking, digital money and blockchain.

In his words, innovation is doing something outside of the box, when you are free from social ties that otherwise bring about rigidities so that you can do something that adds value to society. When you are in a traditional firm, like a bank, you tend to keep your eyes on the bonus, so innovation is a bit more difficult.

> *For me, innovating is when you leave the box and when you don't have some social ties, even work, to follow some path and you can do something that adds value to society.[dxi]*

The payment business is particularly permeated by innovation. The amount of money available ends up fostering fierce competition, so being innovative is key to survival.

> *In payment methods I think there is a lot of innovation, because it is a market that moves a lot of money. We end up seeing that there is more and more competition. So, everyone has to run after innovation.[dxii]*

Innovation comes from the routine of daily work where you discuss with clients, living and seeing where gaps are and finding ways to do things differently, in a better way. Innovation could also come from the academia, from events where you see and hear about what others are doing. It comes from networking, from being in the ecosystem where you end up making connections leveraging different subjects and challenges to reach your own conclusions. At the end, it is based on interconnections of people.

> *I think it comes from a few different places. I think it comes from day to day, sometimes from the day to day operation of a company. Talking to the customer or living, seeing gaps that you can improve.[dxiii]*

> *Innovations may end up coming from academia. I think they are a little different. I think also from events.[dxiv]*

> *It is the same thing as networking in Brazil itself. It is participating in the ecosystem.[dxv]*

I think there is a lot of this interconnection between people. I think it is very important. There is also this theoretical part, which is more of a study, and comes more from everyday life.[clxvi]

The time of an innovation is very short: either you die or other innovation will bring you down. The world is large, and many people are thinking, there are lots of talent. It is very difficult for an innovation to appear in one place only. It shows up in different places, but only those who can execute, who can implement it in a better way will be able to get some level of success in the short or medium term. They are like micro inventions, steps evolving the world.

It is a very fast and very competitive market. Innovation, sometimes, the time for it to be an innovation is shorter than other branches, such as the health branch. It is very fast. You have to be innovating very fast and running after it.[clxvii]

You die or an innovation comes and takes you down and maybe an innovation that is just like yours. There are a lot of people thinking about everything. There are a lot of good people in the world. More and more, there are more good people. I find it difficult to come up with an innovation in just one place. I think it appears in several places at the same time, it is only those who can best implement that innovation that will succeed in the short and medium term. I think they are micro innovations ... They are steps.[clxviii]

Despite all of that competitiveness, the startup world is very open to sharing. More traditional, larger firms are typically less open to sharing. In the particular case of instant payments, the Brazilian Central Bank played and important role bringing participants together pushing an agenda based on knowledge sharing and collaboration regardless of firm size or age. But other than that example, larger firms will invest and accelerate a startup aiming at being close to innovations and how to exploit them, not necessarily a two way collaboration approach. Another common venue startups find for knowledge sharing is sectorial events, which can be somehow more open.

I already participated in some accelerations that, in the end, the big company is putting money into an acceleration, and it is not to help the startup.[clxix]

In fact, it is for the firm to be close to innovation and to be able to take this innovation and bring it into the home ... In the end, it is to bring it inside the house and try to reinvent itself.[clxx]

The degree of sharing, and what is going to be share depends on the firm culture, and of course on people. Firm #8 sees particularly in Brazil that those who are not in the ecosystem are even more afraid to share and collaborate as they fear others will steal their ideas. They forget the value isn't in the idea, but in the implementation. Abroad people share more, as they see in sharing the opportunity for receiving feedback, others are helping you to get your idea stronger. It important however to make a distinction between what can and what cannot be shared. There are some specificities which are business secrets, which can truly bring you the edge and others are still not aware of it.

I think it depends a little on the culture of each type of company and on people as well. If we go to see it, I think in Brazil a little different than other countries out there. In Brazil, normally, people are a little out of the ecosystem, afraid to share an idea, because they think the idea will be stolen. Really, the great value is not in the idea, it is in the implementation of the idea and how you are going to implement that. If we go to see other ecosystems in the world, everyone speaks, because if you speak you will end up receiving feedback from a lot of people. People are helping to improve your idea, it's not that you're being stolen, your idea.[dlxxi]

There are things that are public, there are things that are a little more specific and there are things that are a business secret, that sometimes you end up realizing that you have an opportunity for something that other people are not looking at yet. Perhaps, that, which is a very specific thing, you will not share.[dlxxii]

Firm #8 believes that hierarchy, a more horizontal one favors innovation. The key here is allowing ideas to flow easily. Some level of hierarchy will always exist, discussing and questioning an idea are also part of the process. But the important concept is fluidity. A Culture that favors it, ends up encouraging innovation.

I think the first thing is that hierarchy is not vertical, horizontal. There is a hierarchy, you can even say no, but there is a hierarchy. There is only the easiest flow of ideas. Your boss will fight with you like he would fight in an investment bank, understand? He will listen to your idea and make the counterpoint, and see if it makes sense or not.[dlxxiii]

A culture based in freedom and autonomy are also important. If you have autonomy you end up doing things, and as we already saw, doing, the execution is the key aspect of innovation. Firm #8 reminds us that as important as autonomy and freedom are, knowing how to manage such freedom and autonomy is also fundamental. Autonomy however isn't something that every people is capable of and depends on separating yourself from your job description. To innovate it is important that one gets outside of the comfort zone, not only in your job, but in your life. In his view, this is key to being able to innovate: you need to get outside of the comfort zone in your life.

Another point I also think is important is that you have more freedom and more autonomy. And also people who are normally in startup, who were born startup or who were taken to the startup, self-manage and have autonomy. I don't have a boss that I have to do this and that. You know what you have to do, but sometimes, you end up doing more than that, because you have autonomy. When you can do more than you have to do and you have the autonomy to create, you end up innovating.[dlxxiv]

This business of having autonomy, perhaps, is not everyone who manages to have autonomy.[dlxxv]

If you stay in the job description you will not do innovation ... You are closed too. You have to leave the job description.[dlxxvi]

It is doing everything, because when you leave your comfort zone, it is very important. The comfort zone not only for work, but for life. I think that people who end up having more ideas and more innovation end up leaving life's comfort zone.[dlxxvii]

I think it is useless to try to innovate if you just leave your comfort zone at work. I think you have to leave the comfort zone in your life.[dlxxviii]

Knowledge sharing is also a function of the size of the firm. More people make it more confusing, more difficult, particularly in a startup which is chaotic in nature.

> *Usually, it also depends on the size of the startup. The more people, the more confusing ... Startup is a confusing thing. It is not something that is super defined, it is being defined.*[clxxix]

Certain ceremonies typical to agile methodologies also help with collaboration and sharing, as for example scrum daily, Monday scrum planning, Friday scrum reviews … regardless, a startup is confusing by nature, and processes can help things to flow better, but always within this "confusing organization" as a startup changes a lot and very quickly.

> *I also find some ceremonies that we may be bringing the scrum methodology, that you can do. Monday has a planning, you plan the week. Every Friday you have the review, which you review what happened in the week and see improvements for the next week, in retrospect. You have a daily every day, in which the team stands for fifteen minutes talking about what you did, doubt you had, what you are going to do the next day. Very fast, for everyone to know.*[clxxx]

> *I think that, in the end, the organization of a startup is confusing, there are only processes that you can make more fluid, but it will always be confusing.*[clxxxi]

> *Startup changes a lot and very fast. A quarter is a long time. Sometimes you've completely changed your business model in a month.*[clxxxii]

In Firm #8's view, in addition to participating in industry events, listening to your client, being in touch with specialists in the subject area you are attacking are mechanisms to keep up to date and abreast of market developments.

> *I think you'll see the needs, listening to the customer.*[clxxxiii]

> *There is no point in someone coming to undertake means of payment. He can come, but there has to be someone on his side who sees what the trends are, what's going on in the world. I think it is necessary to have someone specialized in that area.*[clxxxiv]

Also, today's access to technology, to people and information as well a culture of openness and collaboration seen in the younger generations tend to make sharing of knowledge way easier that in the past. Nowadays people seem to be less risk averse, for example, in case they try the entrepreneurial path and fail , they can always come back and find a job in traditional firms, as in the past it was way more difficult to do so. Technology evolved a lot, and jobs in technology are among the one with better salaries. All of those aspects end up attracting people to entrepreneurship opportunities, and driving a much stronger focus on innovating.

> *In the decade he was born it was much more difficult to do what we do today, because the startup ecosystem is much smaller. I think in the last two or three years it has grown a lot. Brazil was also in recession, crisis of 2007 and 2008. I think there is a team business. I think the team is very important, the market. I think the culture too. I think it was a very different culture. And, also, I think we were a little less risk averse. Today he has a lot of jobs. Those who are undertaking, if they return to the market, return as someone better.*

It will be hired. Ten years ago it was different. If I had, I would be a financial market trader. Probably something I already liked a lot. I wasn't even going to be exploring the technology area. I also think that technology has evolved a lot in the past ten years. We saw the emergence of big techs. Ten years ago I think that the biggest companies weren't even big techs yet. Today they are big techs. Salaries too, I think that matters. The highest salaries were not in the technology area, they were in the banking area.[clxxxv]

Firm #8 believes that once an entrepreneur, you'll have a tendency to continue in this path, creating new ventures, bringing other to work together and create new startup, all in a virtuous circle. The way to entrepreneurship doesn't necessarily comes from the fact someone graduated from college, but in his view more from the opportunities a person had to work in other startups, other technology firms.

I think there are a lot of people that I see who are becoming entrepreneurs today were created not by college, they were created by technology companies.[clxxxvi]

Because entrepreneurship is not that you are creating one business. When you make a business, you are making dozens of future businesses.[clxxxvii]

From Neon a lot of people left who are entrepreneurial today, but there must be three or four startups that started, even more. I know some guys who went out and started startups. I think the same happens in all technology companies. There are several people who were from Stone and left to create. Companies themselves are where people become entrepreneurial.[clxxxviii]

So, finding talent becomes difficult because a good number of the good people tend to be employed already, and we have those working in larger firms with a good salary, plus the risk aversion so they won't consider leaving.

The other point is that good people are already well hired.[clxxxix]

Many venturing and some accommodated.[cxc]

I have some friends who are in the financial market. Many. I think people are a little more conformist.[cxci]

In Firm #8's opinion, for those who are into technology, the best way to keep up to date is to get your hands dirty!

I think it depends a lot on what your core is, what you do, but if we see a little more in innovation and technology, I think it's not reading a book. It is also good to read books, but put your hand on the raisin. It is hands-on, because it is not the book that will tell you what you have to do. Things are new, you have to get your hands dirty and learn.[cxcii]

One of the main challenges to collaboration, sharing, innovation is a broken communication process, and the lack of meaningful incentives. We often see, mainly in traditional firms, negative incentives to sharing and collaborating.

I think the difficulty in collaborating, perhaps, is that there are still some negative incentives for this collaboration to happen in a more fluid way.[cxciii]

The case analysis

To assist us with the analysis, a case word table (YIN, 2009, p. 134) representing each of the research questions / themes was crafted so that the firm's statements about particular themes could be grouped.

Exhibit 28 below summarizes our interpretation for how Firm #8 answered each of the research questions. Our interpretation is based on our evaluation of their statements as represented in the narrative above.

When we look at Firm #8's statements, we can picture an environment which is dynamic and turbulent, with strong forces forging how the FinTechs will behave, dictating their choices.

The environment where the FinTechs live is permeated by innovation. That can be explained by the large sums available in the form of investments, and that explained by the vast amount of opportunities, thus revenues available for firms that are able to introduce a successful solution. Competition is fierce as expected, so being able to do something different, to bring about change, to innovate is key to survival. Firms who are clever so as to catch the attention of the public might be able to secure a large percentage of the revenues available in this environment (please refer to section 4.1 "The FinTech phenomena" on page 51 for additional details).

Because of that, startups look for ways to obtain relevant market intelligence, and knowledge that can enable them to be innovative. The fact is that innovation comes from the routine of daily work where you discuss with clients, it comes from living and seeing where gaps are and finding ways to do things differently, in a better way. Innovation could also come from the academia, from events where you see and hear about what others are doing. It comes from networking, from being in the ecosystem where you end up making connections leveraging different subjects and challenges to reach your own conclusions. At the end, it is based on interconnections of people, on networking and communicating, on being able to internalize the vast amounts of knowledge which are available and integrate the relevant pieces in the offerings of the firm.

There is also the aura people in general place on ideas. The world is large, and many people are thinking, there are lots of talent. Lots of such thinking produce similar, if not the same ideas, so it is very difficult for an innovation to appear in one place only. It shows up in different places, perhaps even multiple times. But only those who can execute, who can implement an idea in a better way will be able to get some level of success in the short or medium term.

Questions	How the evidences relate with the research questions ?
What is Innovation	Page 113 innovation is doing something outside of the box, when you are free from social ties that otherwise bring about rigidities so that you can do something that adds value to society
	Page 113 When you are in a traditional firm, like a bank, you tend to keep your eyes on the bonus, so innovation is a bit more difficult
Why firms select the innovation models they use	Page 113 The payment business is particularly permeated by innovation. The amount of money available ends up fostering fierce competition, so being innovative is key to survival
	Page 113 Innovation comes from the routine of daily work where you discuss with clients, living and seeing where gaps are and finding ways to do things differently, in a better way
	Page 113 Innovation could also come from the academia, from events where you see and hear about what others are doing
	Page 113 It comes from networking, from being in the ecosystem where you end up making connections leveraging different subjects and challenges to reach your own conclusions. At the end, it is based on interconnections of people
	Page 114 The time of an innovation is very short: either you die or other innovation will bring you down
	Page 114 The world is large, and many people are thinking, there are lots of talent. It is very difficult for an innovation to appear in one place only. It shows up in different places, but only those who can execute, who can implement it in a better way will be able to get some level of success in the short or medium term
	Page 114 Despite all of that competitiveness, the startup world is very open to sharing. More traditional, larger firms are typically less open to sharing
	Page 114 In the particular case of instant payments, the Brazilian Central Bank played and important role bringing participants together pushing an agenda based on knowledge sharing and collaboration regardless of firm size or age
	Page 114 larger firms will invest and accelerate a startup aiming at being close to innovations and how to exploit them, not necessarily a two way collaboration approach
	Page 114 Another common venue startups find for knowledge sharing is sectorial events, which can be somehow more open
	Page 114 The degree of sharing, and what is going to be share depends on the firm culture, and of course on people
	Page 114 those who are not in the ecosystem are even more afraid to share and collaborate as they fear others will steal their ideas. They forget the value isn't in the idea, but in the implementation
	Page 114 It important however to make a distinction between what can and what cannot be shared. There are some specificities which are business secrets
	Page 116 Knowledge sharing is also a function of the size of the firm. More people make it more confusing, more difficult, particularly in a startup which is chaotic in nature
	Page 116 being in touch with specialists in the subject area you are attacking are mechanisms to keep up to date and abreast of market developments
	Page 116 today's access to technology, to people and information as well a culture of openness and collaboration seen in the younger generations tend to make sharing of knowledge way easier that in the past
How firms implement their innovation model	Page 115 hierarchy, a more horizontal one favors innovation. The key here is allowing ideas to flow easily
	Page 115 A Culture that favors it, ends up encouraging innovation
	Page 115 A culture based in freedom and autonomy are also important. If you have autonomy you end up doing things, and as we already saw, doing, the execution is the key aspect of innovation
	Page 116 Certain ceremonies typical to agile methodologies also help with collaboration and sharing, as for example scrum daily, Monday scrum planning, Friday scrum reviews …
How the firms benefit from the innovation model they use	It is not the return, but survival

Questions	How the evidences relate with the research questions ?
What are the main obstacles and challenges perceived in the firm's innovation model	Page 117 finding talent becomes difficult because a good number of the good people tend to be employed already, and we have those working in larger firms with a good salary, plus the risk aversion so they won't consider leaving Page 115 the important concept is fluidity Page 117 One of the main challenges to collaboration, sharing, innovation is a broken communication process, and the lack of meaningful incentives. We often see, mainly in traditional firms, negative incentives to sharing and collaborating

Exhibit 28 – How the evidences relate with the research questions for Firm #8

Source: Created by the author

The caveat is that the time of an innovation is very short: either you die or other innovation will bring you down as equilibrium, stability and predictability cannot exist for long time, in a real life creative destruction … and the cycle begins once again.

Despite all of that competitiveness, the startup world is very open to sharing. More traditional, larger firms are typically less open to sharing so startups look for venues where sharing can happen. One particular example worth of note, is the role the Brazilian Central Bank played in the case of instant payments, bringing participants together pushing an agenda based on knowledge sharing and collaboration regardless of firm size or age. That was notable because larger firms will invest and accelerate a startup aiming at being close to innovations and how to exploit them, not necessarily a two way collaboration approach. The Brazilian Instant Payment Forums were quite the opposite, the Central Bank was interested in hear the opinions of the startups, and to provide them equal first hand access to what was about to be released.

In general startups find for knowledge sharing is sectorial events, which can be somehow more open. Even in those settings firms who are not in the ecosystem are frequently afraid to share and collaborate as they fear others will steal their ideas. Discussing ideas with peers is a way to refine your model. They forget the value isn't in the idea, but in the implementation. It is important however to make a distinction between what can and what cannot be shared. There are some specifities which are business secrets.

Being in touch with specialists in the subject area you are attacking are mechanisms to keep up to date and abreast of market developments, as are active mentoring and coaching with relevant stakeholders.

The fact is that knowledge sharing is also a function of the size of the firm. More people make it more confusing, more difficult, particularly in a startup which is chaotic in nature. The degree of sharing, and what is going to be share depends on the firm culture, and of course on people.

I suspect the culture of sharing and collaborating is only going to increase. Today's access to technology, to people and information seen in the younger generations as well as a culture of openness and collaboration fostered by school curricula tend to make sharing of knowledge way easier than in the past

Another aspect that needs to be considered is the organizational structures. Hierarchy, a more horizontal one favors innovation. The key here is allowing ideas to flow easily, so in addition to size mentioned above, hierarchy also plays and important role, and a culture that favors it, ends up encouraging innovation.

A culture based in freedom and autonomy is also important. If you have autonomy you end up doing things, and as we already saw, doing, the execution is the key aspect of innovation

Other than that, certain ceremonies typical to agile methodologies also help with collaboration and sharing, as for example scrum daily, Monday scrum planning, Friday scrum reviews …

Our interpretation from the insights of Firm #8 led us to infer that the environment described above ends up dictating why the startups select the innovation model they use. That was prescribed by Almirall et al (2010) described in the bibliographic review, where the authors conclude that discovery can emerge not from strategic freedom, but from restriction of available choices and the learning that comes from such choices. Open innovation strategies allow for firms to discover areas in the landscape where products or combinations of product characteristics would be difficult to imagine otherwise. External and extensive networks ready to collaborate for innovation are highly beneficial, but being able to manage and coordinate interactions in such settings is essential.

Firm #8 says that one of the main challenges to collaboration, sharing, innovation is a broken communication process, and the lack of meaningful incentives. We often see, mainly in traditional firms, negative incentives to sharing and collaborating.

That being said, according to our interpretation of Firm #8's statements, we can say that:

- Innovation is change, it is doing something that adds value to society.

- Firms select the innovation models they use because environmental constrains and opportunities

- They implement their innovation models based on mechanisms and tools that will allow them to better enact their environment

- They benefit mainly by surviving

- Main challenges include broken communication processes and lack of incentives

Open Innovation is common place in the Fintech environment.

Firm #8 provided us mainly with significant insights about why firms select the innovation models they use, but also provided meaningful hints for the other research questions. Lets now see what our next firm can tell us.

Insights from an investor: part 1

The case narrative

Firm #9 is an investor in the startup environment, and our interviewee a seasoned professional with significant knowledge in the financial services industry and with innovation initiatives. In his view, innovation comes about incrementally, in the form of skills, processes or products which result in cost reduction or product/process enhancement.

> *I see innovation as incremental, where it leverages better, finds new ways for something that the company already does and full innovation when it brings something 100% new, be it skill, process or new product. So I always look at it in terms of either revenue improvement or cost reduction, which both generate a positive result for the company, so I don't look at innovation just as revenue.*[cxciv]

Innovation happens with certain proximity to the business core, and is influenced by how open the firm is, and how much it believes it can be target to disruption by outsiders.

> *We also look when it is new, which is closer to the company's core business or more adjacent to what the company already does or more distant from what the company does, and then it will depend on when the company is open to changing its route or how convinced it is that the business will be disrupted.*[cxcv]

In his view, some firms are still very traditional and end up relaying of specific teams considered to be 'proactive', as for example sales or product development to gather innovation opportunities from hints they obtain in conversation with their clients. In his view this approach to innovation is somehow restrictive.

> *So I think there are companies that are still in the 1.0 model, in the traditional one, that they are restricted to employees in areas that have a responsibility for product evolution, it is usually an area, it calls the product area and or the area employees commercial that are the most proactive who try to have ideas to satisfy the client or the most reactive that listens to the client's demands and brings them to the company. I think that in the traditional model it is very restricted to these areas, so the area of creating solutions.*[cxcvi]

The most modern models go much more on a customer journey, to understand the customer journey and bring it from outside into the company.[cxcvii]

A successful approach to innovation must involve all areas of the firm, where points of view are shared and discussed. Effective innovation presupposes an effective collaboration network where all opinions count.

It should involve all areas of the company, even the back areas, not just an innovation area or a commercial area or a product area, so that you can have more information in one line.[cxcviii]

A collaboration network.[cxcix]

Where all this information potentializes when you have more people being able to collaborate and be able to give an opinion.[cc]

Just a few years ago, such an ecosystem, a collaboration network didn't exist in Brazil. Now we have initiatives like Itau's CUBO, Bradesco's Habitat, Porto Seguro's Oxigenio, Localiza's Orbi just to mention a few, and investors / incubators like Distrito and Fisher. Such development makes easier for firms to go outside and look for knowledge sharing opportunities. Some of the participants in the ecosystem even have 'match making' programs, that identify specific firm demands and match them with suitable startups.

Today you have the Cube, the CAT, the Habitat Bradesco, the Oxygen of Porto Seguro, in BH there is the Orbi that is from Localiza and MRV, you have the District, you have Fisher, you have so many ecosystems today that three, four years ago they didn't exist. So if the company has a framework today, it has nowhere to look for innovation.[cci]

There are programs that we call match making, that you take the company's demand and do a search for solutions outside, there are consulting companies that do this, they come to the company, do a needs assessment, prioritize and then look for this solution in a pool of startups that they have, then bring this solution already curated, these are well designed programs because the direct dating of the startup with the big company is very difficult result in marriage.[ccii]

Nowadays it is common to see firms creating their own startup accelerator. This is somehow the realization that traditional closed innovation might not be effective in leveraging the reach of skills, people, geographies … of enhancing a firm's set of capabilities as being open to the ecosystem allows. Open innovation is such realization, and offers access exponentially.

I think what's interesting about open innovation when compared to traditional innovation is leverage, leverage and reach power, geographic reach, skill reach, people reach, because in the traditional I have 700 employees, this is yours … it is your ability.[cciii]

With open innovation that becomes exponential.[cciv]

Unfortunately, in his experience, involving universities as partners in the innovation process hasn't been a successful endeavor as it could. Even when schools demonstrate agreeability, such interest is typically more a demonstration of friendliness than a commitment to the project.

> *The attempts we made were extremely discouraging, universities, especially federal ones with a resistance to the private and even when we found a little friendliness it was more to be nice, you know...[ccv]*

Startup on the other hand are born with an open innovation mindset. They collaborate more, they share more, they leverage what is already available (and free) to bring about learning in their firms. Startups that do not have such a mindset are more susceptible to being a target from competitive incursions.

> *They are already born with an open innovation capacity participating in forums and already act in a very collaborative way going to events, there is a lot of free content on the internet for training the team itself. Now if he is a small and managed company with an old head owner, then I think this guy is more complicated, he is more susceptible to ... Being attacked.[ccvi]*

Such open mindedness and agility are probably due to size. Smaller firms have less people to convince, less resistance to develop whatever solution is in their minds. While smaller firms are typically more afraid to be trolled by others thus more agile in their defensive measures, larger ones tend to be more arrogant believing they are indestructible. In that context, a recent research shows larger firms see innovation as something you do internally, without sharing or collaborating with others, a mindset diametrically opposed to that of the startups. The fact is that nowadays, incumbents are paying serous attention to the FinTech movement as they now see in it credible disruptive potential.

> *I think that because it is smaller it is easier as there are fewer people to be convinced of the change, so sometimes it is just one owner, two partners, and does not have a broad board, so there are less people to go to a StartSe event and return from there convinced.[ccvii]*

> *So when bigger is more people to be convinced and that means more resistance also when implanting, because what I show here is a survey from outside the staff saying "Yes, innovation is important", 46% respond, this is super recent, which is extremely important. So how do you move the company that less than half think is extremely important? And then when the guy innovates, it is in the same survey, 51% think it is better to do it at home, only 31% make a partnership and only 18% make an acquisition. So when you mix this here with this here it is very difficult to make the big corporation move.[ccviii]*

> *In the smallest, even if you have the same levels of answers it will be easier for her to convince herself. And the smaller one, like this, I think he naturally has a greater fear of being killed, the bigger he tends to have more of this arrogance of being indestructible. And I think that the financial sector is moving very fast, not in all sectors, so you get fintechs that has that evolution.[ccix]*

> *I used to hear the incumbents in the financial market saying that this fintech business was a bubble, all of them result in losses, it will lead to nowere, today I no longer hear that..[ccx]*

But why would the startup be born with a positive mindset towards open innovation ? They need to do convincing pitches from the very beginning, sharing the view, their product / service approach, their strategy. Startups are open to listen so that they can evolve their concept in a way it has a larger probability to succeed. They believe that having a competency to execute is paramount, so if others end up copying their ideas, the firm with better execution capabilities will be the one to succeed. In fact this is actually expected, as kids currently in school are presented with challenges and projects they need to resolve in teams where sharing and collaboration are factors of success. Transporting that to the startup world is nothing but natural.

> *A lot of events and I think they already have this idea, which is the opposite of intellectual property, of keeping the seven keys, because I get the pitches here from the companies, the guy sends the Power Point with all his strategy.[ccxi]*

> *With what his product does that the other does not, he is not keeping any secrets, and it is very much in line that the best will win, I will not win if I keep hiding what I do ... so much that it shows there: "I do this, this and this", if another one goes there, copy and do it faster, all right.[ccxii]*

> *I have to run faster than the others.[ccxiii]*

> *The challenge is to move away from a model that you do everything yourself to work collaboratively. The new generations, even in schools, at least in private schools, children today they work in ... collaboration.[ccxiv]*

> *So I think that the new generation already has this collaboration chip, so I think it depends on the company's time, the older the more difficult it is to learn to work in collaboration and then it depends a lot on people, you know?[ccxv]*

In larger firms, collaboration and sharing doesn't get easier even when the firm decides to leverage startups to resolve specific problems. Games of power and politics might end up causing folks to actually sabotage the initiative.

> *If the guy in the area where innovation is going to happen, if he thinks he will lose power, lose headcount he will play against.[ccxvi]*

In a relationship with startups, it is key to understand what the firm needs and how the startup delivers it. Firms need to review internal policies and practices and consider eventual proper adjustments so that they won't kill exactly the capabilities they are looking in the startup because of strict compliance, legal, risk, HR guidelines.

> *So I see companies that comment on the mistake of going straight to the wedding, take the startup, buy it, bring it in, as if everything was usual ...[ccxvii]*

> *It will suffocate the startup and kill it, compliance, information security, legal, HR, sometimes even the profit from that solution will go away when you add salary, benefits, work with everyone remote, "No, remote work you can't do it anymore, you have to come here ", then the employee is discouraged because ... It was precisely what attracted him.[ccxviii]*

Bringing open innovation to larger firms, and developing a healthy relationship with startups where collaboration and sharing truly happen requires understanding and engagement from all, at all levels.

I tried several ways to make innovation thrive and I just think I was more successful when I involved the entire company.[cxix]

The case analysis

To assist us with the analysis, a case word table (YIN, 2009, p. 134) representing each of the research questions / themes was crafted so that the firm's statements about particular themes could be grouped.

Exhibit 29 below summarizes our interpretation for how Firm #9 answered each of the research questions. Our interpretation is based on our evaluation of their statements as represented in the narrative above.

Firm #8 describes innovation in terms of cost reductions, product / process enhancement, aligning with precepts from the school of technological change where productivity and effectivity were key concepts. Innovation will take place if the firm perceives it is a risk of being dislodged, but only it the firm is somehow open to see what is happening in the environment.

That introduction to the role of the environment in innovation serves as a way to get us familiar with Firm #8's view on how firms select the innovation models they use.

We saw I section "Recent Open Innovation work" on page 18 that external and extensive networks ready to collaborate are highly beneficial to open innovation, ecosystems that promote actions as venture capital, startup support and incubation end up generating positive benefits. But just a few years ago such an ecosystem, a collaboration network didn't exist in Brazil. Starting firms were not aware of the benefits of collaboration and sharing, they were afraid to collaborate and share knowledge. Now we have initiatives like Itau's CUBO, Bradesco's Habitat, Porto Seguro's Oxigenio, Localiza's Orbi just to mention a few, and investors / incubators like Distrito and Fisher. Such development makes easier for firms to go outside and look for knowledge sharing opportunities. As discovery impacts firms orientation towards open innovation (WEST; BOGERS, 2014), by being now able to enter in more effective discovery mechanisms, firms are more prone (and capable) to develop open innovation processes.

Questions	How the evidences relate with the research questions ?
What is Innovation	Page 122 innovation comes about incrementally, in the form of skills, processes or products which result in cost reduction or product/process enhancement Page 122 Innovation happens with certain proximity to the business core, and is influenced by how open the firm is, and how much it believes it can be target to disruption by outsiders
Why firms select the innovation models they use	Page 123 Just a few years ago, such an ecosystem, a collaboration network didn't exist in Brazil. Now we have initiatives like Itau's CUBO, Bradesco's Habitat, Porto Seguro's Oxigenio, Localiza's Orbi just to mention a few, and investors / incubators like Distrito and Fisher. Such development makes easier for firms to go outside and look for knowledge sharing opportunities Page 123 Some of the participants in the ecosystem even have 'match making' programs, that identify specific firm demands and match them with suitable startups Page 123 Nowadays it is common to see firms creating their own startup accelerator. This is somehow the realization that traditional closed innovation might not be effective in leveraging the reach of skills, people, geographies … of enhancing a firm's set of capabilities as being open to the ecosystem allows. Open innovation is such realization, and offers access exponentially Page 124 Startup on the other hand are born with an open innovation mindset. They collaborate more, they share more, they leverage what is already available (and free) to bring about learning in their firms. Startups that do not have such a mindset are more susceptible to being a target from competitive incursions Page 124 Such open mindedness and agility are probably due to size. Smaller firms have less people to convince, less resistance to develop whatever solution is in their minds. While smaller firms are typically more afraid to be trolled by others thus more agile in their defensive measures, larger ones tend to be more arrogant believing they are indestructible Page 125 In fact this is actually expected, as kids currently in school are presented with challenges and projects they need to resolve in teams where sharing and collaboration are factors of success. Transporting that to the startup world is nothing but natural
How firms implement their innovation model	Page 123 A successful approach to innovation must involve all areas of the firm, where points of view are shared and discussed. Effective innovation presupposes an effective collaboration network where all opinions count Page 125 But why would the startup be born with a positive mindset towards open innovation ? They need to do convincing pitches from the very beginning, sharing the view, their product / service approach, their strategy
How the firms benefit from the innovation model they use	Page 125 Startups are open to listen so that they can evolve their concept in a way it has a larger probability to succeed. They believe that having a competency to execute is paramount, so if others end up copying their ideas, the firm with better execution capabilities will be the one to succeed
What are the main obstacles and challenges perceived in the firm's innovation model	Page 122 some firms are still very traditional and end up relaying of specific teams considered to be 'proactive', as for example sales or product development to gather innovation opportunities from hints they obtain in conversation with their clients. In his view this approach to innovation is somehow restrictive Page 124 Unfortunately, in his experience, involving universities as partners in the innovation process hasn't been a successful endeavor as it could. Even when schools demonstrate agreeability, such interest is typically more a demonstration of friendliness than a commitment to the project Page 125 In larger firms, collaboration and sharing doesn't get easier even when the firm decides to leverage startups to resolve specific problems. Games of power and politics might end up causing folks to actually sabotage the initiative Page 125 In a relationship with startups, it is key to understand what the firm needs and how the startup delivers it. Firms need to review internal policies and practices and consider eventual proper adjustments so that they won't kill exactly the capabilities they are looking in the startup because of strict compliance, legal, risk, HR guidelines Page 126 Bringing open innovation to larger firms, and developing a healthy relationship with startups where collaboration and sharing truly happen requires understanding and engagement from all, at all levels

Exhibit 29 – How the evidences relate with the research questions for Firm #9

Source: Created by the author

Nowadays it is common to see firms creating their own startup accelerator. This is somehow the realization that traditional closed innovation might not be effective in leveraging the reach of skills, people, geographies … of enhancing a firm's set of capabilities as being open to the ecosystem allows. Open innovation is such realization, and offers access exponentially. Some of the participants in the ecosystem even have 'match making' programs, that identify specific firm demands and match them with suitable startups.

Startup on the other hand were born within this ecosystem, with an open innovation mindset. They collaborate more, they share more, they leverage what is already available (and free) to bring about learning in their firms. Startups that do not have such a mindset are more susceptible to being a target from competitive incursions. In addition to a favoring environment, such open mindedness and agility are probably also due to size. Smaller firms have less people to convince, less resistance to develop whatever solution is in their minds. While smaller firms are typically more afraid to be trolled by others thus more agile in their defensive measures, larger ones tend to be more arrogant believing they are indestructible

In fact this is actually expected, as kids currently in school are presented with challenges and projects they need to resolve in teams where sharing and collaboration are factors of success. Transporting that to the startup world is nothing but natural.

Implementing a successful approach to innovation requires involvement from all areas of the firm, where points of view are shared and discussed. Effective innovation presupposes an effective collaboration network where all opinions count. But why would the startup be born with a positive mindset towards open innovation ? In addition to a supporting ecosystems we described above, they need to do convincing pitches from the very beginning, sharing the view, their product / service approach, their strategy. They believe that having a competency to execute is paramount, so if others end up copying their ideas, the firm with better execution capabilities will be the one to succeed.

Startups are open to listen so that they can evolve their concept in a way it has a larger probability to succeed, unquestionably a huge benefit.

Among challenges and obstacle to implementing an open innovation model, Firm #8 sees that some firms are still very traditional and end up relaying of specific teams considered to be 'proactive', as for example sales or product development to gather innovation opportunities from hints they obtain in conversation with their clients. In his view this approach to innovation is somehow restrictive.

Unfortunately, in his experience, involving universities as partners in the innovation process hasn't been a successful endeavor as it could. Even when schools demonstrate agreeability, such interest is typically more a demonstration of friendliness than a commitment to the project

In larger firms, collaboration and sharing doesn't get easier even when the firm decides to leverage startups to resolve specific problems. Games of power and politics might end up causing folks to actually sabotage the initiative. In a relationship with startups, it is key to understand what the firm needs and how the startup delivers it. Firms need to review internal policies and practices and consider eventual proper adjustments so that they won't kill exactly the capabilities they are looking in the startup because of strict compliance, legal, risk, HR guidelines. Bringing open innovation to larger firms, and developing a healthy relationship with startups where collaboration and sharing truly happen requires understanding and engagement from all, at all levels

The view of Firm #9 adds to the influence of the environment described in the previous section. Here, elements like the role of the ecosystem in the form of accelerators, incubators, investors is made clear, as is the behavior of larger firms. Those elements end up influencing choice in the form of certain bias startups develop in their views of sharing and collaborating.

So, once again, firms select their innovation models as result of enacting and environment characterized by abundance of information and intense competition.

That being said, according to our interpretation of Firm #9's statements, we can say that:

- Innovation is change, aligning with precepts from the school of technological change where productivity and effectivity were key concepts

- Firms select the innovation models they use because a blooming ecosystem provides the venue for sharing and collaborating. They were born in such ecosystem and see in collaborating a source of opportunities. Their size facilitates effective communication among all areas of their firm. It is also fact of life in startups to pitch their ideas, to share their views, products, services, their business model.

- They implement their innovation models based on effective, open communication among all in all areas of the firm and better execution capabilities.

- They benefit mainly by having larger probabilities to succeed

- Main challenges include organizational structures that make communication flows difficult, or that elect innovation as the responsibility of few. Collaboration with

universities is still not as successful is it should. Larger firms mindset is still unable to truly comprehend that of the startups, making collaboration processes difficult.

Open Innovation embedded in the ecosystem, and firms are born with a mindset to leverage purposively managed flows of knowledge across the boundaries of their organizations.

Firm #9 adds to our perception as to why firms select the innovation models they use, with additional insights also to challenges and benefits for adopting such models.

Insights from an investor: part 2

The case narrative

Firm #10 is a startup accelerator, and investor. In their view, everything they do in their firm is based in collaboration and openness, bringing the concepts of innovation to both the firms they invest/accelerate and to people's lives. They incentivize the community to participate, create themes together with the community, have people to open themselves to the community bringing challenges to the table .

> *Everything we do here inside the firm comes with a profile of being collaborative and open. So, what we try to do is apply open innovation to the reality of people and companies. Our innovation hubs are open and collaborative. We receive people from the community. We encourage the community to participate. We create themes together with the community. The maintainers themselves are encouraged to open up to the community, to put their challenges on the table, to understand what startups do, to participate in pitch days.[cxxx]*

They are always trying to foster information, intelligence sharing so that opportunities and synergies flourish in their environment.

> *So, what we always try to do is to have a greater exchange of information and intelligence between the parties, so that opportunities arise and synergies arise within the environment. And this is fundamental for open innovation.[cxxxi]*

This in an important aspect of their view, as one of their businesses, the corporate innovation area works on the thesis that open innovation is a way to address complex problems in large firms. But when large firms think about such approach, they typically believe it is just a matter of giving a startup money and their problems will be solved. They do so without considering that the actual motivation of a startup might be addressing another problem. Large firms also expect startups to immediately resolve their large problem, without considering the startup might be in earlier phases, perhaps still testing their product and might not be yet prepared to scale in the way the large firms requires. The startup, looking to close a contract might see the proposal from the firm as an opportunity, even if what they are asked to do isn't aligned with their initial view. When a relationship is approached in such way, it most likely won't work.

Going a little into our area of corporate innovation, our thesis is, in fact, to use open innovation as a source of solution to complex problems of large companies.[ccxxii]

The first thing that the big company thinks is "I have to give money to the startup to solve my problem", only that it was not designed to solve the problem of that company, it was created to solve another problem of society or the corporate world.[ccxxiii]

This is also one of the mistakes of large companies. They want a company that has just been formed, that is testing its product, that is building its technology to solve a giant problem. Then it doesn't work. The entrepreneur, eager to close a large contract or to serve a large company, does everything he has to do. It usually doesn't work.[ccxxiv]

They consider innovation as anything which somehow enhances a product or service, making it better, faster, more efficient, cheaper. It is a way to change consumption behavior or user behavior. Innovation is transformation in general.

So, it is very difficult to define what innovation is. But I think it is any way to make a product or service better, faster, more efficient, less costly. It is a way of changing consumer behavior, the behavior of users or people with a particular product or service. I think that innovation is about transforming, in general. It is how you transform what already exists. So, it is difficult to measure this in practice. Is very difficult.[ccxxv]

For Firm #10 open innovation is looking for solutions to daily problems, market opportunities where you are not creating the solution or addressing the challenge by yourself. It is looking in your environment for someone that already has the knowledge, the experience so that your process is faster, cheaper and eventually generates a larger impact than if you had built everything by yourself from the ground up. It is collaboration, reusing what already exists, it is trying not to develop everything inside the firm.

Open innovation, for us, is looking for solutions to everyday problems or opportunities in the market as a whole, that is, it is not that you want to build the solution of that opportunity or the solution of that challenge alone. It is looking, perhaps, in the world or within its microenvironment or its environment as a whole, someone who already has this knowledge and already has this experience, who has already built this product and uses this product, many times, as a service so that you know that you did a process faster, cheaper and, at times, with a greater impact than if you had built everything yourself, from scratch.[ccxxvi]

It is a collaboration. It is to use what already exists. Mainly, above all, it is to use what already exists. It is to seek those who already have the knowledge. It is to seek those who already have the product. It is looking for those who already have the experience, those who already have the intelligence and not trying to develop everything at home.[ccxxvii]

Such approach brings about benefits in the form of rapid transformation, more efficiency, less costs. In his view, if you would take six months to one year or more to understand your customers, to understand the problem you are handling, to build a solution and get feedback, when you leverage sharing and collaboration, when you use parts of a solution which is already done, when you integrate those as building blocks in your answer you can shortcut the time it takes to reach a solution with all the benefits mentioned above.

I think that makes the whole transformation process faster, less costly and more efficient, that is, the impacts to test certain hypotheses are brutal. While it takes you six months, a year, sometimes more than that to understand the consumer, to understand the problem you're attacking, to build a solution, to get feedback on that solution, if you already have something ready to use, this process is faster, cheaper and has a greater impact. So, it allows you to integrate, much more often, in a much faster way behind the ideal solution for your problem or opportunity.[cxxxviii]

But those won't come without challenges and obstacles, being risk the main one as innovation and transformation are high risk processes.

From the corporation's point of view, I think that perhaps one of the biggest difficulties is taking the risk. It is to assume and accept the error. Innovating, transforming is a high risk process.[cxxxix]

Culture is also a big obstacle, as people, for example, are resistant to being open and speak openly, to expose the fact they might not know something, to expose their limitations, their weaknesses.

You have a cultural difficulty, which is the person talking about your problem and wanting to solve their problem in an open way, that is, exposing themselves often, exposing their weaknesses.[cxxxx]

Resistance to change is another big challenge to overcome. By nature people are adverse to changing and tend to do what they can to make changes more difficult than it needs to be. One way to address such challenge is to get it to happen in a top-down approach, driven by someone that isn't afraid to take responsibility for mistakes that can occur, losses that might materialize while at the same time is someone who sees in it a learning process. So, it is a process of evolving the culture, and that takes time.

Most people within corporations tend not to accept changes, they tend to make changes difficult. So, this is a tremendous challenge in the innovation process, which is why we say that innovation needs to be commanded from the top down by someone who assumes that mistakes can happen, assumes that losses may exist, but that, at the same time , you know that this is a learning process.[cxxxxi]

It is a culture transformation process. Above all, culture. Without a doubt it takes a while.[cxxxxii]

Innovation is also a culture of doing, not necessarily having ideas, creativity. Billions of people have ideas, and many are the same idea. Having the execution capability is the fundamental trait for innovation. To be able to execute, one needs resiliency, experience, capital, intelligence just to mention a few. Execution is the fundamental factor to innovation. All entrepreneurs end up living and learning this.

"From my point of view, innovation is who can do it, not who can necessarily have the idea". A very common phrase in the world of entrepreneurship is that every entrepreneur goes through this.[cxxxxiii]

I don't know how many billions of people in the world, nor do I know how many people there are in the world, they will have the same idea. I think that the ability to execute is fundamental to innovation. And to have

execution you need to have several factors. You have resilience, you have experience, you have capital, you have intelligence. Execution, of course, is one of the fundamental factors for innovation to occur.[ccxxxiv]

To bring about execution, firms depend on talent, and finding talent is increasingly challenging. One of the reasons is that top talent is looking for entrepreneurship opportunities. When graduating from college, more and more people want to become entrepreneurs as opposed to searching for a job in a more traditional firm.

In the corporation it is becoming increasingly difficult, because people increasingly want to venture.[ccxxxv]

Today we already see here, both in our company and in the market as a whole, who leaves a university, especially from the most accredited universities in Brazil, they want to work in startups and want to become entrepreneurs.[ccxxxvi]

And getting talent is not the end, as firms increasingly have difficulties retaining. Startups became a true competitor for talent and their culture of openness seems more aligned with the beliefs of the new generations.

Today corporations struggle to attract talent, they struggle to retain talent.[ccxxxvii]

From the corporation's point of view, this dispute is going to be increasingly tough. It will be a dispute in which the change of culture will be fundamental.[ccxxxviii]

The young look for places that offer them the potential for generating an impact to society, to the world. They look for work/life balance, for a quality of life. In the past access to technology was more restrict, perhaps only available in larger firms. Nowadays it is readily available and very cheap, being this another factor incentivizing people to look for entrepreneurship opportunities instead traditional employment. The truth is that we are facing a deficit of technology workers, and this will only increase with the time.

Young people are increasingly concerned with making an impact for the world, with having a good quality of life and being able to use things, not having them.[ccxxxix]

This also comes at the cost of technology. Each time technology has less cost for you to develop an application, for you to develop a website, for you to consume.[ccxl]

We have a huge deficit of developers here in Brazil. You have a generation of entrepreneurs who are going to create startups in an exponential way and you don't have enough people to be able to program these ideas, to be able to take advantage of these opportunities.[ccxli]

As we saw above, firm #10 made explicit that startups are born with the mindset that ideas are not as important as execution, so they are not afraid to share their ideas. This is true even in a competitive settings where startups discuss ideas, weaknesses and opportunities as ways to refine their understanding and guide their execution. Such mindset is less common in traditional firms, but some are starting to explore it as they begin to understand that their culture, their

modus operandi, their approach to resolving problems differ from their competitors. So, when you share a problem it is possible that your competitor is also be facing a similar one, but the solution to yours isn't necessarily the same as your competitors. But discussing approaches and leveraging open innovation can be beneficial. After all, the biggest challenge will always be in the execution.

> *Abroad you have several cases where this happens. The automakers have already joined together to create autonomous vehicle programs. This type of subject is not new. There are several cases that show this. I think that, as we were saying, the reality of companies, even in the same sector, is very different in terms of culture, in the way of acting, in facing their problems. When you open your problem, your competitor will probably have something very similar, but not necessarily the solution to your problem will be exactly the same solution as your competitor. I think the speed with which you tackle this problem using open innovation and the low cost with which you tackle this problem.*[ccxlii]

> *The greatest difficulty is to execute, not to read or create a strategy. You are an strategy geniuses, but few are actually able to execute and implement.*[ccxliii]

In Firm #10's view, innovation hubs, coworking venues are big sources of intelligence and experience for startups, all in a very informal setting. This unstructured knowledge sharing environment fosters open innovation as in encourages in a friendly, non-threatening way discussions on a myriad of subjects, problems, opportunities, approaches. Even tough finding opportunities might be more difficult when compared with the past, the cost to create a new firm, a new business, to test a new idea a new hypothesis is much lower.

> *The innovation hubs, coworkings, are great sources of intelligence and experience and in a super informal way. So, when you are part of a hub, your team as a whole is touching on knowledge, problems, difficulties with people from other companies in a very little programmed way, in a very unstructured way. The fact is, it works. I think that innovation hubs are a super important vector for startups to be able to feed on this open innovation.*[ccxliv]

> *It is very common for someone to post a problem they are having. "I'm from startup x, I use such technology and I was wondering if anyone can help me with this challenge". People communicate and speak, and help, and collaborate. So, this is very rich.*[ccxlv]

> *Today it is much more difficult to find opportunities than it was in the past. On the other hand, the cost of creating a new company, of a new business, the cost of testing a hypothesis is very low.*[ccxlvi]

Knowledge sharing with universities as perceived by Firm #10, is something that depends on the industry segment the startup is inserted. In some areas as for example FinTechs, such collaboration is almost inexistent, where the opposite is seen in Agro, as here startups, research centers and universities developed a strong partnership. Some firms in the said Industry 4.0 are connected with research centers and such connections seem to be growing, but in general interaction and integration with the academia is still small.

I think in some segments more and in others very little. For example, the agribusiness segment is a segment in which there is an exchange of information with research institutes, which is very intense with schools. On the other hand, the financial segment I think very little or practically nonexistent.[ccxlvii]

Industry 4.0 is already well connected with research institutes, with some technical schools. Perhaps, it is a little of the specific characteristics of the industries themselves, but I think that, in fact, interaction and integration with the academic world are still very small. This is increasing more and more.[ccxlviii]

The case analysis

To assist us with the analysis, a case word table (YIN, 2009, p. 134) representing each of the research questions / themes was crafted so that the firm's statements about particular themes could be grouped.

Exhibit 30 below summarizes our interpretation for how Firm #10 answered each of the research questions. Our interpretation is based on our evaluation of their statements as represented in the narrative above.

Change is again at the center of Firm#10's understanding of what innovation is. Something that somehow enhances a product or service, making it better, faster, more efficient, cheaper. It is a way to change consumption behavior or user behavior. Innovation is transformation in general.

The environment here also plays a major role in the firms innovation orientation. According to Firm #10, safe environments as those provided by accelerators, innovation hubs and coworking venues are more conducive to collaboration, to open innovation. When firms don't have access to such environments, or when they leave them they tend to be more selective, more closed.

Implementation of the innovation model is also represented here as a function of cultural variables. In general for innovation to happen, the direction has to come from the top, from someone who isn't afraid to take responsibility for mistakes that can occur. Every employee in all areas of the firm need to be engaged with this mindset. This becomes easy in a startup in function of size. I the beginning the firm is typically the founder(s) and one or two more people to help with the heavy lifting. Even as the firm grows, its size remains relatively small and the fluidity of communication is maintained. The chaotic setting, the unstructured knowledge sharing environment that develops in a startup fosters innovation as it encourages friendly, non-threatening discussions about a myriad of subjects, problems, opportunities and approaches.

But communication needs to be aligned with a sense of ownership. If you feel empowered, if you own a problem it most likely won't stay in the plane of ideas for a long time. The ideas will transcend and transform into execution. So developing a culture of doing, where execution takes the forefront is a key factor for the firm to bring about innovation. Ideas can be discussed,

shared, scrutinized, polished, refined but ultimately, they need to be executed. The execution capability is innovation's fundamental trait. The startup mindset is also built on top of other traits as resiliency, persistence, capital, intelligence just to name a few. All entrepreneurs end up living and learning this.

Firms benefit from open innovation if the form of enabling rapid transformations with more efficiency, less cost, more reuse of what already exists. Knowledge shared become building blocks in the process of creating a solution. But as they are already developed and only need to be integrated the end up shortcutting the process. So, when you share a problem it is possible that your competitor is also be facing a similar one, but the solution to yours isn't necessarily the same as your competitors. But discussing approaches and leveraging open innovation can be beneficial. Sharing and discussing ideas act as a mechanism for refining them, for finding weaknesses and eventual other opportunities not yet considered. After all, the biggest challenge will always be in the execution.

Obstacles are perceived as coming from many sources. One example is the risk taking spirit of the firm since innovation, change are inherently risky and not everyone has the same appetite for it. Resistance to change is ingrained in people's mindsets and thoughts. Lets not forget that a firm is made of people, thus finding the right incentives to overcome resistance need to be in place, the right measures to overcome / mitigate risk need to be developed, otherwise introducing change, innovating can become more difficult than it needs to be. Since we talked about people, to bring about execution, firms depend on talent, and finding talent is increasingly challenging. One of the reasons is that top talent is looking for entrepreneurship opportunities. When graduating from college, more and more people want to become entrepreneurs as opposed to searching for a job in a more traditional firm. The fact is that we are facing pure technology worker shortage! To make things more complicated, getting talent is not the end, as firms increasingly have difficulties retaining.

Another challenge relates to knowledge sharing with universities. It is perceived by Firm #10 as something that depends on the industry segment the startup is inserted. In some areas as for example FinTechs, such collaboration is almost inexistent.

Questions	How the evidences relate with the research questions ?
What is Innovation	On page 131, They consider innovation as anything which somehow enhances a product or service, making it better, faster, more efficient, cheaper. It is a way to change consumption behavior or user behavior. Innovation is transformation in general On page 131, For Firm #10 open innovation is looking for solutions to daily problems, market opportunities where you are not creating the solution or addressing the challenge by yourself. It is looking in your environment for someone that already has the knowledge, the experience so that your process is faster, cheaper and eventually generates a larger impact than if you had built everything by yourself from the ground up. It is collaboration, reusing what already exists, it is trying not to develop everything inside the firm
Why firms select the innovation models they use	On page 134, innovation hubs, coworking venues are big sources of intelligence and experience for startups, all in a very informal setting. This unstructured knowledge sharing environment fosters open innovation as in encourages in a friendly, non-threatening way discussions on a myriad of subjects, problems, opportunities, approaches
How firms implement their innovation model	On page 132, get it to happen in a top-down approach, driven by someone that isn't afraid to take responsibility for mistakes that can occur, losses that might materialize while at the same time is someone who sees in it a learning process. So, it is a process of evolving the culture, and that takes time On page 132, Innovation is also a culture of doing, not necessarily having ideas, creativity. Billions of people have ideas, and many are the same idea. Having the execution capability is the fundamental trait for innovation. To be able to execute, one needs resiliency, experience, capital, intelligence just to mention a few. Execution is the fundamental factor to innovation. All entrepreneurs end up living and learning this On page 133, startups are born with the mindset that ideas are not as important as execution, so they are not afraid to share their ideas
How the firms benefit from the innovation model they use	On page 131, Such approach brings about benefits in the form of rapid transformation, more efficiency, less costs On page 131, when you leverage sharing and collaboration, when you use parts of a solution which is already done, when you integrate those as building blocks in your answer you can shortcut the time it takes to reach a solution with all the benefits mentioned above On page 133, This is true even in a competitive settings where startups discuss ideas, weaknesses and opportunities as ways to refine their understanding and guide their execution On page 134, So, when you share a problem it is possible that your competitor is also be facing a similar one, but the solution to yours isn't necessarily the same as your competitors. But discussing approaches and leveraging open innovation can be beneficial. After all, the biggest challenge will always be in the execution
What are the main obstacles and challenges perceived in the firm's innovation model	On page 132, But those won't come without challenges and obstacles, being risk the main one as innovation and transformation are high risk processes On page 132, Culture is also a big obstacle, as people, for example, are resistant to being open and speak openly, to expose the fact they might not know something, to expose their limitations, their weaknesses On page 132, Resistance to change is another big challenge to overcome. By nature people are adverse to changing and tend to do what they can to make changes more difficult than it needs to be On page 133, To bring about execution, firms depend on talent, and finding talent is increasingly challenging. One of the reasons is that top talent is looking for entrepreneurship opportunities. When graduating from college, more and more people want to become entrepreneurs as opposed to searching for a job in a more traditional firm On page 133, getting talent is not the end, as firms increasingly have difficulties retaining On page 133, The truth is that we are facing a deficit of technology workers, and this will only increase with the time On page 134, Knowledge sharing with universities as perceived by Firm #10, is something that depends on the industry segment the startup is inserted. In some areas as for example FinTechs, such collaboration is almost inexistent

Exhibit 30 – How the evidences relate with the research questions for Firm #10

Source: Created by the author

That being said, according to our interpretation of Firm #10's statements, we can say that:

- Innovation enhances a product or service, making it better, faster, more efficient, cheaper. It is change.

- Firms select the innovation models they use because the environment requires collaboration and knowledge sharing.

- They implement their innovation models based on cultural traits they want to develop, which allow them to properly enact their environment: communication, friendly non-threatening discussions, sense of ownership, empowerment, culture of doing, resiliency, persistence, and that ideas are not as important as execution.

- They benefit mainly by reusing what already exist, shortcutting the process. Sharing and collaboration also act as mechanism for refining ideas, finding weaknesses and opportunities not yet considered.

- Main challenges include resistance to change, risk taking appetite, finding and retaining top talent.

Open innovation is the DNA of the startup ecosystems, all entrepreneur live and learn how to develop resiliency, persistence, capital, intelligence and their abilities to collaborate and share so that purposively managed flows of knowledge will cross the boundaries of their organizations.

What can we learn from a big player?

The case narrative
Firm #11 is a big player in the Brazilian financial market, a stereotypical incumbent, and a very lucrative one. It is both, startup client and investor. They look at open innovation as opportunity to shortcut their product development cycle and find startups that are ready either with products or services that can enhance Firm #11's technology, or solve business problems they might be currently facing.

> *In the case of the company where I work, it is the exchange of information that creates value.[ccxlix]*

> *The focus of this company is more associated with the tip, in finding innovation through startups that are already with a certain readiness to act or with the commercialization of products or in technological improvements for business problems.[ccl]*

Competition is traditionally fierce with other players, but recently also with fintechs and even firms from other industries interested in gaining market share. The non-usual competitors might

be more agile and technologically savvy, more efficient and open to new approaches and ideas so the incumbents are hunting them as potential partners.

> *In the Financial sector, there is a rearrangement of new players entering that are more commonly called Fintechs. You also have the entry of players who are not from the Financial sector, but who want to eat a little of the market share that these companies have in certain products, for example, payments.[ccli]*

> *These companies are more agile, besides grabbing the market they are more efficient internally. When large companies in the financial sector look at this, they see in startups, for example, or even in universities as well, ways to incorporate innovation not only created within the organization. I see an increasing opening.[cclii]*

So the need to respond to market needs with agility has forced incumbents the explore open innovation as alternative. They are force to break the traditional "not invented here" syndrome and onboard non-traditional firms to resolve their ever growing needs to be more efficient and attuned to their clients. But it is a slow development as process and practices, their culture is very siloed and protective.

> *The desire begins to open up for this, it starts to have an opening of the great companies of the Financial sector to act in this. They are not yet prepared, we have several procedural problems, organizational silos problems.[ccliii]*

> *I would say that there is an openness to consider innovations from outside as assets that can deliver value to a large company.[cclive]*

It is Firm #11's perception that incumbents have a genuine goal looking at open innovation as an alternative to overcome their weaknesses. However, Firm #11 doesn't believe that the motives of the startups are sincere and focused on open innovation principles. Instead they believe the startups are only looking for cash flow opportunities.

> *Startups have some intentions when they work with large organizations. She doesn't necessarily think about doing Open Innovation, she has this awareness about Open Innovation in my view. I think they should know a lot more, but not necessarily when they get close to big companies for that.[cclv]*

> *Sometimes the intention is simply to get cash flow to capitalize. Not necessarily when they approach companies it is for companies to bring innovation to them, but rather to be able to deliver their solution to the company. It can become an innovation or it can solve a specific problem of the big company.[cclvi]*

> *I can't tell you if there is an intention by startups to work with Open Innovation. I feel that if it does it is not stated in an evident way.[cclvii]*

When considering the startup ecosystem however, Firm #11 believes the role the accelerators, incubators and venture capital firms play clearly foster open innovation, and in the context of well-established and managed accelerators and incubators, startups have the right environment to apply their open innovation practices. But as they depart from that accelerator environment they become more closed and tend to leave open innovation practices behind.

I feel that there is a third actor in this story, which are accelerators, incubators, Venture Capture companies and yes, I think they have a little more intentionality in relation to generating innovation or making Open Innovation happen.[cclviii]

You have startups such as those in Cubo, Inovabra, Habitat, these have a greater maturity because they are promoted or advised by accelerators and incubators that are able to transmit the value that Open Innovation can have for them.[cclix]

It is within the ecosystem. Thinking that it is a large circular area and you have in the center Hubs with startups closer to them you have startups that are distant from this epicenter. The farther from the epicenter, the farther from these Hubs, the less access they have to consider an Open Innovation because they are a little more lonely trying to act in Innovation. I would say that it has this differential, this spectrum of maturity that startups have.[cclx]

It is their opinion that innovation is a competency that generates new capabilities that add value to the firm or a business, to the value chain. Unfortunately this isn't a concept that everybody understands, thus most don't see that they should or could be involved in proposing or developing innovations. So, in firms which are not mature, typically innovation comes from senior leadership. Such setting ends up wasting a significant number of ideas that could become innovations that come from folks in the ranks, close to the real problems, to where the pain of operating the plant is actually felt. The real question to be tackled by the incumbents is how much value is added by innovations coming from C-Level as opposed to employees in the ranks ?

Firms which are more mature tend to systematize the innovation process, making it a process instead of something random.

This innovation, in my view, appears in the large company depending on the company's maturity. Perhaps the company has a low maturity in relation to the understanding of what Innovation is and it arises mainly from the heads, from the organization's C-Level.[cclxi]

The question is where does Innovation come from and the other is whether Innovation generates any value.[cclxii]

For example, a collaborator may have an innovative idea, but he has so many gates to be able to validate that innovative idea within a large organization that it is possible that that idea will not survive until it reaches where it has to go to be realized. On the contrary, when you have a Head who has an innovative idea, the idea is much more likely to happen, it does not necessarily generate as much value as the employee who is feeling the needs of the organization can feel. I would say that it would be that in a company of low maturity.[cclxiii]

A company with a medium to high maturity has innovation sectors or an area focused on innovation or many areas focused on innovation, is also a problem. These areas start to see Innovation not as something accidental, but as a process in which you manage to generate value in the end. I see that those of medium and high maturity have this. Value generation would be not by chance, but a little more process oriented.[cclxiv]

In small companies I think that innovation is part of the essence of startups.[cclxv]

It is their opinion that in startups, innovation typically comes from the founders, unless they are able to instill a culture where everyone can offer opinions and their ideas are considered.

You have startups that are able to trace a culture in which not only Founders have a possibility for innovation, but that is permeated within employees to generate innovation and all the time they are collaborating, contributing to new ways of pivoting, whether the product or the business model to act in a way of adding value to the end customer.[cclxvi]

Incumbents try to be close to startups much more for a matter of image and marketing than anything else. In their view, being somehow related to the startup community give them an aura, a perception that they are innovative too. There are however occasions where they leverage a startup to address a pressing problem, and less commonly end up influencing the actual creation of a startup to address a more strategic matter.

I see these three main aspects, image, startups for solving specific business problems and startups that arise from strategic opportunities. Eventually this one, the third element is not so open in the market because they are questions of strategy.[cclxvii]

With that in mind, Firm #11 ended up creating one of the most recognized, respected and influential innovation hubs in the country. The idea was to get closer to the ecosystem in order to better understand it. The idea evolved so as to internalize was learned in order to better internal processes and practices, to address internal problems with the "startup mindset". As the hub evolved, also evolved the collaboration, and the internal desire to get even more from what the hub was able to offer.

I'll tell you about the experience of this company I work for. It created a Hub that is close to startups with the intention of understanding their universe, getting closer.[cclxviii]

I understand that this was the strategy adopted by this company in which I work. This arm started to realize: "now we have the opportunity to improve the internal process". "We have the opportunity to use a startup to solve a business problem". You don't make that connection, it didn't exist before and you start to explore some procedural problems, some problems of lack of knowledge of each other's environment and that arise from that relationship.[cclxix]

First the Hub appears and then collaboration.[cclxx]

The analogy I would use would be this. First the funnel was created, then the holes started to be made and now people want to try to make these holes bigger so that they have a greater flow.[cclxxi]

However, being a long established large firm, cultural and operational barriers exist and are difficult to break. There are too many structures and silos that don't communicate among themselves. On top of that, there are no incentives for one to be innovative.

One of the main barriers that I see is the heavy organizational structure itself. Processes that were made to support these structures that do not talk. Another issue is the organizational silos, each business department has its incentives and its strategies. Not necessarily one line of business talks to another. The inhibition of culture itself, people are not encouraged to do so, you have no financial or non-financial incentives to bring innovation.[cclxxii]

With all of that bureaucracy in place, it is very difficult to onboard a startup as it has to go through a long and cumbersome process before it can be actually used by the business.

> *I feel it in my skin, how difficult it is to be able to align interests with various business areas so that a startup, for example, can get in. A startup has to go through the purchasing area, the legal area, the technology area, the information security area, eventually the Cloud area when the company has a role in this line, the business area, operational risk areas or credit risk or risk of impact to the customer. All of this corroborates for the process to be slower and each business area or each staff area has different motivations.[cdxxiii]*

Despite the challenges, Firm #11 created dedicated departments to continue focusing on monitoring this market as well as more traditional player for opportunities that they can use to resolve their business problems.

> *We have an area in some large companies, be it innovation or in my case Corporate Architecture, which makes a broader look than it has in the market. Whenever a business area is in need, be it strategic from the point of view of innovation, or be more punctual, we observe what it has in the market related to startups. We also compare with players that are more consolidated in the market to see what makes sense or not to serve that business area.[cdxxiv]*

But due to the strong culture, search for outside sources of innovation is still overall a random endeavor where business areas tend to prefer attending traditional business fairs which are recognized in the industry.

> *I will give you the perception that exists today within the company where I work. In general, the search for innovation is somewhat random, it is not a concentrated thing. Do you see business areas, in this case, speaking of examples of the company where I work, or does it seek innovations in major fairs in the sector.[cdxxv]*

As mentioned above, the dedicated innovation oriented departments research the market for innovation related opportunities, but they also have a goal of disseminating what they learned more broadly inside the firm. They publish a clipping of sorts destined to the employees at large, they sparkle internal social networks and interest groups to discuss innovations observed and how they could be used to address specific problems of the firm. In addition to that, as other large firms, they keep up to date about new technological developments and trends through agreements with specialized research firms.

> *In some cases here we have an area that does research focused on innovations in the financial market. This is sent by e-mail to employees and they look at the main innovations associated with that, if there is a kind of clipping of market innovations.[cdxxvi]*

> *You have specialized areas such as Corporate Architecture where you have groups of conversations, internal social networks that share technological innovations or innovations associated with market entry all the time, which are nothing more than clippings of what is happening in the media and which that can be considered as an element to take some insight.[cdxxvii]*

In specialized companies, most large companies have, for example, Forester, Gartner, which companies in general consult to find out if they have any new elements, mainly in the technological area that they can add to any need for digital transformation that the company has.[cclxxviii]

They observe, however that interest and drive towards innovation dims when you get closer to more established, core business functions.

The closer you are to the banking core, the less likely you are to go outside, because it has already achieved consolidation, volume strength, unless it is a very new product, but products that the market already has, more traditional, you will have little scope to innovate in that sense.[cclxxix]

The same relates to their approach towards involving clients in their innovation processes. Typically areas which have direct contact with clients tend to be the ones that end up getting clients in the loop.

This is very consistent, especially in the channels, or to bring outbreaks, or people and test the prototypes with them, or to do market research with individuals and then structure this in the project.[cclxxx]

It is their view that the benefits of open innovation for their firm cannot yet be quantified in monetary terms, but the impact those concepts has been significative in their culture and practices, as well as in the image they project.

I still don't see an added value in terms of profitability, I don't think that will happen, but in terms of cultural and organizational change, even if we are not yet in a high maturity, if we weren't possibly we would be less likely to cultural change . This is the great value that Open Innovation is bringing to the great company today. Little question of monetary value, perhaps some question of brand value, perhaps part of Open Innovation is associated with the company's appreciation. I would certainly say that the most consistent element is the change in the propensity of people to act with Innovation, it is in a growing.[cclxxxi]

Another benefit of being linked with open innovation is how such perception seems to attract attention also in the job market.

I don't know if it facilitates, it attracts. The retention I would say no, because the retention goes a lot from the reality that the company has within.[cclxxxii]

Progress has been made, but implementing a culture of open innovation however continue being difficult as there is a need to continue convincing people, departments, partners firms of the benefits open innovation can bring to the firm as a whole. We saw before that the existing processes are not prepared for agility.

The difficulty is to convince companies, employees. Never heard of startup, you have an effort there to convince.[cclxxxiii]

So I would say that this is the main factor, the comparative element between a startup and the company.[cclxxxiv]

Other difficulties are procedural issues that have been put together for established suppliers, and they have to be really reviewed when talking about a startup.[cclxxxv]

In short, open innovation will only happen in a large firm like Firm #11 if top leadership is able to convince the entire organization – it cannot be only a head from a specific area. Such convincing has to promote the right incentives for the culture to move.

I would say that Open Innovation will only happen when you have a leadership that has the capacity to engage the organization and has to be a real leader, and not simply a director of a line of business.[cclxxxvi]

I would say that the main step starts with top leadership and that top leadership has to combine incentives because the incentive shapes the culture, it is the main shaper of culture. If you don't have an adequate incentive you won't feel like making changes.[cclxxxvii]

When we talk about Open Innovation, especially the financial sector, it is very strong in the customer experience. I would say that this would be the primary factor, the high leadership in incentives. With that you would be able to change the strategy, change processes, be able to act in a more structural way.[cclxxxviii]

The case analysis

To assist us with the analysis, a case word table (YIN, 2009, p. 134) representing each of the research questions / themes was crafted so that the firm's statements about particular themes could be grouped.

Exhibit 31 below summarizes our interpretation for how Firm #11 answered each of the research questions. Our interpretation is based on our evaluation of their statements as represented in the narrative above.

Innovation as change is mentioned by Firm #11 as well, but a competency that generates new capabilities and add value to a firm, business, to the value chain.

The choice of the innovation model is related to the environment, particularly to competitiveness. Being a large player, competition is already fierce with the other big firms in the industry. But now, other firms are looking at opportunities in the industry. Firms like Fintechs and even firms from other industries are interested in gaining market share. The non-usual competitors are perceived to be more agile and technologically savvy, more efficient and open to new approaches and ideas so the incumbents are hunting them as potential partners. So the need to respond to market needs with agility has forced incumbents the explore open innovation as alternative. They are force to break the traditional "not invented here" syndrome and onboard non-traditional firms to resolve their ever growing needs to be more efficient and attuned to their clients. From our perception about Firm #11's take on how firms select the innovation model they use, we infer that choice is enacted based on how the firm perceives the strength of their competitors, and how imminent is the potential for being attacked. Now that competition is coming also from non-traditional players, Firm #11 had to devise strategies for mitigating such risks.

To implement the innovation model, Firm #11 ended up creating one of the most recognized, respected and influential innovation hubs in the country. The idea was to get closer to the ecosystem in order to better understand it. The idea evolved so as to internalize what was learned in order to better internal processes and practices, to address internal problems with the "startup mindset". As the hub evolved, also evolved the collaboration, and the internal desire to get even more from what the hub was able to offer.

Regarding challenges and obstacles, it is Firm #11's perception that incumbents have a genuine goal looking at open innovation as an alternative to overcome their weaknesses. However, Firm #11 doesn't believe that the motives of the startups are sincere and focused on open innovation principles. Instead they believe the startups are only looking for cash flow opportunities.

Startups have the opposite view! Particularly when taking in consideration the fact, also mentioned by Firm #11 that incumbents try to be close to startups much more for a matter of image and marketing than anything else. In their view, being somehow related to the startup community give them an aura, a perception that they are innovative too. Such mismatch needs closure, but I'm afraid this is not a simple matter.

With the incumbents typically innovation comes from senior leadership. Such setting ends up wasting a significant number of ideas that could become innovations that come from folks in the ranks, close to the real problems, to where the pain of operating the plant is actually felt. On top of that, interest and drive towards innovation dims when you get closer to more established, core business functions. Cultural and operational barriers exist and are difficult to break. There are too many structures and silos that don't communicate among themselves. There are no incentives for one to be innovative. With all of that bureaucracy in place, it is very difficult to onboard a startup as it has to go through a long and cumbersome process before it can be actually used by the business. In the context of well-established and managed accelerators and incubators, startups have the right environment to apply their open innovation practices. But as they depart from that accelerator environment , for example when taken under the wings on an incumbent, they become more closed and tend to leave open innovation practices behind – they succumb to coercive, normative and mimetic forces as described by DiMaggio and Powell (1983).

Progress has been made, but implementing a culture of open innovation however continue being difficult as there is a need to continue convincing people, departments, partners firms of the benefits open innovation can bring to the firm as a whole. We saw before that the existing processes are not prepared for agility.

Questions	How the evidences relate with the research questions ?
What is Innovation	Page 140 innovation is a competency that generates new capabilities that add value to the firm or a business, to the value chain
Why firms select the innovation models they use	Page 138 Competition is traditionally fierce with other players, but recently also with fintechs and even firms from other industries interested in gaining market share. The non-usual competitors might be more agile and technologically savvy, more efficient and open to new approaches and ideas so the incumbents are hunting them as potential partners Page 139 So the need to respond to market needs with agility has forced incumbents the explore open innovation as alternative. They are force to break the traditional "not invented here" syndrome and onboard non-traditional firms to resolve their ever growing needs to be more efficient and attuned to their clients
How firms implement their innovation model	Page 141 Firm #11 ended up creating one of the most recognized, respected and influential innovation hubs in the country. The idea was to get closer to the ecosystem in order to better understand it. The idea evolved so as to internalize was learned in order to better internal processes and practices, to address internal problems with the "startup mindset". As the hub evolved, also evolved the collaboration, and the internal desire to get even more from what the hub was able to offer
How the firms benefit from the innovation model they use	Page 141 There are however occasions where they leverage a startup to address a pressing problem, and less commonly end up influencing the actual creation of a startup to address a more strategic matter Page 143 Another benefit of being linked with open innovation is how such perception seems to attract attention also in the job market Page 143 the benefits of open innovation for their firm cannot yet be quantified in monetary terms, but the impact those concepts has been significative in their culture and practices, as well as in the image they project
What are the main obstacles and challenges perceived in the firm's innovation model	Page 139 It is Firm #11's perception that incumbents have a genuine goal looking at open innovation as an alternative to overcome their weaknesses. However, Firm #11 doesn't believe that the motives of the startups are sincere and focused on open innovation principles. Instead they believe the startups are only looking for cash flow opportunities Page 140 in firms which are not mature, typically innovation comes from senior leadership. Such setting ends up wasting a significant number of ideas that could become innovations that come from folks in the ranks, close to the real problems, to where the pain of operating the plant is actually felt Page 141 Incumbents try to be close to startups much more for a matter of image and marketing than anything else. In their view, being somehow related to the startup community give them an aura, a perception that they are innovative too Page 139 in the context of well-established and managed accelerators and incubators, startups have the right environment to apply their open innovation practices. But as they depart from that accelerator environment they become more closed and tend to leave open innovation practices behind Page 141 cultural and operational barriers exist and are difficult to break. There are too many structures and silos that don't communicate among themselves. On top of that, there are no incentives for one to be innovative Page 142 With all of that bureaucracy in place, it is very difficult to onboard a startup as it has to go through a long and cumbersome process before it can be actually used by the business Page 143 They observe, however that interest and drive towards innovation dims when you get closer to more established, core business functions Page 143 Typically areas which have direct contact with clients tend to be the ones that end up getting clients in the loop Page 143 Progress has been made, but implementing a culture of open innovation however continue being difficult as there is a need to continue convincing people, departments, partners firms of the benefits open innovation can bring to the firm as a whole. We saw before that the existing processes are not prepared for agility Page 144 In short, open innovation will only happen in a large firm like Firm #11 if top leadership is able to convince the entire organization – it cannot be only a head from a specific area. Such convincing has to promote the right incentives for the culture to move

Exhibit 31 – How the evidences relate with the research questions for Firm #11

Source: Created by the author

In short, open innovation will only happen in a large firm like Firm #11 if top leadership is able to convince the entire organization – it cannot be only a head from a specific area. Such convincing has to promote the right incentives for the culture to move

Despite all challenges, Firm #11 continues insisting in such open innovation model because of benefits are apparent. They were able to leverage startups from their ecosystem to address pressing problems, and even ended up influencing the actual creation of startups to address a more strategic matter. Another benefit of being linked with open innovation is how such perception seems to attract attention also in the job market. Despite the fact that the benefits of open innovation for their firm cannot yet be quantified in monetary terms, the impact has been significative in their culture and practices, as well as in the image they project in the market as a whole.

That being said, according to our interpretation of Firm #11's statements, we can say that:

- Innovation is a competency that generates new capabilities and add value to a firm, business, to the value chain.

- Firms select the innovation models they use because they recognizes the strength of their new non-usual competitors perceived to be more agile and technologically savvy, more efficient and open to new approaches and ideas, and how imminent is the potential for being attacked. The demand to respond to market needs with agility has forced incumbents the explore open innovation as alternative.

- They implement their innovation models based on creating an ecosystems for startups in order to learn. Internalize what was learned to transform the firm with the use of s "startup mindset". Forging partnerships with startups to address specific opportunities.

- They benefit mainly by leveraging startups to address pressing problems, foster the creation of startups to address strategic opportunities, attract attention in the job market.

- Main challenges include: isomorphic forces, Culture clash, Agility vs rigidity

Notwithstanding the fact of being an incumbent that rely on more traditional innovation practices, open innovation caught their attention and the amount of resources and investments they allocated to it, as well as the benefits already obtained can be perceived as leading them to a path of no return.

Both Client and Investor: Open Innovation is at the heart of what we do

The case narrative

Firm #12 invests and helps accelerate startups, and also leverage them as a client to provide services in ther network. At Firm #12, fostering a culture of innovation was the solution AM, the president found for reposition the firm and the perception the market had about it. His goal was to gent employees and clients to think more about innovation, and to relate that to Firm #12 as being an innovative firm, on that brings innovation to the marketplace. They invested in accelerating startups and at the time of the interview had 30 in their portfolio. The clear benefits of this approach are offering the products of the startups in their value added platform, and seeing an sizeable return on investment as the startups they selected grow and scale. Firm #12 is frequently in contact with firms in the ecosystem and takes advantage of the relationships they forged to get their own management team and select employees to act as mentors.

> *I wanted to bring innovation to <Firm # 12>; I wanted employees to change their minds and start thinking more about innovation; and I wanted our customers to also think that <Firm # 12> was helping, in some way, to bring innovation to the market.[clxxxix]*

> *I bring the startups to make a presentation to the <Firm # 12> board, this is an agreement I have with (the accelerator). I hold meetings with managers once a month; every 45 days I do it inside the accelerator, so that they live with the startups that are inside - sometimes there in Florianópolis, sometimes here in São Paulo, because we have two places. I bring the person who is responsible for accelerating the project as a whole to make a presentation to employees, talk about innovation, because people, on a daily basis, are in the operational and forget about the rest of their lives.[ccxc]*

> *It was to bring culture to employees and show our customers - who are our owners - that we are trying to help the market, in a way, by bringing innovation; that was my object.[ccxci]*

In their view collaboration and knowledge sharing in the acceleration environment, where you place different startups side by side is natural. People engage in knowledge exchange, in collaboration. Their work somehow becomes synergetic which ends up truly accelerating the process. They recognize however that problems exist in a startup, and the acceleration environment is built to help then addressing whatever challenge they might face.

> *I would say that there is no innovation without sharing.[ccxcii]*

> *The exchange of ideas of the accelerator that we use, when we put 15 startups working in the same environment, the exchange of ideas between them, the synergies that have between them, greatly accelerate the development of startups.[ccxciii]*

> *In our project there is even a psychologist, in our acceleration, because there are problems within the startup (among them, couple fight, fight between partners), so the whole process we do is very interesting.[ccxciv]*

Despite a conflict that exists when one talks about knowledge sharing, particularly when discussing with larger, more traditional firms, there is no escape to sharing, there is no alternative in the long run. You might try to delay it but eventually it catches up.

> *I think so, despite the fact that there is a conflict, especially if you think about the Bank, in which you see the fintechs wanting to enter the spaces of the Banks, and the Banks are afraid. But there is not much alternative. You can slow down, which is what some larger institutions do - not just the Bank - in any area. If you're going to enter my space, I'll stop it. But that business is moving forward.[ccxcv]*

Implementing the culture of innovation at Firm #12 was relatively easy. It came top down and is reinforced constantly at all levels. Employees are encouraged to voice their opinions and offer ideas, selected group of employees participate directly in events with startups, some acting as mentors.

> *In my case, it is an average company, with a hundred and a few employees. As we came up with an innovation implementation process, I did not see any difficulties. You see that there are people who are much more interested and who like this investment very much, who seek, who pass on innovation to their employees.[ccxcvi]*

> *It's a matter of you wanting to think. If you don't think, you will do it the way you do it every day. Now, if you think about it, you can consider a machine that could do such a thing that would be very good. But what machine would it be? Think about it. I try to encourage everyone, but of course there are areas that make it easier to discover something, and a lot of ideas have already come.[ccxcvii]*

> *I would say that most like it, but it has a lot of the person's profile of not wanting to do it. But there are other people that you see who get involved and try to look for something new, and send me things - because everyone sends me when they see that something has come out, they send a link for me to read it.[ccxcviii]*

> *Every six months I give a lecture to all employees, in Rio and São Paulo, talking about the company's results, talking about innovation, what we are doing, in short, always trying to bring them to the innovation side.[ccxcix]*

They actively monitor the market for opportunities and challenges, for situations where they can bring about innovation, or leverage their network of relationships to encourage others to investigate. They formed an innovation committee to discuss their observations and findings. Both, their product and their sales departments have frequent and extensive contact with clients to gain knowledge about their needs.

> *I created an innovation committee, that was also important.[ccc]*

> *I put all the managers on the innovation committee and they have an obligation to pass it on to employees, because you can't talk to everyone. Managers and directors participate and everyone passes.[ccci]*

> *We have here the goal of the external travel directorate to seek innovation. When the person comes back, they have to say, they have to pass, they have to tell the innovation committee what they saw, what they did not see. The people of this committee also have to go and get it, they must have a goal of participating in events, even if it is in Rio, in São Paulo, in Florianópolis; you have to go, you have to do it and you have to talk to a startup too.[cccii]*

> *The product area has a goal of visiting the institutions to be exploring what they would like it to have.[ccciii]*

The commercial area, when visiting, is constantly asking questions, and then it gives information to the product area. Me and the people who travel bring things and give them to the product area, explain what we saw, and they will research, they will see what is there, if it happens.[cciv]

Summarizing, Firm #12 considers innovation as a different idea, a different way to accomplish something. In their view innovation can be something pretty small, as long as it is different from the normal way people are used to see or do.

The case analysis

To assist us with the analysis, a case word table (YIN, 2009, p. 134) representing each of the research questions / themes was crafted so that the firm's statements about particular themes could be grouped.

Exhibit 32 below summarizes our interpretation for how Firm #12 answered each of the research questions. Our interpretation is based on our evaluation of their statements as represented in the narrative above.

Firm #12 defines innovation as doing something differently, regardless of its size. He reminds us also that innovation is not only about words, but effectively about action. In a way similar to the other cases, his view matches that of innovation as change.

In their view collaboration and knowledge sharing in the acceleration environment, where you place different startups side by side is natural. People engage in knowledge exchange, in collaboration. Their work somehow becomes synergetic which ends up truly accelerating the process. Despite a conflict that exists when one talks about knowledge sharing, particularly when discussing with larger, more traditional firms, there is no escape to sharing, there is no alternative in the long run. You might try to delay it but eventually it catches up.

Most of the times things happen because there is a need, so it is fundamental to actively monitor the market for opportunities and challenges, for situations where they can bring about innovation, or leverage their network of relationships to encourage others to investigate. In general things happen because someone saw something somewhere and share views and opinions about such perceptions. Then thing will happen, not only because of ideas, but because of action.

So, firms select the innovation models they use based on the conditions in the environment. In the ecosystem, it urges for sharing and collaboration, for developing and leveraging relationships, for monitoring the environment for threats and opportunities. It requires a flow of ideas, but more importantly it requires action.

Questions	How the evidences relate with the research questions ?
What is Innovation	You do something in a different way. So the secretary can discover something that can be done differently in her area. It may not be a big thing, it may be a small thing that can help it; it's an innovation. Innovation is something you can do differently than normal. It doesn't have to be big. innovation is not just words; innovation is, effectively, action
Why firms select the innovation models they use	Page 148 In their view collaboration and knowledge sharing in the acceleration environment, where you place different startups side by side is natural. People engage in knowledge exchange, in collaboration. Their work somehow becomes synergetic which ends up truly accelerating the process. They recognize however that problems exist in a startup, and the acceleration environment is built to help then addressing whatever challenge they might face Page 149 Despite a conflict that exists when one talks about knowledge sharing, particularly when discussing with larger, more traditional firms, there is no escape to sharing, there is no alternative in the long run. You might try to delay it but eventually it catches up Page 149 actively monitor the market for opportunities and challenges, for situations where they can bring about innovation, or leverage their network of relationships to encourage others to investigate Usually, things come this way: it may be that something comes from a snap, but usually the person is from the area and sees something; or saw something in another area and is bringing another idea here, is innovating in a new area innovation is not just words; innovation is, effectively, action most of the time, things happen due to a need
How firms implement their innovation model	Page 149 It came top down and is reinforced constantly at all levels. Employees are encouraged to voice their opinions and offer ideas process of implementing the innovation, I saw no difficulties. You see that there are people who are much more interested and who like this investment very much, who seek, who pass on innovation to their employees At the beginning, I said: "you have to bring ideas". Then the secretary asked me: "but what idea am I going to bring?" It's a matter of you wanting to think. If you don't think, you will do it the way you do it every day I try to encourage everyone, but of course there are areas that make it easier to discover something, and a lot of ideas have already come. I created an innovation committee, that was also important. I put all the managers on the innovation committee and they have an obligation to pass it on to employees, because you can't talk to everyone And every six months I give a lecture to all employees, in Rio and São Paulo, talking about the company's results, talking about innovation, what we are doing, in short, always trying to bring them to the innovation side
How the firms benefit from the innovation model they use	Agility, employee engagement
What are the main obstacles and challenges perceived in the firm's innovation model	A culture of idea sharing is a shock, as people do not know which idea qualifies as innovation.

Exhibit 32 – How the evidences relate with the research questions for Firm #12

Source: Created by the author

To implementing the innovation model they use they relied on a few tenets. It came top down and is reinforced constantly at all levels. Employees are encouraged to voice their opinions and

offer ideas all the time. There is no right or wrong, but sharing ideas. If you are on the front you know what are the challenges you face, and perhaps has ideas about how to make it better. But you need to think … and talk. Because if you don't there is no innovation. Simple as that! Some people, some areas can do it easily while other don't. So Firm #12 created an Innovation Committee and summoned all managers. They have the obligation to share with their employees. Then, every so often there is a townhall with all employees where the CEO discus firm results, what is being done in terms of innovation and reinforcing to all that they are responsible for bringing about innovation to the firm. All in a safe environment.

Several employees participate in startup related events, acting as mentors. Such participation gets people excited t learn about what the startups are doing, what worked and what didn't and end up bringing to the firm aspects from what they learned.

Firm #12 saw in the startup environment opportunities to enhance their own business in the form of open innovation based engagements. They quickly identified in the startups characteristics they judge important for their own renewal: openness, collaboration, knowledge sharing, a safe environment for bringing ideas and discussing them. They end up living this startup like environment, and such decision reinforced their perception that knowledge sharing, collaboration as seen on the small firms are important practices in the implementation of their innovation model.

Challenges are in the culture, people in general do not know if the idea they have can be considered as an innovation, and as such are afraid to offer their contributions.

That being said, according to our interpretation of Firm #12's statements, we can say that:

- Innovation is change, but above all not only about words, but effectively about action.

- Firms select the innovation models they use based on the conditions in the environment. In the ecosystem, it urges for sharing and collaboration, for developing and leveraging relationships, for monitoring the environment for threats and opportunities. It requires a flow of ideas, but more importantly it requires action.

- They implement their innovation models based on a top down approach, extensive communication and a safe environment for sharing ideas, collaborating.

- They benefit mainly by enhanced employee engagement, agility in the development of new offerings.

- Main challenges include the culture, people in general do not know if the idea they have can be considered as an innovation, and as such are afraid to offer their contributions

The firm saw in open innovation an opportunity to enhance their business, and decided to get closer to the startup ecosystem to learn. Through their actions they offered to startups to offer their solutions in their value added network. They started mentorship programs to assist startups with eventual challenges and obstacles, and are transitioning into a more open business mindset.

In the next section we'll cross-analyze the answers provided by our subject firms, clients, investors and an industry specialist and see how they relate to our research questions.

4.4   Insights from case comparisons

In the previous section we described each one of the subject firms and saw how each one relates to our research questions. The individual cases presented in the previous section gave us a background on each of the individual subjects, and a general overview of their take on innovation, knowledge sharing, culture, strategy and their perception of competition.

We also saw how a specialist, clients and investors evaluate the startup ecosystem with respect to innovation, giving us a prototypical background we can use to access our seven cases.

In this section we'll focus on cross-analyzing their answers looking for commonalities and differences that can allow us to further answer our research questions.

To assist us with the analysis, case word tables (YIN, 2009, p. 134) representing each of the research questions / themes were crafted so that our interpretation of each firm's statements about particular themes could be grouped. NVIVO 12 was used for coding and provided insights to substantiate our interpretations. The first word table aggregates their views on innovation. Details below.

4.4.1   What is innovation?

As individual perceptions around a definition of innovation might potentially differ across people, we decided to level set each firm's understanding around the concept of innovation. The main pattern observed in the perceptions of the startups is that innovation is about doing something different, about bridging gaps and resolving things in a way that nobody did. Innovation is perceived as being incremental as opposed to radical and disruptive.

	Firm	What is Innovation
Startups	#1	Innovation is incremental change;
	#2	Innovation is introducing change.
	#3	Innovation is introducing change as a way to deliver value to their customers.
	#4	Innovation is introducing change
	#5	Innovation is the introduction of change.
	#6	Innovation as change, rooted with the technological change school.
	#7	Innovation is incremental change that leverages something that already exists.
Specialist, Clients and Investors	#8	Innovation is change, it is doing something that adds value to society
	#9	Innovation is change, aligning with precepts from the school of technological change where productivity and effectivity were key concepts
	#10	Innovation enhances a product or service, making it better, faster, more efficient, cheaper. It is change
	#11	Innovation is a competency that generates new capabilities and add value to a firm, business, to the value chain
	#12	Innovation is change, but above all not only about words, but effectively about action

Exhibit 33 – Word table: What is innovation

Source: Created by the author

Majority of the firm agree with the idea that innovation is about bringing something new to the table to resolve a problem more efficiently, with less cost, more quickly, that will make things better. The same perception of innovation as something incremental is also shared by the specialist, clients and investors. Godin (2012) reminds us that "*for over 2500 years, innovation has been understood as the 'introduction of change' in individual behaviors, social practices and groups or organization's activities*" so their view also align with a traditional definition of innovation. In principle they do not care with the actual origin of the technological innovations, but rather with its use. Technological change is a production function, where firms are users of technology as it will allow them to have a better output by combining factors of production as if they were Lego parts.

Other firms, as Firm #3 sees itself as supplier (instead of merely users) of technological innovations as a way to add value to their customers. By introducing the idea of "adding value to their customers", they implicitly added the concept of commercialization … aligned with the tradition of technological innovation (GODIN, 2012). The Specialist (Firm #8) and the Large Firm (Firm #11) are also aligned with the school of technological innovation defending change the introduce needs to add value to their clients / to society.

Next, we'll get explore how the cases inform our research questions, looking for patterns in the evidence that can provide us with insights as to how they are positioned regarding innovation.

4.4.2 Why firms select the innovation models they use?

The first question is why the firms select the innovation models they use. Continuing with the cross-case synthesis, we create a word table with statements related to it, leveraging the coding we did on NVivo12 as well as the synthesis prepared in the case narratives, and individual within-case analysis. Details in Exhibit 34.

What did our target firms say?

When looking at Exhibit 34, we can say the innovation models firms use were selected based on a few different motives:

- Firm #1 and Firm #3's models evolved organically;

- Firm #4's model is based on thorough planning ;

- Firm #2, Firm #5, Firm #6 and Firm #7's models are based on previous experience.

It is unquestionable that all models start based on previous experience, and evolve organically based on some level of planning. Here we are highlighting what firms explicitly discussed as the reasons behind their choice.

Firm #1 selects the innovation models they use because the environment is open and information abundant in an environment which is dominant. As the founder mentioned, they leverage tools, collecting them and recombining them to compose their solution. They are in constant search, and the environment is there, providing them what the need in the form of open software components, access to user groups or code repositories. They mimic that mindset internally, building a culture of sharing and provide back to the environment in kind. They continue with practices that produced positive outcomes, and discontinue practices that didn't.

Firm #2 selected the innovation model they use because of their trust on their own knowledge, agility and execution competencies. And their approach is the opposite of that from Firm #1. They are perhaps the less open firm in our set, possibly because the segment they operate isn't much open and Firm #2 is succumbing to mimetic forces (DIMAGGIO; POWELL, 1983). Firm #2 was founded by seasoned professionals, and they fully trust their knowledge and their experience. They are confident they built something unique, and they know better what their clients need. They scan the environment for market intelligence, mainly on what the competition is doing and how the regulation is evolving. It feels like when they went live, they became very operational, developing "core rigidities" (LEONARD-BARTON, 1992).

	Firm	1 - Why firms select the innovation models they use ?
Startups	#1	Firm #1 selects the innovation models they use because the environment is open and information abundant in an environment which is dominant; Model evolves organically.
	#2	Firm #2 selected the innovation model they use because of their trust on their own knowledge, agility and execution competencies.
	#3	Firm #3 didn't exactly select the innovation model they use, they evolved it through experimentation incorporating practices that they believed worked.
	#4	Firm #4 select the innovation model through careful design of behaviors and incentives so that a culture of market intelligence, innovation, knowledge and people would develop. They also carefully selected a niche in the market traditionally characterized by inefficiencies so that they could leverage their key competencies as differentiator.
	#5	Firm #5 chose the innovation models they use based on previous experience of their executives, brought to the firm in the form of best practices.
	#6	Firm #6 selected the innovation model they use based on previous experience from the founder and positive collaboration, dissemination the project received after being shared on the internet. Openness acts as an enabler for innovation and efficient methods of knowledge production.
	#7	Firm #7 selected the innovation models they use because being able to optimize knowledge, to leverage what already exists and integrate internally is key. Today's workforce requires flexibility and are averse to rigid structures and bureaucracy, nevertheless need to operate closely integrated and with the sense of a whole. Market is turbulent and needs monitoring
Specialist, Clients and Investors	#8	Firms select the innovation models they use because environmental constrains and opportunities
	#9	Firms select the innovation models they use because a blooming ecosystem provides the venue for sharing and collaborating. They were born in such ecosystem and see in collaborating a source of opportunities. Their size facilitates effective communication among all areas of their firm. It is also fact of life in startups to pitch their ideas, to share their views, products, services, their business model.
	#10	Firms select the innovation models they use because the environment requires collaboration and knowledge sharing
	#11	Firms select the innovation models they use because they recognizes the strength of their new non-usual competitors perceived to be more agile and technologically savvy, more efficient and open to new approaches and ideas, and how imminent is the potential for being attacked. The demand to respond to market needs with agility has forced incumbents the explore open innovation as alternative
	#12	Firms select the innovation models they use based on the conditions in the environment. The ecosystem, is urging for sharing and collaboration, for developing and leveraging relationships, for monitoring the environment for threats and opportunities. It requires a flow of ideas, but more importantly it requires action

Exhibit 34 – Word table: Why use your Innovation model

Source: Created by the author

Similarly to Firm #1, Firm #3 didn't exactly select the innovation model they use, they evolved it through experimentation incorporating practices that they believed worked. The idea of their firm came from a problem one of the founders faced earlier in his life. When decided to form Firm #3, they listened to mentors, clients and specialists with knowledge about the product and the market they wanted to enter. This is very similar to what other startups would do in early stages. As the firm grew they evolved their knowledge, they added functions to their model: market intelligence, absorptive capacity, learning and sharing, agility and flexibility (even with regards to their product offering and strategy). These functions were added organically and continue evolving. Besides the fact they also operate in a very traditional segment, they are the opposite of Firm #2. They continue listening and building their knowledge, and sharing it with others. Similarly to Firm #1, they also resort on the environment for components they can insource and integrate in their solution.

Firm #4 selected the innovation model through careful design of behaviors and incentives so that a culture of market intelligence, innovation, knowledge and people would develop. They also carefully selected a niche in the market traditionally characterized by inefficiencies so that they could leverage their key competencies as differentiator. When the 3 founders decided to create Firm #4, they spent a good amount of time planning and designing what the firm would look like, planning the key functions and how they would evolve over time. Firm #3 evolved their model organically, Firm #2 is somehow closed and follows the lead of the founders and Firm #1 was built on top of a mindset of collaboration, learning, execution given the open source background of the founder.

Firm #5 chose the innovation models they use based on previous experience of their executives, brought to the firm in the form of best practices. The approach is similar to that of Firm #2, seasoned professionals created the firm based on their knowledge and experience. The difference, however is that Firm #5 values collaboration and knowledge sharing. It feels like firm #5 didn't plan as much as Firm #4, but wasn't as organic as Firm #3 either. They have very active presence in the social media discussing openness and collaboration, and how the firm is a great place to work. It is my perceptions that among all firms interviewed, Firm #5 is the one that have better structured learning / knowledge sharing program.

Firm #6 selected the innovation model they use based on previous experience from the founder and positive collaboration, dissemination the project received after being shared on the internet. Openness acts as an enabler for innovation and efficient methods of knowledge production. Their decision was similar to that of Firms #2 and #5 in terms of experience, but they are much more aligned with Firm #5's approach given the amount of sharing they do.

| | | Firm | | | | | | |
		#1	#2	#3	#4	#5	#6	#7
What did the firm say were functions of their innovation plan	Execution	x	x	x	x	x	x	x
	Reuse and integration	x	x	x	x	x	x	x
	Market Intelligence	x	x	x	x	x	x	x
	Sharing and collaboration	x		x	x	x	x	x
	Agility	x	x	x	x	x	x	x
	Metrics				x		x	
	People		x	x	x	x	x	x
	Learning programs				x	x	x	

Exhibit 35 – Functions added to firm's innovation plan

Source: Created by the author

Firm #7 selected the innovation models they use because being able to optimize knowledge, to leverage what already exists and integrate internally is key. Today's workforce requires flexibility and are averse to rigid structures and bureaucracy, nevertheless need to operate closely integrated and with the sense of a whole. Market is turbulent and needs monitoring.

From our analysis we also identified commonalities in the functions firms added to their innovation models. Exhibit 35 pictures such commonalities.

Using the non-target cases to set the context

When we look at the answers from the Specialist, Clients and Investors – cases which are not the target of our research, their answers to our first question point to the environment and how it plays a dominant role influencing choice. We'll see that as we go through each of the points they made, they will end up substantiating the innovation model functions summarized in the Exhibit 35, and how, in their opinions, actual reasons why firm firms select their innovation models are deeply related to environmental forces.

The first aspect that caught my attention in their answers was the fact that the environment appears to play a dual role: it is (1) dynamic and competitive characterized by high degrees of rivalry, but it is also (2) friendly, open and invite collaboration.

The literature tells us that the dynamic of the environment will impose reduced periods of competitive advantage. We also saw in section "Fintech landscape in Brazil" on page 51 that large amounts of investments and potential for high margins are available for grabs, and the interests behind such large sums nurtured the development of an environment of intense rivalry, but permeated by innovation. In a context like that firms have to reinvent themselves day after day. As Drucker said in his Discipline of Innovation (1985), "*Here today, gone tomorrow*". Firms face daily the very essence of Schumpeter's creative destruction (SCHUMPETER, 1942). They need to choose capabilities that allow them to mark their position in the environment as an indication of fit. In line with Wernerfelt (1984), they need to find what is that unique resource which can provide them with competitive advantage Barney (1991), after all the environment will end up choosing the fittest (HANNAN; FREEMAN, 1977, 1986).

To some of the firms, in addition to perceiving the environment as being dynamic, they also see it as being impositive in the form of a strong market culture (Firm #2, Firm #3), and regulations (Firm #4, Firm #5).

Need for market intelligence and absorptive capacity

Given the intense rivalry, the turbulence in the environment, startups have to find ways to obtain relevant market intelligence, and knowledge that can enable them to be innovative. Large amounts of information are available, and a lot more created very day. With such rapid dissemination, access to large amounts of possibilities is not a problem. But as postulated by Cohen and Levinthal (1990), being able to make sense of what is valuable and what is not will require firms to have prior knowledge, adaptable search and transfer of knowledge among components of an organization. It results from social interactions through multiple channels. In this storm of information it is paramount for firms to have what Cohen and Levinthal (1990) described as absorptive capacity.

Innovation comes from many different venues: the routine of daily work, discussions with clients, experience - living and seeing where gaps are and finding ways to do things differently. Innovation could also come from the academia, from events where you see and hear about what others are doing, from networking, from being in the ecosystem where you end up making connections leveraging different subjects and challenges to reach your own conclusions. At the end, it is based on interconnections of people, on networking and communicating, on being able to internalize the vast amounts of knowledge which are available and integrate the relevant pieces in the offerings of the firm.

The caveat is that the time of an innovation is very short: either you die or other innovation will bring you down as equilibrium, stability and predictability cannot exist for long time, in a real life creative destruction … and the cycle begins once again.

So, to face a dynamic environment characterized by intense rivalry firms will need strong capabilities for scanning the environment and making sense of it so that the environment becomes a source of possibilities. Or as said by most of the firms, they need a well-developed market intelligence function.

Need for collaboration and knowledge sharing

Despite all of that competitiveness, the startup world is very open to sharing. Here we discuss the other aspect of the dual role of the environment: its friendliness.

The environment today is certainly more turbulent that in the past, but it brings much more opportunities to innovate. In the past, access (to information, to resources, …) was way more difficult, and such challenges would result in innovations that were more, lets say, isolated and independent. Nowadays it is practically impossible for one to think about an innovation that

operates independently from the ecosystem. There is always some level of integration, of information sharing, of connectivity.

We saw in section "Recent Open Innovation work" on page 18 that external and extensive networks ready to collaborate are highly beneficial to open innovation, ecosystems that promote actions as venture capital, startup support and incubation end up generating positive benefits. But just a few years ago such an ecosystem, a collaboration network didn't exist in Brazil. Starting firms were not aware of the benefits of collaboration and sharing, they were afraid to collaborate and share knowledge. Now we have initiatives like Itau's CUBO, Bradesco's Habitat, Porto Seguro's Oxigenio, Localiza's Orbi just to mention a few, and investors / incubators like Distrito and Fisher. Such development makes easier for firms to go outside and look for knowledge sharing opportunities. As discovery impacts firms orientation towards open innovation (WEST; BOGERS, 2014), by being now able to enter in more effective discovery mechanisms, firms are more prone (and capable) to develop open innovation processes.

In such setting new ideas are brought to the table and scrutinized even with potential competitors. The sharing of ideas helps then select what to use or not, and which path to follow thus refining what they have in mind. As they say, trailblazing is easier when you have someone else to help you open the path. Previous research (DU, 2017) shows that this ecosystem actually features business relationships based on cooperation-competition among participants. That approach looks like a form of collective invention (ALLEN, 1983) where competing firms share their knowledge, making their designs available to competitors, in such a way that competitors can further enhance them by including extensions creating a virtuous cycle.

The ecosystem is where firms become aware of knowledge developed by others and already available, of tools available in the open source community that they can use – perhaps differently – to resolve the challenge at hand. Startups also rely on sectorial events for knowledge sharing as it can be somehow more open. Being in touch with specialists in the subject area you are attacking are mechanisms to keep up to date and abreast of market developments, as are active mentoring and coaching with relevant stakeholders.

Startup on the other hand were born within this ecosystem, with an open innovation mindset. They collaborate more, they share more, they leverage what is already available (and free) to bring about learning in their firms. Startups that do not have such a mindset are more susceptible to being a target from competitive incursions.

Not ideas, but execution

To reconcile the dilemma coming from the duality of the environment, firms learned to focus on their capability to execute.

There is an aura people place on ideas. The world is large, and many people are thinking, there are lots of talent. Lots of such thinking produce similar, if not the same ideas, so it is very difficult for an innovation to appear in one place only. It shows up in different places, perhaps even multiple times. But only those who can execute, who can implement an idea in a better way will be able to get some level of success in the short or medium term. So, they don't feel threatened by the environment or by sharing ideas since in their minds execution capability is what really matters. We all have lots of ideas every minute, and end up discussing some of them, but we do not execute on all ideas we have. No one can execute on all ideas they have or hear. You have to be confident on your execution capability. Execution is the characteristic that defines a successful firm.

The chaotic setting, the unstructured knowledge sharing environment that develops in a startup fosters innovation as it encourages friendly, non-threatening discussions about a myriad of subjects, problems, opportunities and approaches. But communication needs to be aligned with a sense of ownership. If you feel empowered, if you own a problem it most likely won't stay in the plane of ideas for a long time. The ideas will transcend and transform into execution. So developing a culture of doing, where execution takes the forefront is a key factor for the firm to bring about innovation. Ideas can be discussed, shared, scrutinized, polished, refined but ultimately, they need to be executed. The execution capability is innovation's fundamental trait. The startup mindset is also built on top of other traits as resiliency, persistence, capital, intelligence just to name a few. All entrepreneurs end up living and learning this.

It is all about people

Being competitive in this environment requires imagination and the best people. A team committed to sharing and collaboration. People that works effectively in this settings, some of the most talented people want flexibility, freewill to make choices about their personal life. They live in different countries, work in non-traditional hours, prefer working from home instead of having to go to an office. They are averse to structure, hierarchy and the bureaucracy it postulates. A new form is also necessary is this setting.

Summarizing, our interpretation from the target and non-target cases suggests that despite firm's perception that they evolved their models organically, that their planned, or that their professional experiences were the reasons why they selected the innovation models they use

the environment ends up dictating their choice. The functions they listed are no more than strategies to demonstrate fit. That was prescribed by Almirall et al (2010) described in the bibliographic review, where the authors conclude that discovery can emerge not from strategic freedom, but from restriction of available choices and the learning that comes from such choices. Open innovation strategies allow for firms to discover areas in the landscape where products or combinations of product characteristics would be difficult to imagine otherwise. External and extensive networks ready to collaborate for innovation are highly beneficial, but being able to manage and coordinate interactions in such settings is essential.

4.4.3 How firms implemented the innovation model they use?

Once the choice was made on the innovation model to use, firms need to implement it. Our second question, how the firms implement the innovation models they use looks to answer that. Similarly with the previous section, to continue with our the cross-case synthesis we created a word table with statements related to our second question, leveraging the coding we did on NVivo12 as well as the synthesis prepared in the case narratives, and individual within-case analysis. Details in Exhibit 36.

What did our target firms say?

When looking at Exhibit 36, we can say the innovation models firms use were implemented using a few different strategies:

- Firm #1, Firm #3 and Firm #7 followed a mindset aligned with innovation model functions they judged relevant (see Exhibit 35);

- Firm #2 Firm #5, Firm 6 followed founder experience and best practices they developed;

- Firm #4 followed the plan they had, adjusting to market shifts;

Again, all implementation strategies are based on previous experience, focusing on some sort of mindset aligned with the innovation functions, and adjust to market shifts. Here we are highlighting what firms explicitly discussed as the reasons behind their implementation strategy.

Firms #1, #3 and #7 had similar mindsets for implementing their innovation model. The culture they aimed to develop was based on the pillars of market intelligence and continuous learning, collaborating and driving execution, focus on people. Firm #1 was explicit to say they wanted people to look for alternatives instead of becoming tied to an approach just because it

was done before. Firm #3 made clear that being adaptable was key in their mindset. Firm #7 highlighted that human capital is an integral part of their plan, and see in agile methodologies and project squads a mechanism for instantiating their model. All three discussed how involving their clients, obtaining market intelligence and integrating what they learned was a key part of their model. Firm #7 learned that clients typically don't have generic answers, so they also rely on specialists. They all wanted to cultivate a culture that fully develops their absorptive capacity and their execution abilities.

	Firm	2 - How firm implement their innovation model ?
Startups	#1	They implement their innovation models based on a mindset of learning, collaborating and a strong execution capability; effective absorptive capacity;
	#2	They implement their innovation models based on selective sharing and collaboration, based on trust and reciprocity. Inbound knowledge flows leverage skilled, experienced people surgically selected for addressing the problem at hand.
	#3	They implement their innovation models based on learning and adapting, they test practices and select them if successful. Internal focus on continuous learning and sharing, thus improving the firm legacy. Culture that fosters an effective absorptive capacity. Active involvement of their clients in idea generation and product development.
	#4	They implemented their innovation model by following the plan they developed and adjusting to market realities. They have effective metrics for core aspects of their culture, actively listen to clients, and have a defined yet simple decision model for where to look for knowledge.
	#5	They implement their innovation models based on the best practices developed by their executives. They involve clients in all aspects of product development. The have a process for obtaining market intelligence and scanning the environment for opportunities and threats. They implemented institutional programs for sharing knowledge: one where they bring external people to talk about relevant matters, and another one which is internal where their people talk about important relevant topics
	#6	They implement their innovation models observing pillars based on being open and receptive to ideas and criticism, strong sense of ownership and proactivity, drive towards integration and intense communication among employees. Listening to clients and to the community are also key pillars.
	#7	They implement their innovation models based on collaboration and agile approaches, flexibility and intense communication. Clients are involved, but specialists tend to be more reliable when generalization is required.
Specialist, Clients and	#8	They implement their innovation models based on mechanisms and tools that will allow them to better enact their environment
	#9	They implement their innovation models based on effective, open communication among all in all areas of the firm and better execution capabilities
	#10	They implement their innovation models based on cultural traits they want to develop, which allow them to properly enact their environment: communication, friendly non-threatening discussions, sense of ownership, empowerment, culture of doing, resiliency, persistence, and that ideas are not as important as execution
	#11	They implement their innovation models based on creating an ecosystems for startups in order to learn. Internalize what was learned to transform the firm with the use of s "startup mindset". Forging partnerships with startups to address specific opportunities
	#12	They implement their innovation models based on a top down approach, extensive communication and a safe environment for sharing ideas, collaborating

Exhibit 36 – Word table: Innovation Model Implementation
Source: Created by the author

Firms #2, #5 and #6 all based the implementation of their innovation model on the experience of their founders. Through their experience they brought to their firms best practices that fostered development of the innovation functions each firm considered relevant. And here there is a lot of similarities among them. Firm #2 developed capabilities to absorb inbound

knowledge flows and leverage skilled, experienced people surgically selected for integrating that knowledge for addressing the problem at hand. Firm #5 have a process for obtaining market intelligence and scanning the environment for opportunities and threats. They implemented institutional programs for sharing knowledge: one where they bring external people to talk about relevant matters, and another one which is internal where their people talk about important relevant topics. Firm #6 focuses on being open and receptive to ideas and criticism, strong sense of ownership and proactivity, drive towards integration and intense communication among employees. Listening to clients and to the community are also key pillars. Where Firm #2 differs is that they are very conservative with sharing. They implement their innovation models based on selective sharing and collaboration, based on trust and reciprocity.

Firm #4 implemented their innovation model by following the plan they developed and adjusting to market realities. They have effective metrics for core aspects of their culture, actively listen to clients, and have a defined yet simple decision model for where to look for knowledge.

The view from the non-target cases

The non-target cases, the Specialist, Clients and Investors, firms that are not subjects in our research brought some interesting additional insights. They all agree that implementing the innovation model needs attention to the four pillars we described in the previous section, as at the end firms have no choice but to do it:

- Need for market intelligence and absorptive capacity

- Need for collaboration and knowledge sharing

- Not ideas, but execution

- It is all about people

The intended culture described by all target cases indeed includes these four pillars in their models as we saw in the previous section.

Firm #8 highlighted that participation in sectorial events will facilitate knowledge sharing as such venues are more open and it is important to discuss ideas with peers. Contacts with specialists is also a safe /trusty place for sharing and obtaining knowledge. Firm #8 also reminded us that the organizational structure has deep impact in collaboration and sharing, and typically less hierarchy results in more collaboration. Freedom and autonomy have direct

impact on execution. Firm #9 reminds us that the startups were born in an ecosystem that has collaboration, knowledge sharing – open innovation in their veins. So they will naturally implement these concepts in their innovation model as they are second nature to them. Firm #9 seconds Firm #8's opinion on organizational structure, particularly the effect of size on collaboration and sharing – less resistance to change, less people to convince, more fluidity in the communication. Firm #10 argues that regardless of the size of the firm, the example comes from the top, from people not afraid to take responsibility for mistakes that can happen. Firm #12 adds saying that all should be encouraged to voice their opinions. There is no right or wrong, just opinions. If you are in the front you probably know better than anyone else what are the challenges you face and how to make things better. But you need to think … and talk, otherwise there is no innovation.

Summarizing, in addition to the four pillars described above, firms would benefit from having the following more specific features implemented in the models as well:

- Attendance to sectorial events

- Contact with specialists

- Organizational structure – size and hierarchy

- Freedom and autonomy – impact on execution

- Example comes from the top

4.4.4   How firms benefit from the innovation models they use?

Why go through the hops of implementing the innovation model they use ? Our third question, how the firms benefit the innovation models they use aims at shedding light into that. A word table with statements related to our third question, leveraging the coding we did on NVivo12 as well as the synthesis prepared in the case narratives was assembled to assist us with the cross-case synthesis. Details in Exhibit 37.

What did our target firms say?

When looking at Exhibit 37, we can say the benefits firms have from using the innovation models they developed are:

- Firms #1, #2, #3, #4, #5, #6 and #7 benefit through resource optimization: focus on the core, no distractions; access to knowledge also described in the form of flexibility, agility, shortcutting the process, enhanced competitiveness;

- Firm #3, #5 and #6 also highlights human capital benefits in the form of binding people to the firm – collaboration, sense of ownership, execution; as well as making the form more attractive in the job market and boosting retention.

	Firm	3 – How the firms benefits from the innovation model they use ?
Startups	#1	They benefit mainly by focusing on the problem, execution is like assembling Lego parts;
	#2	They benefit of the model they use mainly by obtaining market information and access to specialists, and offering their products for integration with potential partners.
	#3	They benefit mainly by the flexibility their model provides, openness encourage collaboration, sense of ownership, execution.
	#4	They benefit mainly by openness as a way to finding joint solutions to common problems.
	#5	They benefit mainly from the innovation model they use by having access to external firms and organizations for knowledge they do not have internally, knowledge that can be integrated in their offerings. Another benefit is instilling in their employees a sense of belonging and ownership which result in productivity and proactivity
	#6	Main benefits of their innovation model are making the firm more competitive, more lucrative and more attractive to the job market, even booting retention.
	#7	They benefit mainly by optimizing the use of their resources through the use of existing knowledge available externally.
Specialist, Clients and Investors	#8	They benefit mainly by surviving
	#9	They benefit mainly by having larger probabilities to succeed
	#10	They benefit mainly by reusing what already exist, shortcutting the process. Sharing and collaboration also act as mechanism for refining ideas, finding weaknesses and opportunities not yet considered
	#11	They benefit mainly by leveraging startups to address pressing problems, foster the creation of startups to address strategic opportunities, attract attention in the job market
	#12	They benefit mainly by enhanced employee engagement, agility in the development of new offerings

Exhibit 37 – Word table: Benefits of your innovation model

Source: Created by the author

The tenets of the model implementation, market intelligence, collaboration and knowledge sharing, execution make for more effective resource usage. The firm discuss their ideas with others, refine them, discard what does not work, internalize and integrate knowledge and components already available and focus on their core offerings. As firm #5 mentioned, benefits come from having access to external firms and organizations for knowledge they do not have internally, knowledge that can be integrated in their offerings. Firm #1 say that it is like assembling Lego parts. Firm #2 also benefits from market information and access to specialists, but additionally by offering their products for integration with potential partners. To Firm #3 the main benefit is the flexibility their model provides, which is somehow related to the focus on core, no distractions mentioned above. Firm #4 touches the benefit of resource optimization when referring to finding joint solutions to common problems. This is all summarized by Firm #7 when they say they benefit mainly by optimizing the use of their resources through the use of existing knowledge available externally.

Firm #5 highlight that another important benefit is instilling in their employees a sense of belonging and ownership which result in productivity and proactivity. Firm #3 also recognized the binding of people to the firm, as openness encourage collaboration, sense of ownership, execution. Form Firm # 6 the main benefits of their innovation model are making the firm more competitive, more lucrative and more attractive to the job market, even booting retention.

The view from the non-target cases

The non-target cases, the Specialist, Clients and Investors, firms that are not subjects in our research also brought some interesting additional insights.

Firm #10 is a confirmation that they benefit mainly by reusing what already exist, shortcutting the process. Sharing and collaboration also act as mechanism for refining ideas, finding weaknesses and opportunities not yet considered; as is Firm #12's view that they benefit mainly by enhanced employee engagement, agility in the development of new offerings.

Firms #8 and #9 summarize it all. Putting it simply, Firm #8 says that they benefit mainly by surviving, and Firm #9 add to it by saying that they benefit mainly by having larger probabilities to succeed.

Summarizing, they strengthen the benefit of resource optimization mentioned above by referring to reusing, shortcutting the process, agility as benefits. They also reinforce the human capital view describing it as enhanced employee engagement. At the end, firms benefit by being more fit for survival, having larger chances of success.

4.4.5 What are the main challenges and obstacles perceived in the firm's innovation model?

It isn't all roses … To perform the cross-case synthesis of our forth question, what are the main obstacles and challenges perceived in the firm's innovation models we created a word table with statements related to our forth question, leveraging the coding we did on NVivo12 as well as the synthesis prepared in the case narratives. Details in Exhibit 38.

What did our target firms say?

When looking at Exhibit 38, we can say the obstacles and challenges firms observed from using the innovation models they developed are:

- Firm #1 mentioned confidentiality concerns and fear of sharing;

- Firm #2, #3 and #6 highlight the culture of the market: very traditional, used to non-technically efficient solutions;

- Form #4 emphasize market regulations and cost of compliance;

- Firm #5 stress pressures of scaling and growth;

- Firm #7 said finding people with proper skills.

	Firm	4 – What are the main obstacles and challenges perceived in the firm's innovation model
Startups	#1	Main challenges include confidentiality concerns and fear of sharing.
	#2	Main challenges include the culture of the market they operate, which they see as very traditional and averse to collaboration.
	#3	Main challenges include their clients lack of technology savviness, and the traditional market accustomed to traditional , no-technically efficient solutions.
	#4	Main challenges include the cost to comply to regulatory matters and talent shortage as main challenges.
	#5	Main challenges include pressures of scaling and growth as resources are scarce and pressures on revenue and smooth operation take precedence over implementing new ideas.
	#6	On the challenges and obstacles camp they list some firm's aversion to products / projects that use open source and their fear to share intellectual property if they decide to embark
	#7	Main challenges include finding personnel with proper skills, as for example excellence in multitasking. They also consider finding the right value proposition a challenge, as well as the behavior of paying for client traffic which they see as a trap.
Specialist, Clients and Investors	#8	Main challenges include broken communication processes and lack of incentives
	#9	Main challenges include organizational structures that make communication flows difficult, or that elect innovation as the responsibility of few. Collaboration with universities is still not as successful is it should. Larger firms mindset is still unable to truly comprehend that of the startups, making collaboration processes difficult
	#10	Main challenges include resistance to change, risk taking appetite, finding and retaining top talent
	#11	Main challenges include: isomorphic forces, Culture clash, Agility vs rigidity
	#12	Main challenges include the culture, people in general do not know if the idea they have can be considered as an innovation, and as such are afraid to offer their contributions

Exhibit 38 – Word table: Obstacles and challenges

Source: Created by the author

I believe challenges and obstacles described above are self-explanatory.

Confidentiality concerns, and legal obligations act as barriers to communicating and interacting externally to the firm, thus hampering initiatives of collaboration and knowledge sharing. Things get difficult if the market in which you operate, your clients have a traditional culture, are not used to technology efficient solutions. Lots of time can be lost trying to convince them, and at times it is in vain. Market regulations are also seen as an inhibitor, as at times creative ways of doing something might be misunderstood as ways to bypass the regulation thus regarded as suspicious. Rigidities imposed by regulation might become costly to implement, and the caveat is that it typically provide no return to the firm other than being compliant.

An interesting challenge when the firm starts to scale and grow. Resources are limited and the firm has to decide between running a smooth operation thus ensuring a revenue flow, or implementing risky changes that might have unintended consequences, or outages. Firms will need to learn to find the right balance, with the risk of getting behind if they don't.

For the firm to innovate, to execute, it needs people. Finding the right people is becoming more and more difficult, so firms need to adjust their models and become more attractive in the job market, as well as to improving retention.

Despite the focus each firm placed in specific challenge above, all firms experience the same challenges in any shape or form.

The view from the non-target cases

The non-target cases, the Specialist, Clients and Investors, firms that are not subjects in our research brought some interesting additional insights.

Broken or inefficient communication is probably one of the major challenges to a firm that wants collaboration, knowledge sharing and openness as key values. Firm #8 and #9 highlight that when communication doesn't flow, firms are fated to failure. But how to incentivize the behaviors we want to see ? Firms need to devise proper incentives to see the results they aim. If you provide a bonus for flawless operation, no manager will find time to develop new requirements, or agree with the implementation of risky new features.

Organization structures are also a key component in effective communication, collaboration and sharing. Startups are by definition small, so a fluidity of communication is expected. But if the firm grows and functions get compartmentalized, fluidity gets difficult, and innovation will suffer. Same will happen if a person is delegated responsibility for innovation. Isn't the intent to hear everyone to be part of it ? If someone else is the one responsible for innovation, why would you care about sharing your ideas? Resistance to change seems inherent to the human beings, so a challenge firm need to learn how to overcome. And how did the firms in our case define innovation? Same happens with risk taking appetite. Some are more open to risk, while other are avert to it. This is particularly relevant if we remember that innovation is inherently risk, as it is the introduction of change.

The challenge of finding talent has already been mentioned, and as time and cost of finding the right person, and training her until she is productive grows, firms are more and more concerned about retention. Markets are very competitive, and aggressive to get the right people.

When the culture of the market, and other firms, clients all behave in a certain way, you might feel dislocated if you are different. So will experience an intense urge to behave in the same way, to assume the same form as other firms. What Firm #11 described is referred as isomorphic forces. If the cultures of your market is closed, you'll feel you need to be closed as well. We saw some isomorphic behaviors when we analyzed Firm #2 earlier in this chapter.

Firm #11 also highlights the culture clash that happens when a large firm engages in a relationship with a startup: the bureaucracy, the compartmentalization, the rigidities found in the larger firms contrast deeply with the cultures of a startup thus firms don't understand each other.

With this set of views we finalize the comparison among the firms studied with aims at answering our research questions. Next we'll present our findings, relating them to each one of our research questions.

4.5   Summary of findings

Our main problem was to understand whether or not our subject firms use open innovation practices, answering the following questions:

Q1: How are small and new financial services firms like the FinTechs, positioned with regards to open innovation ?

Q2: Why do the decide to used it (or not) ?

Thus the study aimed at getting better understanding for (1) why firms select the innovation models they use, (2) how firms implement their innovation models. Also, it looked to identify (3) how the firm benefits from the innovation models they use, (4) what are main obstacles and challenges perceived in the firm's innovation model.

Here are our findings:

How are small and new financial services firms like the FinTechs positioned with regards to open innovation ?

We saw in our analysis that the firms we evaluated are born with the concept of openness and sharing at the core of their values. The startup ecosystem is built around those very concepts and firms learn from the beginning they are critical. Firms collaborate and share knowledge as these are natural parts of their DNA. Knowledge flows both ways, inbound and outbound, but some firms leverage one direction more the other, while other firms employ both directions efficiently. Firms involve their clients, where other firms even get competitors in the process.

Their cultures are built with proper premises and incentives and strong focus on execution. Our conclusion is that firms do leverage a distributed innovation process based on purposively managed knowledge flows across organizational boundaries, using pecuniary and non-pecuniary mechanisms in line with the organization's business model, the very definition of open innovation (Chesbrough & Bogers, 2014).

Open Innovation Practices
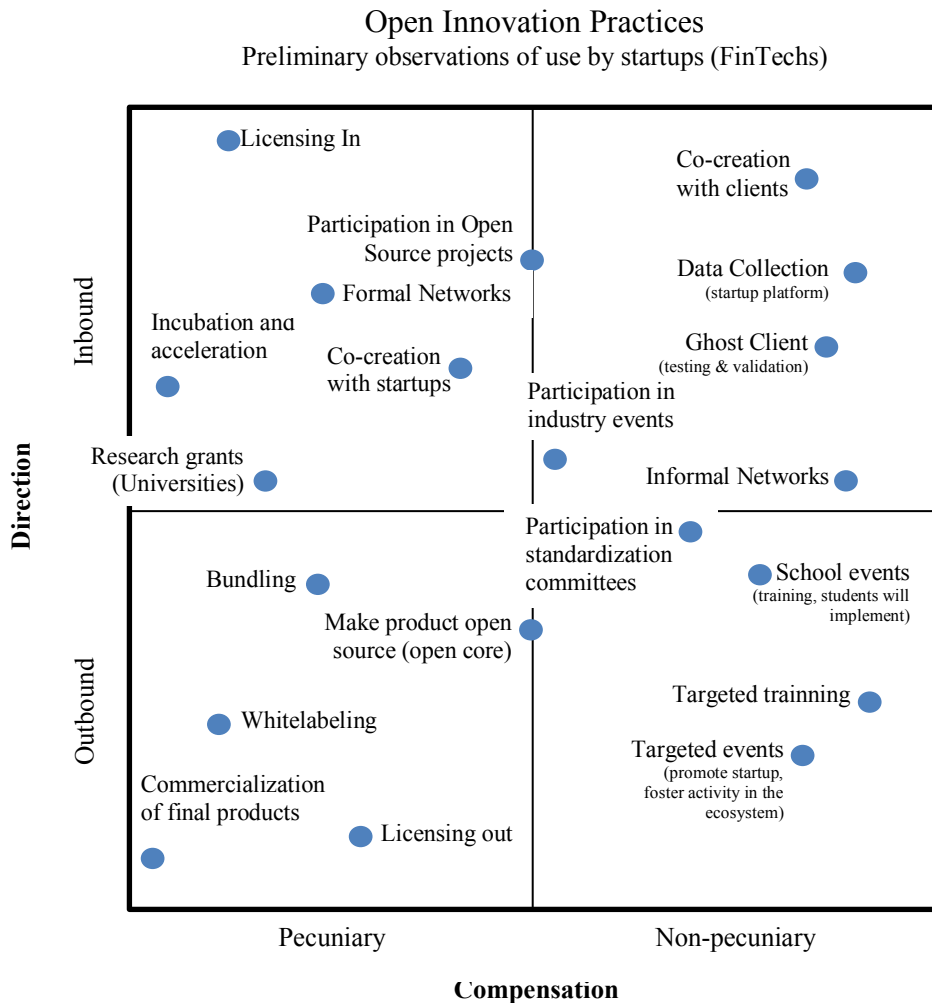### Preliminary observations of use by startups (FinTechs)

Exhibit 39 – Preliminary view on open innovation practices in small and new firms (FinTechs)

Source: Created by the author based on Chesbrough and Brunswicker (2014)

A workshop organized by the author in the month of August 2020, where 6 out of the 7 investigated startups participated further confirmed that conclusion. In a very interactive discussion over Video Conference, we discussed and validated the conclusions of this work. But we went a bit further, also focusing on actual open innovation practices they use. We saw on page 22 that Chesbrough and Brunswicker (2014) used open innovation practices to demonstrate large firms' active use of open innovation. But the results pictured in Exhibit 4

focus on large firms and we already know that the conclusions obtained for large firms are not necessarily applicable in smaller firms (SILVA; DACORSO, 2013). So we leveraged the discussion with the startups to create a similar 4 quadrants diagram showing actual open innovation practices as used by the startups based on hints present in our research.

Exhibit 39 depicts our observations about open innovation practices in small and new firms (FinTech). We can see from the picture that the startups leverage both pecuniary and non-pecuniary inbound and outbound flows. Even though we cannot claim this can be generalized to all startups, it is a significant step in the investigation of open innovation.

Summarizing, in addition to our findings, the workshop helped solidifying our answer that small and new firms in the financial market do use open innovation rather actively.

Why do the firms decide to used it (or not) ?

In our design, we broke this questions in four sub questions. Findings as they relate to each of these four questions are presented next.

Why firms select the innovation models they use ?

They live in a dynamic environment characterized by intense rivalry, and with that it will require strong capabilities for scanning the environment and making sense of it so that the environment becomes a source of possibilities. Or as said by most of the firms, they need a well-developed market intelligence function.

Startups were born in an environment of sharing and collaboration. They need to pitch their models often, they need to discuss and refine their ideas. The environment is full of relevant useful information. Firms need to get exposed, to share and collaborate. This is where they will become aware of knowledge they can use as Lego parts to compose their solution, this is where they will find investment.

Only those who can execute, who can implement an idea in a better way will be able to get some level of success in the short or medium term. Execution is the characteristic that defines a successful firm.

Being competitive in the environment requires the best people, with the right skills. People that works effectively in this settings want flexibility, freewill to make choices about their personal life. They live in different countries, work in non-traditional hours, prefer working from home. They are averse to structure, hierarchy and the bureaucracy it postulates.

In short, the selection of such model isn't necessarily a hard choice, but also an influence from the environment.

How firms implement their innovation models?

So it is no surprise each of the four aspects above will be integral in defining how the firms implement their innovation model. In their implementation firms consider four pillars: (1) need for market intelligence and absorptive capacity, (2) need for collaboration and knowledge sharing, (3) not only ideas, but execution, (4) it is all about people, so the organization structure – size, hierarchy, freedom, autonomy and fluidity; right incentives and workplace considerations are integral part of their plans.

Access to knowledge also happens through attendance to sectorial events, the relationships firms have with specialists and the right examples coming from the top.

How firms benefit from the innovation models they use:

Benefits come in many forms, as for example: open innovation allows them to shortcut the product development process, as they can leverage existing knowledge and focus on the core; This is seem as flexibility, agility, as competitiveness enhancing. The side effect of this benefit, and also a benefit is that such practices bind people to the firm, enhancing retention and increasing attractiveness in the job market. Ultimately, increases firm's chances of success and survival.

What are the main challenges and obstacles perceived in the firm's innovation model

Firms also related obstacles and challenges they perceived with open innovation. Confidentiality and Legal concerns inherently place challenges to sharing and collaborating as knowledge and opinions can be considered intellectual property thus sharing becomes unfeasible. Market regulations can also act as inhibitors to open innovation, as at times creative ways of doing something might be misunderstood as ways to bypass the regulation thus regarded as suspicious. Rigidities imposed by regulation might become costly to implement, and the caveat is that it typically provide no return to the firm other than being compliant. Some firms operate in segments of the market that have a strong traditional culture, used to non-technically efficient forms of addressing their daily jobs. Firms and clients in these segments can be resistant to different ways of doing things, my impose their own way. Adapting to such environment while maintaining focus on innovation can be challenging, and some firms end up succumbing to the isomorphic forces. Similar adaptation challenges are also seen when firms need to scale and grow. Resources and people are limited and the firm has to decide between running a smooth operation thus ensuring a revenue flow, or implementing risky changes that

might have unintended consequences, or outages. Firms will need to learn, to adapt and find the right balance, with the risk of getting behind if they don't. If resources are limited, finding the right people and keeping them in the firm is also a challenge related by the firms. Reasons might include culture clash, where people don't function or don't get used to the startup setting, or people aren't accustomed to startup style multitasking. Culture clash was also referred as obstacle in some interactions with larger firms where communication style differs, or where the startup focus on execution and agility clashes with larger firm's inherent rigidity. Communication, or to be precise, broken communication practices also challenge startup's efficiency towards openness, collaboration and sharing. Proper incentives have to be in place, and when they are not, behaviors might not align with what is required - if you reward only smooth operation as a way to protect revenue, you might end up sabotaging risk-taking and the implementation of new ideas. Resistance to change is inherent to us human beings, and peoples appetite to risk differ and this is another obstacle startup face.

With this section we conclude our analysis. I the next chapter we'll conclude our study, restate our findings, and discuss contributions it brings to theory and practice, as well as restrictions and suggestions for further studies.

5   CONCLUSION

To obtain insights on the use of open innovation in small and new firms in the financial services industry we contacted a total of seven firms considered our subjects. Additionally, five firms consisting of a specialist, clients and investors were also contacted for a total of twelve firms evaluated. Over a period of 13 months we conducted 23 interviews averaging 49 minutes and 5 seconds, 262 pages of transcripts were produced, plus informal conversations, observations and 46 pieces of additional external evidence as articles appearing in the mass media, company websites, social media, references in AppStores like the Google and Apple ones, references in CNPJ registries were collected.

For the data analysis we produced a case narrative for each case, describing main aspects and characteristics of each of the firms studied followed by a within-case analysis (YIN, 2009, p. 116). We finalized our investigation with a cross-case comparison to seek for similarities among the cases which strengthened our findings. To assist with the analysis of the material collected during the data collection phase, we used the NVivo12 software package. Our interaction with the startups was intense, and the last step was a workshop with the participant Fintechs to validate and confirm our findings and conclusions.

Our first finding relates to how the startups see innovation. In their view, it is about doing something different, about bridging gaps and resolving things in a way that nobody did. Innovation is perceived as being incremental as opposed to radical and disruptive. This provides a significant contribution to the practitioner community as it demystify a potential expectation they might have around what innovation should be - something rather disruptive and unique. It can set free all those entrepreneurs-to-be that were stressing about having that perfect radical idea fully sorted out before embarking in a new venture.

Our second finding is that startups indeed use open innovation actively. They were born with the concept of openness and sharing at the core of their values. The startup ecosystem is built around those very concepts and firms learn from the beginning they are critical. Firms collaborate and share knowledge as these are natural parts of their DNA. Firms involve their clients, other firms and even competitors in the process. Their cultures are built with proper premises and incentives and strong focus on execution. Knowledge flows both ways, inbound and outbound across organizational boundaries, using pecuniary and non-pecuniary mechanisms in line with the organization's business model, the very definition of open innovation. A set of open innovation practices was identified as result, and this is another significant contribution. It fills gaps in the literature and additionally provides practitioners with

a tool set they can weight when considering collaboration alternatives and mechanisms they can use to put knowledge at work.

The next finding is around the reasons behind a startup's decision for selecting the innovation model it uses. In some cases the decision was based on founders' previous experience. In other cases it came about through meticulous planning, or yet evolved organically. Regardless, in all cases, in their journey the startups ended up discovering that they needed information about the market, they needed to collaborate with others, that success was a function of execution (not ideas), and that they needed to focus on their people. Our conclusion is that such needs surfaced given the constrains and opportunities in the environment they enact: a dynamic dichotomous environment characterized by inviting openness and abundance of information that at the same time reveals intense rivalry. Such findings might drive a degree of frustration in the practitioner, as it might suggest they have no choice since the environment is imposing. The finding in fact brings a profound contribution to practitioners: it is a call for action as it is very difficult for an organization to predict what is going to be the next change, how the change is it going to affect the organization, and what is necessary in order for the organization to be always ready to act. Practitioners able to perceive the hints the environment provided in the form of the four needs above might be able to navigate the uncertainties more effectively.

The fourth finding is tightly related to the third one above as the actual implementation of their innovation model is guided by the four pillars: need for information about the market, need to collaborate with others, success is a function of execution (not ideas), and focus on people. To implement open innovation, firms establish functions to address each of the environment's constrains represented in the form of needs described above: add to the firm people that already have knowledge so as to enhance firm legacy; develop effective market intelligence capabilities to sense what the market is doing and where it is going; actively look for knowledge they can use and integrate in their solution; develop ability to share and an effective execution capability; develop and organization structure that enables fluidity of communication, ownership and autonomy. All of those get reinforced with the right incentives in place. Main contribution comes in the form of demystifying their implementation efforts. Practitioners can devise their own implementation strategy by focusing on each one of the pillars and deriving functions that they need to create so as to address each one of the needs, as for example the ones presented in Exhibit 35. Practitioners can also leverage the pillars for hints on developing a culture that provides support and reinforces open innovation.

Benefits come in many forms, as for example: open innovation allows them to shortcut the product development process, as they can leverage existing knowledge and focus on the core; This is seem as flexibility, agility, as competitiveness enhancing. The side effect of this benefit, and also a benefit is that such practices bind people to the firm, enhancing retention and increasing attractiveness in the job market. Ultimately, increases firm's chances of success and survival. By spelling out specific benefits we encourage practitioners to embrace open innovation. Benefits help making it clear that open innovation is not only a fad, but a real survival enabler, a source of differentiation and efficiency.

There are also many obstacles and challenges they perceived with open innovation, and this is our sixth finding. Confidentiality and Legal concerns inherently place challenges to sharing and collaborating as knowledge and opinions can be considered intellectual property thus sharing becomes unfeasible. Market regulations can also act as inhibitors to open innovation, as at times creative ways of doing something might be misunderstood as ways to bypass the regulation thus regarded as suspicious. Rigidities imposed by regulation might become costly to implement, and the caveat is that it typically provide no return to the firm other than being compliant. Some firms operate in segments of the market that have a strong traditional culture, used to non-technically efficient forms of addressing their daily jobs. Firms and clients in these segments can be resistant to different ways of doing things, my impose their own way. Adapting to such environment while maintaining focus on innovation can be challenging, and some firms end up succumbing to the isomorphic forces. Similar adaptation challenges are also seen when firms need to scale and grow. Resources and people are limited and the firm has to decide between running a smooth operation thus ensuring a revenue flow, or implementing risky changes that might have unintended consequences, or outages. Firms will need to learn, to adapt and find the right balance, with the risk of getting behind if they don't. If resources are limited, finding the right people and keeping them in the firm is also a challenge related by the firms. Reasons might include culture clash, where people don't function or don't get used to the startup setting, or people aren't accustomed to startup style multitasking. Culture clash was also referred as obstacle in some interactions with larger firms where communication style differs, or where the startup focus on execution and agility clashes with larger firm's inherent rigidity. Communication, or to be precise, broken communication practices also challenge startup's efficiency towards openness, collaboration and sharing. Proper incentives have to be in place, and whey they are not behaviors might not align with what is required - if you reward only smooth operation as a way to protect revenue, you might end up sabotaging risk-taking and the

implementation of new ideas. Resistance to change is inherent to us human beings, and peoples appetite to risk differ and this is another obstacle startup face. The main contribution from our sixth finding is that a list of common obstacles can serve as a map guiding practitioners through the process of implementing open innovation. They also illuminate their path, giving them visibility to major traps and deceptions they will typically find in their journey.

There are also additional contributes to the advancement of open innovation knowledge, in particular it addresses gaps in the theory that claimed that no studies existed, as for example the investigation of open innovation in smaller firms is very recent (CHESBROUGH; BRUNSWICKER, 2014; VAN DE VRANDE; VANHAVERBEKE; GASSMANN, 2010); open innovation is neither understood or used by stablished R&D based industrial firms in Brazil (PITASSI, 2014); there is a need for more studies on the usage of the open innovation concept in financial services firms (GIANIODIS; ETTLIE; URBINA, 2014; SCHUEFFEL; VADANA, 2015); open Innovation in services has remained under investigated (VIRLEE; HAMMEDI; PARIDA, 2015); or "there has been almost no research on how open innovation is practiced by new or young firms" (GREUL; WEST; BOCK, 2016).

Furthermore, the quotes from the interviewees alone provide a rich insight into the world of startups, their reasoning and an exposure to what drives them. Reading them, particularly the original ones in Portuguese located in the Appendix can be an enlightening exercise.

Despite all the contributions mentioned above, this study has limitations. It was done on a sample of startups located mainly in the South and Southeast regions of Brazil. Most of them have a strong presence in Sao Paulo city in the form of offices, and the majority have their headquarter located in town. That is certainly not representative of the overall population of Brazilian FinTechs. To further knowledge in the area of open innovation, future studies could target a sample of FinTechs in other regions of Brazil.

The set of open innovation practices in small and new firms devised in this study is still preliminary and deserves further investigation and formalization. Future studies could also evaluate if the same patterns observed here are also found in startups operating in other industries.

In our observations we saw that startups place high importance on execution. Future studies could deepen the understanding about practices the startups implement to get effective at execution. We also saw the importance of the scanning capabilities the firm possesses. Future studies could evaluate actual practices startups use to implement successful absorptive capacity.

REFERENCES

ALLEN, R. C. Collective invention. **Journal of Economic Behavior & Organization**, v. 4, n. 1, p. 1–24, 1 mar. 1983.

ALMIRALL, E.; CASADESUS-MASANELL, R. Open versus closed innovation: a model of discovery and divergence. **Academy of Management Review**, v. 35, n. 1, p. 27–47, jan. 2010.

ANSOFF, H. I.; MCDONNELL, E. J. **The new corporate strategy**. [s.l.] John Wiley & Sons Inc, 1988.

BAMIATZI, V. et al. Revisiting the firm, industry, and country effects on profitability under recessionary and expansion periods: A multilevel analysis. **Strategic Management Journal**, v. 37, n. 7, p. 1448–1471, 1 jul. 2016.

BARNEY, J. Firm Resources and Sustained Competitive Advantage. **Journal of Management**, v. 17, n. 1, p. 99–120, 1 mar. 1991.

BARNEY, J. B. Types of competition and the theory of strategy: Toward an integrative framework. **Academy of management review**, v. 11, n. 4, p. 791–800, 1986.

BARRAS, R. Towards a theory of innovation in services. **Research Policy**, v. 15, n. 4, p. 161–173, 1 ago. 1986.

BERTALANFFY, L. V. **General system theory: Foundations, development, applications**. [s.l.] Braziller. New York, 1968.

BLAU, P. M.; SCOTT, W. R. **Formal Organizations: A Comparative Approach**. [s.l.] Stanford University Press, 1962.

BOULDING, K. General Systems Theory—The Skeleton of Science. **Management Science**, v. 2, n. 3, p. 197–208, 1 abr. 1956.

BRADASCHIA, M. **FintechLab lança seu Report 2017 e o novo Radar | FintechLab**, 17 fev. 2017. Disponível em: <http://fintechlab.com.br/index.php/2017/02/17/fintechlab-lanca-seu-report-2017-e-o-novo-radar/>.

BRIGATTO, G. Em ebulição, fintechs chegam a 244 no país. **Valor Econômico**, 17 fev. 2017.

BROWN, S. L.; EISENHARDT, K. M. The Art of Continuous Change: Linking Complexity Theory and Time-Paced Evolution in Relentlessly Shifting Organizations. **Administrative Science Quarterly**, v. 42, n. 1, p. 1–34, 1997.

BURGESS, T. F. Making the Leap to Agility: Defining and Achieving Agile Manufacturing through Business Process Redesign and Business Network Redesign. **International Journal of Operations & Production Management**, v. 14, n. 11, p. 23–34, 1 nov. 1994.

CARROLL, A. B. A Three-Dimensional Conceptual Model of Corporate Performance. **Academy of Management Review**, v. 4, n. 4, p. 497–505, 1 out. 1979.

CAVES, R. E. Industrial organization, corporate strategy and structure. In: EMMANUEL, C.; OTLEY, D.; MERCHANT, K. (Eds.). . **Readings in Accounting for Management Control**. [s.l.] Springer US, 1980. p. 335–370.

CHANDLER, A. D. Strategy and structure: Chapters in the history of the American enterprise. **Massachusetts Institute of Technology Cambridge**, 1962.

CHESBROUGH, H. Bringing Open Innovation to Services. **MIT Sloan Management Review**, v. 52, n. 2, p. 85–90, 2011a.

CHESBROUGH, H.; BRUNSWICKER, S. A Fad or a Phenomenon? The Adoption of Open Innovation Practices in Large Firms. **RESEARCH-TECHNOLOGY MANAGEMENT**, v. 57, n. 2, p. 16–25, abr. 2014.

CHESBROUGH, H. W. **Open innovation : the new imperative for creating and profiting from technology.** [s.l.] Boston, Mass. : Harvard Business School, 2003.

CHESBROUGH, H. W. **Open services innovation : rethinking your business to grow and compete in a new era.** [s.l.] San Francisco : Jossey-Bass, c2011., 2011b.

COHEN, W. M.; LEVINTHAL, D. A. Absorptive Capacity: A New Perspective on Learning and Innovation. **Administrative Science Quarterly**, n. 1, p. 128, 1990.

CRESSWELL, J. **Research Design: Qualitative, Quantitative, and Mixed Methods Approaches**. Fourth Edition ed. [s.l.] SAGE, 2014.

CYERT, R. M.; MARCH, J. G. A behavioral theory of the firm. **A behavioral theory of the firm**, v. 2, 1963.

DAHLBERG, T.; GUO, J.; ONDRUS, J. A critical review of mobile payment research. **Electronic Commerce Research and Applications**, p. 265–284, 2015.

DIMAGGIO, P.; POWELL, W. The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. **American Sociological Review**, v. 48, n. 2, p. 147–160, abr. 1983.

Distrito - Inovação para startups. Disponível em: <https://distrito.me/>.

DRUCKER, P. The principles of management. **New York**, 1954.

DRUCKER, P. The discipline of innovation. **Harvard business review**, v. 63, n. 3, p. 67–72, jun. 1985.

DRUCKER, P. F. The theory of the business. **Harvard business review**, v. 72, n. 5, p. 95–104, 1994.

DU, K. Complacency, capabilities, and institutional pressure: understanding financial institutions' participation in the nascent mobile payments ecosystem. **Electronic Markets**, 21 set. 2017.

EISENHARDT, K. M. Building theories from case study research. **Academy of management review**, v. 14, n. 4, p. 532–550, 1989.

EMERY, F. E.; TRIST, E. L. The causal texture of organizational environments. **Human relations**, v. 18, n. 1, p. 21–32, 1965.

FAGERBERG, J.; VERSPAGEN, B. Innovation studies—The emerging structure of a new scientific field. **Research Policy**, v. 38, n. 2, p. 218–233, mar. 2009.

FintechLab | Mapeamento, advisory e informações sobre o mercado de fintechs nacional. , [s.d.]. Disponível em: <https://fintechlab.com.br/>.

Fintechlab Report Brazil. . [s.l.] Fintechlab, fev. 2017. Disponível em: <http://fintechlab.com.br/wp-content/uploads/2017/02/Report_FintechLab_2017-2.pdf>.

GATIGNON, H. et al. A Structural Approach to Assessing Innovation: Construct Development of Innovation Locus, Type, and Characteristics. **Management Science**, v. 48, n. 9, p. 1103–1122, 1 set. 2002.

GIANIODIS, P. T.; ETTLIE, J. E.; URBINA, J. J. Open service innovation in the global banking industry: inside-out versus outside-in strategies. **Academy of Management Perspectives**, v. 28, n. 1, p. 76–91, fev. 2014.

GLOVER, J. et al. Adaptive Leadership (Part Two): Four Principles for being Adaptive. **Organization Development Journal**, v. 20, n. 4, p. 18–36, 2002.

GLOVER, J.; FRIEDMAN, H.; JONES, G. ADAPTIVE LEADERSHIP: WHEN CHANGE IS NOT ENOUGH (PART ONE). **Organization Development Journal**, v. 20, n. 2, 2002.

GODIN, B. "Innovation Studies": The Invention of a Specialty. **Minerva: A Review of Science, Learning & Policy**, v. 50, n. 4, p. 397–421, dez. 2012.

GOMBER, P.; KOCH, J.-A.; SIERING, M. Digital Finance and FinTech: current research and future research directions. **Journal of Business Economics**, v. 87, n. 5, p. 537–580, 1 jul. 2017.

GREUL, A.; WEST, J.; BOCK, S. Open at Birth? Why New Firms Do (or Don't) Use Open Innovation. **Academy of Management**, 9 set. 2016.

HAN, J. K.; KIM, N.; SRIVASTAVA, R. K. Market Orientation and Organizational Performance: Is Innovation a Missing Link? **Journal of Marketing**, v. 62, n. 4, p. 30–45, 1998.

HANNAN, M. T.; FREEMAN, J. The population ecology of organizations. **American journal of sociology**, p. 929–964, 1977.

HANNAN, M. T.; FREEMAN, J. Structural inertia and organizational change. **American sociological review**, p. 149–164, 1984.

HANNAN, M. T.; FREEMAN, J. Where do organizational forms come from? **Sociological Forum**, v. 1, n. 1, p. 50–72, 1 dez. 1986.

HOSMER, L. T. Strategic planning as if ethics mattered. **Strategic Management Journal**, v. 15, n. S2, p. 17–34, 1 jun. 1994.

HREBINIAK, L. G.; JOYCE, W. F. Organizational Adaptation: Strategic Choice and Environmental Determinism. **Administrative Science Quarterly**, v. 30, n. 3, p. 336–349, 1985.

HUIZINGH, E. K. R. E. Open innovation: State of the art and future perspectives. **Technovation**, v. 31, p. 2–9, 1 jan. 2011.

JANKOWICZ, D. From `Learning Organization' to `Adaptive Organization'. **Management Learning**, v. 31, n. 4, p. 471–490, 1 dez. 2000.

KUOSA, T.; WESTERLUND, L. **Service design : on the evolution of design expertise**. [s.l.] Lahden ammattikorkeakoulu, 2012.

LAWRENCE, P. R.; LORSCH, J. W. Differentiation and Integration in Complex Organizations. **Administrative Science Quarterly**, v. 12, n. 1, p. 1–47, 1967.

LEONARD-BARTON, D. Core capabilities and core rigidities: A paradox in managing new product development. **Strategic Management Journal**, v. 13, n. S1, p. 111–125, 1992.

LEVITT, T. **Marketing myopia**. [s.l: s.n.].

LEWIN, A.; LONG, C.; CARROLL, T. The Coevolution of New Organizational Forms. **Organization Science**, v. 10, n. 5, p. 535–550, 1 out. 1999.

MARTIN, B. **The Evolution of Science Policy and Innovation Studies**. [s.l.] Centre for Technology, Innovation and Culture, University of Oslo, 2008. Disponível em: <https://ideas.repec.org/p/tik/inowpp/20080828.html>.

MAZZON, J. A. Análise do programa de alimentação do trabalhador sob o conceito de marketing social. **São Paulo: FEA/USP**, 1981.

MAZZON, J. A. USING THE METHODOLOGICAL ASSOCIATION MATRIX IN MARKETING STUDIES. **Revista Brasileira de Marketing**, p. 24, 2018.

MILES, R. E. et al. Organizational Strategy, Structure, and Process. **Academy of Management Review**, v. 3, n. 3, p. 546–562, 1 jul. 1978.

MILLIKEN, F. J. Three Types of Perceived Uncertainty About the Environment: State, Effect, and Response Uncertainty. **Academy of Management Review**, v. 12, n. 1, p. 133–143, 1 jan. 1987.

MINTZBERG, H. The design school: Reconsidering the basic premises of strategic management. **Strategic Management Journal**, v. 11, n. 3, p. 171–195, 1 mar. 1990.

MINTZBERG, H.; WATERS, J. A. Of strategies, deliberate and emergent. **Strategic Management Journal**, v. 6, n. 3, p. 257–272, 1 jul. 1985.

NELSON, R. R. Why do firms differ, and how does it matter? **Strategic Management Journal**, v. 12, n. S2, p. 61–74, 1 dez. 1991.

NELSON, R. R.; WINTER, S. G. In search of useful theory of innovation. **Research Policy**, v. 6, n. 1, p. 36–76, 1 jan. 1977.

NELSON, R. R.; WINTER, S. G. **An evolutionary theory of economic change**. [s.l.] Cambridge, Mass.: Belknap Press of Harvard University Press, 1982., 1982.

NONAKA, I. A Dynamic Theory of Organizational Knowledge Creation. **Organization Science**, v. 5, n. 1, p. 14–37, 1 fev. 1994.

PÉNIN, J. Are You Open? **Revue économique**, v. 64, n. 1, p. 133–148, 2013.

PENROSE, E. T. **The theory of the growth of the firm**. [s.l.] New York : J. Wiley, 1959., 1959.

PFEFFER, J.; SALANCIK, G. R. **The External Control of Organizations: A Resource Dependence Perspective**. Rochester, NY: Social Science Research Network, 1978. Disponível em: <http://papers.ssrn.com/abstract=1496213>.

PITASSI, C. Inovação aberta nas estratégias competitivas das empresas brasileiras. **Revista Brasileira de Estrategia**, 2014.

PORTER, M. E. **Competitive Strategy: Techniques for Analyzing Industries and Competitors**. Rochester, NY: Social Science Research Network, 1980. Disponível em: <http://papers.ssrn.com/abstract=1496175>.

PRAKASH SETHI, S.; SAMA, L. M. Ethical Behavior as a Strategic Choice by Large Corporations: The Interactive Effect of Marketplace Competition, Industry Structure and Firm Resources. **Business Ethics Quarterly**, v. 8, n. 01, p. 85–104, jan. 1998.

PUSCHMANN, T. Fintech. **Business & Information Systems Engineering**, v. 59, n. 1, p. 69–76, 1 fev. 2017.

R. PONELIS, S. Using Interpretive Qualitative Case Studies for Exploratory Research in Doctoral Studies: A Case of Information Systems Research in Small and Medium Enterprises. **International Journal of Doctoral Studies**, v. 10, p. 535–550, 2015.

RODRIGUES, M. **Overview of the most Interesting Bank-FinTech Initiatives in BrazilLets Talk Payments**, 9 set. 2017. Disponível em: <https://letstalkpayments.com/overview-of-most-interesting-bank-fintech-initiatives-brazil/>.

SCHUEFFEL, P. E.; VADANA, I.-I. Open Innovation in the Financial Services Sector - A global literature review. **Journal of Innovation Management**, v. 3, n. 1, p. 25–48, 31 mar. 2015.

SCHUMPETER, J. A. **Capitalism, socialism and democracy.** [s.l.] New York : Harper & Row, 1942.

SCOTT, R. **Organizations: Rational, Natural, and Open Systems (5th Edition)**. [s.l.] {Prentice Hall}, 2002.

SELZNICK, P. Foundations of the Theory of Organization. **American Sociological Review**, v. 13, n. 1, p. 25–35, 1948.

SILVA, G.; DACORSO, A. L. R. Inovação aberta como uma vantagem competitiva para a micro e pequena empresa. **RAI - Revista de Administração e Inovação**, v. 10, n. 3, p. 251–268, 1 out. 2013.

SLOWINSKI, G.; SAGAL, M. W. Good Practices in Open Innovation. **Research-Technology Management**, v. 53, n. 5, p. 38–45, 1 set. 2010.

SREEHARSHA, V. Goldman Sachs Sees Big Potential for Fintech in Brazil. **The New York Times**, 15 maio 2017.

THOMPSON, J. D. **Organizations in Action: Social Science Bases of Administrative Theory**. [s.l.] Transaction Publishers, 1967.

TSAI, C.-T.; LIAO, W.-F. A framework for Open Innovation assessment. **International Journal of Innovation Management**, v. 18, n. 5, p. 1, out. 2014.

TSOUKAS, H. The firm as a distributed knowledge system: A constructionist approach. **Strategic Management Journal**, v. 17, n. S2, p. 11–25, 1 dez. 1996.

VAN DE VRANDE, V.; VANHAVERBEKE, W.; GASSMANN, O. Broadening the scope of open innovation: past research, current state and future directions. **International Journal of Technology Management**, v. 52, n. 3/4, p. 221–235, 2010.

VIRLEE, J.; HAMMEDI, W.; PARIDA, V. Open Innovation Implementation in the Service Industry: Exploring Practices, Sub-practices and Contextual. **Journal of Innovation Management**, v. 3, n. 2, p. 106–130, 2015.

VOLBERDA, H. W. Toward the Flexible Form: How to Remain Vital in Hypercompetitive Environments. **Organization Science**, v. 7, n. 4, p. 359–374, 1 ago. 1996.

VOLBERDA, H. W. **Building the flexible firm: How to remain competitive**. [s.l.] Oxford University Press, USA, 1999.

WERNERFELT, B. A resource-based view of the firm. **Strategic management journal**, v. 5, n. 2, p. 171–180, 1984.

WEST, J. et al. Open innovation: The next decade. **Research Policy**, Open Innovation: New Insights and Evidence. v. 43, n. 5, p. 805–811, jun. 2014.

WEST, J.; BOGERS, M. Leveraging external sources of innovation: a review of research on open innovation. **Journal of Product Innovation Management**, v. 31, n. 4, p. 814–831, 2014.

WHITTINGTON, R. **What is Strategy - And Does it Matter?** [s.l.] Routledge, 1993.

WIENER, N. **Cybernetics**. [s.l.] JSTOR, 1948.

YIN, R. K. The Case Study as a Serious Research Strategy. **Knowledge**, v. 3, n. 1, p. 97–114, 1 set. 1981.

YIN, R. K. **Case Study Research: Design and Methods**. [s.l.] SAGE, 2009.

APPENDIX

In this appendix, we display the original fragments of the oral answers unmodified, as collected during each interview and represented in the transcripts. Each answers is preserved to respect the spoken language characteristics and the individuality of each participant and might contain slang, errors or repetitions inherent to oral speech. To preserve confidentiality of participants, their firms and clients, we masked these when they appeared in the transcription in the form of <firm>, or <client>.

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[i] A <firma> começou, na verdade, antes de eu entrar, ela surgiu de dentro da Fisher. A ideia era ser uma plataforma de negociação de ativos imobiliários, principalmente recebíveis imobiliários. Eles começaram a desenvolver um marketplace de recebíveis, como a tração estava um pouco mais lenta do que eles queriam eles me trouxeram para dentro da empresa, para tentar transformar a empresa em uma empresa de tecnologia, com um viés mais forte de tecnologia do que tinha antes.

[ii] Então no nosso caso você tem um problema que existe há muito tempo, que é quando você vai comprar uma carteira de recebíveis imobiliários por exemplo, você tem uma pilha gigantesca de documentos para ler e você bota um monte de gente em uma sala para ler os documentos e eles vão levar um tempão para ler e vão cometer erros, porque todas pessoas cometem erros. Do outro lado você tem ferramentas que já existem há muito tempo, mas que não eram usadas porque não tinha a capacidade computacional ainda que a gente tem hoje, mas você tem... machine learning não é uma coisa nova, mas você conseguir aplicar machine learning para interpretar documentos escritos em linguagem natural é uma coisa relativamente nova, e mais ainda você aplicar isso para o mercado imobiliário brasileiro, você aplicar isso em português, que também não tem muita ferramenta em português, então essa é a parte que eu acho que é de inovação de verdade que a gente está trazendo. Então a gente está endereçando um problema que já existe há muito tempo, usando ferramentas que já existem, mas de uma forma que não estava sendo usada ainda para trazer eficiência para o mercado.

[iii] No nosso caso a ideia de usar machine learning para esse fim específico ela veio da gente, das nossas discussões

[iv] Agora o desenvolvimento em si do produto ele vem de várias fontes, primeiro existem muitas e muitas ferramentas de código aberto disponíveis para a gente usar, então a gente está usando várias delas, então tem muita coisa que a gente não precisa desenvolver porque já foi desenvolvida por outros e esses outros deixaram disponível para quem quiser usar

[v] Colaborar tem um monte de vantagens, traz a empresa mais próxima desse mundo de inovação, ela traz para as pessoas que trabalham na empresa uma mentalidade de olhar para fora também, que tem um monte de gente pensando em problemas parecidos e que as vezes consegue resolver mais fácil juntando todo mundo e que se você pensar bem assim, na verdade, não vai atrapalhar o negócio, pelo contrário

[vi] Fica muito melhor do que seria se a empresa desenvolvesse sozinha e ficasse ali, porque a empresa pode ter, sei lá, dez caras brilhantes ali de pesquisa e desenvolvimento, mas o mundo tem um 1 milhão. Então é mais fácil você ter um produto muito bom se for desenvolvido por 1 milhão de pessoas do que se for desenvolvido por dez pessoas. Não tem como escapar disso.

[vii] Então a minha experiência é essa assim, esse mundo aí de machine learning, as pessoas gostam de conversar, as pessoas estão todas disponíveis para você ou trocar uma ideia ou então contratar como consultor, como eu fiz com ele, e a gente vai desenvolvendo desse jeito, entendeu? Então é um mundo bem mais amigável e bem acessível do que o mundo corporativo eu acho, que as pessoas têm medo de revelar segredo e coisas assim, nesse mundo todo mundo gosta de falar o que desenvolveu, gosta de deixar as coisas disponíveis.

[viii] Então, na minha cabeça, muito do que a gente está fazendo deveria se tornar público.

[ix] A gente não fez ainda, na verdade assim tem poucas coisas que a gente desenvolveu de verdade, o que a gente faz é aplicar, como eu falei, é aplicar ferramentas. Tem coisas que a gente desenvolveu aqui e que eu acho que tem aplicação em outros casos e que a gente vai, com certeza, no futuro próximo deixar isso aberto para a comunidade também porque a gente quer mostrar o que a gente está fazendo, a gente quer escrever sobre isso, a gente quer

fazer esse tipo de coisa, mas a gente não fez ainda, que por enquanto o foco está sendo em ter um produto e ter cliente.

[x] A gente está fazendo isso agora, esse é o momento em que a gente está indo atrás de clientes para, como você falou, para testar o que a gente já fez, mas também para guiar a gente no caminho certo. Então a gente tem uma ideia do que é que os bancos precisam, mas as vezes os bancos têm uma ideia um pouquinho diferente do que eles precisam, então a gente precisa dessa parceria, a gente está nessa fase agora.

[xi] Então o problema de confidencialidade que existe mesmo e não tem muito jeito. O outro problema é estratégia, então as empresas têm dados que elas consideram estratégicos que elas não querem divulgar

[xii] antes você tinha uma ideia e essa ideia tinha um valor, porque você ia montar o teu negócio e com base nessa tua ideia e era mais difícil de alguém enxergar a tua ideia a tempo de competir com você. Hoje a ideia tem muito pouco valor, você tem uma ideia você está competindo com o mundo inteiro, o mais provável é que alguém já teve essa ideia antes, é muito difícil você ter uma ideia original de verdade. Mas se você tem uma ideia original, a hora que você começa a desenvolver e as pessoas começam a conhecer é muito fácil de alguém copiar. Então a ideia em si hoje em dia tem muito pouco valor eu acho, o que tem valor é como você executa, então a tua capacidade de transformar essa ideia em um produto de verdade, a tua capacidade de atingir o mercado certo, de atingir as pessoas certas no mercado isso é muito mais importante do que a ideia hoje em dia, porque é como você falou, a ideia é fácil de copiar, o que é difícil de copiar é o... É a execução, é os teus relacionamentos com o mercado, o quanto você... como você aborda os teus clientes, isso é muito mais difícil de copiar

[xiii] a gente está voltando para o mercado imobiliário que é um mercado muito grande e com muito pouca inovação. Então mesmo que tenham competidores, mesmo que apareçam lá cinco empresas iguais a gente tem um monte de espaço para todo mundo. Então isso deixa a gente bem mais tranquilo em relação ao nosso ambiente competitivo ali, que a gente sabe que tem espaço. Mas mesmo assim, a gente, por estar vindo de um desenvolvimento, já faz bastante tempo, mesmo que a ideia era diferente, mas a gente já tem aí dois anos de estudo desse mercado, de formas de relacionamentos com as pessoas desse mercado, de entendimento das necessidades do mercado que uma empresa nova vai demorar um pouco para conseguir. Então essa é uma coisa. A parte da tecnologia em si, como eu falei, as tecnologias, as ferramentas estão aí, mas a parte de como a gente usa essas ferramentas e as coisas que a gente teve que desenvolver dentro de casa para conseguir amarrar essas pontas todas, isso é mais difícil de copiar eu acho. Teve muito processo de formação, de desenho do produto em si é um processo que demorou para a gente entender como a gente faz (inint) [00:23:49] mais eficiente, isso não é uma coisa fácil de copiar, isso é uma coisa que leva tempo. Então eu acho também, quer dizer, vão aparecer concorrente, já tem, eu acho, um ou dois concorrentes, mas concorrentes que aparecerem agora vão demorar para conseguir chegar no ponto que gente está e esses concorrentes pode ser que tenham contatos bons e podem ser que tenham uma forma boa de acionar o mercado e pode ser que não. Então eu acho que no fim é o que eu falei, hoje é execução e não a ideia, a ideia vale pouco

[xiv] a cultura da empresa é uma coisa que eu e meu sócio a gente discute desde o primeiro dia que a gente entrou aqui. E quando a gente... a gente acabou de contratar uma pessoa e a gente... certamente o time nos próximos meses ele vai crescer .... O que a gente queria até, a minha forma de entrevista para essas pessoas foi dar um problema que eu sabia que eles não sabiam resolver, mas que eu queria entender como eles iriam achar as informações falando com pessoas ou não falando com pessoas, achar o que é que eles precisam para desenvolver esse negócio. Então para mim é muito mais importante como a pessoa consegue encontrar as informações certas, seja ligando para alguém que sabe, seja pesquisando na internet, seja de qualquer forma, mas conseguir chegar na informação do que o conhecimento que essa pessoa já tem. Eu acho que a cabeça da empresa vai ser sempre essa, vai ser assim, vamos achar um time de pessoas que não tenham medo de enfrentar um problema que elas não conhecem, que querer ir atrás de soluções e que não queiram tentar inventar roda, porque se elas não sabem resolver elas não sabem resolver, elas têm que achar soluções. Então eu acho que a cabeça da empresa vai ser essa mesmo, vai ser de sempre tentar buscar coisas novas, tentar entender o que é que está acontecendo e usar essas ferramentas ao invés de ficar fechado em uma sala ali quebrando a cabeça com problema.

[xv] como achar a informação que ela precisa para ela resolver. Então nesse ponto assim a dificuldade que eu tive é a dificuldade de qualquer pessoa que vai contratar alguém para sentar do lado ali e tal, é uma pessoa que você tem que se dar bem pessoalmente, tem que ser uma convivência agradável e para mim é essencial uma pessoa com capacidade de pensar e capacidade de ir atrás das coisas que ela vai precisar para resolver, muito mais do que buscar. Eu até conversei com alguns PHDs aí em machine learning e tal, mas eles iam trazer uma cultura, uma ideia já mais pronta para o negócio que não era o que eu queria, eu queria estar com uma folha em branco e vamos achar o melhor caminho olhando tudo que a gente tem disponível

[xvi] Inovação para mim é tudo que as pessoas ou empresas conseguem criar que saia de um modelo que... na verdade traga um modelo simplificado e ao mesmo tempo um modelo que seja digital. Eu vejo assim, que tudo que pode ser uma inovação tem um contexto.

xvii Eu acho que realmente é algo que saia de um modelo pré-estabelecido, eu só não entro nos parâmetros digitais porque inovação ela pode ser algo físico também, não somente digital, mas ela vem para quebrar um modelo ou facilitar um modelo já pré-estabelecido no mercado, que já esteja estabelecido de certa forma

xviii O formato que nós temos hoje, conforme a gente estudou o mercado de câmbio que existe a mais de 60 anos, ele sempre teve um formato muito arcaico, ou por telefone ou por troca de mensagens ou até mesmo utilizando motoboys para levar documento de um lugar para o outro, a partir do momento que você consegue montar uma plataforma onde você une tanto os players do mercado como os clientes para fazer todo o processo de câmbio através da plataforma isso é inovação. Através do momento que você consegue ter as taxas divulgadas num aplicativo onde a pessoa não precisa ir até um banco para consultar a melhor cotação, para mim isso é inovação, você conseguir compra câmbio através do celular e receber em casa ou retirar numa outra cidade onde você estará, isso também é inovação. Então trazendo o contexto para o nosso dia a dia é transformar o modelo que hoje está no banco, que é aquele cara-crachá presencial e trazer para o mundo digital. É dessa maneira que eu defendo a tese do porque a <firm #2> ela é inovadora.

xix Inicialmente são ideia próprias, então tudo começou com ideias próprias, a gente entendendo o mercado e conhecendo, conhecendo a dor, nós mesmos somos clientes dessa dor, então foi assim que surgiu, através da dor, a necessidade, a gente montou o produto.

xx é ideia própria e agora através dos próprios feedbacks dos clientes a gente vai melhorando a plataforma e também criando funcionalidades novas.

xxi Porque quando o produto, a plataforma já está no ar nós recebemos o feedback do que não está funcionando por parte dos clientes, então chegam e-mails com dúvida a respeito do processo ou a respeito do produto e nós mesuramos isso daí e com isso nós conseguimos criar solução. Então assim, quando você está desenvolvendo o produto no começo você realmente você valida essas dores com o mercado, mas depois que a plataforma está no ar o próprio feedback, a usabilidade dos clientes e com algumas ferramentas específicas você consegue identificar quais são as dores, onde esse público está tendo dificuldade, aí fica mais fácil você fazer as melhorias.

xxii A partir do momento que são todos próximos do mesmo tamanho, da mesma estrutura até existe uma troca de informação "Poxa, você viu que o Banco Central soltou uma lei nova que vai mudar como que é a tributação de operação X? Como é que você está analisando isso? Vai ter que mudar toda plataforma". Então alguns eventos regulatórios a gente conversa entre nós, mas a partir do momento que na indústria você começa a se comunicar com bancos, com grandes players você diminui um pouco a transmissão de informação.

xxiii Dentro do ecossistema de startups há bastante troca de informações, há uma facilidade no acesso, então eu acredito que assim, quando uma pessoa precisa do contato de uma outra startup esse acesso ele é bem rápido porque as startups elas estão passando pelos ecossistemas, pelos programas de aceleração, isso facilita a troca de contatos e o networking e eu enxergo que mais do que entre grandes empresas. Grandes empresas elas são detentoras cada um do seu conhecimento e elas não costumam compartilhar isso daí, dentro do ecossistema de startups é muito mais fácil esse networking, essa troca de informações, então eu acho que esse é um caminho legal que aconteceu dentro dessa.

xxiv a gente aprendeu muito e quando a gente tinha alguma dor, "Vamos falar um pouco de estratégia de venda específica, aí aparecia um "Não, não, vamos aproveitar para falar com essa empresa aqui que vende carro, a experiência dele pode ser reproduzida em várias outras empresas", então isso a gente aproveitava bastante, não só isso como também um cara que é mais técnico, ... e aí: "Quem é um cara fera aqui?", aí aparece alguém e fala: "Não, manda aí e deixa eu te mostrar quais são as cores do momento". Então realmente essa troca existe.

xxv A gente levar em consideração cada lugar que nós passamos, que é bem legal considerar assim. A gente foi primeiro para um lugar que era Startup Farm que era um celeiro de te impulsionar, de realmente validar o que você construiu faz sentido, te colocar a prova, de falar: "Cara, você tem certeza que essas são as personas? Você tem certeza que esse é o melhor jeito de entregar o produto? Essa é a melhor estratégia de venda e tal?", então ali você se sente no ambiente seguro para realmente estimular a informação. Quando você vai para um lado como Darwin, que tem acionistas corporativos muito parrudos você também fala: "Pô, daqui quanto mais eu demonstrar o que eu estou criando e eu estou vendo que eu tenho feat com esses acionistas, pode sair uma parceria interessante. Então eu vou abrir cada vez mais o que eu estou fazendo". Agora quando você vai para uma proposta do governo aí talvez você segura um pouco a mãe do que realmente você vai passar para lá, porque tem muito aventureiro, então em um ambiente assim você fala o que é necessário, óbvio que você quer se destacar, mas você circula um pouco menos de informação.

xxvi A gente vê uma necessidade de pessoas com capacidades, que já tem um conhecimento prévio antes de a gente desenvolver o conhecimento aqui, que nem para nós faz total sentido ter um cara de produtos senão a operação não para dar pé, então eu trouxe esse background para cá, se eu não conhecesse nada de câmbio não tem o que fazer ... E eu tenho que colocar um ponto também que é que porque eu conheço que eu não vou melhorar, pelo

contrário, eu também continuo evoluindo e buscando conhecimento para melhorar a empresa também ...Vamos pegar um cara mais experiente e a gente não capacita ele aqui dentro.

xxvii Eu acredito que quando você está naquela etapa inicial participando dos programas de aceleração, participando dos eventos, fazendo networking, querendo entender o mercado, isso é mais aberto, a partir do momento que você entra no seu escritório, você começa a focar, focar no seu faturamento, focar na sua equipe, no desenvolvimento do seu negócio naturalmente você acaba compartilhando informações com quem busca informações da sua empresa, com quem busca uma parceria ou seja estratégica para a sua empresa, você não saí por aí no mercado abrindo isso daí.

xxviii hoje a competição ela está presente, mas tem um respeito entre os líderes e as equipes, eu acho que isso é o mais legal e a gente nunca teve nenhum problema, a gente saber onde está o vizinho e o vizinho sabe onde nós estamos também.

xxix a gente acompanha quais são os passos que os concorrentes estão fazendo e quais são os passos que os próprios bancos e as corretoras estão fazendo no nosso segmento e a gente busca sempre estar um passo à frente.

xxx A nossa cultura para inovação é nesse sentido, nós somos bem executores, muito mais do que só entender o que os outros estão fazendo a gente busca, nós, muitas vezes, somos o que criamos na frente dos outros. Isso é legal falar também.

xxxi Eu ousaria falar que o que dificulta as vezes é a cultura das pessoas que saem de um mercado convencional, porque elas... já está acostumado naquele jeito.

xxxii Padrão e para você tirar a cultura, libertar esse profissional para ser mais disruptiva é um processo. Então eu acho que... Tem razão, eu acho que isso daí é uma das dificuldades que eu enxergo, o próprio mercado tradicional e a forma de eles trabalharem e a cultura que a gente extrai desse mercado.

xxxiii a gente trabalha na ineficiência do governo, então se o governo fosse mais eficiente talvez não teria espaço para uma empresa como a minha.

xxxiv é mais você pensar um pouco e pegar coisas que eram feitas de certas maneiras e tentar melhora-las para um bem maior, não necessariamente um bem social, mas um bem de alguma pessoa, então gerar mais valor para aquela pessoa gerando um processo, um produto, ou criar algo efetivamente novo.

xxxv a gente fala assim: poxa, não parece nada demais, mas é uma inovação justamente porque o cara pegou aquilo que não parecia nada demais e melhorou e conseguiu, fazer lucro em cima daquilo.

xxxvi a gente pega um produto que é bem arcaico, bem antiquado que é obrigatório e tenta proporcionar as informações que hoje, elas existem digitalizadas, mas espalhadas em vários lugares na internet e consolida isso tudo em um lugar só, disponibilizar para o nosso cliente, então não é nada descritivo, mas a gente consegue ajudar o nosso cliente a poupar tempo e esforço para conseguir as informações de um precatório específico, fazer uma tese de investimentos específico.

xxxvii A gente acabou vendo ao longo de um ano, um ano e meio que o mercado não necessitava de um marketplace para isso, porque faltava muitos dados, então foi aí que a gente virou chave e falou: ah, já que falta dados porque a gente vai ser essa empresa que fornece os dados para o mercado.

xxxviii A gente conversa com pessoas mais experientes que já passaram por caminhos semelhantes ou que tem tipos de clientes semelhantes, então a gente vai coletando ideias e acabando formando a própria ideia, então eu diria que seria um misto de tudo, mas que a decisão, entre aspas, final, é sempre do empreendedor, ele pesa o que ele ouve, cara isso faz sentido, isso não faz sentido e formula o próprio conceito de como ele poderia melhorar algo ou algum produto, algum processo.

xxxix A gente fala que não tem problema você falar de uma ideia com uma pessoa, porque o que faz uma empresa ser sucesso não é uma ideia é execução dela, então você compartilhar ideias não tem problema nenhum.

xl Se você compartilha uma ideia e a pessoa fez efetivamente, é porque ela teve um poder de execução melhor do que o seu, não porque ela não tinha essa ideia. Ideias boas, você pode caminhar cinco minutos e ter várias ideias boas, mas enquanto você não colocar nada na prática.

xli A gente tenta fazer pequenos protótipos para que a gente converse com o cliente mas a partir do momento que você tem o produto pronto, ah mas não é bem isso que eu esperava, então a gente faz com um pouco de esforço para fazer mais rápido e validar isso com ele, ao invés de ficar meses tentando desenvolver um produto que quando a gente acaba.

xlii Eu tenho que ouvir eles porque o mercado de precatórios ele é muito limitado, eu não consigo ter um número gigante de cliente, tipo, hoje é na casa de uma centena, então como eu tenho essa limitação eu tenho que ouvir muito mais o meu cliente para poder fazer quase que em conjunto.

xliii Então como o produto é especializado não adianta eu querer colocar tudo o que acha que sabe, até porque a gente não tem tanta experiência assim, eu sou o mais velho da empresa, tenho 31 anos, então é só colocar o que acha que vai ser o melhor para o cliente, é uma parceria então.

xliv A gente vê o que que seria o core business da empresa, então aquilo que a gente acha ou espera que seja, na qual a empresa vai se formar em cima a gente tenta internalizar, algo que não seja tão prioritário nesse sentido, ou que a gente não tenha a expertise necessária para isso, a gente tenta internalizar ou então contratar uma pessoa nova para evitar esse débito de conhecimento que a gente teria.

xlv Então a gente tenta fazer o que pode em casa, e no caso dos precatórios qualquer coisa relativa a coleta desses precatórios eu tenho que deixar dentro de casa, porque hoje esse é o nosso core business, então não tem como externalizar isso porque se eu vou depender de outra pessoa, eu acabo sendo só um intermediário do meu cliente.

xlvi Tem gente que pede para a gente fazer chegar com o precatório pronto e eu teria que fazer a ligação para achar o dono desse precatório, cara isso não é o nosso core, então fica mais fácil eu passar isso para um call center da vida.

xlvii Então para o que eu considero inovação que é melhorias pequenas hoje é mais fácil se fazer isso porque se tem mais informações, consegue perceber mais fácil as coisas.

xlviii Você pode a partir da percepção que você teve no mercado, seja por uma experiência sua, cara isso daqui pode melhorar, isso você consegue ou internalizar pessoas ou adquirir tipos de conhecimento em conversa.

xlix Desde de coisas simples como ter um rastreamento de palavras chave para a gente ver principalmente no mercado de precatórios.

l Os nossos desenvolvedores eles tentam sem precisar construir a arte da tecnologia, então tenta se atualizar, então a gente incentiva eles fazerem cursos.

li Então é um apanhado de coisas, desde a informação mais trivial que você vê, a internet, a conversas com pessoas você nunca é a pessoa que mais sabe do assunto, sempre vai ter essa pessoa que sabe mais.

lii Produto que a gente tem ele não tem muitas pessoas fazendo algo tão similar, tão nichado quanto, tem algumas empresas fazendo mais no sentido de processos judiciais amplo do que precatórios, o que facilita de atender mais fácil a expectativa do cliente, mas a gente sabe que o nosso produto não é nada de reinventar a roda e que a qualquer momento pode vir um competidor e tentar tomar o nosso espaço, esse é um dos motivos da gente já pensa em produtos novos enquanto a gente tem a vaca leiteira.

liii A gente tinha uma ideia de fazer um produto único que atendesse todas as necessidades e a gente viu: não é melhor separar em vários módulos, eu consigo monetizar de maneira mais fácil porque cada, ah não, não precisa disso eu não vou pagar pra ter isso tudo, entendeu?

liv Flexibilidade, aprender com os erros, não ter vergonha de levantar a mão e pedir ajuda, colaborar, o que mais, confiança até porque se você não tiver confiança na pessoa que está executando o código, se ela tiver que fazer cada linha de código, basicamente perguntar para você, você acaba tendo, você acaba podando a pessoa, colocando uma viseira nela, então dar essa liberdade maior que a gente chama de liberdade com responsabilidade, que é um dos nossos valores.

lv A gente não pode tentar inovar demais, fazer coisas muitos mirabolantes porque a gente está em um mercado extremamente conservador, então é mais fácil eu tentar conquistar o cliente fazendo o básico, do que tentar florear demais as coisas.

lvi A gente tem clientes que falam: cara, não tem como exportar isso para uma planilha de Excel, cara isso daqui é melhor do que o Excel, entendeu? É esse tipo de coisa, então o cara está tão enraizado, ele é tão... e são pessoas relativamente novas de idade, mas que estão em um ambiente tão conservador.

lvii Qualquer pessoa que você conhece tem uma ideia, ah vou fazer um aplicativo para isso, nesse sentido, então é muito difícil de ter desenvolvedores.

lviii Então a gente tem alguma dificuldade para crescer o time, porque uma é a gente gostar da pessoa, achar que ela tem fit com a nossa cultura, com os nossos valores e outra é o cara estar recebendo proposta de três vezes mais do que a gente pode pagar ... mas aqui em São Paulo, eu tenho Amazon, eu tenho Google, eu tenho várias empresas gigantes que a pessoa fala assim: meu sonho é trabalhar nessa empresa.

lix podemos relacionar um indivíduo falsificar um documento para se passar por outra pessoa, com o objetivo de abrir uma conta em um banco, por exemplo. Dentro deste contexto, assegurar a segurança em meios digitais torna-se essencial com apoio de tecnologias mais inovadoras, rápidas e seguras.

lx Se por exemplo, ao tentar abrir uma conta em um banco digital, o cliente se depara com 15 ou 20 passos, ele certamente vai desistir. Nós diminuímos esses passos para 7 ou 8, instigando o cliente a finalizar o processo.

lxi Inovação, na minha concepção, seria um conceito muito próximo do que a gente entende como conceito de startup. Eu acredito que você ter um problema, uma situação, e ela ser resolvida de uma maneira que não foi resolvida ainda, independentemente do tempo que isso vai levar, não importando quais ferramentas você utilizou para resolver esse problema, porque às vezes se tem a ideia de inovação só por meio de tecnologia, e eu acredito que não.

lxii O primeiro motivo é que nós queremos resolver um problema que ainda não foi resolvido. E a forma que a gente quer resolver esse problema … a gente tem um pilar, e esse pilar é o pilar da confiança.

lxiii Hoje o nosso propósito é promover relações confiáveis. E quando a gente está falando isso, a gente não está falando de uma empresa que resolve só problemas de identificação.

lxiv Prioritariamente a inovação acaba vindo, a semente vem do externo. É o nosso cliente que é atendido de uma maneira X, ou já é atendido por nós de maneira Y, mas ele diz: "olha, eu gostaria que você resolvesse esse problema para mim, e com base nessa necessidade, a gente levanta uma forma diferente de resolver esse problema". Mas não tão distante numa escala, eu acredito que também a inovação venha de dentro, mas principalmente dos colaboradores, principalmente do nosso time, porque eu acredito que o problema que nós resolvemos no geral, é um problema que também nos atinge enquanto cidadãos e enquanto pessoas. Então o time acaba sendo muito colaborativo em dizer: "olha, poderíamos resolver de uma maneira inovadora esse problema se formos nessa linha".

lxv Fundamental, e eu digo mais, até eu sinalizo que o compartilhamento de ideia com outras firmas do mesmo segmento, até mesmo consideradas concorrentes, ainda assim é muito fundamental, porque a gente está trabalhando com inovação em um mercado que hoje ainda é inexplorado.

lxvi Faz parte desse processo de inovação o compartilhamento não necessariamente do seu core, da sua estratégia principal, mas é mais fácil explorar um mercado que ainda é inexplorado, quando você tem mais de uma empresa que pode ser concorrente.

lxvii Então a gente incentiva muito o compartilhamento da informação, entendendo que o ecossistema fica mais fácil cortar o mato quando tem alguém cortando o mato junto contigo.

lxviii Acho que o espírito, ele está muito propício à colaboração, não só na nossa indústria, não só no nosso segmento, mas a população está tendo um apetite maior em colaborar … Ainda vejo uma dificuldade mais intrínseca ao ser humano, que é a questão de ego e vaidade, mas eu acredito que aos poucos isso tem diminuído. Dentro da equipe eu acredito que é muito papel dos gestores e dos fundadores da startup ou da empresa disseminarem qual é o planejamento estratégico, e incentivarem que a colaboração faz com que o interesse do time seja maior do que o interesse pessoal.

lxix Hoje a gente pensa mais num viés estratégico, entendendo que o compartilhamento das nossas arquiteturas, das nossas formas de estruturar, que não é o core, ele vai trazer uma imagem para a nossa empresa.

lxx É uma empresa que colabora para o ecossistema.

lxxi Então eu acredito que se a melhor startup é aquela que mais colabora com o ecossistema, o ecossistema vai ver aquela startup de uma forma diferente. Os melhores profissionais tendem a trabalhar nas melhores empresas, e as melhores empresas se formam dos melhores profissionais, e por que eles vão para lá.

lxxii Tanto que no nosso planejamento estratégico, um dos indicadores que nós temos, é o conhecimento, quantos meet ups, palestras, que os nossos colaboradores fazem. Então a gente mede aqui o quanto, a gente incentiva o compartilhamento do conhecimento, e mede se nosso time, se a nossa empresa, está fazendo isso de fato, porque a gente entende que esse é um dos pilares do nosso crescimento, que é conhecimento, inovação, e o próprio crescimento, porque uma startup precisa crescer.

lxxiii O que a gente desenvolve internamente, é o que a gente acredita que realmente, ou tem um impacto muito positivo na questão financeira, ou seja, faz sentido eu desenvolver em casa, e também porque não tem no mercado. Mas a chave principal, eu desenvolvo em casa, eu consumo no mercado.

lxxiv O preço, o custo benefício de plataformas como a da Microsoft, como da Google, que já viraram commodities, é tão baixo, e a qualidade é tão alta, que ela faz parte do nosso processo como solução, mas ela não é decisiva no meu core. Então a inteligência está antes e depois.

lxxv Hoje, o que mais poderia nos afetar são questões regulatórias. Mas a gente acredita que elas também possam ser o empurrão da oportunidade. Então já fiz uma resposta de ambos os lados, mas por quê? A gente acredita que privacidade, segurança da informação, principalmente esses dois pontos, eles precisam ser levados em consideração em qualquer processo de inovação. Antigamente, poderia se pensar, antigamente não tão antigamente, mas antigamente podia se pensar que eles poderiam ser obstáculos ou até mesmo impeditivos, e a gente está vendo que não. Eu acredito que deve existir o cuidado, mas ele não vai ser esse cuidado que vai impedir que você progrida ou resolva um problema que é da sociedade.

lxxvi Sim, a gente fez um trabalho bem interessante de planejamento estratégico, na primeira rodada, para uma startup isso é fundamental. Mas é exatamente isso que nos serve de guia, além dos processos de mentoria que nós fazemos, a empresa como um todo, os profissionais como um todo. O processo de aceleração nos ajudou muito com isso. Os nossos investidores também trazem esse know how, e essa contribuição.

lxxvii Dentro dos nossos pilares, que são quatro. A gente chama inteligência e inovação, é um pilar, a gente não descolou os dois. Conhecimento é outro pilar, crescimento é um pilar, e pessoas é o quatro pilar. Não necessariamente na ordem de prioridade.

lxxviii A gente parte de um princípio que não existe nada mais importante do que a realização das pessoas, então a gente conseguir dar a possibilidade de que a pessoa se realize faz com que ela trabalhe com mais criatividade ou ela esteja mais disposta a qualquer coisa, inclusive colaboração.

lxxix Então o que a gente prioriza dentro da empresa é que a gente consiga dar um ambiente em que as pessoas se realizem, pessoalmente ou profissionalmente, para que elas se sintam mais à vontade de colaborar com o todo.

lxxx Dificuldades eu vejo, mas hoje ela ainda não foi, eu acredito que vai existir isso nos próximos degraus que a gente for subir quando a gente precisar de escala.

lxxxi Eu acredito que os nossos desafios com talentos virão nas próximas etapas, quando a gente precisar dar o próximo boom de crescimento.

lxxxii Nós éramos em três até julho, hoje somos 14. Nesse processo, a gente contratou muito bem, como a gente estava de talentos antes. E a gente sentiu a necessidade de ter uma profissionalização no planejamento de estratégia, na criação desse planejamento estratégico. E embora entre os fundadores existisse algumas verdades absolutas, vamos dizer assim, acho que a grande sacada foi que a gente teve a humildade, ou condicionamos nosso ego a ter uma humildade não só intelectual, mas de ego, de vaidade, para que as pessoas que chegassem pudessem ter o seu espaço, e até mesmo uma dessas pessoas pudesse até ser o condutor, o mediador da construção desse planejamento estratégico, por competência, por já ter feito isso, mas também por aquela posição mais neutra.

lxxxiii Nós fizemos primariamente com os founders, e depois a gente levou para a equipe, para que a gente conseguisse deixar mais elaborado esses drivers, esses valores, esses pilares.

lxxxiv Especificamente, da empresa em que a gente trabalha, inovação é um jeito diferente de fazer, não necessariamente fazer uma coisa que não existia, uma tecnologia nova, mas na nossa cabeça é um jeito diferente de fazer que ninguém observou ou que tinha gaps e aí você passa a fazer de uma forma diferente, e isso, quando o cliente se apercebe, ele pensa que é uma empresa nova. Basicamente, no mercado financeiro não é nem um salto tecnológico, mas sim uma forma diferente de fazer.

lxxxv Primeiro, tem uma questão que na empresa os executivos são executivos com bastante bagagem de mercado financeiro. Esse é um fator. A bagagem é porque sempre trabalhamos em áreas estratégicas. A área estratégica no tocante de pensar as coisas e eu ouvir demandas dos clientes, entender a legislação, porque no mercado financeiro você não pode fazer nada do que está escrito na lei. Ele é bem regulado. Entretanto, quando você conhece produtos financeiros, quando você conhece demandas de clientes, dores de clientes, quando você conhece legislação, você consegue extrair e montar coisas novas para ajudar cliente. Acho que esse é o fator preponderante, o conhecimento que se tem aplicado a coisas que ninguém pensou.

lxxxvi Na verdade, a gente tem uma equipe de vendas e a gente acompanha as vendas. A gente costuma visitar clientes e entender a dor do cliente. Onde dói, o que te incomoda, o que para você faria a sua vida melhor, o que para você deixa o negócio melhor. Então, a gente envolve o cliente sim. Isso é bem comum.

lxxxvii A gente entende nossa firma hoje, se a gente for olhar ela na estrutura, ela é uma empresa de compartilhamento, porque no nosso conceito ninguém faz tudo sozinho, ninguém é bom em tudo. Então, a gente compartilha as coisas. A nossa cabeça é, ao invés de você brigar com o que está imposto no mercado financeiro atual, você se junta a ele e traz coisas novas. Tem coisas que eles não conseguem fazer, os grandes, aí vem os pequenos para ajudar. Esse compartilhamento é muito importante. A gente entende como uma questão importante.

lxxxviii A gente compartilha com empresas parecidas com a nossa, mas que têm produtos diferentes. Então, tem uma empresa que é forte no mercado e cambio. Eu não faço cambio, então, eu pego a solução dela e plugo na minha.

Ela precisa de soluções de pagamento, eu pego a minha solução e plugo na dela. Isso não é um problema. Diferentemente do status quo atual, que o banco quer que tudo, ele quer ter um full banking, e acaba não havendo compartilhamento. Nos menores isso não é um problema, na minha visão. Então, tem uma empresa que opera com investimentos. Eu não opero com investimentos, mas eu posso colocar a solução dela na minha plataforma e colocar as minhas soluções na plataforma dela. Isso existe.

lxxxix A grande maioria das empresas que eu olho e que já tem clientes, que já tem faturamento, o desafio é escalar aquele negócio mesmo, porque aí você tem o time de executivos, que agora não tem mais salário. Ele precisa fazer a sua retirada mensal. Então, está todo mundo correndo para colocar soluções novas, para arrumar mais clientes. A maior dificuldade é tempo para implementar aquela ideia. Tempo e mão de obra para implantar as ideias novas.

xc Hoje a maior dificuldade nossa é recursos humanos. Eu acho que não é só nossa, mas pelo o que a gente conversa de todo mundo. No Brasil, tem um gap muito grande de tecnologia e de recursos de tecnologia.

xci Estão, o tempo todo, olhando mercado. A gente foi trenada a isso, a olhar mercado, analisar cenários. Então, quando sai uma legislação, muita gente acha "Isso aqui veio para atrapalhar". A gente se debruça sobre ela e tenta extrair coisas boas. A gente foi treinada para isso, então, às vezes, o que é ruim para um, a gente acha oportunidades.

xcii É um ambiente extremamente competitivo. Tem um motivo, é porque tem margens altas ainda. Então, se você tem margens altas você tem muita competição. No nosso caso, o fenômeno é esse, é um mercado que tem muita margem. O mercado em que nós atuamos, o mercado de pagamento, até cinco anos atrás era extremamente fechado. Ele começou a se abrir a partir de 2014.

xciii A firma competitiva sempre está entendendo o lado do cliente. A gente entende que vai vir coisas novas, vai vir guerra de preço, vai vir um monte de coisa, mas a gente entende que se mantém nessa guerra, nessa batalha quem está próximo do cliente. Quem atende bem o cliente, quem enxerga a dor que ele tem e tenta resolver essa dor tirando fricção do processo. O segredo para a gente hoje é estar próximo do cliente.

xciv Nós viemos de grandes corporações, dos executivos, e o que a gente faz totalmente eles faziam na forma de meritocracia, na forma de remuneração, na forma de trato com funcionário. A gente procura fazer com que o funcionário se sinta bom nisso aqui, que ele não se sinta um empregado.

xcv Quer trabalhar de casa? A gente tem toda a estrutura para ele trabalhar de casa. Se ele está batendo meta atrás de meta, eu não vou mudar as regras para ele ganhar menos. Muito pelo contrário. Eu vou incentivar ele a bater mais metas. Vou dar instrumentos para ele crescer muito mais.

xcvi Então, todo mês a gente tem um <Firm#5> Talk. A gente chama pessoal de outras empresas para participar de uma palestra, de um evento, e ali sempre a gente está mostrando o que é a <Firm #5>, o que nós fazemos. Isso é uma estratégia para as pessoas de fora nos conhecerem, porque hoje não é mais salário, hoje é propósito.

xcvii Na inovação a gente tem a dificuldade de implementação. Se a gente pegar projetos de coisas novas que um dia a gente queria colocar no ar para os cientes, é muito grande.

xcviii Então, eu acho que essa é uma das maiores dificuldades que tem, de colocar a inovação. O que eu enxergo hoje na <Firm #5> é a dificuldade de você entregar as soluções, a inovação que você enxergou.

xcix A ideia é ótima, mas considerando essas regras, você não vai conseguir implementar. Acho que essa é uma dificuldade também, não só no nosso caso, mas que eu enxergo no mercado também.

c A gente tem um blog que é para os clientes e que é para eles. Então, tudo que é coisa que a gente enxerga aqui, é coisa de mercado que para muitos parece uma dificuldade e para a gente é uma oportunidade, a gente coloca no blog bem detalhado, bem estruturado e bem didático. Então, eles leem e a gente conversa, faz reuniões, aí eles se mantêm atualizados.

ci Para mim, inovação é quando tu pega duas ideias ou tecnologias diferentes, e consegue aplicar elas para solucionar um problema, de maneira nova. Eu acho que inovar e criar algo do zero, quase que não existe mais. O mundo já chegou em um nível de tu sempre estar pisando no ombro de gigantes que nos trouxeram até aqui. A inovação, talvez está quando tu percebe uma sinergia entre duas tecnologias, de uma maneira que alguém ainda não percebeu, que tu pode resolver um problema usando aquelas duas tecnologias.

cii Porque desde o nosso modelo de negócio, é um modelo diferente das outras empresas que estão nesse mesmo seguimento, a gente não inventou um modelo de negócio, mas conseguiu olhar para empresas grandes que utilizam esse modelo de negócio de market place, código aberto, no up cor, como eles chamam, no ramo de colaboração e mensagem instantânea. A gente é inovador nesse sentido, de que fomos os primeiros a entrar com esse modelo, no nosso segmento.

ciii Também digo que é uma empresa inovadora, porque ela se estende além do quadro de funcionários da empresa. A gente é 40 pessoas, nem isso, mas são milhares de desenvolvedores que contribuem com a gente, contribuem com o projeto, e eles trazem aplicações para a nossa ferramenta, que a gente não tinha pensado. Tem muita coisa que está no nosso roadmap hoje, ou fichas que foram feitas, que nem passaram pela nossa cabeça, não estava nos nossos planos, daqui a pouco a comunidade veio e disse: seria muito legal se vocês tivessem isso.

civ Pelo fato do código ser aberto, isso abre às vezes mais do que uma sugestão, ela vem já como uma implementação, de alguém, em algum lugar, em um caso de uso de verdade, dizer: eu precisei fazer isso, porque eu preciso fazer tal coisa, está aqui o código de volta para vocês. Isso já aconteceu centenas de vezes.

cv A gente é inovador porque é aberto, tem muito mais desenvolvedor do que os que fazem parte da empresa, e a gente serve como plataforma para as pessoas criarem coisas em cima. Acaba que a gente é até um inabler de inovação de outras empresas, que criam coisas em cima do que a gente já fez.

cvi Sim, é um pouco de tudo, a gente tem pessoas, criam coisas, mas a maior parte é de desenvolvedores espalhados pelo mundo mesmo, que usam a gente para criar outras coisas e nos devolvem código. Claro, tem desenvolvedores dentro da empresa, a gente cria coisas toda hora, mas é simplesmente desproporcional a quantidade de desenvolvedores que tem fora da empresa, com os que tem dentro.

cvii Os maiores colaboradores são os clientes. Porque eles são clientes, eles usam, a maioria das contribuições vem de clientes grandes, a <Client>, na Alemanha, o departamento de defesa americano, a primeira versão do nosso sistema de permissões foi ele que criou e nos mandou o código.

cviii A gente tem bastante universidades aqui no Brasil, a federal de Santa Catarina fez um projeto grande com a gente, logo no início, na parte de ead deles. Nos Estados Unidos, tem algumas universidades grandes que usam também, contribuem de volta, nos ajudam a testar coisas que eles precisam.

cix Tem empresas que a gente sabe que esbarraram em barreiras legais internas, teve uma que a gente sabe que fez várias melhorias e nunca mandou de volta para a gente, é a <firm>. É uma empresa que não tem cultura de contribuir com código, é uma empresa muito mais fechada, a gente chegou a fazer um encontro lá em São Francisco para a comunidade e desenvolvedores, veio dois ou três engenheiros da equipe do <product>, para dizer: agradecer, a gente usa <RC>, em todos os desenvolvedores do <product>, contribuem, trocam ideias através dos temas de vocês, a gente tem três escritórios separados, a gente fez algumas melhorias, mas os advogados da <firm> não permitem entregar. Não é nem questão monetária, quando esbarra, porque a <firm>, mas eles tem medo de que, se o funcionário tiver usado alguma biblioteca, alguma coisa fechada da <firm>, um pedaço de código e ele vá publicar isso, que eles percam a propriedade intelectual de mais pedaços do que eles tem. O advogado, em vez dele perder tempo, pensar e ver o que é, é mais fácil eles dizerem não e cortar.

cx A história é bem mais antiga. A minha primeira experiência com código aberto, foi quando eu estava na faculdade ainda, bem no início, eu tinha uma empresa de desenvolvimento, e eu criei um projeto de um editor de textos, para poder editar html no browser. Não tinha muitos. Tinha um ou outro que era bom, eu criei um, publiquei, não existia github na época, era o sourceforge. Teve centenas de milhares de downloads, foi traduzido para 30 idiomas, isso era o início da internet, então esses números eram proporcionalmente muito maiores, centenas de milhares era milhões. Começaram a melhorar o produto que eu tinha feito. Uma empresa formada por alunos que começaram a graduação, e agora ainda tem um pessoal lá do Vale do Cilício vindo nos contratar para projeto, quanto eu ia ter que gastar em marketing para chegar nesse pessoal um dia e tentar entrar no radar deles, publicar o projeto? Isso foi lá em 98, deixou uma sementinha.

cxi E quase 20 anos depois a gente criou esse projeto. O RC não tinha nome ainda, ele era um módulo de chat, e ele fazia parte de um outro sistema de gestão. Aí a gente pensou: se a parte de chat for ficar cada vez melhor e a comunidade ajudar, melhor. E quem sabe ele vai nos levar à exposição que o editor levou aquela vez, vai chamar atenção e daqui a pouco mais gente vai querer entender o que a gente faz. Aconteceu exatamente isso, a gente publicou e daqui a pouco veio uma enxurrada de gente olhando o que a gente está fazendo, participando, querendo investir na empresa e nos contratar para fazer projeto. Eu tinha tido essa experiência que foi muito positiva e agora foi mil vezes mais positiva ainda com o RC, eu vi o poder do open source de você abrir portas, os clientes e a comunidade percebem o projeto de uma maneira diferente, é um pouco de tudo.

cxii Ela passou a existir no momento que abriu o código, porque chamou a atenção de tanta gente. Os investidores olharam e se impressionaram pelo código aberto e pela penetração na comunidade. Para nós ela é muito mais lucrativa e o maior desafio às vezes do código aberto, as pessoas não percebem, é que elas sentem que elas estão gerando valor e às vezes não estão capturando tanto valor de volta.

cxiii Se o código fosse fechado, poderia capturar 100 por cento do valor, mas tu iria ter uma fração de nada.

cxiv Mais atraente, isso é uma certeza. É um desafio para nós porque, como tudo, tem os pros e contras. O pró é que, realmente, torna mais atrativo, porque os funcionários sentem: eu vou contribuir para esse código.

cxv Para o colaborador é atraente porque, apesar da propriedade intelectual não ser dele, está atrelado ao nome dele os resultados do que ele faz, ele é conhecido na comunidade do projeto, respeitado. Muitas vezes, em uma empresa de código fechado, quem é o engenheiro que foi responsável por tal coisa? Os clientes não sabem dizer quem foi que criou.

cxvi Até hoje tem sido muito boa, a gente nunca perdeu ninguém por alguma empresa chegar e querer levar. Primeiro que a gente paga bem, tem uma política de participação.

cxvii Hoje tem essa compensação: é muito mais competitivo, porque startup virou uma palavra que está quase perdendo o sentido, qualquer empresa nova chama startup, está quase que se esvaindo de significado a palavra. A competição é muito grande, virou meio moda, por outro lado, a quantidade de serviços e informações que auxiliam em uma startup, para uma pessoa tirar uma ideia do papel, antes tinha que ter um datacenter, contratar contadores, instalar servidores, hoje tu vai na amazon, ganha já crédito para começar de graça, qualquer ideia, tu consegue às vezes começar um negócio sem gastar. Ele deve ter gasto milhares de dólares para criar, para chegar no mercado, hoje em dia tu consegue chegar no mercado com custo zero. Tem a informação disponível para aprender, produzir, chegar no teu cliente com mvp, sem gastar nada, antes não existia nada disso. Muito mais competição, mas também muito menos barreira de entrada.

cxviii Hoje em dia tu tem uma plataforma para criar as ideias, onde o diferencial está muito mais nas ideias. O jogo mudou.

cxix Primeiramente é mantendo na empresa as melhores cabeças que a gente encontra, motivadas com o propósito da empresa, tendo uma visão do que a gente quer fazer.

cxx Uma visão que envolve a comunidade, a comunidade tem que participar e, às vezes, muita gente que pensa em virar nosso competidor, olha o que a gente está fazendo e decide ser colaborador, a gente criou um market place que permite que essas pessoas, em vez delas começarem do zero.

cxxi Tu acaba criando um ecossistema economicamente saudável, onde pessoas que talvez tivessem ideias diferentes para o nosso futuro de funcionalidades, em vez delas terem que começar do zero para competir com a gente, cria tua funcionalidade, bota no market place e vamos colaborar. A gente cria um sistema forte.

cxxii O que a gente tem que fazer é criar uma comunidade grande o suficiente, um número de pessoas colaboradoras suficiente, para que isso sim vire imbatível, mais do que a empresa sozinha. Open source tem esse poder e o desafio sempre é: criar uma comunidade grande, que ela tenha o peso da comunidade. Isso é teu diferencial competitivo, mais do que qualquer outra coisa. Quem vai começar um projeto, competir com nós, é uma coisa, competir com a comunidade é outra.

cxxiii Tem às vezes características até minhas, porque dizem que hábitos do fundador acabam sendo herdados pela empresa. Tem uma coisa que eu vejo que a empresa adotou, que é ser muito aberto e receptivo a todos os tipos de opiniões, até com críticas.

cxxiv Mas a gente não precisa ser tão restritivo na maneira como o cara decidiu fazer, desde que funcione. A gente está dando mais liberdade para a comunidade criar adicionais, sem impactar todo mundo, vai impactar quem quiser usar aquele adicional. Isso vai desafogar esse gargalo de contribuição. Mas a preocupação em valorizar o que as outras pessoas fazem, sempre foi um valor forte que veio de mim, no início com meus programadores eu brigava, porque eles diziam: cara, você não aceita nada. Eu posso ficar enchendo o saco do cara, até o que ele fez chegar em um nível de qualidade, mas eu não vou dizer para ele: não vou aceitar. Transforma em uma série, bota aqui o modo, quem quiser usa, até o fim. Se ele quiser desistir no processo, problema é dele. Se frustrou, viu que é muito difícil. Isso acabou incorporando na empresa, todo mundo tenta ser bem receptivo e ajudar as pessoas a programar, virou uma comunidade bem receptiva onde todo mundo acaba impondo isso e tem essa expectativa das outras pessoas.

cxxv A gente crescendo, a empresa foi passando por momentos onde começa a se sentir desintegrada, porque começa a ter mais gente do que estava acostumada. Quatro pessoas trabalhar integrado na mesma sala, todo mundo sabe o que todo mundo está fazendo e quando tu passa para 40, começa a ser distribuído pelo mundo, a gente está em sete países, começa a ficar mais complicado. Nossa sorte é que nossa ferramenta é de chat, de integração de times.

cxxvi Mas fora isso, é questão de processos, a gente começou a trabalhar com processos, começou a crescer, começou a criar itens baseado no Google, que eles faziam nas Black Fridays, que todo mundo fala. Tem uma hora sem uma pauta exata, mas uma lista do que querem discutir, todo mundo pode perguntar qualquer coisa para todo mundo e se alinhar, uma newsletter semanal, onde o líder de cada time bota o resumo do que ele acha que os alunos devem saber que o time dele fez, a gente tem algumas ferramentas que começou a fazer, mas o mais importante é nossa própria ferramenta.

cxxvii Normalmente a gente abre uma vaga, muita gente se aplica, tem sempre gente muito boa que não está procurando emprego, porém às vezes tem que ir atrás, a gente vai do lado da pessoa, às vezes elas acham legal o projeto, gostam do que estamos fazendo, tem vários pontos positivos e se torna mais fácil atrair talentos. Mas é sempre algo que a gente está tentando melhorar e fazer mais. Não tem uma dificuldade para atrair talentos, mas eu não estou satisfeito.

cxxviii A gente acaba participando de vários eventos de desenvolvimento, às vezes como expositores, onde a gente vê o que está acontecendo, então acaba sendo muito presente com a comunidade, às vezes a gente faz cursos específicos, quando precisa aprender alguma coisa de tecnologia.

cxxix A comunidade traz tecnologias que querem usar, integrações, acaba forçando a gente a estudar essa parte do processo de incorporar aquilo.

cxxx Nos força a estudar, a inovação externa, para a gente poder analisar, a gente acaba tendo que aprender sobre aquilo, tem esse motivador em sempre estar aprendendo coisas novas porque a inovação vem de fora, às vezes não vem de dentro.

cxxxi Estratégia de rumo da empresa, as hipóteses às vezes saem das minhas conversas com os outros founders e o fundo, porque o fundo tinha bastante knowhow em projeto de open source, aí a gente vai tentando aplicar no nosso mundo, vendo o que não funciona, o que a comunidade é receptiva ou não. A maioria das estratégias de negócio saíram das conversas com fundadores das outras empresas similares, de modelos de negócio variados.

cxxxii Não é algo de muita discussão, eles dão ideias, a gente conversa, ou tem alguém que diz: isso aqui, tal pessoa já passou por isso. Eles nos botam em contato com o portfólio da empresa que já passou por isso, a gente conversa, é uma coisa bem simples, não tem muita burocracia. A gente vê se funciona ou não e continua.

cxxxiii Eu não enxergo inovação como aquela coisa mirabolante e que tem que ser altamente disruptiva. Eu enxergo inovação como algo que você de alguma forma simplifique algo já existente, não necessariamente cria algo do zero, mas transforme algo em algo mais aplicável. Então, inovação para mim é fazer com que as coisas se tornem acessíveis ao público geral.

cxxxiv Porque é uma busca constante por simplificar, tanto processos. Porque inovação não necessariamente, para mim, tem que ficar criando produtos e tal, às vezes é simplesmente melhorar uma coisa já existente, um pequeno processo, a forma de o cliente interagir e tal. Então a gente está em busca constante de inovar, através dessa simplificação.

cxxxv A gente usa o próprio conceito de trabalhar com squads e montando grupos de projetos para que a gente tenha comunicações constantes e trace os objetivos macros, e ali todo mundo que está participando tem que fazer proposições de como funcionar, aí além de ter líderes que são responsáveis por realmente buscar a melhor maneira de ser executado, ele fica um tempo constante trazendo as pessoas para perto para fazer aquilo que elas acham, se aquilo poderia ser feito de melhor maneira. Como a gente ainda é uma startup, a gente tem poucos recursos, então a gente está em constante busca de como a gente pode fazer aquilo de maneira mais simples, porque eu preciso fazer isso otimizado para que não fique gastando a rodo, não é?

cxxxvi Para mim não há como você construir uma inovação dentro de uma garagem, como era no passado. Hoje, não é? No passado, qualquer coisa que você criasse, como ainda tinha pouca estrutura, qualquer coisa já era muito disruptiva. Hoje, qualquer coisa que você pense, já existe. Então, para você fazer uma coisa um pouco mais robusta, que gere mais valor para a sociedade, você tem que se comunicar entre todos

cxxxvii Eles são o fator primordial. O cliente em si ele é um pouco mais complexo de envolver, no meu ponto de vista. Porque normalmente o cliente está tão fechado da dor dele, que ele está com pouco tempo ou pouco disposto a contribuir para resolver o próprio problema que ele tem. Normalmente porque a maioria das pessoas não enxergam que tem solução para todos os problemas. Então, é mais fácil às vezes você trazer 3 ou 4 pessoas externas que tem papéis diferentes dentro da indústria ou dentro do ecossistema e essas pessoas pensarem em proposições e convidar o cliente para dar opinião sobre essas proposições do que propriamente pedir para ele dar ideia.

cxxxviii Onde eu vivo hoje, que é uma startup, a gente nem consegue ter tudo dentro de casa. Então você acaba tendo que envolver muitas pessoas, que às vezes são desde terceiros, ou possíveis parceiros estratégicos, clientes. Você tem que meio que envolver todo mundo e ficar fazendo com que essas construções aconteçam e você vira mais um conceito de teia ou de rede neural, sei lá como daria para chamar isso. Você sabe que alguém detém parte do seu conhecimento e esse alguém não é teu. Às vezes não é nem teu colaborador ou nem tem vínculo contigo. E você depende daquilo, então é uma amarração um pouquinho mais complexa.

cxxxix E você tem que aprender a lidar, você tem funcionários altamente estratégicos que moram no Suriname e o cara quer morar lá porque ele quer viver mais próximo a uma cultura diversa. E é um dos caras que mais produz para nós.

cxl Hoje eu não consigo mais ter centralizado. O cara de produto, que é o cara que me ajuda a fazer a definição da estrutura do core do negócio, ele trabalha de casa, ele não gosta de vir trabalhar na empresa. Os desenvolvedores, é um em cada canto. Porque assim, é uma questão de opção. Eu posso ter medianos, às vezes eu consigo enquadrar o cara dentro de uma, mas quando eu falo que quero os melhores, eu tenho que abrir mão de algumas coisas. Normalmente abrir mão daquilo que mais importa para eles, que hoje em dia está sendo a questão da liberdade de local, de horário de trabalho e tal.

cxli Tem cara que quer trabalhar de madrugada e eu não pago a hora adicional porque ele está trabalhando de madrugada, mas ele quer aquilo e como eu vou chegar na legislação e dizer "cara, meu funcionário não quer trabalhar para mim, cara".

cxlii Numa estrutura com hierarquias, você tem o respeito de qual opinião que vale mais, independente se ela é certa ou mais inovadora e você acaba matando muita oportunidade.

cxliii Você às vezes tem uma ideia que muda todo o negócio... Ela foi e ela encontrou o problema que estavam diretores envolvidos, sócios envolvidos, tudo mundo e ninguém tinha visto. E ela simplesmente por parar e olhar ela achou um problema. Numa estrutura hierárquica, a opinião dela não seria nem ouvida. Na nossa estrutura, a opinião dela foi assumida como correta e executada na mesma hora.

cxliv E uma das grandes preocupações é não burocratizar e não engessar a empresa a tal ponto de ela deixar de ser inovadora. E assim, cara, as pessoas têm que ter voz. Se elas não puderem falar ou se sentirem podadas, eu acho que a inovação acaba, porque a inovação surge de ideias que não necessariamente parecem lógicas.

cxlv Tenho pessoas produzindo na Alemanha hoje, Minas Gerais, tenho uma unidade física em Floripa, outra unidade física em Curitiba. E cada um desses lugares tenho. E todo mundo fala que a questão de comunicação é o principal problema. Para mim não é o pior problema a comunicação, porque as pessoas, de maneira geral, elas sabem se comunicar, elas sabem dizer o que elas querem ou não e tal.

cxlvi Eu acho que está muito relacionado a comprometimento, porque quando você consegue fazer com que as pessoas tenham um tesão por aquilo que elas estão fazendo e elas queiram aquilo resolvido, elas vão gritar, elas vão falar, elas vão se comunicar e a coisa vai começar a se encaixar.

cxlvii No nosso caso, os sócios são pessoas de mercado e já vieram de uma empresa, então há um conhecimento um pouco acima do padrão de startup sobre o mercado, que já dá uma facilitada para a nossa vida.

cxlviii Então a gente não precisa também ouvir o mercado como um todo, porque o mercado, o nosso mercado em específico, ele não sofre alterações diárias.

cxlix Eu tenho que estar mais preocupado com movimentações de soluções paliativas que resolvam meus problemas e bastante atualizado sobre as questões legais básicas financeiras.

cl Nós estamos inseridos em papéis de empresas de 100 anos, altamente tradicionais, aonde se, e é o que a gente está fazendo, você consegue ter um alinhamento com elas e não se mostrar como um organismo ofensor e você se mostrar um organismo que vai somar para a estratégia dos próximos 100 anos dela, você passa a não ter um competidor buscando digladiar e sim trabalhar de mãos dadas.

cli Estão fazendo tudo isso muito alavancado e que toda vez que você toma decisões de inovação altamente alavancadas em dinheiro, você faz apostas muito abruptas de por que caminho que vai e elas dando certo, ótimo, elas dando errado, você queima o mercado como um todo. Então isso aqui é a coisa que a gente mais cuida: como essas fintechs de diversos ramos, elas estão se comportando, porque às vezes elas podem ferir um modelo de negócio nosso, não para criar uma solução, mas para simplesmente preservar uma coisa delas.

clii Então, eu ainda não consegui trazer, aceitar muito bem o cara que desde muito novo já focou em startup e querer empreender sem ter vivenciado o mercado.

cliii Então muitas pessoas que estão conosco são pessoas de mercado com uma mente aberta. Então são pessoas que já vivenciaram o processo tradicional, o processo reto, empresas que já se mantinham e acharam que aquilo não era o suficiente estão vendo conosco, vendo no <Firm #7> uma alternativa para fazer algo melhor, mas não necessariamente algo simplesmente baseado por ser certo ou por ser público. Normalmente, o propósito de construir uma empresa.

cliv Hoje o mais difícil, no meu ponto de vista, de encontrar pessoas que sejam multitask, multitarefas, pessoas que consigam se identificar em mais de um papel. Então você acaba, quando você tem o empreendedor puro, que o cara startapeiro ele já acha que faz 20 tarefas ao mesmo tempo, só que esse cara não sabe fazer nenhuma com excelência ou pode saber, alguns sabem, mas na média, não sabe. E aí você tem um cara que tenta fazer tudo, mas acaba não dando nenhum resultado. Ao mesmo tempo, quando você pega esses caras de mercado, que é a nossa

estratégia, eles normalmente sabem fazer 1 com muita excelência, mas ele acaba não sabendo se comportar em várias ao mesmo tempo, e aí eles se desfocam, se dispersam quando eles começam a receber 3 ou 4 chapéus.

[clv] Hoje, a diferença é que todo mundo tem acesso, qualquer um tem acesso a quase tudo. Aí hoje eu acho que a maior questão é inovar tecnicamente falando, é possível para qualquer um. Qualquer um tem esse acesso. Agora a gente tem um outro tipo, como você faz ecossistemas aceitarem a atua inovação, porque hoje tem tanta coisa ao mesmo tempo, que você precisa conectar. Hoje você não consegue m ais fazer uma inovação avulsa. Você não consegue lançar, sei lá, vai lançar um aplicativo que queira funcionar sozinho.

[clvi] A principal dificuldade, agora falando de <Firm #7>, especificamente, foi encontrar a proposta de valor correta para que o ecossistema que a gente precisava se conectar, nos aceitasse.

[clvii] Então, não foi uma questão tecnológica, foi uma questão quase política. Porque você precisa fazer eles aceitarem pequenas mudanças de médio, longo prazo, que vão afetar o negócio deles e eles precisam entender como isso é gerido.

[clviii] E segundo, o consumidor, usuário, a pessoa física mesmo, como eu disse antes, elas tão quase mal acostumadas, porque tem um monte de fintechs, uma monte de tudo que é tech, lançando soluções que se propõe ser disruptivas, porém talvez da forma errada e gerando uma proposta de valor fraca e comprando esse usuário através de dinheiro e de benefícios que não são, não estão relacionados à proposta de valor.

[clix] Então essa é uma das barreiras, porque se você não tem um caixa infinito, você não pode sair comprando usuário e, sem contar que esse usuário não vai se manter se ele não entende a sua proposta de valor.

[clx] Então, isso, para mim hoje é o principal ponto, porque não necessariamente eu preciso inovar tanto, às vezes é mais barato eu comprar o cara e isso não para em pé. De médio prazo, isso quebra a empresa.

[clxi] Para mim, inovar é quando você sai da caixinha e quando você não tem algumas amarras sociais, até de trabalho, para seguir algum caminho e você consegue fazer algo que agrega valor para a sociedade.

[clxii] Em meios de pagamento eu acho que tem muita inovação, porque é um mercado que movimenta muito dinheiro. A gente acaba vendo que cada vez mais tem mais concorrência. Então, todo mundo tem que correr atrás de inovação.

[clxiii] Eu acho que vem de alguns lugares diferentes. Eu acho que vem do dia a dia, às vezes, do dia a dia da operação de uma empresa. Conversando com o cliente ou vivendo, vendo gaps que você consegue melhorar.

[clxiv] Pode acabar vindo inovações de estudos acadêmicos. Eu acho que são inovações um pouco diferentes. Eu acho que também de evento.

[clxv] É a mesma coisa que networking no próprio Brasil. É participar do ecossistema.

[clxvi] Acho que tem muito dessa interconexão entre as pessoas. Eu acho que é muito importante. Também tem essa parte teórica, que é de mais estudo, e a parte um pouco mais do dia a dia.

[clxvii] É um mercado muito rápido e muito concorrido. A inovação, às vezes, o tempo de ela ser uma inovação é um tempo menor do que outros ramos, como ramo da saúde. É muito rápido. Você tem que estar inovando muito rápido e correndo atrás disso.

[clxviii] Você morre ou vem uma inovação e te derruba ou talvez uma inovação que é igual a sua. Tem muita gente pensando em tudo. Tem muita gente boa no mundo. Cada vez mais tem mais gente boa. Eu acho difícil surgir uma inovação só em um lugar. Eu acho que surge em vários lugares ao mesmo tempo, só é quem consegue implantar melhor aquela inovação que vai conseguir ter sucesso no curto e médio prazo. Eu acho que são microinovações ... São passos.

[clxix] Eu já participei de algumas acelerações que, no final, a grande empresa está pondo dinheiro em uma aceleração, não é para ajudar a startup.

[clxx] De verdade, é para ela estar perto da inovação e ela conseguir pegar essa inovação e trazer para dentro de casa ... No final é isso, é trazer para dentro de casa e tentar se reinventar.

[clxxi] Eu acho que depende um pouco da cultura de cada tipo de empresa e das pessoas também. Se a gente for ver, acho que no Brasil um pouquinho diferente do que outros países lá fora. No Brasil, normalmente, pessoas estão um pouco fora do ecossistema têm medo de compartilhar ideia, porque acham que vai ser roubada a ideia. De verdade, o grande valor não está na ideia, está na implementação da ideia e como você vai implementar aquilo. Se a gente for ver em outros ecossistemas do mundo, todo mundo fala, porque você falando você vai acabar recebendo feedback de muita gente. As pessoas estão ajudando a melhorar a sua ideia, não é que você está sendo roubado, a sua ideia.

clxxii Tem coisas que são públicas, tem coisas que são um pouco mais específicas e tem coisas que são segredo de negócio, que às vezes você acaba percebendo que você tem uma oportunidade de uma coisa que as outras pessoas não estão olhando ainda. Talvez, isso, que é uma coisa muito específica, você não vá compartilhar.

clxxiii Eu acho que a primeira coisa é hierarquia não ser vertical, ser horizontal. Existe uma hierarquia, pode até falar que não, mas existe uma hierarquia. Só existe a fluidez de ideias mais fácil. O seu chefe vai brigar com você igual brigaria em um banco de investimento, entendeu? Ele vai ouvir a sua ideia e vai fazer o contraponto, e vai ver se faz sentido ou não.

clxxiv Outro ponto também acho que importante é que você tem mais liberdade e mais autonomia. E também as pessoas que estão normalmente em startup, que nasceram startup ou que foram levadas para a startup, se autogerenciar e ter autonomia. Eu não tenho um chefe que eu tenho que fazer isso e aquilo. Você sabe o que você tem que fazer, mas, às vezes, você acaba fazendo mais do que aquilo, porque você tem autonomia. Quando você consegue fazer mais do que você tem que fazer e você tem autonomia para criar, você acaba inovando.

clxxv Esse negócio de ter autonomia, talvez, não é todo mundo que consegue ter autonomia.

clxxvi Se você ficar no job description você não vai fazer inovação ... Você está fechado também. Tem que sair do job description.

clxxvii É fazer tudo, porque quando você sai da sua zona de conforto, é muito importante. A zona de conforto não só de trabalho, mas de vida. Eu acho que as pessoas que acabam tendo mais ideias e mais inovação acabam saindo da zona de conforto da vida.

clxxviii Eu acho que não adianta você tentar inovar se você só saindo da sua zona de trabalho. Acho que tem que sair da sua vida.

clxxix Normalmente, depende também do tamanho da startup. Quando mais pessoas, mais confuso ... Startup é uma coisa confusa. Não é uma coisa que está super definida, vai sendo definida.

clxxx Eu acho também algumas cerimônias que a gente pode estar trazendo a metodologia scrum, que você consegue fazer. Segunda-feira tem um planning, você planeja a semana. Toda a sexta-feira você tem o review, que você revê o que aconteceu na semana e vê melhorias para a próxima semana, na retrospectiva. Você tem um daily todo dia, em que a equipe fica quinze minutos em pé conversando o que fez, dúvida que teve, o que vai fazer no outro dia. Muito rápido, para todo mundo saber.

clxxxi Eu acho que, no final, a organização de uma startup é confusa, só tem processos que você consegue deixar mais fluida, mas só sempre vai ser confusa.

clxxxii Startup muda muito e muito rápido. Um trimestre já é muito tempo. Às vezes, você já mudou completamente o seu modelo de negócio em um mês.

clxxxiii Eu acho que as necessidades você vê, ouvindo o cliente.

clxxxiv Não adianta vir alguém empreender em meios de pagamento. Pode vir, só que tem que ter alguém do lado dele que vê quais são as tendências, o que está rolando no mundo. Eu acho que é necessário ter alguém especialista naquela área em questão.

clxxxv Na década em que ele nasceu era muito mais difícil fazer o que a gente faz hoje, porque o ecossistema de startup é muito menor. Eu acho que nos últimos dois ou três anos cresceu muito. O Brasil também estava na recessão, crise de 2007 e 2008. Eu acho que tem um negócio do time. Eu acho que o time é muito importante, o mercado. Acho que também a cultura. Eu acho que era uma cultura muito diferente. E, também, acho que a gente era um pouquinho menos avesso ao risco. Hoje tem muito emprego. Quem está empreendendo, se voltar para o mercado, volta como alguém melhor. Vai ser contratado. Dez anos atrás já era diferente. Se eu tivesse, eu ia estar como trader do mercado financeiro. Provavelmente, uma coisa de que eu já gostei muito. Não ia nem estar explorando a área de tecnologia. Eu também acho que a tecnologia evoluiu muito nos últimos dez anos. A gente viu surgindo as big techs. Dez anos atrás eu acho que as maiores empresas nem eram big techs ainda. Hoje são big techs. Os salários também, acho que isso importa. Os maiores salários não estavam na área de tecnologia, estavam na área bancária.

clxxxvi Eu acho que tem muitas pessoas que eu vejo que estão empreendendo hoje foram criadas não pela faculdade, foram criadas por empresas de tecnologia mesmo.

clxxxvii Porque empreendedorismo não é que você está fazendo uma empresa. Quando você faz uma empresa, você está fazendo dezenas de empresas futuras.

clxxxviii No neon saiu um monte de gente que está empreendendo hoje, mas deve ter umas três ou quatro startups que saíram, até mais. Eu conheço alguns caras que saíram e foram criar startups. Eu acho que isso em todas as

empresas da tecnologia. Existe várias pessoas que eram da Stone para criar. Eu acho que tem esses seleiros. As próprias empresas são onde as pessoas empreendem.

clxxxix O outro ponto é que as pessoas boas já estão bem contratadas.

cxc Muitas empreendendo e algumas acomodadas.

cxci Eu tenho alguns amigos que estão no mercado financeiro. Muitos. Eu acho que são pessoas um pouco mais no conformismo.

cxcii Eu acho que depende muito do que é o seu core, que você faz, mas se a gente ver um pouco mais em inovação e tecnologia, eu acho que não é lendo um livro. Também é bom ler livros, mas pondo a mão na passa. É pondo a mão na massa, porque não é o livro que vai falar o que você tem que fazer. São novas as coisas, você tem que pôr a mão na massa e ir aprendendo.

cxciii Acho que a dificuldade para colaborar, talvez, é que ainda existem alguns incentivos negativos para essa colaboração acontecer de uma maneira mais fluida.

cxciv Inovação eu vejo como trazer a inovação como incremental, onde ela potencializa melhor, acha novos caminhos para algo que a empresa já faz e a inovação plena quando ela traz algo 100% novo, seja de skill, seja de processo ou de novo produto. Então eu sempre olho ela numa linha de ou melhora de receita ou de redução de custo, que ambas geram um resultado positivo para a empresa, então eu não olho inovação só como receita.

cxcv E a gente também olha quando é novo, que é mais próximo do core business da empresa ou mais adjacente ao que a empresa já faz ou mais distante do que a empresa fazer, e aí vai depender do quando a empresa é aberta a mudar sua rota ou o quanto ela está convencida de que o negócio dela vai ser disruptado.

cxcvi Então eu acho que tem as empresas que estão no modelo 1.0 ainda, no tradicional, que elas ficam restritas aos funcionários de áreas que tenha uma responsabilidade por evolução de produto, normalmente é uma área, chama de área de produtos e ou os funcionários da área comercial que são os mais proativos que tentam ter ideias para satisfazer o cliente ou o mais reativo que ouve demandas do cliente e traz para a empresa. Eu acho que no modelo tradicional fica muito restrito a essas áreas, então área de criação de soluções.

cxcvii Os modelos mais modernos eles vão muito mais numa jornada do cliente, de entender a jornada do cliente e trazer isso lá de fora para dentro da empresa.

cxcviii E deve envolver todas as áreas da empresa, mesmo as áreas de back, não só uma área de inovação ou uma área comercial ou uma área de produtos, para você ter um cruzamento de informação mais numa linha.

cxcix uma rede de colaboração.

cc E onde toda essa informação ela se potencializa quando você tem mais gente podendo colaborar e podendo opinar.

cci Hoje você tem o Cubo, a CAT, o Habitado Bradesco, o Oxigênio do Porto Seguro, em BH tem o Órbi que é da Localiza e da MRV, você tem a Distrito, você tem Fisher, você tem tantos ecossistemas hoje que três, quatro anos atrás não existiam. Então se a empresa tiver um framework hoje ela tem onde buscar inovação.

ccii Além desses ecossistemas tem, existem programas que a gente chama de match making, que você pega a demanda da empresa e faz uma busca de soluções fora, tem empresas de consultoria que fazem isso, ela vem na empresa, faz um levantamento de necessidades, prioriza e aí vai buscar essa solução em um pool de startups que eles têm, aí traz essa solução já com uma curadoria, esses são programas bem elaborados porque o namoro direto da startup com a empresa grande é muito difícil dar casamento.

cciii E eu acho que o que tem de interessante na inovação aberta que não na inovação tradicional é o poder de alavanca, o poder de alavanca e o poder de alcance, alcance geográfico, alcance de skill, alcance de pessoas, porque no tradicional eu tenho 700 funcionários, esse é o teu... É a tua capacidade.

cciv Com a inovação aberta você exponencial isso.

ccv Mas as tentativas que nós fizemos foram extremamente frustradas, assim a faculdade, principalmente as federais com uma resistência ao privado e mesmo quando a gente encontrou um pouco de amistosidade era mais para ser simpático, sabe...

ccvi Elas já nascem com uma capacidade de inovação aberta participando de fóruns e já atuam de uma forma muito colaborativa indo a eventos, tem muito conteúdo grátis na internet de capacitação da própria equipe. Agora se ela é uma empresa pequena e administrada com um dono cabeça antiga, aí eu acho que esse cara está mais complicado, está mais suscetível a... A ser atacado.

ccvii Eu acho que por ser menor é mais fácil na medida que são menos pessoas a se convencerem da mudança, então as vezes é um dono só, dois sócios, e não tem uma diretoria ampla, então são menos pessoas para ir num evento do StartSe e voltar de lá convencido.

ccviii Então quando maior é mais gente para se convencer e isso significa mais resistência também na hora de implantar, porque isso que eu mostro aqui isso é uma pesquisa lá de fora o pessoal falando "Sim, inovação é importante", 46% respondem, isso é super recente, que é extremamente importante. Então como é que você move a empresa que menos da metade acha que é extremamente importante? E aí quando o cara inovar, é na mesma pesquisa, 51% acha que é melhor fazer dentro de casa, só 31% fazer parceria e só 18% fazer aquisição. Então quando você mescla isso aqui com isso aqui é muito difícil fazer a grande corporação se mexer.

ccix Na menor, mesmo que você tenha os mesmos níveis de respostas vai ser mais fácil ela se convencer. E o menor, assim, eu acho que ele tem naturalmente um medo maior de ser morto, o grande ele tende a ter mais essa arrogância de ser indestrutível. E eu acho que o setor financeiro ele está andando muito rápido, não em todos os setores, você pega assim fintechs tem aquela evolução

ccx Antes eu ouvia os incumbentes do mercado financeiro falando que era uma bolha esse negócio de fintech, todas elas dão prejuízo, não vai dar em nada, hoje eu não ouço mais isso.

ccxi Muito evento e acho que eles já estão com essa ideia que é o oposto da propriedade intelectual, do guardar as sete chaves, porque eu recebo os pitchs aqui das empresas, o cara manda o Power Point com toda a estratégia dele.

ccxii Com o que o produto dele faz que o outro não faz, ele não está guardando segredo nenhum, e é muito na linha de que o melhor vai vencer, eu não vou vencer se eu ficar escondendo o que eu faço de... tanto que ele mostra ali: "Eu faço isso, isso e isso", se outro for lá, copiar e fizer mais rápido tudo bem.

ccxiii Eu tenho que correr mais rápido que o outro.

ccxiv O desafio é sair de um modelo que você faz tudo sozinho para trabalhar em colaboração. As novas gerações, até nas escolas, pelo menos nas escolas particulares as crianças hoje elas trabalham em...colaboracao.

ccxv Então eu acho que a geração nova ela já vem com esse chip de colaboração, então eu acho que depende do tempo da empresa, quanto mais velha mais difícil ela apender a trabalhar em colaboração e aí depende muito de pessoas, sabe?

ccxvi Se o cara da área lá onde a inovação vai acontecer, se ele acha que ele vai perder poder, perder headcount ele vai jogar contra.

ccxvii Então eu vejo empresas que comentem o erro de já ir direto para o casamento, já pega a startup, compra, traz aqui para dentro, normalmente...

ccxviii Ele vai sufocar a startup e mata ela, o compliance, segurança da informação, jurídico, RH, às vezes até o lucro daquela solução vai embora a hora que você coloca salário, benefícios, trabalhar com todo mundo remoto, "Não, remoto não pode mais, tem que vir para cá", aí o funcionário se desestimula porquê... Era justamente o que atraia ele.

ccxix Eu tentei várias formas de fazer a inovação prosperar e eu só acho que consegui ter mais sucesso quando eu fiz o envolvimento da empresa inteira.

ccxx Tudo que a gente faz aqui dentro da firma vem com um perfil de ser colaborativo e aberto. Então, o que a gente tenta fazer é aplicar a inovação aberta na realidade das pessoas e das empresas. Os nossos hubsde inovações são abertos e colaborativos. A gente recebe as pessoas da comunidade. A gente incentiva com que a comunidade participe. A gente cria temas em conjunto com a comunidade. Os próprios mantenedores são incentivados a se abrir para a comunidade, para colocar os seus desafios na mesa, para entender o que as startups fazem, para participar de pitch days.

ccxxi Então, o que a gente sempre tenta fazer é com que exista uma maior troca de informações e inteligência entre as partes, de modo que surjam oportunidades e surjam sinergias dentro do ambiente. E isso é fundamental para a inovação aberta.

ccxxii Indo um pouco para a nossa área de inovação corporativa, a nossa tese é, de fato, usar a inovação aberta como fonte de solução de problemas complexos de grandes empresas.

ccxxiii A primeira coisa que a grande empresa pensa é "Tenho que dar dinheiro para a startup resolver o meu problema", só que ela não foi feita para resolver o problema daquela empresa, ela foi criada para resolver um outro problema da sociedade ou do mundo corporativo.

ccxxiv Esse também é um dos erros das grandes empresas. Elas querem que uma empresa que acabou de ser formada, que está testando o seu produto, que está construindo a sua tecnologia resolva um problema gigante. Aí não

funciona. O empreendedor, na ânsia de fechar um contrato grande ou de atender uma grande empresa, faz tudo que tiver que fazer. Normalmente, não dá certo.

ccxxv Então, é muito difícil de definir o que é inovação. Mas eu acho que é qualquer maneira de tornar um produto ou um serviço melhor, mais rápido, mais eficiente, menos custoso. É uma maneira de mudar o comportamento de consumo, o comportamento dos usuários ou das pessoas com determinado produto ou serviço. Eu acho que inovação é transformar, de uma maneira em geral. É como você transformar aquilo que já existe. Então, é difícil de medir isso na prática. É muito difícil.

ccxxvi Inovação aberta, para a gente, é você buscar soluções de problemas do dia a dia ou de oportunidades no mercado como um todo, ou seja, não é você querer construir sozinho a solução daquela oportunidade ou a solução daquele desafio. É buscar, talvez, no mundo ou dentro do seu microambiente ou do seu ambiente como um todo alguém que já tenha esse conhecimento e já tenha essa experiência, que já tenha construído esse produto e usar esse produto, muitas vezes, como serviço de modo que você sabe que você fez um processo mais rápido, mais barato e, às vezes, com um impacto maior do que se você tivesse construído tudo sozinho, do zero.

ccxxvii É uma colaboração. É usar o que já existe. Principalmente, acima de tudo, é usar o que já existe. É buscar quem já tem o conhecimento. É buscar quem já tem o produto. É buscar quem já tem a experiência, quem já tem a inteligência e não tentar desenvolver tudo dentro de casa.

ccxxviii Eu acho que isso torna todo o processo de transformação mais rápido, menos custoso e mais eficiente, ou seja, os impactos para testar determinadas hipóteses são brutais. Enquanto você demora seis meses, um ano, às vezes mais do que isso para entender o consumidor, para entender o problema que você está atacando, para construir uma solução, para ter feedback dessa solução, se você já tem algo pronto para ser usado, esse processo é mais rápido, mais barato e gera um impacto maior. Então, permite que você integre, muito mais vezes, de uma maneira muito mais rápido atrás da solução ideal para o seu problema ou para a sua oportunidade.

ccxxix Do ponto de vista da corporação, eu acho que, talvez, uma das maiores dificuldades é assumir o risco. É assumir e aceitar o erro. Inovar, transformar é um processo de alto risco.

ccxxx Você tem uma dificuldade cultural, que é a pessoa falar sobre o seu problema e querer resolver o seu problema de uma maneira aberta, ou seja, se expondo, muitas vezes, expondo as suas fraquezas.

ccxxxi A maioria das pessoas dentro das corporações tende a não aceitar mudanças, tende a dificultar mudanças. Então, esse é um desafio tremendo do processo de inovação, e por isso que a gente fala que a inovação precisa ser comandada de cima para baixo por alguém que assume que erros podem acontecer, assume que perdas podem existir, mas que, ao mesmo tempo, sabe que isso é um processo de aprendizado.

ccxxxii É um processo e transformação de cultura. Acima de tudo, de cultura. Sem dúvidas demora um tempo.

ccxxxiii "Do meu ponto de vista, inovação é quem consegue fazer, não é quem consegue, necessariamente, ter a ideia". Uma frase muito comum no mundo do empreendedorismo é que todo empreendedor passa por isso.

ccxxxiv Não sei quantas bilhões de pessoas no mundo, nem sei quantas pessoas tem no mundo, vão ter a mesma ideia. Eu acho que a capacidade de execução é fundamental para a inovação. E para ter execução você precisa ter diversos fatores. Você tem resiliência, você tem experiência, você tem capital, você tem inteligência. Execução, certamente, é um dos fatores fundamentais para que a inovação ocorra.

ccxxxv Da corporação é cada vez mais difícil, porque as pessoas, cada vez mais, querem empreender.

ccxxxvi Hoje a gente já vê aqui, tanto na nossa empresa quanto no mercado como um todo, quem sai de uma universidade, principalmente das universidades mais credenciadas no Brasil, eles querem trabalhar nas startups e querem empreender.

ccxxxvii Hoje as corporações sofrem para conseguir atrair talentos, elas sofrem para conseguir reter os talentos.

ccxxxviii Do ponto de vista da corporação, vai ser cada vez mais duro essa disputa. Vai ser uma disputa em que a mudança de cultura vai ser fundamental.

ccxxxix Os jovens estão cada vez mais preocupados em gerar impacto para o mundo, em ter uma boa qualidade de vida e poder usar as coisas, não ter.

ccxl Isso também passa pelo custo de tecnologia. Cada vez a tecnologia tem menos custo para você desenvolver um aplicativo, para você desenvolver um site, para você consumir.

ccxli A gente tem um déficit gigante de desenvolvedores aqui no Brasil. Você tem uma geração de empreendedores que vai criar startups de uma maneira exponencial e não tem gente suficiente para poder programar essas ideias, para poder aproveitar essas oportunidades.

ccxlii Lá fora você tem diversos cases em que isso acontece. As montadoras já se juntaram para criar programas de veículos autônomos. Não é novidade esse tipo de assunto. Tem diversos cases que mostrar isso. Eu acho que, como a gente estava falando, a realidade das empresas, mesmo do mesmo setor, é muito diferente em termos de cultura, de maneira de agir, de enfrentar os seus problemas. Quando você abre o seu problema, provavelmente o seu competidor vai ter algo muito semelhante, mas não necessariamente a solução do seu problema vai ser exatamente a mesma solução do seu competidor. Acho que a velocidade com que você ataca esse problema usando inovação aberta e o baixo custo com que você ataca esse problema.

ccxliii Como a gente estava falando, talvez, a maior dificuldade é executar, não é ler e nem criar uma estratégia. Você em gênios da estratégia, mas poucos conseguem, de fato, executar e implementar.

ccxliv Os hubs de inovação, os coworkings, são grandes fontes de inteligência e experiência e de uma maneira super informal. Então, quando você faz parte de um hub, o seu time como um todo está tocando conhecimento, problemas, dificuldades com pessoas de outras empresas de uma maneira muito pouco programada, de uma maneira muito pouco estruturada. O fato é que isso funciona. Eu acho que os hubs de inovação são um vetor super importante para que as startups consigam se alimentar dessa inovação aberta.

ccxlv É muito comum alguém publicar algum problema que está tendo. "Sou da startup tal, eu uso a tecnologia tal e queria saber se alguém pode me ajudar com esse desafio". As pessoas se comunicam e falam, e ajudam, e colaboram. Então, isso é muito rico.

ccxlvi Hoje é muito mais difícil de encontrar oportunidades do que era no passado. Por outro lado, o custo de criação de uma nova empresa, de um novo business, o custo de testar uma hipótese é muito baixo.

ccxlvii Eu acho que em alguns segmentos mais e em outros muito pouco. Por exemplo, o segmento de agro é um segmento em que existe uma troca de informação com institutos de pesquisa, com escolas super intensa. Por outro lado, o segmento financeiro eu acho que muito pouco ou praticamente inexistente.

ccxlviii A indústria 4.0 já é bem conectada com institutos de pesquisa, com algumas escolas técnicas. Talvez, seja um pouco das características específicas das próprias indústrias, mas eu acho que, de fato, a interação e a integração com o mundo acadêmico ainda são muito pequenas. Isso está aumentando cada vez mais.

ccxlix No caso dessa empresa onde atuo é a troca de informação que gera valor.

ccl O foco dessa empresa está mais associado à ponta, em encontrar inovação através de startups que já estejam com uma certa prontidão para atuar ou com comercialização de produtos ou em melhorias tecnológicas para problemas de negócio.

ccli No setor Financeiro está acontecendo um rearranjo de novos players entrando que são mais comumente chamados de Fintechs. Você tem também a entrada de players que não são do setor Financeiro, mas que querem comer um pouco do market share que essas empresas têm em determinados produtos, por exemplo, pagamentos.

cclii Essas empresas são mais ágeis, além de abocanhar o mercado elas são mais eficientes internamente. Quando as empresas grandes de setor Financeiro olham isso elas enxergam nas startups, por exemplo, ou até nas universidades também, formas de incorporar inovação não somente criadas dentro da organização. Eu enxergo uma abertura cada vez maior.

ccliii O desejo começa a se abrir para isso, começa a ter uma abertura das grandes empresas do setor Financeiro para atuar nisso. Elas ainda não estão preparadas, nós temos vários problemas processuais, problemas de silos organizacionais.

cccliv Eu diria que existe a abertura para considerar inovações de fora como ativos que podem entregar valor para grande empresa.

cclv As startups têm algumas intenções quando atuam com grandes organizações. Ela não necessariamente pensa sobre fazer Inovação Aberta, ela tem essa consciência sobre Inovação Aberta a meu ver. Acho que elas devem conhecer muito mais, mas não necessariamente quando se aproximam das grandes empresas seja para isso.

cclvi Às vezes a intenção é simplesmente conseguir fluxo de caixa para se capitalizar. Não necessariamente quando se aproximam das empresas é para que as empresas tragam inovação para elas, mas sim ela poder entregar a sua solução para a empresa. Aquilo pode virar uma inovação ou pode resolver um problema pontual da grande empresa.

cclvii Eu não sei te falar se existe uma intencionalidade das startups em trabalhar com Inovação Aberta. Eu sinto que se tem ela não é declarada de forma evidente.

cclviii Eu sinto que tem um terceiro ator nessa história, que são as aceleradoras, incubadoras, as empresas de Venture Capture e essas sim, acho que têm um pouco mais de intencionalidade em relação à gerar inovação ou fazer acontecer o Open Inovation.

[cclix] Você tem startups como Cubo, Inovabra, Habitat, essas sim têm uma maturidade maior por serem fomentadas ou assessoradas por aceleradoras e incubadoras que conseguem transmitir o valor que a Inovação Aberta pode ter para elas.

[cclx] Ela está dentro do ecossistema. Pensando que ele seja uma grande área circular e você tem no centro Hubs com startups mais próximas delas você tem startups que se distanciam desse epicentro. Quanto mais distante do epicentro, quanto mais distante dessas Hubs menos acesso elas têm a considerar um Open Inovation porque elas estão um pouco mais solitárias tentando atuar em Inovação. Eu diria que tem esse diferencial, esse espectro de maturidade que as startups têm.

[cclxi] Essa Inovação a meu ver surge na grande empresa dependendo da maturidade da empresa. Talvez a empresa tenha uma maturidade baixa em relação à compreensão do que é a Inovação e surge principalmente das cabeças, do C-Level da organização.

[cclxii] A pergunta é de onde a Inovação surge e a outra é se a Inovação gera algum valor.

[cclxiii] Por exemplo, um colaborador pode ter uma ideia inovadora, mas ele tem tantos gates para conseguir validar aquela ideia inovadora dentro de uma grande organização que é possível que essa ideia não sobreviva até chegar onde tem que chegar para que ela seja realizada. E o contrário, quando você tem um Head que tem uma ideia inovadora a ideia tem muito mais chance de acontecer, não necessariamente ela gera tanto valor quanto o colaborador que está sentindo na pele as necessidades da organização pode sentir. Eu diria que seria isso em uma empresa de maturidade baixa.

[cclxiv] Uma empresa com maturidade média para alta tem setores de inovação ou uma área focada em inovação ou muitas áreas focadas em inovação, também é um problema. Essas áreas começam a encarar a Inovação não como algo acidental, mas um processo em que você consegue gerar um valor no final. Eu enxergo que essas de maturidade média e alta têm isso. Geração de valor seria não ao acaso, mas um pouco mais processual.

[cclxv] Nas pequenas empresas acho que a inovação faz parte da essência das startups.

[cclxvi] Você tem startups que conseguem traçar uma cultura em que não só os Founders têm uma possibilidade de inovação, mas aquilo é permeado dentro dos colaboradores para gerar inovação e o tempo todo eles estão colaborando, contribuindo para que haja formas novas de pivotar seja o produto ou o modelo de negócio para atuar de uma forma de agregação de valor para o cliente final.

[cclxvii] Eu enxergo esses três principais aspectos, imagem, startups para resolução de problemas pontuais de negócio e startups que surgem de oportunidades estratégicas. Eventualmente esse aqui, o terceiro elemento não é tão aberto no mercado porque são questões de estratégia.

[cclxviii] Vou te falar da experiência dessa empresa em que atuo. Ela criou um Hub que fica próximo das startups com intenção de entender o universo delas, se aproximar.

[cclxix] Eu entendo que essa foi a estratégia adotada por essa empresa em que eu atuo. Esse braço começou a perceber: "agora temos a oportunidade de melhorar o processo interno". "Temos a oportunidade de utilizar uma startup para resolver um problema de negócio". Não se faz essa conexão, ela não existia antes e você começa a explorar alguns problemas processuais, alguns problemas de falta de conhecimento um do ambiente do outro e que surgem a partir desse relacionamento.

[cclxx] Primeiro surge o Hub para depois surgir a colaboração.

[cclxxi] A analogia que eu usaria seria essa. Primeiro criou-se o funil, depois começou-se a fazer os furos e agora as pessoas querem tentar fazer com que esses furos sejam maiores para que tenha uma vazão maior.

[cclxxii] Um dos principais pontos de barreiras que eu enxergo é a própria estrutura organizacional pesada. Processos que foram feitos para apoiar essas estruturas que não se conversam. Outra questão são os silos organizacionais, cada diretoria de negócio tem os seus incentivos e as suas estratégias. Não necessariamente uma linha de negócio conversa com a outra. A própria inibição da cultura, as pessoas não são incentivadas a isso, você não tem incentivos financeiros ou não financeiros para trazer inovação.

[cclxxiii] Sinto isso na pele, o quão difícil é você conseguir alinhar com várias áreas de negócio os interesses para que uma startup, por exemplo, consiga entrar. Uma startup tem que passar pela área de compras, pela área jurídica, pela área de tecnologia, pela área de segurança da informação, eventualmente pela área de Cloud quando a empresa tem alguma atuação nessa linha, pela área de negócio, por áreas de risco operacional ou risco de crédito ou riscos de impacto ao cliente. Tudo isso corrobora para que o processo seja mais lento e cada área de negócio ou cada área de staff tenha motivações distintas.

[cclxxiv] Nós temos uma área em algumas grandes empresas, seja de inovação ou no meu caso Arquitetura Corporativa, que faz um olhar mais amplo do que tem no mercado. Sempre que uma área de negócios tem necessidade, seja

estratégica do ponto de vista de inovação, seja mais pontual, nós observamos o que tem no mercado relacionado a startups. Comparamos também com players que estão mais consolidados no mercado para ver o que faz sentido ou não para atender aquela área de negócios.

cclxxv Vou te dar a percepção que existe hoje dentro da empresa onde atuo. Em geral a busca por inovação é meio aleatória, não é uma coisa concentrada. Você vê áreas de negócio, no caso aqui, falando de exemplos da empresa onde atuo, ou ela busca inovações em grandes feiras do setor.

cclxxvi Em alguns casos aqui nós temos uma área que faz pesquisas focadas em inovações do mercado financeiro. Isso é enviado por e-mail para os colaboradores e eles olham as principais inovações associadas àquilo, se faz uma espécie de clipping de inovações de mercado.

cclxxvii Você tem áreas especializadas como a Arquitetura Corporativa em que você tem grupos de conversas, de redes sociais internas que compartilham o tempo todo inovações tecnológicas ou inovações associadas a entradas de mercado, que nada mais são do que clippings do que está acontecendo na mídia e que aquilo pode ser considerado como um elemento para tomar algum insight.

cclxxviii em companhias especializadas, a maioria das grandes empresas têm, por exemplo, Forester, Gartner, que empresas em geral consultam para saber se tem algum elemento novo, principalmente da área tecnológica que podem agregar em alguma necessidade de transformação digital que a empresa tenha.

cclxxix Quanto mais próximo do core bancário menor é a probabilidade de você fazer fora, porque ela já atingiu uma consolidação, uma robustez de volume, a não ser que seja um produto muito novo, mas produtos que o mercado já tem, mais tradicionais, você vai ter pouca margem para inovar nesse sentido.

cclxxx Isso é bem consistente, principalmente nos canais, ou de trazer focos, ou pessoas e testar com elas os protótipos, ou para fazer uma pesquisa de mercado com indivíduos e depois estruturar isso no projeto.

cclxxxi Eu não enxergo ainda um valor agregado em termos de lucratividade, não acho que isso aconteça, mas em termos de mudança cultural e organizacional, por mais que a gente ainda não esteja em uma maturidade alta, se não estivéssemos possivelmente estaríamos menos propensos a mudança cultural. Esse é o grande valor que hoje a Inovação Aberta está trazendo para a grande empresa. Pouca questão de valor monetário, talvez alguma questão de valor da marca, talvez parte da Inovação Aberta esteja associada à valorização da empresa. Com certeza eu diria que o elemento mais consistente é a mudança de propensão das pessoas a atuar com Inovação, ela está em uma crescente.

cclxxxii Não sei se facilita, ela atrai. A retenção eu diria que não, porque a retenção vai muito da realidade que a empresa tem dentro.

cclxxxiii A dificuldade é convencer as empresas, os colaboradores. Nunca ouviu falar sobre startup, você tem um esforço ali para convencer.

cclxxxiv Então eu diria que esse é o principal fator, o elemento comparativo entre uma startup e a empresa.

cclxxxv Outras dificuldades são questões processuais que foram feitas para fornecedores estabelecidos, e elas têm que ser de fato amenizadas quando se fala em uma startup.

cclxxxvi Eu diria que a Inovação Aberta só vai acontecer de fato quando você tem uma liderança que tenha capacidade de engajar a organização e tem que ser uma liderança de verdade, e não simplesmente um diretor de uma linha de negócio.

cclxxxvii Eu diria que o passo principal começa pela alta liderança e essa alta liderança tem que combinar os incentivos porque o incentivo molda a cultura, é o principal moldador de cultura. Se você não tem um incentivo adequado você não vai se sentir propenso a fazer mudanças.

cclxxxviii Quando a gente fala de Inovação Aberta, principalmente setor financeiro, está muito forte na experiência do cliente. Eu diria que esse seria o fator primordial, a alta liderança nos incentivos. Com isso você conseguiria mudar a estratégia, mudar processos, conseguiria atuar de uma forma mais estrutural.

cclxxxix Eu queria trazer inovação para a <Firm #12>; eu queria que os funcionários mudassem a cabeça e começassem a pensar mais em inovação; e queria que os nossos clientes também pensassem que a <Firm #12>estava ajudando, de alguma maneira, a trazer inovação para o mercado.

ccxc Trago as startups para fazer apresentação pro board da <Firm #12>, isso é um acordo que eu tenho com (a aceleradora). Faço reuniões com os gerentes uma vez por mês; de 45 em 45 dias eu faço dentro da aceleradora, para que eles convivam com as startups que estão lá dentro - às vezes lá em Florianópolis, às vezes aqui em São Paulo, porque temos dois lugares. Trago a pessoa que é responsável pela aceleração do projeto como um todo para

fazer apresentação para os funcionários, falar de inovação, porque as pessoas, no dia-a-dia, estão no operacional e esquecem do resto da vida.

ccxci Era trazer a cultura para os funcionários e mostrar para os nossos clientes - que são nossos donos -, que a gente está tentando ajudar o mercado, de certa forma, trazendo inovação; esse que era o meu objeto.

ccxcii Eu diria que não existe inovação sem compartilhamento.

ccxciii A troca de ideia da aceleradora que a gente utiliza, quando a gente coloca 15 startups trabalhando no mesmo ambiente, a troca de ideias entre eles, as sinergias que tem entre eles, acelera muito o desenvolvimento das startups.

ccxciv No nosso projeto até psicólogo tem, na nossa aceleração, porque existem problemas dentro das startup (entre eles, briga de casal, briga entre sócios), então é bem interessante o processo todo que a gente faz.

ccxcv Eu acho que sim, apesar de que existe um conflito, principalmente se você pensar em Banco, em que você vê as fintechs querendo entrar nos espaços dos Bancos, e os Bancos ficam com receio. Mas não tem muita alternativa. Você pode ir freando, que é o que algumas instituições maiores fazem - não só o Banco -, em qualquer área. Se vai entrar no meu espaço, eu vou freando aquilo. Mas aquele negócio vai avançando.

ccxcvi No meu caso, é uma empresa média, de cento e poucos funcionários. Como a gente veio com um processo de implantação da inovação, eu não vi nenhuma dificuldade. Você vê que tem pessoas muito mais interessadas e que gostam muito desse investimento, que buscam, que passam para os seus funcionários a inovação.

ccxcvii É questão de você querer pensar. Se você não pensar, você vai fazer do jeito que você faz todo dia. Agora, se você pensar, você pode cogitar uma máquina que poderia fazer tal coisa que seria muito bom. Mas que máquina seria? Pensa aí. Eu tento incentivar todos, mas é claro que tem áreas que têm mais facilidade de descobrir alguma coisa, e já vieram muitas ideias.

ccxcviii Eu diria que a maioria gosta, mas tem muito do perfil da pessoa de não querer fazer. Mas tem outras pessoas que você vê que se engajam e tentam buscar coisa nova, e me mandam coisas - porque todo mundo me manda quando vê que saiu alguma coisa, mandam link para eu dar uma lida.

ccxcix E de seis em seis meses eu faço uma palestra para todos os funcionários, lá no Rio e em São Paulo, falando do resultado da empresa, falando do que tem de inovação, o que a gente está fazendo, enfim, tentando sempre trazê-los para o lado da inovação.

ccc Eu criei um comitê de inovação, isso também foi importante.

ccci Eu botei todos os gerentes no comitê de inovação e eles têm a obrigação de passar para os funcionários, porque não dá para falar para todo mundo. Os gerentes e diretores participam e todos passam.

cccii A gente tem aqui meta da diretoria de viagens externas para busca de inovação. Quando a pessoa volta tem que dizer, tem que passar, tem que falar no comitê de inovação o que viu, o que não viu. As pessoas desse comitê também têm que ir buscar, tem que ter meta de participação em eventos, mesmo que seja no Rio, em São Paulo, em Florianópolis; você tem que ir, tem que fazer e tem que conversar com startup também.

ccciii A área de produtos tem meta de visitas às instituições para ficar garimpando o que eles gostariam que tivesse.

ccciv A área comercial, quando está visitando, está o tempo inteiro perguntando também, e aí vai dando informação para a área de produtos. Eu e as pessoas que viajam trazemos coisas e damos para a área de produtos, explicamos o que vimos, e eles vão pesquisar, vão ver o que tem ali, se dá.