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Sustaining Trust to Cross the Valley of Death: a Retrospective Study of Business Angels' Investment and Reinvestment Decisions

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Abstract

This paper explores and explains how, why and with what consequences business angels' trust in the entrepreneur affects their decisions to invest, reinvest or withdraw funding in the Valley of Death (VoD). Drawing on the VoD literature and on business angel research, we retrospectively study two contrastive cases of success and failure of French start-ups operating in the IT sector over a period of two and nine years, respectively, by taking the dyadic relationship between business angels and entrepreneurs as unit of analysis. We document the business angels' trust evolution over time and we show how trust shifts facilitate or damage the entrepreneurs' journey through the VoD. We offer a process-model of sustaining business angels' trust in entrepreneur-business angel relationships to cross the VoD, thus addressing recent calls for more in-depth examinations of social aspects in investment and post-investment business angel research.

Keywords: Valley of Death, financial resources, business angel, trust, investment, reinvestment, exit

1. Introduction

Business angel's support has been depicted as the Holy Grail of start-ups (Brush et al., 2012; Cardon et al., 2017; Carpentier and Suret, 2015; Fairchild, 2011). Business angels provide early-stage capital, thus taking on the major economic mission of filling the funding gap between initial start-up financing and financing by venture capital (Lindgaard Christensen, 2011; Cox et al., 2017; Gregson et al., 2013; Lam, 2010; Paul and Whittam, 2010; Polzin et al., 2018; Riding et al., 2012). They do this by investing their own money along with non-monetary resources such as knowledge, experience, mentoring and contacts (Collewaert and Sapienza, 2016; Freear et al., 2002; Paul et al., 2003; Politis, 2008) in unquoted companies with which they have no family connections (Bonini and Capizzi, 2019, p. 142). In Europe and in the US, business angels concentrate their investments in the most innovative sectors such as biotechnology, IT and environmental technologies (Wilson, 2011). The business angels' investments tripled from 1999 to 2009 (Bonini et al., 2018), the total amount invested equalizing or surpassing that of venture capital in developed countries (Avdeitchikova, 2008; Fili and Grünberg, 2016; Sohl, 2003). However, the funding gap between the demand and supply of early-stage capital (Capizzi, 2015; Cumming and Groh, 2018; Johnson and Sohl, 2012) is still present according to recent estimations (Mc Cahery et al., 2014).

This funding gap was referred to as the "Valley of Death" (VoD) (Murphy and Edwards, 2003; Osawa and Miyazaki, 2006; Wessner, 2005), a label metaphorically describing the most probable outcome of start-ups unable to attract funding during the "nebulous phase" or "corridor" between research and development and the commercialization of new products and services (Markham et al., 2010, p. 402). The VoD is "primarily a financing gap" (Frank et al., 1996, p. 63) even though other barriers related to a "lack of structure, resources, and expertise" (Markham, 2002a, p. 31) can also delay commercialization" (see also Takata et al., 2020). Financing by business angels is associated with improved likelihood of survival for start-ups (Croce et al., 2018). Yet, surprisingly, while a well-developed literature explains how entrepreneurs set about crossing the VoD (Barr et al., 2009; Markham, 2002b; Mossberg et al., 2018), the issue of how business angels' trust facilitates or damages the entrepreneur's journey through the VoD by securing or withdrawing vital financial resources has received limited attention. This paper aims to address this research gap by proposing a process model of sustaining business angels' trust to cross the VoD.

Investing one's own money in a company with limited track record requires trust, characterized as "the extent to which a person is confident in and willing to act on the basis of the words, actions, and decisions of another" (McAllister, 1995, p. 25). The importance of business angels' trust in the entrepreneur and the entrepreneurial team has been consistently documented as a determining factor of investment decisions (Harrison et al., 1997; Mason et al., 2017; Maxwell and Lévesque, 2010, 2014; Maxwell et al., 2011; Shepherd and Zacharakis, 2001; Sudek, 2006; Van Osnabrugge, 2000; Wong et al., 2009). Riding et al. (1995) maintained that trust explains 80% of rejection decisions at the investment stage. In a stimulating

conceptual paper, Pollack and Bosse (2014) emphasized how crucial business angels' trust is also for the post-investment period. Evidence exists that initial investment decisions depend on business angels' first impressions of the entrepreneur relative to their perceived trustworthiness (Becerra and Gupta, 2003). These first impressions largely depend on the entrepreneur's personal characteristics, social competences, referrals and communication skills (Brush et al., 2012; Parhankangas and Ehrlich, 2014). Information relative to the growth potential of the market and product/service also affects investment decisions, but less at the investment stage and more significantly when a reinvestment decision needs to be taken (Brettel, 2003; Stedler and Peters, 2003; Sudek, 2006). Finding "the right entrepreneur" (Ehrlich et al., 1994) is thus the main issue of business angels' investment decisions. Once an investment decision has been made, business angels manage their relationship with the entrepreneur through relational governance mechanisms such as trust and commitment (Ehrlich et al., 1994). Although the business angel-entrepreneur relationship is generally characterized by high levels of trust at the investment stage (Kelly, 2007), the initial business angels' trust may not be maintained later on in the relationship, which may lead business angels to withdraw funding during the post-investment period (Maxwell and Lévesque, 2014; Strätling et al., 2012). Understanding how business angels' "trust at first sight" (Radu-Lefebvre et al., 2013) converts into a sustainable, trustful relationship with the entrepreneur is one of the most challenging puzzles of the VoD.

The purpose of this article is to explore and explain how, why and with what outcomes business angels' trust affects their decisions to invest, reinvest or withdraw funding in the VoD. To address our research aim, we engaged in an inductive theory building process based on the study of two contrastive cases of success and failure. We retrospectively studied the investment and reinvestment process of two French start-ups operating in the IT sector, over a period of two and nine years, respectively, by taking the dyadic relationship between business angels and entrepreneurs as unit of analysis. The scope of our empirical investigation was to examine business angels' trust as a determinant of investment and post investment decisions, which situates our inquiry in the field of entrepreneurial finance (cf. Cumming and Groh, 2018) and not in the area of innovation studies conducted in the context of older or larger companies. The two start-ups included in the study both developed innovative solutions in the IT sector. Yet, our investigation did not concern the innovation process developed by these companies and instead exclusively focused on the investment and reinvestment process by business angels in the two start-ups. Our study addresses two research questions: (RQ1) How and why does the business angels' trust in the entrepreneur evolve over time, from investment to post-investment, then exit?; (RQ2) How does the business angels' trust evolution affect their decisions to invest, reinvest or withdraw funding during the VoD?

This paper makes two main contributions. First, we contribute to theory building in the VoD literature by extending and refining our knowledge relative to the understudied influence of business angels'

trust on the start-ups' success and failure through the VoD. Based on our findings, we inductively build a process-model of sustaining business angels' trust to cross the VoD that highlights the role of business angels during the delicate passage from research to commercialization stages and connects business angels' investment, reinvestment and withdraw funding decisions to the evolution of their trust in the entrepreneur. Second, by exploring and explaining how and why business angels' trust evolves over time, throughout their relationship with entrepreneurs, we theorize trust formation and evolution as a multi-level and cyclical process, thus answering recent calls for more in-depth examinations of social aspects in investment and post-investment business angel research (Bammens and Collewaert, 2014).

We commence by broadly delineating our key constructs - VoD and business angels' trust. We then present our methodology of data collection and analysis, followed by our main findings. We then discuss our findings against prior literature, which leads us to the elaboration of ten propositions, brought together by way of a process-model of sustaining business angels' trust to cross the VoD. We conclude by emphasizing the contributions and limitations of our study and by suggesting future research directions.

2. Theoretical background

We first highlight the business angels' role within the context of the VoD, and then expose what we already know about the business angel-entrepreneur relationship and the role of business angels' trust in investment and post-investment decisions.

2.1. The role of business angels in helping entrepreneurs cross the VoD

New product development literature sheds light on the nature and stages of the VoD by showing how various external resource providers, including government support and financing partners, help entrepreneurs and their companies in the process of converting inventions into innovations (Biemans and Huizingh, 2020; Bonnin Roca and O'Sullivan, 2020; Corsatea, 2014; Islam et al., 2018; Tasse, 2014; Weyant, 2011). The conversion of inventions into innovations requires market recognition and fit, along with a capacity to demonstrate potential and transfer. Evidence exists that important internal and external resources are necessary to start-ups throughout this challenging process (Koen et al., 2001; Schoonmaker et al., 2012; Smith and Reinertsen, 1991). New product development literature emphasizes the importance of innovation ecosystems for assisting entrepreneurs, researchers and inventors in crossing the VoD by either reducing its duration (Jucevicius et al., 2016) or by providing access to external resources (Islam, 2017). The internal organizational process enabling companies to bridge the VoD was labelled the "Fuzzy Front End of Innovation" (Schoonmaker et al., 2012; Smith and Reinertsen, 1991). According to Auerswald and

Branscomb (2003), the Fuzzy Front End of innovation comprises five main stages: research, invention, early stage technology development, product development and commercialization. Each stage comprises critical needs of financial resources that must be met by particular financial resource providers in order to enable project leaders and entrepreneurs to convert research into commercially successful products and services. National Institutes of Health (NIH), the National Science Foundation (NSF) and corporate research help projects pass from the research stage to the invention stage. Business angels, corporations, technology labs and Small Business Innovation Research programs (SBIR) enable projects to pass from the invention stage to early stage technology development and product development. Finally, venture capital, corporate venture funds, equity and commercial debt help projects to reach the final stage, that of commercialization. Even though each financial resource provider can be involved in any stage of the VoD, they are particularly prone to play a role during one specific stage of the VoD, as indicated in Figure 1, adapted from Markham (2002a) and Auerswald and Branscomb (2003). Figure 1 indicates when financial resource providers tend to invest more frequently in order to allow companies to pass successfully from one stage to the next.

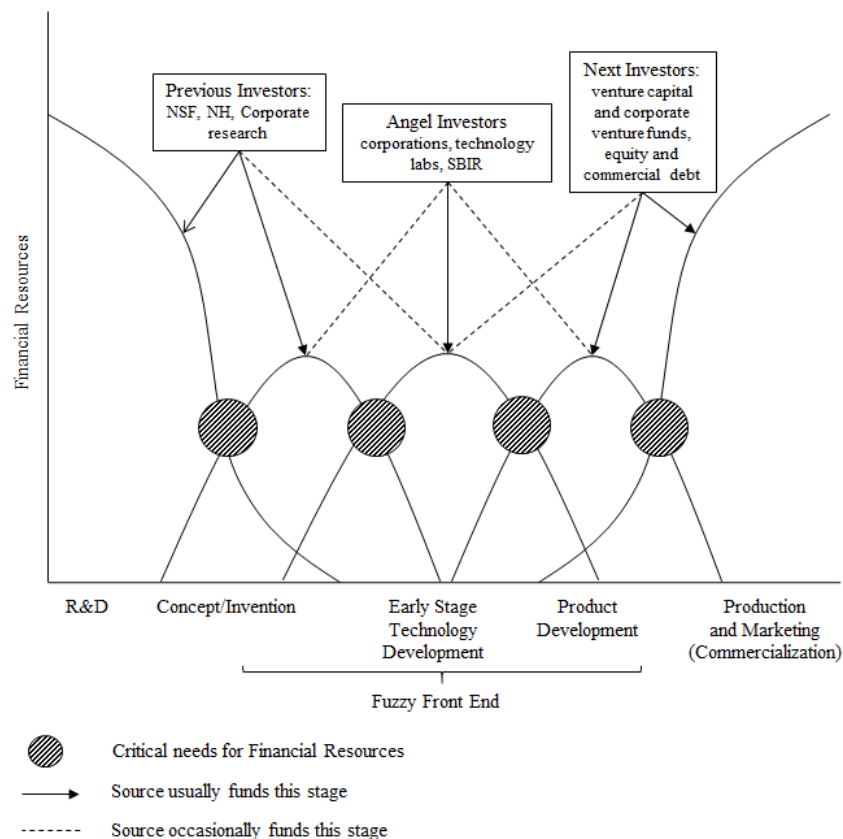


Figure 1: Crossing the VoD with the support of financial resource providers (adapted from Markham, 2002a and Auerswald and Branscomb, 2003)

Evidence exists that established companies cross the VoD more rapidly and effectively than start-ups because they are better structured and organized, are more experienced in new product development (Dean, Zhang, and Xiao, 2020; Koen et al., 2001), and already dispose of a network of external stakeholders (suppliers, distributors, clients, financial partners). Start-ups suffer from the liability of newness stemming from their lack of reputation and operation history (Villanueva et al., 2012; Zheng et al., 2010), undefined organizational routines (Aldrich and Fiol, 1994), limited relationships with suppliers and clients, and structural needs of new resources (Katz and Gartner, 1988; Malerba and Vonortas, 2011). Start-ups are particularly reliant on financial resources which, along with enabling infrastructure, are a decisive survival and success factor (Cole et al., 2016; Coleman, 2000; Ko and McKelvie, 2018; Vaznyte and Andries, 2019). More specifically, start-ups heavily depend on building trusting relationships with key stakeholders such as financial resource providers (Beard et al., 2009; Frank et al., 1996; Polzin et al., 2018) particularly when they lack customer-bases, enter new markets, or develop new technologies without prior entrepreneurial record (Busenitz et al., 2005). Moreover, the challenges of the VoD are exacerbated for knowledge intensive start-ups promoting web-based technologies or applications (Wilson et al., 2018). According to Murray and Lott (1995), technology-based firms are often successful in raising early-stage finance but may be unable to secure follow-on capital because of the time and efforts necessary for these companies to achieve commercial viability.

Recent research acknowledges the role of finance providers such as business angels in enabling start-ups to cross the VoD through continuous support, such as reinvestment or recommendation to new investors (Cosh et al., 2009; Cressy, 2012). Excellent reviews of business angel research are provided by Cardon et al. (2017), Carpentier and Suret (2015), Fili and Grünberg (2016), Harrison et al. (2015), Maxwell et al. (2011), Maxwell and Lévesque (2014), Politis (2008), White and Dumay (2017). Business angel research primarily focuses on investment decisions, less contributions addressing the post-investment stage. Understanding the business angels' role in helping entrepreneurs to cross the VoD requires a grasp of the investment relationship over its entire period of existence, from investment to post-investment, then exit.

2.2. The business angel-entrepreneur relationship: stages, risks and conflicts

The majority of the empirical investigations relative to business angel-entrepreneur relationships have been conducted in the United States, Canada, UK and Europe, France being absent among the 84 business angel articles recently examined by White and Dumay (2017). Most of the published studies rely on questionnaire surveys; only a limited number of contributions use interviews (Berggren and Fili, 2008; Levie and Gimmon, 2008; Mason et al., 2017; Van Osnabrugge, 2000), case studies (Amatucci and Sohl, 2004; Fili, 2014; Söderblom et al., 2016; Sørheim, 2003), observation and verbal protocols (Huang and

Pearce, 2015; Mason and Stark, 2004). Business angel networks are the predominant source of data, providing 25% of the studied business angel samples (White and Dumay, 2017; see also Avdeitchikova et al., 2008).

The business angel-entrepreneur relationship comprises three distinct stages: pre-investment, contract negotiation, and post-investment (Amatucci and Sohl, 2004). Throughout these stages, business angels face agency, market and execution risks (Carpentier and Suret, 2015) that they need to manage in order to build and maintain cooperative relationships with entrepreneurs (Söderblom et al., 2016). Information asymmetry between business angels and entrepreneurs triggers agency risk, which refers to the possibility that entrepreneurs behave opportunistically at the expense of business angels' interests (Shane, 2003). This risk decreases in later-stage contracting (Chemmanur and Chen, 2014). Market risk concerns the "degree of uncertainty associated with gaining a competitive advantage" (Erikson et al., 2003, p. 164) and depends on market size, competition, market accessibility and exit conditions (Kaplan and Strömberg, 2004). Start-ups are subject to higher market risks than older companies. Finally, execution risk is related to the uncertainty regarding the execution or implementation of the business model and business strategy, and depends on the challenges stemming from the execution of the product, service or business model (Kaplan and Strömberg, 2004). Business angels mainly focus on agency risk (Carpentier and Suret, 2015) and try to minimize it by developing close relationships with entrepreneurs (Fiet, 1995; Harrison and Mason, 2000; Kerr et al., 2014; Mason and Botelho, 2016; Van Osnabrugge, 2000). Risk assessment by business angels is also contingent on the start-ups' industry: complex industries such as life sciences, pharmacy and green tech are estimated as more risky than industries such as IT (Bürer and Wüstenhagen, 2009; Lüthi and Prässler, 2011; Lüthi and Wüstenhagen, 2012).

At the investment stage, business angels make decisions based more on "feelings than analysis" (Shane, 2009), which is quite different from how venture capitalists (VCs) make investment decisions, based on an in-depth screening of companies and less of an evaluation of the entrepreneurs who lead them. While VCs invest other people's money and prefer innovative start-ups with cutting-edge technologies, signalled by a high number of patents (Cockburn and MacGarvie, 2009; Engel and Keilbach, 2007) and strong commercial prospects (Islam et al., 2018), considerable agreement exists that the subjective "gut feeling" evaluation (Huang and Pearce, 2015) of the entrepreneur and the entrepreneurial team represents the "deal killer" (Mason et al., 2017) of business angels' investment decisions. Right from the beginning of their relationship with entrepreneurs, business angels address agency risks in different ways as compared with VCs (Bruton et al., 2009; Van Osnabrugge, 2000). While VCs adopt formal contracts and monitoring mechanisms (Lerner, 1994), business angels rely on "strikingly informal" monitoring mechanisms (Ibrahim, 2008, p. 1407) in which trust plays a major role. Trust is a mechanism of relational risk regulation enabling business angels to address a particular form of agency risk labelled by Maxwell et al. (2011) "relational

risk” or “moral hazard”, and related to the business angels’ subjective evaluation of how entrepreneurs will probably decide to spend their money. This echoes the economics literature (Coleman, 2000, p. 463) where situations involving trust are described as “a subclass of those involving risk. They are situations in which the risk one takes depends on the performance of another actor”.

At the post-investment stage, business angels are more patient and long-term partners than VCs. As “informal investors” (Bonini et al., 2018; Fili and Grünberg, 2016), business angels generally provide strategic advice and guidance on management, finance or marketing issues and may play a mentoring role (Bonini et al., 2018; Fili and Grünberg, 2016). In some cases, however, conflicts arise between business angels and entrepreneurs, which can threaten the investment relationship (Collewaert and Sapienza, 2016; Collewaert, 2012; Forbes et al., 2010; Higashide and Birley, 2002; Lim et al., 2013). Task conflicts relative to the necessity of changing products or services, addressing other market segments or adopting a different strategy than that initially scheduled can be beneficial as they support the start-up’s capacity to adapt to external challenges (De Dreu and Weingart, 2003; de Wit et al., 2012; Fili, 2014; Hülshager et al., 2009). On the other hand, relationship conflicts may be detrimental to innovation and cooperation as they consume valuable resources, such as time and energy (Ahuja et al., 2008). Communication between business angels and entrepreneurs is beneficial for effective coordination, knowledge sharing and mutual understanding (De Clercq and Sapienza, 2006). However, evidence exists that frequent communication between business angels and entrepreneurs may also exacerbate relationship conflicts and trigger vicious circles of mutual frustration (Jehn and Bendersky, 2003) leading to the decision to withdraw funding (Strätling et al., 2012). Extant research indicates that business angels decide to withdraw funding at the post-investment stage mostly because of relationship conflicts related to the entrepreneurs’ negatively perceived behaviour - dishonesty, opportunism, lack of realism, attitude (arrogant, aggressive, nervous, inflexible, controlling) or divergent growth and cash-flow objectives (Mason et al., 2017, p. 526; see also Parhankangas and Hellström, 2007).

Building on interviews with experienced business angels investing in various markets, Berggren and Fili (2008, p. 48) show that business angels closely monitor entrepreneurs’ behaviours in order to know if “something is amiss in the relationship”; “missed deadlines” or “going underground” being, for instance, cited as signals affecting business angels’ trust. Such behaviours have been documented as damaging or even destroying business angels’ trust when they combine with lying (Maxwell and Lévesque, 2014), consequently leading to business angels’ exit. Trust is thus at the heart of the business angel-entrepreneur relationship, determining both investment and reinvestment decisions.

2.3. What is trust? A multi-level processual phenomenon

Trust is characterized as “the extent to which a person is confident in and willing to act on the basis of the words, actions, and decisions of another” (McAllister, 1995, p. 25). According to this definition, trust relates to how people perceive one another and to how they expect others to behave when engaged in interpersonal relationships. According to Shepherd and Zacharakis (2001, p. 132), when perceptions confirm or exceed expectations, trust is maintained, whereas when expectations are not appropriately met, trust may start decreasing.

Trust is not a stable phenomenon but rather evolves over time, leading to either a strengthening of interpersonal relationships or to their termination. Different forms of trust correspond to different stages of interpersonal relationships (Hohmann and Welter, 2006). In their conceptual paper about interpersonal trust in work relationships, Lewicki and Bunker (1996) argue that some interpersonal work relationships rely on calculus-based trust (when people evaluate the risks and benefits of their relationship), many relationships function based on knowledge-based trust (when people have enough reciprocal information to be able to predict how others are likely to behave in the future) and only few relationships achieve identification-based trust (when people develop empathy with one another). The dynamics of trust destruction must be understood in relation to these forms of trust, explain Lewicki and Bunker (1996): when calculus-based trust is violated, people may decide to either terminate their relationship or to renegotiate it on the basis of a contract; when knowledge-based trust is violated, relationships can be restored only if trust violation is perceived as unintentional; finally, when identification-based trust is violated, this can lead to major interpersonal crises because of the high level of emotional attachment to the relationship.

These forms of trust, however, only take into account the interpersonal level, whereas more recent studies emphasize that trust is not only relationally embedded but also embedded in a broader social, cultural and economic context (Welter, 2012). Interpersonal trust should be thus approached as a multi-level processual phenomenon. At a micro level, personal trust (Nooteboom, 2002) occurs in interpersonal relationships and is either affective or cognitive, depending on its source (emotions or knowledge and calculus). Interpersonal trust can be mutual, but asymmetric trust also occurs over time (Korsgaard et al., 2015). At a meso level, collective trust (Welter and Smallbone, 2006) occurs in groups, communities and organizations, where it emerges mainly based on knowledge (recommendation, certification, reputation) or identification (group membership). At a macro level, institutional trust “refers to the social and organizational context within which contracts are embedded” (Williamson, 1993, p. 486) and occurs when people expect others to behave according to shared norms, values and formal regulations when engaged in interpersonal and inter-organizational exchanges (Welter and Smallbone, 2011). For instance, drawing on

interviews with a sample of 36 informants (investors and entrepreneurs), Scarbrough et al. (2013) showed that investment decisions are not only determined by interpersonal trust but also by collective and institutional trust. Specifically, they documented how the business angels' evaluation of entrepreneurs not only depends on the entrepreneurs' personal characteristics (competences, personality) but also on how others perceive the entrepreneurs (are they recommended by credible sources, do they have a good reputation in the market, etc.). Collective and institutional trust, along with interpersonal trust, thus impact together business angels' investment decisions.

From a temporal perspective, trust formation and evolution can best be characterized as a cyclical and iterative process, starting with "an act of trust" (Scarbrough et al., 2013; see also De Jong and Dirks, 2012; Naber et al., 2018). According to Pearce (1974, p. 238), an act of trust must be distinguished from a cognitive state of trust, defined as "the subjective probability that the other will behave trustworthily". The extent to which business angels' decisions to invest or to reinvest in a new venture can be considered as an act of trust depends on the amount of risk faced by business angels and on the extent to which they rely on the entrepreneur's performance (Coleman, 1997). This implies that a *trust threshold* exists (Coleman, 1997) in business angel-entrepreneur relationships, at which a balance is set between the business angels' perceived risk and reliance on the entrepreneur. As Gambetta (2000, p. 216) argues, "trust is better seen as a threshold point, located on a probabilistic distribution of more general expectations, which can take a number of values suspended between complete distrust (0) and complete trust (1), and which is centered around a mid-point (0.50) of uncertainty". A cognitive state of trust only exists when a business angel can assume "without adequate evidence" (Pearce, 1974, p. 246) that the entrepreneur's behaviour "will not confer unacceptably negative outcomes upon him". This assumption is made based on the business angels' perception of the entrepreneur's "knowledge, competence, and motive" (Pearce, 1974, p. 246). Identifying the determinants of business angels' trust formation and evolution over time is thus of major importance for understanding how business angels' trust can be sustained to cross the VoD.

2.4. The business angels' trust in the entrepreneur: trust formation and evolution over time

At the investment stage, the entrepreneur and the entrepreneurial team's characteristics in terms of personality, experience and expertise are the main antecedents of business angels' trust formation (Clark, 2008; Collewaert and Manigart, 2016; Haines et al., 2003; Harrison et al., 2015; Murnieks et al., 2016). Highly competent, intelligent and expert entrepreneurs are perceived as more trustworthy than others (Schoorman et al., 2007). The entrepreneurs' preparedness (Chen et al., 2009) and commitment (Cardon et al., 2009; Cassar and Friedman, 2009; Eddleston et al., 2016; Prasad et al., 2000; Sudek, 2006; Zacharakis

and Shepherd, 2001) enhance business angels' trust. Additionally, business angels' trust is contingent on the entrepreneurs' reputation and institutional affiliation (Dasgupta, 2000), with trust increasing when entrepreneurs are recommended by credible sources (Paul et al., 2007; Sørheim, 2003). Business angels' personality and predisposition to trust others also affect their capacity to trust entrepreneurs (Colquitt et al., 2007; Lewicki et al., 2006).

According to Maxwell and Lévesque (2014, p. 1063), four main factors shape business angels' trust formation at the investment stage: the entrepreneurs' trustworthiness, capability, trust-related behaviour and communication (see also Daly and Davy, 2016; Martens et al., 2007; Maxwell et al., 2011; Maxwell and Lévesque, 2014). Trust formation is the result of how business angels evaluate and interpret the entrepreneur and the entrepreneurial team's behaviour to decide whether to trust them or not (Dibben, 2000). Showing consistency (Gabarro, 1978), benevolence (Mayer et al., 1995) and integrity (Lewicki et al., 2006) contributes to being perceived as trustworthy. Showing competence (Amit et al., 1990; Gabarro, 1978) contributes to being perceived as capable. Showing disclosure (Currall and Judge, 1995), receptiveness (Levie and Gimmon, 2008) and openness (Sapienza and Korsgaard, 1996) contributes to being perceived as "coachable" (Maxwell et al., 2011, p. 1063). Drawing on the observation of entrepreneur-business angel interactions in the Canadian Dragons' Den TV show, Maxwell and Lévesque developed a model of behavioural trust aimed at explaining how entrepreneurs "build", "maintain", "damage" or "violate" business angels' trust in pitch situations. The authors document how providing truthful information, confirming ability, and keeping promises contribute to building business angels' trust, whereas showing a lack of ability, being reluctant to delegate, or postponing the implementation of recommended ideas or strategy can damage business angels' trust. Maxwell et al., (2011) demonstrate that the entrepreneurs who undermine business angels' suggestions, blame others, refute feedback or intentionally misrepresent their venture's situation violate business angels' trust. This model of trust formation and destruction was developed for explaining how business angels take investment decisions during pitch presentations but has not been yet tested in post-investment business angel-entrepreneur relationships.

At the post-investment stage, business angels' trust evolves according to how they evaluate the entrepreneurs' decisions, communication and behaviour (Alaszewski and Coxon, 2009). According to the model elaborated by Klabunde (2016) in her conceptual paper, business angels' trust depends on how they evaluate the "received returns" from the entrepreneurs they support. Business angels evaluate these returns by discussing with other investors and by comparing their received returns with those provided by other entrepreneurs. However, empirical evidence indicates that the business angels' evaluation of these received returns is biased by their trust in the entrepreneur, particularly in situations of strong trust. Indeed, drawing

on survey data of business angels and entrepreneurs involved in 54 new ventures, Bammens and Collewaert (2014) show that business angels' trust impacts their assessment of venture performance, a strong trust leading to more favourable performance assessments. Sustaining business angels' trust is thus of vital importance for receiving more favourable evaluations from business angels.

During the post-investment period, business angels' trust is sustained as long as entrepreneurs confirm or exceed business angels' expectations. Disruptive or disappointing behaviours have been documented as damaging or even destroying business angels' trust (Arthurs and Busenitz, 2003; Paliszkiwicz, 2011). For instance, when business angels discover that entrepreneurs misrepresented their venture's situation or lied to them, this generates anger and resentment, because lying is perceived as "a sign of disrespect" (Pollack and Bosse, 2014) making the continuation of the relationship difficult, if not insurmountable (Lewicki et al., 2006). In their conceptual paper, Pollack and Bosse (2014, p. 745) speculate about the probability that business angels would generally seek "justice through revenge" when entrepreneurs lie to them. In such situations, according to the propositions developed by Pollack and Bosse (2014), business angels could however forgive the entrepreneur instead of withdrawing from the investment relationship if the transgression (lying) is perceived as unintentional, related to competence and not to integrity, and if the entrepreneur engages in convincing trust repair efforts. To our knowledge, no empirical studies have examined how lying, as a major trust violating behaviour, affects the business angels' decision to reinvest or withdraw funding.

To sum up, business angels' trust in the entrepreneur has been documented as a determining factor of investment decisions and as a crucial ingredient of cooperative relationships between entrepreneurs and business angels (Meng, 2012; Panda and Dash, 2016; Tang et al., 2010; Teisman et al., 2009; Wu et al., 2017). Trust has been principally studied from the perspective of business angels, with most empirical studies focusing on the investment stage, and only a few contributions investigating business angels' trust evolution during the post-investment period. Evidence exists that a business angel's decision to reinvest in a new venture significantly contributes to helping entrepreneurs cross the VoD, by providing access to additional funding (Sørheim, 2003; Wong et al., 2009). This issue is yet under-investigated in relation to business angel's trust formation and evolution over time. The aim of this article is to address this gap within the context of two French IT start-ups.

3. Methodology

3.1. Research design

We conducted a theory-building qualitative study to explore and explain how business angels' trust in the entrepreneur affects their decisions to invest, reinvest or withdraw funding in the VoD. The aim of our research is to build theory in the area of the VoD by extending and refining our knowledge relative to the understudied influence of business angels' trust on highly innovative start-ups' success and failure through the VoD. A multiple-case research design was deemed appropriate for bridging this knowledge gap and develop theory inductively (Reay and Whetten, 2011; Whetten, 1989), thus ensuring "methodological fit" (Edmondson and Mcmanus, 2007). Moreover, as the VoD is a complex multi-phase process consisting of multiple activities (Markham, 2002a) and feedback loops (Schoonmaker et al., 2012), this context justifies the choice of the case study as the research strategy for this study (Siggelkow, 2007; Yin, 2009). As we aimed at theory building, we purposefully selected two case studies of success and failure (Argote and Miron-Spektor, 2011; Reay and Zhang, 2014; Voss et al., 2002), a "polar types" sampling strategy in which extreme cases are selected with the aim to "observe contrastive patterns in the data" (Eisenhardt and Graebner, 2007, p. 27). Multiple case studies enable the collection of comparative data, which is considered more robust than data obtained from single case study designs (Chiesa et al., 2007; Eisenhardt and Graebner, 2007; Kurkkio et al., 2011). Moreover, we developed a retrospective case study design to increase the internal validity of our research by allowing the identification of cause and effect aspects (Blazejewski, 2011).

We selected the two case studies within a business angel network of the West of France, comprising 46 business angel members. This choice is justified by the fact that one of the authors has acted as a business angel for more than 20 years in the region and was a members of this network since its creation, in 2007, which enabled us to conduct the study as an insider/outsider team of researchers (Louis and Bartunek, 1992). The selection process of the two contrastive cases of success and failure comprised two phases: 1) In 2017, we collected information from the business angel network concerning highly innovative new ventures supported by network members; 2) Next, based on preliminary discussions with the network coordinator and the screening of the 28 new ventures supported by the network since its creation, we decided to focus our investigation on two IT application-related companies, which had launched new technologies, and in which business angels invested money during the VoD. We selected these two contrastive start-ups because they operated in the same industry, thus facilitating inter-case comparison. In both companies, in order to be able to capture the formation and evolution of business angels' trust together with its effects on investment and reinvestment decisions, we retrospectively studied the business angel-entrepreneur relationship from investment to post-investment, then exit, over a period of two years (Start-up A) and nine years (Start-up

B), respectively. Table 1 provides a brief description of the two entrepreneurs (both men, aged 64 - Start-up A and 42 - Start-up B) and their ventures.

Cases	Innovation	Year Founded	Business angel-entrepreneur relationship	Sustainability
Start-up A	The innovation developed by the entrepreneur, who held a PhD in Computer Science, consisted of an algorithm optimized for advertising and Internet search, which allowed users to classify second-hand cars and target appropriate customer segments by publishing the offers on relevant websites. Incremental innovation.	2009	2 years (2010-2012)	Start-up ceased operations in 2012.
Start-up B	The innovation developed by the entrepreneur, who held a PhD in Computer Science, consisted of an advanced handwriting recognition engine. This technology was a human-machine interface enabling the recognition of handwriting and drawing. Disruptive innovation.	1998	9 years (2000-2009)	Year of recommendation to VCs: 2006. The company is still active in 2020.

Table 1: Background information on the cases

3.2. Data collection

Although one of the authors followed the two cases over a full period of two and nine years, respectively, by participating in several meetings between business angels and entrepreneurs, this study is retrospective rather than longitudinal (cf. Söderblom et al., 2016) as it looks backwards to understand how business angel-entrepreneur relationships developed instead of studying them in real time. Our data collection process is a combination of extensive archival data and interviews as recommended for qualitative cross-case study analysis (Yin, 1981).

Our study largely relies on document-based archival data. This choice is justified, first, by our aim to identify the precise events and moments when business angels' decisions were taken along with their context of occurrence. Second, archival data enabled us to address several concerns of interview-based studies such as subjectivity and post-rationalization biases (Creswell, 2003; Mills and Birks, 2014), and mitigate the potential lack of accuracy of retrospective accounts (Huber and Power, 1985). Finally, the large quantity and variety of archival data collected allowed us to triangulate the data and thus strengthen the internal validity of the study, which affirmed our research strategy (Flick et al., 2004). Specifically, given that one of the authors was an insider, we were granted privileged access by the business angel network to the documents shared by business angels and entrepreneurs throughout the two-year and the nine-year period of the business angel-entrepreneur relationship, such as business plans, minutes of meetings, legal

documents, and shareholder agreements. We also had access to minutes of formal meetings between entrepreneurs and business angels. In total, we gathered 64 files for Start-up A and 305 files for Start-up B. Both Start-Up A and Start-up B entrepreneurs gave us permission to use these documents for research purposes as long as we would preserve their anonymity.

We conducted three semi-structured interviews with two business angels who invested in the studied start-ups (of which, B1 had invested in the two start-ups and B2 had invested only in Start-up A), along with an interview with the entrepreneur of Start-up B to collect additional data. The entrepreneur of Start-up A, who experienced failure, specified that he was not willing to discuss his relationship with business angels, because this was still “*an emotionally difficult issue*” for him. Our aim during the interviews was to capture the participants’ perspective on the investment relationship, through observing how they interpret what they take into account (Stake, 2005). The interviews lasted between 45 and 120 minutes. The business angels’ interview guide covered four main areas: 1) their perception of the investment relationship with the entrepreneur; 2) their reasons for investing and reinvesting in the start-up; 3) their perceptions of the entrepreneur’s trust-related behaviours throughout the duration of their relationship; 4) their reasons for deciding to reinvest or withdraw funding during the VoD. The interview with the entrepreneur covered three main issues: 1) his perception of the investment relationship; 2) his reasons for searching for funding from business angels; 3) his perception of the business angels’ trust throughout the duration of their relationship.

To sum up, archival data enabled us to understand *how* and *with what outcomes* business angels’ trust affected their decisions to invest, reinvest or withdraw funding during the VoD, while semi-structured interviews enabled us to understand *why* they did so. Table 2 presents a summary of collected data.

Companies	Year	Event	Documents	Number of documents	Participants
Start-up A	October 2010-April 2012	Formal meetings	Minutes of the meetings	8	Entrepreneur and 15 business angels from 3 business angel networks
	November-December 2010	Capital increase (business angels’ round for 330 K€)	Business plans, Power-Point presentations for potential investors, shareholder agreements, financial documents (Assumptions for shareholder structure if capital increases; Simulations of cash positions)	37	Entrepreneur and 15 investors (business angels)
	October 2010-	Business angels’	Minutes of the	23	15 business angels

	January 2011	meetings	meetings		
	February 2011- January 2012	Strategic committee meetings	Minutes of the meeting	10	Entrepreneur and 4 shareholders (business angels)
	February 2012	Extraordinary General Meeting	Minutes of the meeting	1	Entrepreneur and shareholders
	March 2012	Business angels' exit	Legal documents of the cessation of payment	5	Shareholders
	April 2019	Individual semi- structured interviews with 2 business angels (B1 - 45 minutes and B2 - 57 minutes respectively)	Transcripts of semi- structured interviews	2	2 business angels (B1 -47 years-old, entrepreneur and B2 - 60 years-old, men, professor)
Start-up B	October 2000- May 2012	Formal meetings	Minutes of the meetings	10	Entrepreneur, business angel network coordinator and 5 business angels
	November 2000	Capital increase 1 (1 st business angels' round: 700 K€):	Business plan, shareholder agreement, various information for shareholders, distribution table of stocks.	37	Entrepreneur and 41 investors (business angels)
	October 2002	Capital increase 2 (2 nd business angels' round: 260 K€):	Business plan, shareholder agreement, various information for shareholders, distribution table of stocks	37	Entrepreneur and 43 investors (business angels)
	December 2003	Capital increase 3 (3 rd business angels' round: 333 K€):	Business plan, shareholder agreement, various information for shareholders, distribution table of stocks	37	Entrepreneur and 55 investors (business angels)
	November 2004	Capital increase 4 (VCs' round: 1040 K€)	Business plan, shareholders' agreement, shareholder information, contract for special shares.	37	Entrepreneur, shareholders and VCs
	2001-2009	Monthly reporting	Reports	108	Entrepreneur
	2000-2009	Annual accounts	Reports	9	Entrepreneur
	2003-2009	General Meetings of Shareholders	Minutes of meetings	7	Shareholders
	November 2009	Documentation related to sale to	Letters of intent, agreements, valuation,	23	Entrepreneur, 5 business angels

		VCs	summary of discussions with VCs.		(shareholders) and VCs
	April 2019	Interview with the entrepreneur (60 minutes)	Transcripts of semi-structured interview	1	Entrepreneur
	April 2019	Interview with a business angel (B2 - 55 minutes)	Transcripts of semi-structured interview	1	Business angel (B2 - 60 years old, man, professor)

Table 2: Collected data

3.3. Data analysis

The total amount of collected data was substantial, we thus prepared the material for analysis by organizing the archival and interview material in two Excel files (one file per case study), chronologically. Within these two Excel files, collected data was categorized in four columns: 1/information relative to Start-up A and Start-up B: market, strategy, performance; 2/information relative to business angels' decisions to invest, reinvest and withdraw funding; 3/information relative to the entrepreneurs' decisions and behaviours in relation to their companies; 4/information relative to the entrepreneurs' decisions and behaviours (including communication) in relation with business angels. After this preparatory data organization phase, our data analysis process started and comprised four main stages of single-case analysis and interpretation followed by inter-case comparison and contrast, aimed at theory building (see Table 3).

During the first stage of analysis, we did an *event-based analysis* aimed at identifying the critical events of the business angel-entrepreneur relationship in connection with the main events encountered by the two start-ups in the VoD. We did so by building two sets of *chronological accounts*: one relative to how the two start-ups developed over time and the other relative to how the business angel-entrepreneur relationship developed over time. To build the first chronological account, we identified the main start-up development-related events that we categorized as relative to strategic decisions, marketing, sales and recruitment; to build the second chronological account, we identified the investment-related events relative to when and in which contexts investment, reinvestment, recommendation and exit decisions have been made by business angels. The events identified in these two chronological accounts were all classified according to their occurrence during the investment or post-investment stages. We then connected the two chronological accounts into a single consolidated chronology of each of the studied cases. We analysed these consolidated chronological accounts to identify the different stages of the VoD for Start-up A and Start-up B (following Auerswald and Branscomb, 2003), along with the precise moments when the two start-ups expressed critical needs of financial resources, which we illustrated in Figures 2 and 3.

During the second stage of analysis, we examined the chronological accounts mentioned above along with the business angels' interviews to understand how *business angels* perceived and evaluated the two entrepreneurs, along with how and why their trust in the entrepreneur changed over time, based on these perceptions and evaluations, thus addressing our first research question (RQ1). We did so by first identifying and categorising business angels' perceptions and evaluations of entrepreneurs in four categories (personality, decisions, behaviours and communication). Then, we classified these perceptions and evaluations as either building trust, damaging trust or destroying trust. Specifically, drawing on Maxwell and Lévesque (2014), we coded the entrepreneurs' trust-related behaviours as reflected in the archival data and the business angels' interviews in three categories: a) building trust behaviours (such as showing and confirming ability, providing truthful information, showing openness, and keeping promises), b) damaging trust behaviours (such as showing a lack of ability in a competence domain, showing inability or unwillingness to delegate), and c) destroying trust behaviours (such as lying, not keeping promises, or misrepresenting the company's situation). Finally, we drew on Welter's (2012) suggestion relative to the nature of trust in entrepreneurial contexts to code the forms of trust encountered in the collected material as personal trust, collective trust and institutional trust. Personal trust occurrences were identified at the interpersonal level of business angel-entrepreneur relationship, while collective trust was coded as occurring at the level of the business angel network as a group. Institutional trust was identified in situations when external stakeholders, such as clients or competitors expressed their trust in the entrepreneur, which was reported by B1 and B2 as having affected their own perceptions and evaluations of the entrepreneur.

During the third stage of analysis, we connected the two prior rounds of data analysis to identify the *main outcomes* of the business angels' trust evolution in terms of investment and reinvestment decisions, thus addressing our second research question (RQ2). We did so by first classifying the business angels' decisions in four categories (outcomes): investment decision, reinvestment decision, decision to recommend the entrepreneur to VCs, and decision to withdraw funding. We then examined these outcomes together with the chronological evolution of trust by focusing on the post-investment period to identify trust shifts that we labelled, following Coleman (1997) and Gambetta (2000), trust threshold moments relative to situations when business angels' trust was severely damaged, leading to the decision to withdraw funding in the VoD.

During our fourth stage of analysis, we drew on the three prior stages of analysis to inductively build a *process-model of sustaining business angels' trust* to cross the VoD (Figure 6). We did so by combining prior business angel research and VoD literature (as illustrated in the theoretical background sections of this article) to elaborate ten propositions, brought together by way of a process-model. This model states which forms of trust most probably occur and when in the investment and post-investment

stages, along with indicating the most probable business angels' decisions, based on their trust evolution over time (decision to reinvest, to recommend the company to VCs or decision to withdraw funding).

Process of analysis	Aim of analysis	Level of analysis	Description of analysis	Output
STAGE 1 single-case analysis	Identify critical events of the business angel-entrepreneur relationship in connection with start-up development-related events in the VoD	EVENT-BASED ANALYSIS OF START-UP DEVELOPMENT AND INVESTMENT RELATIONSHIPS	<ol style="list-style-type: none"> 1) Even-based coding of the documented activities and decisions related to business angel-entrepreneur relationship (investment, reinvestment, recommendation and exit decisions) and start-up development (strategic decisions, marketing and sales results, recruitment). 2) Building a chronological account of how the start-ups developed over time and a chronological account of how the business angel-entrepreneur relationship developed over time. 3) Classifying events according to their occurrence in investment or post-investment stages. 4) Identifying the different stages of the VoD along with the moments when the start-ups were confronted with critical needs for financial resources during this period. 	Chronology of the VoD indicating critical needs for financial resources and investment-related events Figure 2
STAGE 2 single-case study inter-case study	Understand and explain <i>why</i> and <i>how</i> business angels' trust in the entrepreneur changes throughout the investment and post-investment stages	BUSINESS ANGELS' PERCEPTIONS AND EVALUATIONS OF ENTREPRENEURS & BUSINESS ANGELS' TRUST EVOLUTION	<ol style="list-style-type: none"> 1) Identifying and categorising business angels' perceptions and evaluations of entrepreneurs in four categories: personality, decisions, behaviours and communication; then, classifying these perceptions and evaluations as leading to either trust building, trust damaging or trust destruction. 2) Drawing on Maxwell and Lévesque (2014), coding the entrepreneurs' trust-related behaviours in three categories: a) building trust behaviours (e.g., showing and confirming ability, providing truthful information, showing openness, and keeping promises), b) damaging trust behaviours (e.g., showing a lack of ability in a competence domain, showing inability or unwillingness to delegate), and c) destroying trust behaviours (e.g., lying, not keeping promises, or misrepresenting the company's situation). 3) Drawing on Welter (2012), coding forms of trust and identifying when they occurred or disappeared over the studied period: a) personal trust (interpersonal business angels' trust), collective trust (business angels' network trust) and institutional trust (external stakeholders' trust). 	Business angels' trust evolution from investment to exit Figures 3, 4
STAGE 3 single-case study inter-case study	Understand and explain <i>how</i> business angels' trust affects their decisions throughout the investment and post-investment stages	BUSINESS ANGELS' INVESTMENT AND POST-INVESTMENT DECISIONS	<ol style="list-style-type: none"> 1) Classifying business angels' decisions in four categories (outcomes): investment decision, reinvestment decision, decision to recommend the entrepreneur to VCs, and decision to withdraw funding. 2) Examining business angels' post-investment decisions to identify trust shifts that we labelled, following Gambetta (2000) and Coleman (1997), trust threshold moments relative to when business angels' trust was severely damaged, leading to the decision to withdraw funding in the VoD. 	Investment and post-investment decisions based on business angels' trust evolution Figure 5
STAGE 4	Building a process-model of bridging the VoD by sustaining business angels' trust	INDUCTIVE THEORY BUILDING	Drawing of the three prior stages of analysis that we combined with prior business angel research and VoD literature, we elaborated ten propositions, brought together by way of a process-model of sustaining business angels' trust to cross the VoD.	Process-model of sustaining business angels' trust to cross the VoD Figure 6

Table 3 : Data analysis process

4. Findings

4.1. An event-based overview of the two start-ups in the VoD

Start-up A was founded in 2010, with an initial capital of 2k€. According to the minutes of initial formal meetings between the entrepreneur and business angels (October 2010), the entrepreneur's main objective was to develop and launch a specialized online platform for sellers and buyers of second-hand cars. The entrepreneur's technical skills (PhD in Computer Science and MBA in Marketing) enabled him to invent a new IT system aimed at optimizing online advertising to sell second-hand cars. The research, concept and early stage technology development stages did not require external financial resources, the main investment during these stages being the time the entrepreneur spent working on the project. However, by December 2010, the entrepreneur needed external investors for the product development and commercialization stages. He had invested 80 k€ in the first stages, and estimated the cost of work on research, concept and early stage technology development at 125k€ for the first 18 months of the company's existence. He asked business angels for 330k€. The result of investment negotiations was a capital increase of 380k€ on 9th December 2010, because business angels asked the entrepreneur to invest an additional amount of 50k€ to signal commitment (business angels' confidential discussions as reported by the minutes of business angels' meetings taking place between October and December 2010). In the case of Start-up A, business angels thus invested in the company right after the early stage technology development. According to the minutes of strategic committee meetings taking place from February 2011 to January 2012, the invested cash was burnt rapidly, within a 14-month period, to achieve business notoriety and recruit car sellers and buyers. On 8th March 2012, after one year of strategic committee meetings and business angel-entrepreneur meetings, business angels refused to reinvest in the company. Business angels counselled the entrepreneur to find other investors such as private companies or VCs, but they did not recommend the entrepreneur to other investors, as reported by B1 and B2 in their interviews. The entrepreneur was not able to find other financial solutions for completing the commercialization and marketing stage, the start-up thus ceased operations on 13th March 2012, while in the VoD, as indicated in the legal documents of the cessation of payment. Business angels lost the entire amount of their invested money.

Start-up B was founded in 1998. As indicated in the minutes of the first formal meetings with business angels (October 2000), the entrepreneur was a skilled engineer with a PhD in Computer Science, aiming to develop an advanced handwriting recognition machine. The entrepreneur had invested in the company, together with friends and family, an initial amount of 100k€. After two years of research and concept development, and in order to reach the early stage technology development, he needed new investors. In November 2000, he convinced several business angels from three different business angel networks to invest 700k€ in the company to help him finalize technology development and to recruit a

commercialization team, as indicated by the shareholder agreement document. After nearly two years and a monthly average cash burn rate of 45k€ and few revenues (89 k€ in the first investment year, 142k€ in the second investment year, as documented by monthly reporting and annual accounts), the company needed extra money to support the nascent technology. In October 2002, business angels decide to reinvest in the company (260k€), as documented by the new shareholder agreement. One year later, according to the minutes of the meetings between the entrepreneur and business angels organized in September-October 2003, the company had not reached the breakeven point and needed additional financial resources. As documented by the third shareholder agreement signed in December 2003, 53 investors – business angels and employees decide to invest 333k€ in the company. The entrepreneur explained in his interview that, this time, all the money received was used for commercialization and marketing activities. The breakeven point was reached in 2004, when a VC decided to invest 1040k€ in the company to support the new product development stage (specifically, the introduction of new languages and the recognition of Asian language handwriting by the recognition machine). Five years after this VC's investment, an American Family Office bought 100% of the start-up's shares. The company is still active in 2020.

Figure 2 illustrates the sources of financing (entrepreneur and love money – family and friends, business angels, VCs) along with the stages of the VoD when Start-up A and Start-up B encountered situations of critical financial needs. In the case of Start-up A, the business angels' intervention occurred only once, between the product development and the commercialization stages, while for Start-up B, business angels first invested to facilitate the passage from concept invention to the early stage technology development, and then reinvested to support product development and commercialization. Moreover, business angels recommended the entrepreneur to a VC who decided to invest in the company in order to support its commercialization efforts.

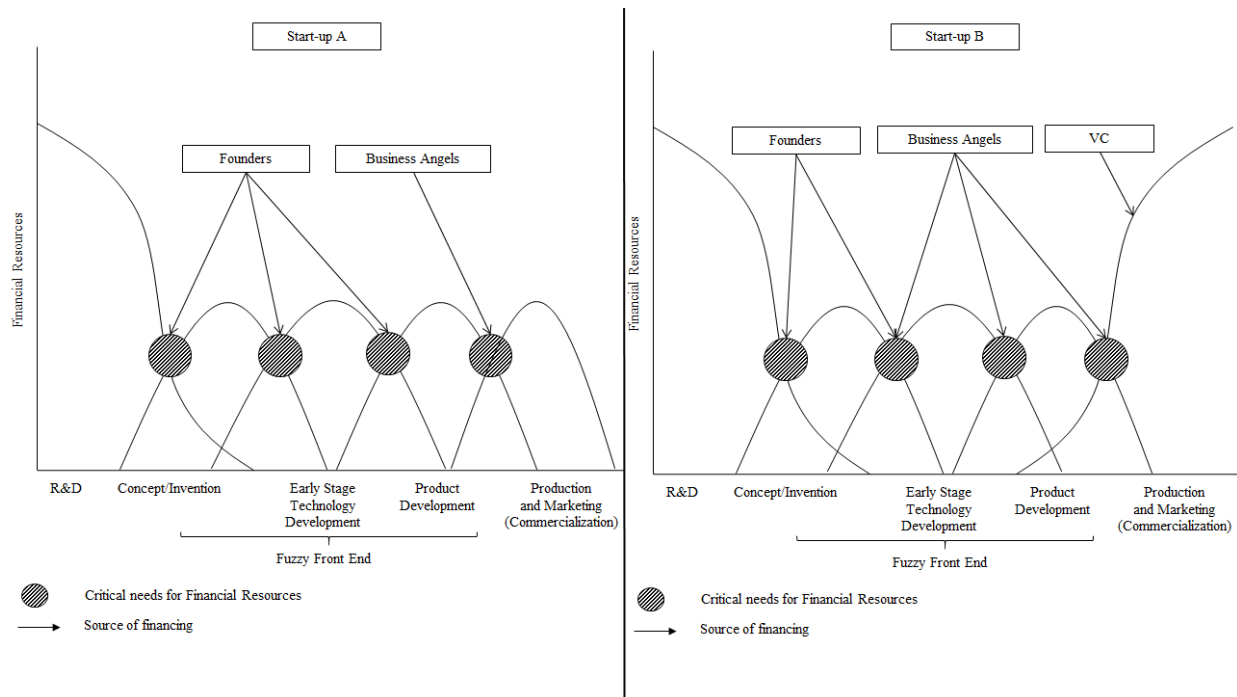


Figure 2: Start-up A and Start-up B in the VoD

4.2. Business angel-entrepreneur relationship and trust evolution from investment to exit

To answer our first research question relative to how and why the business angels' trust in the entrepreneur evolved over time, from investment to post-investment, then exit, we started by examining how business angel-entrepreneur relationship developed over time, as documented in the minutes of the meetings between the entrepreneur and business angels in Start-up A (October 2010-April 2012) and in Start-up B (October 2000-May 2012), in the minutes of business angels' meetings in Start-up A (October 2010-January 2011), in the minutes of shareholder meetings in Start-up B (2003-2009), and as reported in the interviews with B1, B2 and the entrepreneur of Start-up B. Figures 3 and 4 chronologically illustrate the major moments of business angels' trust evolution from investment to exit (indicated as T1 to T4 for Start-up A; T1 to T5 for Start-up B) that we connected with the main development-related events in the two studied start-ups (indicated as E1 to E10 for Start-up A; E1 to E6 for Start-up B).

As indicated in our data analysis section, we coded the entrepreneurs' trust-related behaviours, as reported in the collected archival data and interviews, in three categories, following the detailed analysis grid provided by Maxwell and Lévesque (2014, p. 1063): building trust, damaging trust and destroying trust behaviours. The coding of the entrepreneurs' trust-related behaviours was challenging, as we did this

analysis based not on direct behavioural observation but instead based on the business angels' *perceptions and evaluations* as reported in the archival data and in the business angels' interviews. We were able to do this analysis because business angels largely used arguments relative to trust-related behaviours to motivate and explain their decisions. Overall, their perceptions and evaluations regarding the entrepreneur of Start-up A indicate that he was able to build business angels' trust during the initial formal meetings by showing competence and receptivity to feedback, but that he rapidly and repeatedly damaged business angels' trust by showing a lack of managerial ability and an unwillingness to delegate, and he finally destroyed business angels' trust by lying to them, which led to the business angels' decision to withdraw funding and exit. On the other hand, the business angels' perceptions and evaluations regarding the entrepreneur of Start-up B indicate that he was not only able to build business angels' trust during the initial formal meetings by showing relevant experience and expertise, but also that he was committed to sustain business angels' trust by showing consistency, receptivity and a constant openness to be "coached", which finally led to business angels' reinvestment decisions at two occasions, then to the decision to recommend the entrepreneur to VCs.

In the case of Start-up A (see Figure 3), B1 and B2 perceived the entrepreneur as trustworthy, capable and communicative at the beginning of their relationship. In his interview, B1 acknowledged the importance of personal trust as a major determinant of investment decisions: "*Trust is everything. Either you personally trust the entrepreneur or not. It's like everything in life: nobody will invest his own money if he doesn't trust the person he invests in*". When asked about his perception of the entrepreneur during their initial meetings, B2 stressed the notion of honesty and emphasized how confident he felt in the entrepreneur's intelligence and personality: "*We had attended his presentation, and I thought he was sincere. I believed in what he was doing and I was so happy to listen to his speech. I thought he would never crash his company because he was so smart, and I thought that he won't be dishonest. Generally, I am suspicious of everyone and I only invest in one fourth of the projects I see. In Start-up A's case, I truly believed in the project leader, he was gentle, he was calm, I liked that a lot. So, I invested in the business*". These perceptions and evaluations were shared by other business angels, as indicated in the minutes of the formal meetings between the entrepreneur and business angels of October 2010. Business angels perceived the entrepreneur's behaviour as signaling competence, consistency, and accuracy, which may explain why they decided to invest rapidly, only five weeks after the first presentation of the new venture. They estimated that the entrepreneur was *competent* based on his relevant technical skills and experience. Moreover, they also thought that the entrepreneur showed *consistency* by displaying innovative initiatives and by demonstrating business performance (website creation and 50,000 visits between October 2010 and January 2011), thus convincing business angels that they were pursuing a common growth objective for the company. The initial investment

in Start-up A was thus triggered by both business angels' *personal trust* and by a *collective trust* decision based on the network consensus relative to the entrepreneur's credibility and trustworthiness.

However, shortly after their initial investment decision, as documented by the business angels' minutes (January 2011) and by the strategic committee meetings between the entrepreneur and business angels (February 2011-January 2012), business angels' felt that the entrepreneur progressively damaged their personal trust by showing limited operational capability in managing the company. For instance, regarding *management expertise*, business angels seemed to appreciate the entrepreneur's technical skills but they had doubts concerning his management ability. Specifically, according to B1, the entrepreneur showed an incapacity to control his subordinates' performance. Moreover, he recruited a freelance business developer but did not clearly delegate that person's tasks. Both B1 and B2 speculated that the business developer they have met at one occasion (during one of the strategic meetings taking place in Start-up A) seemed "*ignorant of the entrepreneur's objectives*". Consequently, during the extraordinary general meeting between the entrepreneur and business angels (February 2012), business angels argued that, from their monitoring of Start-up A and its performance on the market, they estimate that the recruited developer was not very active in managing the company's communication although this was part of his responsibilities as indicated in his job description, nor was he fully aware of the technological issues because the entrepreneur had not trained him adequately. During this extraordinary general meeting, the entrepreneur did not take *responsibility* for his own errors, which damaged business angels' trust. Additionally, in March 2012, when the company encountered major financial difficulties, the entrepreneur blamed the lack of resources instead of taking responsibility for his own decisions regarding strategy and management, according to B2. Business angels thus perceived him as a leader who hides behind the excuse of insufficient means to increase traffic to the website instead of trying to find alternative solutions or ask for help, as related by both B1 and B2. Most importantly, in terms of *accuracy*, the entrepreneur destroyed business angels' trust by lying to them. Specifically, in December 2011, business angels were dismayed to discover the negative situation of the company's accounts and the urgent need to increase capital. In fact, the entrepreneur *lied* to business angels by deliberately *misrepresenting the company's financial situation*: he had falsified the start-up's balance sheet presented to business angels in June 2011, which was discovered by the business angels six months later. In his interview, B2 confessed that it was at this moment that the entrepreneur completely destroyed his personal trust: "*It was during the annual account meeting. [This is a moment when] you see everything. Unfortunately, it happens only once a year. (...) This destroyed the confidence I had in the project leader and as soon as I could leave, I left. Because I had the feeling that there were a lot of things I did not find honest, and this destroyed my confidence. So I left.*" This was a source of frustration and

disappointment also for B1, who acknowledged in his interview that “*It hurts a lot when you come across a guy like that (...) Lies arrive like this, unexpectedly, we did not see these lies coming...*”.

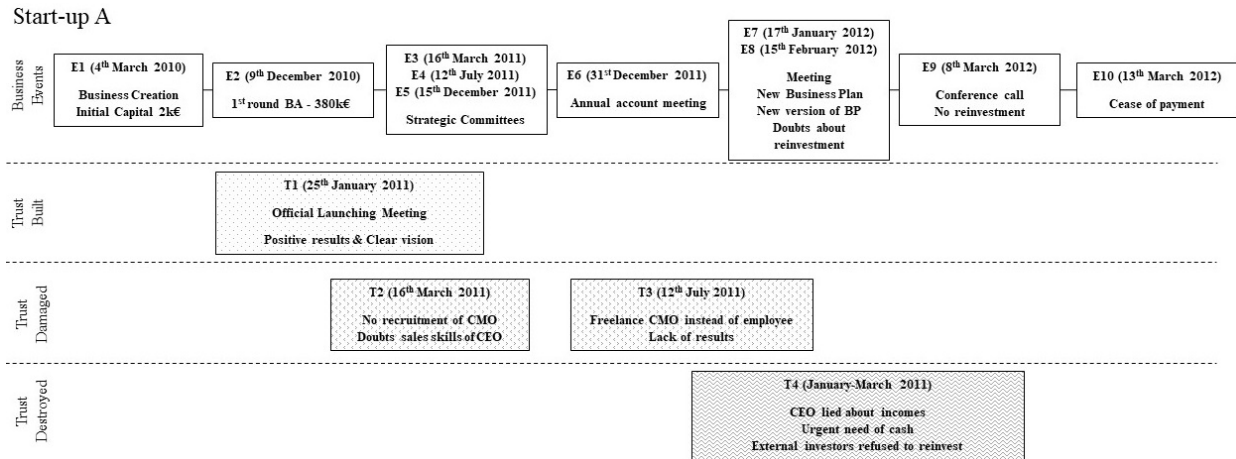


Figure 3: Business angels’ trust evolution from investment to exit (Start-up A)

In the case of Start-up B (see Figure 4), business angels perceived the entrepreneur as displaying trustworthy, capable, trusting and communicative behaviours during the entire duration of their relationship, as documented by archival data and interview with B2. During the initial formal meetings (October-November 2000), the entrepreneur was perceived as displaying *capable behaviours* both in terms of *expertise* and *experience*, and as regards the quality of his *judgments*. Business angels estimated that the entrepreneur was not only highly qualified and experienced in his field of expertise but also passionate: “*He likes to work through the entire product development process, from the emergence of an innovative idea to its commercialization*” (business angel network coordinator, minutes of formal meeting, December 2000). This is an indication of *collective trust* in the entrepreneur at the beginning of the investment relationship. At this time, the entrepreneur maintained that his company must defend a technological leadership position because he thought that he had invented a technology that imposes the fewest possible constraints on users for optimal results, as documented by the minutes of formal meetings. Business angels were impressed by his quest for excellence: “*the keyword is excellence*” (business angel, minutes of formal meeting, March 2002), “*he aims to combine very high technological standards with high product quality and service*” (business angel, minutes of formal meeting, April 2003), “*the entrepreneur fights for excellence at the marketing and commercial levels*” (business angel, minutes of formal meeting, September 2003). Telling the story of how his personal trust was consistently built by the entrepreneur over time, B2 explains that he trusted the entrepreneur because of his perceived *competence* regarding not only technological aspects but also *management*: “*trust is not a general judgment for us, it is trust in the abilities of the team leader to*

reach the objectives (...) once we invest [in a company], we are able to evaluate these abilities by watching what the entrepreneur does concretely”.

Moreover, according to the minutes of general meetings of shareholders (2003-2009), business angels evaluated the entrepreneur as *consistent*. They appreciated his initiative to inform them regularly about the start-up’s financial situation by sending them a monthly financial report from January 2001 to September 2009. B2 also stressed that when the company went through difficult financial situations (at the end of 2001 and in 2002), some of the investors approached the entrepreneur and recommended that the company cease operations. In his interview, the entrepreneur explained that he refused to do out of respect for business angels, claiming that he had “*a moral commitment to investors*”, which is why he wanted his company to succeed “*so as to be able to thank them for their support*”. This attitude was much appreciated by business angels, as B2 argued in his interview: “*trust is built based on the entrepreneur’s behaviour mainly regarding his transparency (...) we are very careful with this. (...) When an entrepreneur warns us that he will probably bring some bad news, we tend to support him. It’s not because he brings us bad news that we no longer trust him. We trust him first of all because he is transparent with us and because he had identified the source of the problem and he asks us for help to manage the problem effectively*”.

Business angels also appreciated the entrepreneur’s *disclosure*, as indicated by the formal meetings between the entrepreneur and business angels. He showed vulnerability by sharing confidential information with business angels even though he was committed to ensuring the confidentiality of his technological invention in order to protect it from potential competitors. He therefore asked his shareholders to avoid circulating monthly reports that he started to share with business angels in 2001. Moreover, business angels acknowledged the entrepreneur’s *receptiveness* throughout the duration of their relationship based on his openness to recommendations and suggestions, and flexibility regarding the requested implemented changes, as documented by the minutes of the general meetings of shareholders (2003-2009). In his interview, B2 testifies that the entrepreneur was open to new ideas and regularly contacted the business angel network coordinator regarding financial issues (an area in which he felt less comfortable). Moreover, the entrepreneur accepted help from a business angel expert in the start-up’s technological sector to conceive and implement an effective B-to-B commercial approach. In his interview, the entrepreneur explains that he viewed business angels (in particular the business angel network coordinator and two other business angels, among which B2) as “*co-entrepreneurs rather than just shareholders*”. Finally, the entrepreneur was perceived as providing truthful and timely information throughout his formal meetings with business angels, thus enhancing the business angels’ *accuracy* perceptions. The minutes of the business angel-entrepreneur meetings show that participants discussed together the strategy of the company, the most promising business model (B-to-C or B-to-B), licenses-related issues, potential commercial

solutions, and the best approach to adopt for a new fundraising campaign. Business angels were aware of the company's financial situation and thus able to engage in common decision making with the entrepreneur to help him find appropriate development solutions. As B2 observed, "*he openly informed us each month of both good news and bad news.*" By 2007 and 2008, Start-up B gained recognition as a leader in his industry, which is visible in the company's monthly report of October 2008: "*We got a lot of positive feedback from competitors and clients; the start-up is clearly #1 in terms of recommendations in the Digital Pen segment.*" This was a signal of *institutional trust*: the ecosystem trusted the entrepreneur and his company, which was promising regarding the ability of Start-up B to cross the VoD.

However, during their nine-year relationship, the entrepreneur also damaged business angels' trust on several occasions. Specifically, business angels criticized the entrepreneur for his strategic choices during the first years of the investment relationship. The minutes of formal meetings with business angels document that the business angel network coordinator and two other business angels with experience in the start-up's technology sector raised some doubts about the entrepreneur's ability to delegate and his strategic choices in a context of increased competition (March 2001 and December 2003). For instance, business angels estimated that the departures of the marketing and commercial directors between December 2001 and July 2003 were related to the entrepreneur's *lack of delegation*. They suspected that the entrepreneur was afraid of losing power because he was not an expert in marketing. Regarding the company's initial business model, business angels also regularly tried to change the entrepreneur's projects, even though they never questioned his initial technological developments. Moreover, as indicated by the formal meetings between the entrepreneur and business angels, business angels also noticed a *lack of skills in marketing and commercialization*. In 2007, they advised the entrepreneur "*not to deal with salespersons or to contact potential buyers and focus instead on technology development, his area of expertise*" (minutes of formal meeting, September 2007). Additionally, according to the minutes of general meetings of shareholders, business angels estimated that between 2007 and 2008 the entrepreneur showed a *lack of benevolence* towards employees. Business angels stated at these occasions that the entrepreneur was so absorbed by achieving business objectives that employees perceived him as too demanding. Indeed, in the monthly report of October 2008, the entrepreneur recognized that "*the atmosphere [in the company] is deleterious even though it is better than 6 months ago. The turnover increased dramatically*". However, business angels' trust was never destroyed during the investment relationship.

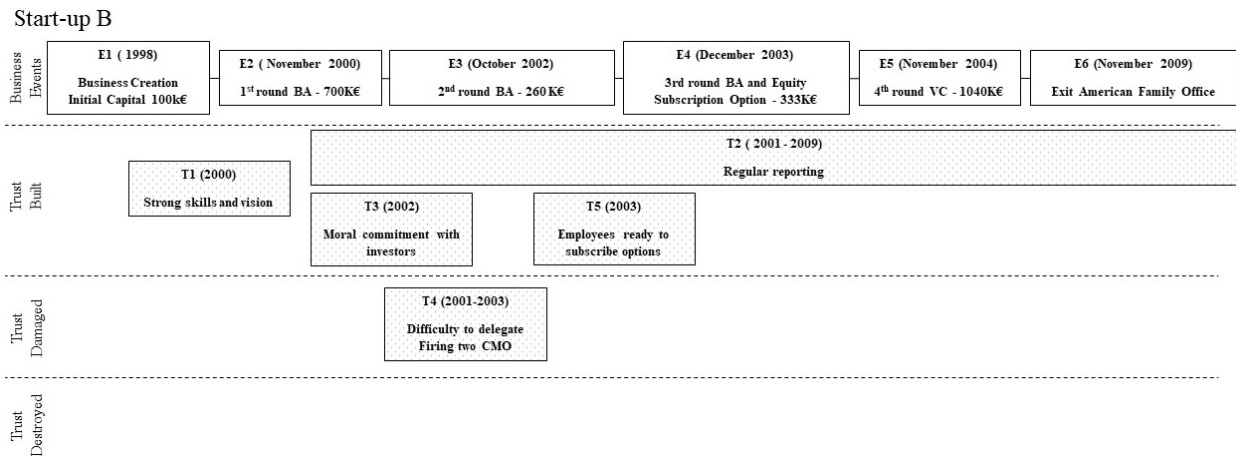


Figure 4: Business angels' trust evolution from investment to exit (Start-up B)

4.3. Outcomes of the business angels' trust evolution in the VoD

To answer our second research question relative to how the business angels' trust evolution affected their decisions to reinvest or withdraw funding in the VoD, we examined business angels' investment and post-investment decisions.

The analysis of Start-up A shows that the main determinant of business angels' investment decision (December 2010) was their *personal and collective trust*. As we saw in the prior section (4.2), business angels' trust was progressively damaged between 2010 and 2012, then destroyed by the end of 2011. Because of the *negative business angels' trust evolution* over the duration of the investment relationship, when the entrepreneur asked business angels to reinvest in his company in January 2012, business angels made a *negative reinvestment decision*, according to the minutes of the extraordinary general meeting of February 2012. This is when business angels informed the entrepreneur that they had evaluated a second option, that of finding another financial investor or a company from the same industry interested in buying Start-up A. However, they also stressed at this occasion that if the entrepreneur chose the latter solution, he should proceed with it alone. They *refused to make any recommendation* to other investors or companies, or to be involved in the company's future in any other way. According to B1, the entrepreneur chose the second option suggested by business angels but because of the company's financial situation and of the entrepreneur's lack of recommendation, three companies refused to get involved with the start-up. Business angels thus decided to withdraw funding and refused to recommend the company to other investors because their trust in the entrepreneur was destroyed, which consequently led to *start-up failure in the VoD*. B1 confirmed that the decision to withdraw funding was indeed motivated by trust destruction: "At the beginning, I found the guy marvelous and everything, and then, excuse me for telling this, he f** us

seriously, really seriously; we are now in trial, at the high court of Paris, all that, you understand. Yet this is not the goal of a business angel-entrepreneur relationship... But there is no rule. Even the best things can turn sour.” In a similar vein, B2 explained his decision to withdraw funding as motivated by *personal and collective trust destruction*: “We [the business angel network] *understood it was a trickery on numbers (...)* He lied to us. So, when we understood that he lied to us intentionally.... *It's even no more worth discussing when someone announces you a turnover of 10 and in fact it's .05, you see... For me it was over, it was completely over, a complete loss of trust...*”. Both B1 and B2 mentioned their *satisfaction of being able to exit* the company. In his interview, B1 told the story of when business angels who invested in Start-up A went to Paris, avenue of the Opera, just after having signed their exit, in March 2012: “*we crossed the street at the Café de la Paix and we bought two bottles of champagne at 10am, with peanuts and sausage. We were drunk by noon, we then went home, we were so happy to be out of this business. We still talk about it today...*”.

The analysis of Start-up B shows that the main determinant of business angels’ investment decision (November 2000) was the business angels’ *personal and collective trust*, which is similar to how the investment decision was made in the case of Start-up A. However, in contrast with Start-up A, business angels’ *trust positively evolved* in the case of Start-up B over the duration of the investment relationship. The entrepreneur’s disclosure, accuracy and receptivity (as previously showed in 4.2.) contributed to trust building during the post-investment period. This consequently led to *favourable reinvestment decisions* at two occasions (October 2002 and December 2003), despite the fact that at several occasions, particularly between 2001 and 2003, then between 2007 and 2008, business angels’ trust was damaged because of the entrepreneur’s lack of skills in certain domains, reluctance to delegate and lack of benevolence towards employees. Moreover, building business angels’ collective trust was a guarantee for future investors, such as employees and VCs, who subsequently decided to invest in the start-up, thus supporting the company through the VoD.

Figure 5 illustrates our findings relative to the comparison and contrast between the two studied cases by connecting business angels’ trust evolution with business angels’ investment and post-investment decisions. Figure 5 builds on the analysis presented in 4.1., then 4.2 and on the trust evolution events and start-up development events illustrated in Figures 3 and 4. Figure 5 emphasizes the main events of trust evolution from the initial trust formation moment (indicated as T1) to post-investment trust changes (indicated as T2 to T4 for Start-up A; T1 to T5 for Start-up B), along with pointing to the main events of start-up development (indicated by E2 and E10 for Start-up A; E3 to E6 for Start-up B). As we showed it in detail in the section 4.2., in the case of Start-up A, business angels’ trust was adequately built during the first interactions with the entrepreneur (T1) but then was increasingly damaged during the post-investment

period, particularly regarding the business angels' perception of the entrepreneur's competence and trustworthiness (T2 and T3). Trust increasingly degraded until reaching a decisive trust destruction moment when business angels understood that the entrepreneur lied to them (T4). Figure 5 illustrates this *cascade effect leading from damaged trust to trust destruction* in the case of Start-up A. According to our understanding of this case, business angels' were confronted to a point of no return (*trust threshold*): after this point, they decided to withdraw funding when their trust in the entrepreneur was finally destroyed (E10). In the case of Start-up B, the business angels' trust in the entrepreneur was also adequately built during their first interactions (T1). Moreover, because business angels' trust was constantly built through the entrepreneur's trust-related behaviours (T2 and T3), this led to positive reinvestment decisions (E3), despite a passage through what we labelled the "grey zone" of damaged trust (T4). Because business angels estimated that the entrepreneur was honest and assumed his errors, they decided to reinvest twice and to recommend the company to VCs.

We interpret these findings as indicating that when the business angels' personal trust enters the grey zone of damaged trust, there is a risk that the investment relationship ends in negative terms. In the case of Start-up A, this is what happened. However, because in the case of Start-up B the business angels' damaged trust was not motivated by a lack of trustworthiness but rather related to a lack of competence, and also because the entrepreneur rapidly restored business angels' trust by asking them for help (T5), this led to positive reinvestment (E4) and recommendation decisions (E5).

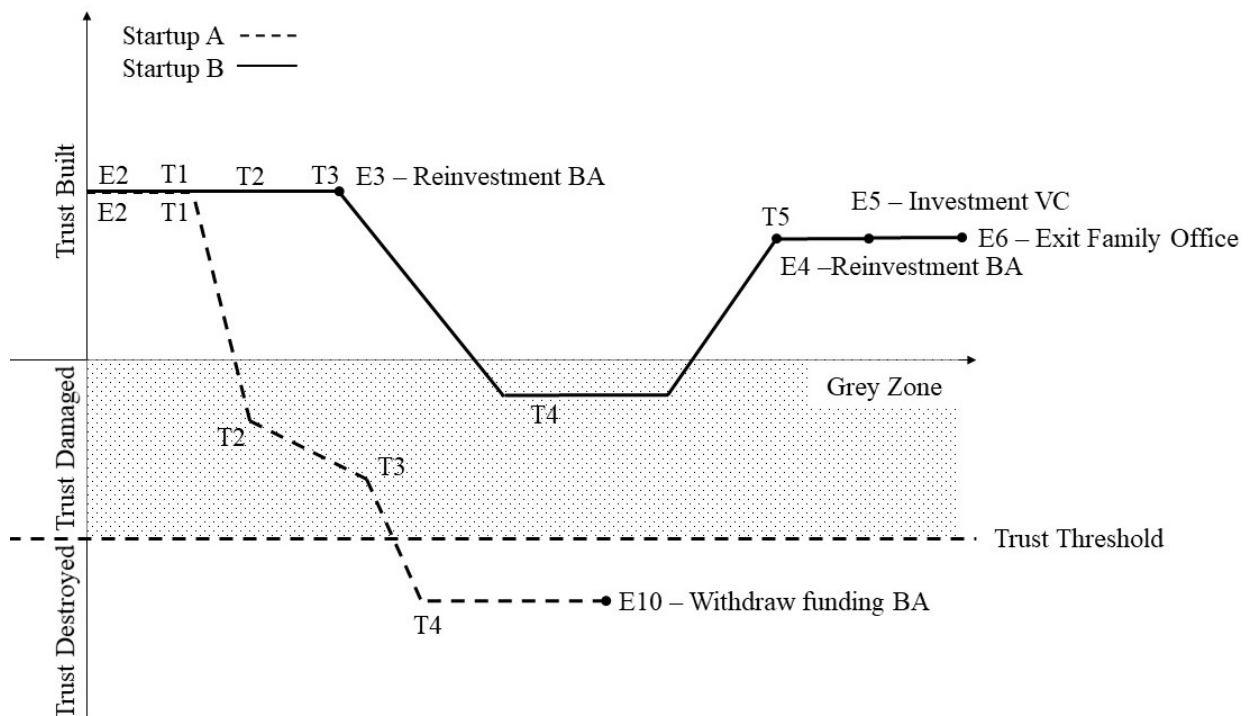


Figure 5: Investment and post-investment decisions based on business angels' trust evolution

5. Discussion and Conclusion

In this study, we combine the VoD literature with business angel research to explore and explain how, why and with what consequences business angels' trust in the entrepreneur evolves over time throughout the entire duration of their relationship, and how trust evolution affects business angels' decisions to invest, reinvest or withdraw funding during the VoD, thus answering our two research questions.

5.1. Process-model of sustaining business angels' trust to cross the VoD

Our findings show that, at a pre-investment stage, the business angel-entrepreneur relationship is initiated at the initiative of entrepreneurs, motivated by critical needs for financial resources, which confirms the VoD literature (Auerswald and Branscomb, 2003). We extend current knowledge by showing that, because entrepreneurs can be confronted by recurrent critical needs for financial resources throughout the VoD, this may motivate asking not only for *investment* but also for *reinvestment* from business angels. Our analysis indicates that business angels invited to invest in a start-up first evaluate its position within the VoD in order to infer potential investment risks. Then, they evaluate the entrepreneur and her company's *potential* to cross the VoD. Business angels evaluate the potential to cross the VoD based on their knowledge of the different stages and challenges of the VoD. Moreover, the business angels' evaluation of the entrepreneur and her company's potential relates to how they assess agency risk, as previously indicated by business angel research (Carpentier and Suret, 2015; Shane, 2003) but also depends, as highlighted in our study, on how they assess market and execution risks. This extends prior business angel research presenting market and execution risks as primarily taken into account at the post-investment stage only (Kaplan and Strömberg, 2004). Given these observations, we formulate the following propositions:

Proposition 1. At the pre-investment stage, business angels evaluate the position of the company within the five stages of the VoD in order to infer potential investment risks.

Proposition 2. At the pre-investment stage, business angels evaluate the perceived potential of the entrepreneur and her company to cross the VoD based on their combined assessment of agency risk, market risk and execution risk.

Proposition 3. At the pre-investment stage, business angels' trust in the entrepreneur depends on the balance between potential investment risks and foreseeable benefits derived from the evaluation of the entrepreneur and her company's perceived potential to cross the VoD.

Our analysis of the investment process and outcomes in Start-up A and Start-up B consistently documents the decisive role of business angels' trust in shaping investment decisions, which confirms prior business angel research (Mason et al., 2017; Sudek, 2006; Van Osnabrugge, 2000; Wong et al., 2009). We show that business angels' trust is formed during the first meetings with the entrepreneur based on how investors perceive and evaluate the entrepreneur, which confirms Maxwell and Lévesque (2010), Maxwell et al. (2011). Maxwell and Lévesque (2014) previously insisted on the importance of perceived entrepreneurs' trustworthiness for building business angels' trust. We extend current knowledge relative to how trustworthiness perceptions are formed by showing that, in the two cases we studied, perceived trustworthiness was primarily triggered by the evaluation of the entrepreneur's technical competence and personality, particularly regarding his perceived honesty (Start-up A) and quality of judgment (Start-up B). Once the investment relationship started, trust building was secured by the entrepreneurs' ability to display both competence evidence (regarding technical skills but also management, marketing, commercialization and finance issues) and effective communication. Contrary to the trust model developed by Maxwell and Lévesque (2014), our findings suggest that the effectiveness of an entrepreneur's communication, identified by the authors as crucial for investment decisions, only becomes important for business angels' trust evolution at *later stages of the investment relationship*, during the post-investment period. Given these observations, we formulate the following propositions:

Proposition 4. At the investment stage, business angels' trust in the entrepreneur is formed based on the entrepreneur's perceived trustworthiness, capacity and openness.

Proposition 5. At the post-investment stage, business angels' trust in the entrepreneur evolves based on the assessment of the entrepreneur's trust-related behaviour relative to perceived integrity, competence, judgment and communication.

We conducted our study in the context of a business angel network, which enabled us to discover that the initial business angels' investment decision was triggered not only by personal trust but also by collective trust, formed at the level of the group of business angels. These findings confirm the importance of personal trust in interpersonal business angel-entrepreneur relationships as stated by prior business angel research (Harrison et al., 2015; Murnieks et al., 2016) but also demonstrate the importance of collective trust in the context of business angel networks, which extends current knowledge. Moreover, our study connects personal and collective trust as we study them *together* rather than in isolation; we show their confirmatory and cumulative effects on investment, reinvestment and withdraw funding decisions. Given these observations, we formulate the following proposition:

Proposition 6. In the context of business angel networks, the business angels' investment and reinvestment decisions are triggered by both their personal and collective trust in the entrepreneur.

At the post-investment stage, our analysis shows that business angels closely monitor the entrepreneurs' behaviours to assess whether they can still trust them or not. During this period, either entrepreneurs display trust-related behaviours building business angels' trust, as in Start-up B, or behave inappropriately and inconsistently thus damaging or even destroying business angels' trust, as in Start-up A. These findings confirm the existence of three categories of trust-related behaviours as previously stated by Maxwell and Lévesque (2014), that we labelled here trust building, trust damaging and trust destroying behaviours. Our study shows that trust damaging behaviours can be repaired whereas trust destroying behaviours, such as lying, cannot be repaired, which consequently affects business angels' decisions. We extend prior literature on trust-related behaviours (Maxwell and Lévesque, 2010, 2014; Maxwell et al., 2011) and forms of trust (Lewicki and Bunker, 1996; Welter, 2012) by introducing the notion of *trust threshold* to designate a critical moment of the investment relationship, when entrepreneurs enter the grey zone of damaged trust, and when there is a risk that the investment relationship ends unless the entrepreneurs engage rapidly and effectively in trust-repair behaviours directed towards enhancing business angels' trust. Given these observations, we formulate the following propositions:

Proposition 7. During the post-investment period, business angels monitor and evaluate the entrepreneur's behaviour, which consequently builds, damages or destroys their trust in the entrepreneur.

Proposition 8. A subjective business angels' trust threshold exists whereby entrepreneurs having recurrently damaged the business angels' trust are at risk of losing this trust unless they engage in effective trust-repairing behaviours.

Our study shows that business angels' trust is a major determinant of investment and post-investment decisions, which confirms prior studies (Arthurs and Busenitz, 2003; Klabunde, 2016; Lewicki et al., 2006; Paliszkiwicz, 2011; Pollack and Bosse, 2014). We extend current knowledge by documenting how business angels' trust evolution affects reinvestment and withdraw funding decisions. Specifically, we show that during the post-investment period, entrepreneurs who benefit of business angels' personal trust and collective trust, but also of institutional trust from external stakeholders such as competitors and clients are most likely to attract reinvestment and recommendation decisions from business angels, thus helping entrepreneurs to reach the product commercialization stage and the break-even point. The business angels' decision to either reinvest or to recommend the company to VCs also depends on their evaluation of the

company’s position regarding the different stages of the VoD, as previously delineated by Markham (2002) and Markham et al. (2010). Given these observations, we formulate the following propositions:

Proposition 9. At the post-investment stage, if business angels’ trust in the entrepreneur was recurrently damaged or destroyed over time, business angels are more likely to not reinvest in the company and withdraw funding.

Proposition 10. At the post-investment stage, if business angels’ trust in the entrepreneur was sustained over time and if the entrepreneur and her company benefits of institutional trust from external stakeholders, business angels are more likely to recommend the company to VCs.

Drawing on our findings and our ten propositions, we built Figure 6, which summarises the body of evidence emerging from our two case study analysis by illustrating the main concepts and relationships of our emerging process-model of sustaining business angels’ trust to cross the VoD. The elaboration of this process-model represents the last step of our inductive approach (presented in Table 3).

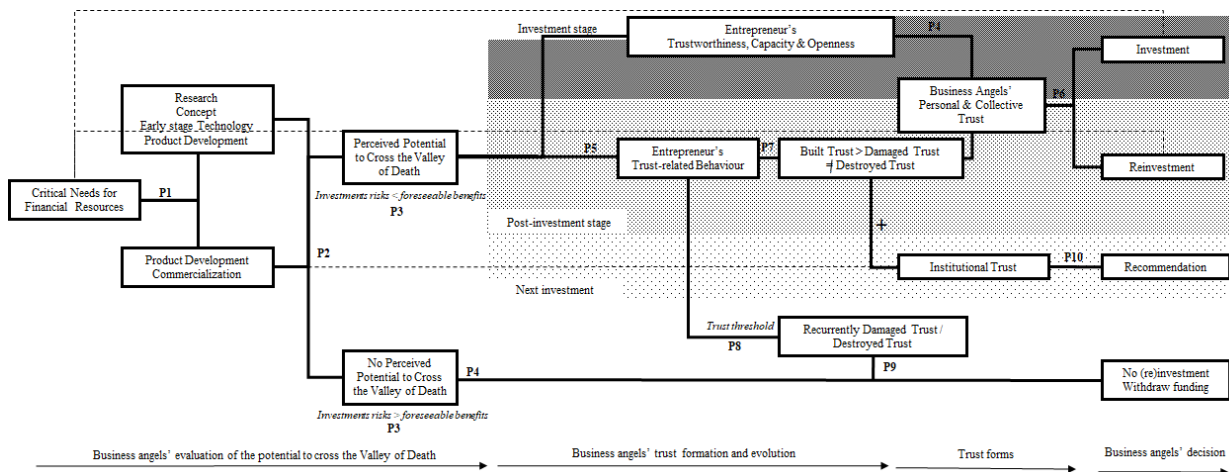


Figure 6: A Process-model of sustaining business angels’ trust to cross the VoD

5.2. Theoretical contributions

This paper makes two main contributions. First, we contribute to theory building in the VoD literature by extending and refining our knowledge relative to the understudied influence of business angels’ trust on start-ups’ success and failure through the VoD. We do this by exploring and explaining how business angels’ trust facilitates or damages the entrepreneur’s journey through the VoD. Our process-

model of sustaining business angels' trust to cross the VoD highlights the role of business angels during the delicate passage from research to commercialization stages and connects business angels' investment, reinvestment and withdraw funding decisions to the evolution of their trust in the entrepreneur. As we demonstrate in our analysis of Start-up B, when business angels' trust is consistently built over time, business angels tend to both reinvest in the company and to recommend it further to new investors, such as VCs. By showing that business angels' trust in the entrepreneur not only enables entrepreneurs to cross the first stages of the VoD but also allows them to secure its last stage, that of product/service commercialization, we open new avenues for understanding the entrepreneurs' journey through the VoD as a cycle of trust building. Our study introduces a dynamic and nuanced perspective on business angels' trust formation and evolution, suggesting that in order to secure the business angels' "continued support" in the VoD (Markham, 2002a, p. 39), entrepreneurs must deliver systematic efforts over the *entire duration* of their relationship with business angels.

Second, by exploring and explaining how and why business angels' trust evolves over time, throughout their relationship with entrepreneurs, we theorize trust formation and evolution as a multi-level and cyclical process, thus answering recent calls for more in-depth examinations of social aspects in investment and post-investment business angel research (Bammens and Collewaert, 2014). By doing this, we confirm that business angels' trust is shaped by their perceptions and evaluations of the entrepreneurs' trust-related behaviours (Daly and Davy, 2016; Martens et al., 2007; Maxwell et al., 2011), and that if damaged trust can be repaired, destroyed trust cannot (Maxwell and Lévesque, 2014). Drawing on previous studies relative to forms of trust (Nooteboom, 2002; Welter, 2012; Welter and Smallbone, 2006), we empirically address personal and collective business angels' trust *together*, which has rarely been done in business angel research. We also introduce and apply the notion of institutional trust proposed by Welter (2012) to suggest an understanding of business angels' trust formation and evolution that expands beyond the interpersonal level to take into account the market and social contexts in which start-ups and business angels are embedded. Against prior studies claiming that trust can be repaired and renewed even when business angels' trust is violated, based on a "calculated decision" regarding the entrepreneur's expertise and experience (Welter, 2012), we reveal the existence of a trust threshold that cannot be crossed by entrepreneurs without taking the risk of losing the business angels' personal and collective trust, and thus their financial support in the VoD.

5.3. Practical implications

Our study has practical implications for business angels and entrepreneurs. This research may enhance the business angels' ability to understand and manage the factors involved in their investment and post-investment decisions, and thus improve their capacity to identify and evaluate the potential mechanisms and consequences of their decisions. For entrepreneurs, the main implication of this study is that it helps them understand how important it is to build business angels' trust not only at the beginning of their relationship, but also throughout its duration. Trust is not a stable resource, but rather a subjective perception that must be constantly built by demonstrating competence, by showing management capacity, by performing at the expected level, and by being open and receptive to business angels' feedback and recommendations. Our study also raises entrepreneurs' awareness about the business angels' trust threshold: a critical moment when entrepreneurs repeatedly damaged business angels' trust or even destroyed it, so that they are at risk of losing their investors' support. It is at this moment that entrepreneurs must be particularly vigilant to strategically implement trust-repair behaviours aimed at (re)building business angels' trust. By doing this, they may both access further financial resources from business angels and gain business angels' support and recommendation to gather additional financial resources from new investors, such as VCs.

5.4. Limitations and avenues for future research

Our study is not without limitations, which offers interesting avenues for future research. First, our study relies on archival data and interviews with business angels. Validity issues can be raised regarding the retrospective bias of business angels' and entrepreneur's interviews, collected several years after the reported events. Moreover, as one of the authors acted as a business angel at the time that the studied events occurred, an involvement bias may also have affected our analysis and understanding of the collected data. To avoid such biases, we triangulated our data sources. Additional real time and longitudinal studies of business angel-entrepreneur relationships may enable researchers to examine more in-depth the impression management strategies that entrepreneurs use in order to build business angels' trust throughout the investment and post-investment stages. Second, empirical generalization cannot be achieved with only two retrospective case studies within the same country specific context and within one industry. Future qualitative and quantitative studies using larger samples are necessary for testing our process-model of sustaining business angels' trust to cross the VoD and our 10 propositions. Third, prior business angel research showed that the relationship between business angels and entrepreneurs involves reciprocal trust-related behaviours (Maxwell and Lévesque, 2014). In this study, we only took into account the business

angels' perspective to understand how this affects their trust formation and evolution. It would be interesting to further examine the entrepreneurs' trust formation and change in business angel-entrepreneur relationships in order to determine whether when entrepreneurs act inappropriately and lie to business angels, as in the case of Start-up A, they do so because of defensive motives or because of impression management motives. Moreover, a dyadic analysis of the entrepreneur-business angel' trust formation and evolution could shed more light on how trust, as a multi-level and cyclical process is co-constructed in the VoD, and the consequences this has for start-ups.

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