
Toward a better comprehension of external environment factors and life cycle stages importance on SME failure in Brazil

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Abstract: Although importance of small and medium-sized enterprises (SME) is relatively well established in the literature, little research exists on life cycle stage at the time of SME failure or closure. This exploratory research builds a comprehensive description of SME mortality factors related to the external environment to analyse the changing importance of these factors throughout the SME's organization life cycle stages (OLC). Seven case studies are used to develop a more complete understanding of the relationship between external environment and mortality factors. Data were collected through interviews and analysed based on inductive content analysis technique. The results indicate that failure SME did not adequately assimilate nine main factors: non-payment of the clients, competition with big business, seasonality of sells during the year, minimum amount of purchase required by suppliers, tributary load, government economic plans, national economy crisis, and headquarter/office robbery and asymmetric relationship with the franchisor. Regarding SME's OLC, environmental factors' relevance changed throughout the SME life cycle. Additional result suggests that exists more stages than discussed in the literature, reported by sample SME owner-managers studied.

Keywords: *small and medium-sized enterprises (SME), mortality factors, external environment, organizational life cycle stages (OLC), owner-manager.*

Introduction

A 2014 study from Serviço Brasileiro de Apoio às Micro e Pequenas Empresas (SEBRAE), a Brazilian bureau with similar action as the U.S. Small Business Administration (SBA), showed that small and medium-sized enterprises (SME) in Brazil are 98% of all enterprises, supporting over 44% of all formal jobs and contribute with 27% of the Gross National Product (GNP)².

Despite the importance of SME, mortality rate is still high, but it is far from an exclusively Brazilian phenomenon. Every year 500 North American enterprises start activities and only 50% make it to the fourth year, and in Chile, less than 42% enterprises reaches 5 years

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²The complete study, published on July, 2014, is available at Sebrae webpage:

<<https://www.sebrae.com.br/Sebrae/Portal%20Sebrae/Estudos%20e%20Pesquisas/Participacao%20das%20micro%20e%20pequenas%20empresas.pdf>>. Access: April 3th, 2017.

(Lussier; Halabi, 2010). In South Africa, 40% of enterprises die in their first year of activities (Scheers, 2011).

Despite the obvious, that SME are not big business, for many years it was assumed that SME's managerial practices should be the same as those of big business, as part of an understanding that SME are just a beginning step to become a big business. These assumptions were described as the "big business paradigm" (Dandridge, 1979; Welsh; White, 1981). Further studies stated that SME are different from the big business, with their own specificities (Day, 2000; Fuller-Love, 2006; Julien, 1997; Storey, 2004; Torrès, 2004; Walker; Brown, 2004). These studies stated that understanding these specificities is the starting point to define the SME, and also to provide effective management knowledge for their survival and development.

Although the body of studies on specificities has been around for more than 30 years, one of many challenges facing academic studies is to understand failure factors that bring to closure of SME, mainly because of the lack of an universally accepted recognition by researchers of mortality factors. Researchers and research groups have their own definition on failure and success of SME, resulting in a low consensus and an absence of a common integrate view among the academic community (Escrivão Filho et al, 2017; Halabi; Lussier, 2015).

Studies on organizational life cycle stages (OLC) can identify administrative and organizational differences related to the business stage development, and can also help to enlighten the debate on mortality factors of SME (Albuquerque et al, 2016).

This research paper investigates and describes the mortality factors related to the external environment of the SME and the changing importance of these factors throughout the OLC stages.

To support the empirical data collected three conceptual areas were investigated: the SME mortality factors related to the external environment, SME's OLC and the relationship between mortality factors and the SME's OLC.

SME mortality factors

As a pitfall for researchers, there is no single definition for the English word "failure", expressing a business situation, such as death, exit, bankruptcy, foreclosure, insolvency or discontinuity (Everett; Watson, 1998; Machado; Espinha, 2005; Sten, 1998). This lack of precision in conceptualizing business failure hinders a clear understanding of the owner-manager's reasons for discontinuing the business. It is not the purpose of this study to discuss and specify the different understandings of the concept, but to synthesize and analyse the mortality factors pointed out by previous studies, especially those associated with the external organizational environment.

Mortality factors of businesses can be consolidated under two concepts: the first specifies mortality factors into internal and external, and the second one establishes the factors related to the owner-manager, the enterprise and the environment (Bruderl; Preisendorfer; Ziegler, 1992; Machado; Espinha, 2005; Rogoff; Lee; Suh, 2004; Sten, 1998; Zacharakis; Meyer; Decastro, 1999).

The fundamental issue addressed in this research paper is the analysis of SME mortality factors associated with the external environment that surrounds these contemporary businesses. These factors are related to events that occur outside the enterprise. Usually, such events are beyond controlling of SME owner-manager. Twenty different environmental factors influencing SME were identified by Albuquerque and Escrivão Filho (2011) and Albuquerque et al (2016), from thirty previous studies based on conducted literature review, showed in Table 1.

Table 1 – Mortality factors related to external SME environment

Previous studies on SME mortality factors and external environment	Environmental factors identified through previous studies
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Duchesneau and Gartner (1990) Venkataraman et al (1990) Lussier (1996) Everett and Watson (1998) Zacharakis, Meyer and DeCastro (1999) Fotopoulos and Louri (2000) ^[1] _{SEP} Frese, Gelderen and Ombach (2000) Lussier and Pfeifer (2001) Perry (2001) Frese, Brantjes and Hoorn (2002) Stewart (2002) Morrison, Breen and Ali (2003) Watson (2003) Rogoff, Lee and Suh (2004) ^[1] _{SEP} Walker and Brown (2004) Bates (2005) Machado and Espinha (2005) Carter and Auken (2006) Pascotto and Machado (2006) Strotmann (2007) Ferreira et al (2008) Forsman (2008) Grapeggia et al (2008) Mizumoto et al (2008) Ucbasaran et al (2009) Guerra and Teixeira (2010) Lussier and Halabi (2010) Machado and Espinha (2010) Scheers (2011) Storey (2011)	1. Economic conditions 2. Clients 3. Competition 4. Business sector 5. Credit access 6. Professional/technical orientation 7. Location 8. Belonging to minority groups 9. Supplier 10. Tributary load 11. Access to new technologies 12. Government legislation 13. Death of business partner 14. Office robbery 15. Office fire 16. Absence of business successor 17. Sales to government agencies 18. Fraud 19. Intercompany business transactions 20. Franchise peculiarities
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Although the body of studies showed 20 different environmental factors, conducted case study showed nine environmental factors mentioned by SME owner-managers. For its importance, the following discussion highlights seven mostly mentioned environmental factors, both on previous studies and on conducted case studies for this research paper.

Economic conditions (1) are the most cited environmental factor in previous studies, with 10 citations. This factor is mainly related to periods of economic growth and recession. The tendency shows that SME starting activities in periods of recession are more likely to close than the ones that start in a period of economic growth (Arasti; Zandi; Bahmani, 2014; Carter; Auken, 2006; Lussier, 1996; Lussier; Pfeifer, 2001; Lussier; Halabi, 2010; Machado; Espinha, 2005, 2010; Morrison, Breen, Ali, 2003; Rogoff; Lee; Suh, 2004; Strotmann, 2007). A notable work of Everett and Watson (1998) suggest that macroeconomic factors are associated with the closure of 30% to 50% of SME, depending on the definition of failure.

Clients (2) were cited nine times in previous studies. The concept of any type of business is directly related to the importance of clients, as a cornerstone of SME. Table 2 shows different focus on client aspects.

Table 2 – Principal clients factor related to external SME environment

Principal focus	Literature review
Market dimension (Grapeggia et al, 2008; Machado; Espinha, 2010; Strotmann, 2007; Zacharakis; Meyer; Decastro, 1999)	In large markets starting SME are less perceptible to competitors, enhancing their probability of survival. In small markets, competition is more aggressive, enhancing the chances of closure.
Market growth (Zacharakis; Meyer; Decastro, 1999)	The market that slowly grows generates more competition between enterprises, increasing their

	possibility of closing.
Diversification of client basis (Lussier, 1996)	Having a diverse client base can avoid problems with the loss of an important client.
Client power (Duchesneau; Gartner, 1990; Morrison; Breen, ALI, 2003)	When the SME is very dependent on the client or has asymmetric relations (less decision-making power) within clients, its closure chance increases.
Clients' knowledge about product offered (Pascotto; Machado, 2006)	It was verified that the intangible nature of the SME product, in this study, insurance, greatly hinders the commercialization and survival of the enterprise.
Difficulty to attract and maintain clients (Ferreira et al, 2008; Pascotto, Machado, 2006)	This factor is related to two other factors mentioned above – the level of competition and the nature of the product. The higher the level of competition, the harder it is to gain and keep the client.

Competition (3) concerns competitive conditions (Carter; Auken, 2006; Ferreira et al, 2008; Machado; Espinha, 2010; Mizumoto et al, 2008; Pascotto; Machado, 2006; Rogoff; Lee; Suh, 2004) and competitor's behaviour (Pascotto; Machado, 2006). The influence of competition on SME survival occurs when a disloyal element occurs, for example, when there is a big business in the same segment market, or when there is a high level of competition between SME (Alom et al, 2016; Ferreira et al, 2008; Pascotto; Machado, 2006; Zacharakis; Meyer; Decastro, 1999).

The difficult to **access credit (5)** was cited nine times in previous studies, and represents, specially, required capital to finance operations (Machado; Espinha, 2010; Rogoff; Lee; Suh, 2004; Zacharakis; Meyer; Decastro, 1999). Both failure and success SME tends to see credit access as a fundamental problem that influences performance (Alom et al, 2016; Carter; Auken, 2006; Grapeggia et al, 2008; Machado; Espinha, 2010; Rogoff; Lee; Suh, 2004; Zacharakis; Meyer; Decastro, 1999). This problem gains importance and it is aggravated during economic crises, reinforcing that lack of credit contributes to failure (Carter; Auken, 2006).

Professional/technical orientation (6), cited five times in previous studies, shows that when SME do not use external professional and/or technical services as an advisory or consultancy they have greater chances to failure than the ones that contracts these services (Duchesneau; Gartner, 1990; Halabi; Lussier, 2015; Lussier; Pfeifer, 2001; Lussier; Halabi, 2010). Duchesneau and Gartner (1990) study points that successful SME contracted external professionals and consultants to solve specific problems during the initial period of business. In a more recent study Halabi and Lussier (2015) highlights the importance of consultancy in financial management and planning.

Because of the SME's fewer purchasing activity, when compared to big business, the relationship with **suppliers (9)**, which includes transportation costs, cited three times in previous studies, also influence failure or success (Guerra; Teixeira, 2010; Zacharakis; Meyer; Decastro, 1999). Beyond the formal providing goods, SME supplier sometimes plays the role of a source of financing the business, by postponing receipts of SME purchasing (Grapeggia et al, 2008).

It is common to hear both SME owner-managers and big business managers complains about **tributary load (10)** charged by governments. Nevertheless, this factor has been cited in only two studies out of 32 previous studies analysed (Machado; Espinha, 2010; Rogoff; Lee; Suh, 2004).

With only one mention in previous studies, eight mortality factors were identified: death of business partner (13.), office robbery (14.), office fire (15.), absence of business successor (16.), sales to government agencies (17.), fraud (18.), intercompany business transactions

(19.) and franchise peculiarities (20). The franchise peculiarities are related to small franchise units. Factors such as franchisee's inability to follow formatted business systems, below-expected franchisor support, wrong branch choice, high rates of franchising and constant disagreement with the franchisor may contribute to the failure of business (Machado; Espinha, 2010).

SME life cycle stages

The SME's OLC stages and their typical characteristics, or specificities, at each stage, were also investigated for this research paper. Development of businesses is followed by changes of its characteristics throughout the OLC stages; therefore, these typical characteristics of each stage needs to be identified, as they help understanding the mortality factors at each of these stages (Albuquerque et al, 2016).

Although many OLC stages can be identified, the initial ones are the most characteristic of SME (Churchill; Lewis, 1983; Galbraith, 1982; Greiner, 1998; Miller; Friesen, 1984; O'Neil; Saunders; Hoffman, 1987; Quinn; Cameron, 1983; Scott; Bruce, 1987; Steinmetz, 1969). This research paper focuses on four initial stages: stage 0 (genesis), stage 1 (existence), stage 2 (survival) and stage 3 (growth). Table 3 shows a description of each one of these initial OLC stages (Escrivão Filho et al, 2017).

Table 3 – SME's OLC initial stages

Stage	Description
Genesis (0)	Preliminary preparation for starting the business. It is an aspiration of the owner-manager who has a business idea and sees the possibility to satisfy a personal need and/or a gap in a visualized target-market.
Existence (1)	Beginning of the struggle for consumers and results of the business. It is a market test for the offered product of the SME. The owner-manager seeks a market share to reaches positive results for business.
Survival (2)	SME's economic viability with satisfied customers and positive cash flow. At this stage the owner-manager has to make an important decision: remain at this survival stage without greater investments in personal dedication and capital or seeks to grow in size and profitability, reaching the next stage.
Growth (3)	Profitability increase (3a) or size increase (3b). At stage 3a the SME has achieved economic and competitive success (earn regular profits or above average) and can remain at this stage indefinitely. At stage 3b the SME consolidates and transfer resources for business growth. The main objective is to keep current profitability and positive cash flow finding new business opportunities to improve growth.

Relationship between SME mortality factors and OLC stages

Previous studies did not raise much evidence of mortality factors and the relationship with external environment or OLC stages. Only four mortality factors were cited in OLC previous studies: clients, competition, suppliers and business sector (Churchill; Lewis, 1983; Galbraith, 1982; Greiner, 1998; Miller; Friesen, 1984; O'Neil; Saunders; Hoffman, 1987; Quinn; Cameron, 1983; Scott; Bruce, 1987; Steinmetz, 1969).

Clients influence through all initial OLC stages. At genesis stage (0), SME has to identify a potentially profitable market space in the short and long term. At existence (1) and survival (2) stages there are strong dependencies of SME on their clients. Losing client is a big problem. And if sales are concentrated in a few clients the risk of failure increases.

The competition gains importance for SME failure or success at survival (2) stage, when it has already proven business feasibility. The level of competition is still uncertain and the success depends on how high are business barriers.

The existing dependency on clients is also seen in the relationship with suppliers (Arasti; Zandi; Bahmani, 2014) at existence (1) and survival (2) stages. If the SME's supplier is a big

business the relationship between them tends to be asymmetrical. In this case the supplier specify terms and forms of purchasing and paying to the SME and not the other way around. Specially at stages of existence (1) and survival (2) that SME's suppliers plays the role of a source of financing the business, as observed by Grapeggia et al (2008).

Business sector influence is related to the entry business barriers. The importance of the business sector is high at existence (1) stage, when the product is been tested, but lower at survival (2) stage when SME already proved their feasibility and their product are accepted and known by clients (Galbraith, 1982; Greiner, 1998).

Case study description

The research adopted a qualitative method approach, on the basis of the literature we have raised, a structured questionnaire, in-depth interviews and document analysis. The research described in this paper was based on a multiple case study. The sample was drawn from seven Brazilian SME of clothing retail sector.

The case study is one of the methods used in qualitative research. Ketokivi and Choi (2014) and Yin (2009) states that conducting a case study is not a simply telling of a story, instead, it is a presentation of different points of view. Therefore, rigor in the multiple case study conducted were incorporated as proposed by Ketokivi and Choi (2014). The data collecting technique was performed considering the guidelines presented by Stake (2003; 2009): enhance of what can be learned, balance and variety.

Two-combined letter identifies each one of the seven SME sample: enterprise (E) plus letter in alphabetical order (A to G), for example EA, EB and EC to EG. Three SME sample are still in business (EA, EB and EC). Four SME sample ended activities (ED, EE, EF and EG).

The data collecting procedure was conducted through a six step process: contact with SME owner-managers, getting signature approval, filling up the structured questionnaire with information from SME owner-manager and his/her enterprise, interviews, transcribing interviews and submission plus approval of transcribed interview of each SME owner-manager interviewed. Twelve different people were interviewed, with at least one from each sample data SME – the owner-manager itself – with a total of nineteen interviews appointments. The data collect phase resulted in 18h05' of recorded interviews (the shortest with 1h35' and the longest with 5h37') and consumed 194h20' of listening and transcribing all interviews. This final document with transcribed interviews has 239 pages.

The analysis of data collected were procedure through a five step technique proposed by Graneheim and Lundman (2004) and two complementary steps developed for this research: identifying meaning unit, condensed meaning unit, developing codes from meanings units, developing categories from previous sub-steps, developing themes, describing the specificities of SME throughout OLC stages and describing the mortality factors or maintenance factors of SME in each OLC stage.

This research's qualitative approach examines concepts of SME owner-manager's meanings and interpretations related to mortality factors and the OLC stages.

An inductive content analysis technique method approach was incorporated, stated by Andersson et al (2015) and Sandström et al (2015) as an important method approach for exploratory studies. This method approach provides complementary data for inferences from documents on focused theme followed by a structured questionnaire (Andersson et al, 2015; Sandström et al, 2015; Schamber, 2000). Inductive content analysis technique is useful to capture cognitive behaviours and describes perceptions in different situational contexts (Graneheim; Lundman 2004; Schamber, 2000).

Discussion and Evaluation

Using a content analysis technique, this research paper provides empirical validation and a comprehensive description of SME mortality factors related to the external environment to

analyse changing importance of these factors throughout the SME's OLC stages. Collected data are confronted with previous studies.

The following subsection describes mortality factors related to business environment. Next, we discuss mortality factors related to SME's OLC. Then, we present the conclusions, the limitations of this research paper and future avenues for studies.

Mortality factors related to business environment

Conducted case studies shows that the mortality factors related to business environment were mainly **economic conditions (1), clients (2), competition (3), credit access (5), professional/technical orientation (6), supplier (9), tributary load (10), office robbery (14) and franchise peculiarities (20)**.

Sample SME were both positively and negatively influenced by the **economic conditions (1)** through growth economic or deceleration periods in Brazil. During periods of economic growth their performance was positive (EA and ED). From 2002, as Brazilian GNP was rising, EA owner-manager states that sales was raising as the number of people employed in his/her business. When economic in Brazil started to slowdown, during financial crises in United States of America, ED sales decreased 65% and it was the beginning of its failure. The same difficult faced by EB and EF. A handful of previous studies indicate this influence, such as Arasti, Zandi and Bahmani (2014), Carter and Auken (2006), Lussier (1996), Lussier and Pfeifer (2001), Lussier and Halabi (2010) Machado and Espinha (2005; 2010), Morrison, Breen and Ali (2003), Rogoff, Lee and Suh (2004) and Strotmann (2007).

The understanding of **clients (2)** is described based on three relationship aspects: directly with the enterprise, from loyalty behaviour and from a non-payment conduct. Client's relationship is based on the trust and friendship with salesman or owner-managers. When the relationship is good, it increases the client's loyalty behaviour and decreases non-payment risk, as a two-way street, stated by EA, EB and EF. Previous studies also indicate this strong SME dependence on clients (Churchill; Lewis, 1983; Arasti; Zandi; Bahmani, 2014), although researchers did not identify the reasons for this dependence. Considering what SME mortality factors studies has generally examined, two aspects were not highlighted by owner-managers: size and market growth.

Competition (3) was beneficial for EA, EB and EG. Those owner-managers stated that competition may be a problem, but tends to push forward business improvements. Competition seems to be an important source for inspiration and new ideas. In this scenario, product, process and marketing innovation has to be part of owner-manager's routine. EB and EG examples of innovation came through the exclusivity of some clothing brands, enhancing client's loyalty. For ED the competition was mainly with big businesses' clothing retail shops. This finding confirms Pascotto and Machado (2006) that shows that big and powerful business operating in a market with great SME participation tends to diminish the competitiveness of these SME. Pursuit for differentiation through innovation was the turning point between successful and unsuccessful sample SME.

Credit access (5) positively influenced EA. In owner-manager's view the credit is accessible for SMEs when they prove feasibility by having at least an average clients portfolio and a good constant sales history – information that matters for banks loan analyses. Both ED and EF unsuccessful business had access to credit, but the bank released value was insufficient, according to owner-managers, so, they have to negotiate an overdraft. This kind of bank loan in Brazil have very high fee, resulting in bankruptcy. Owner-managers did not find it difficult to credit access, confirming Rogoff, Lee and Suh (2004) and Zacharakis, Meyer and Decastro (1999) findings, but they did face difficulty in low fee bank loan. Arasti, Zandi and Bahmani (2014) observe that in Iran, a developing country as Brazil, even successful SME faces difficulties for credit access.

Using **professional/technical orientation (6)** positively contributed to survival and growth of EA and EB, confirming Duchesneau and Gartner (1990), Fotopoulos and Louri (2000), Halabi and Lussier (2016), Lussier (1996) and Lussier and Halabi (2010) studies, although none of the researchers specifies the type of professional/technical orientation received by their analysed enterprises. The EA used management software from SEBRAE for many years, helping owner-manager to improve financial control. In EB orientation came by hiring an information technology (IT) enterprise for almost two decades. The main benefit of using IT was the improvement of provision control and planning support through management reports. Architectural design assistance was used by EA and EB to rebuild their office/store. The assistance was important because it improved the facilities and layout of the stores, providing convenience to clients and creating a visual identity for communication with the market. EB was the only sample SME having an advertising budget.

Supplier (9) contributed both positively and negatively to SME by two highlighted aspects: the requirement of a minimum value or minimum purchase amount and payment conditions. The requirement of a minimum purchase quantity is a major problem for SME. Sometimes, in order to be distinguished from competitors, owner-manager seeks an exclusivity brand to sell, but, along with exclusivity, comes the requirement of minimum purchase value, resulting in big product storage, pointed by EC, ED and EF. The EC owner-manager observed that this was crucial in bankruptcy process. This finding confirms the reduced bargaining power of SME and the asymmetry in relationship with big suppliers stated by Guerra and Teixeira (2010) and Zacharakis, Meyer and Decastro (1999). Naturally, supplier wants to achieve its sales goals or assure some particular benefit, by exclusivity products, for example. This SME supplier relationship tends to turn into a dependence business relationship (Churchill; Lewis, 1983). Nevertheless, as SME develops and improves their financial conditions, payment facilities also improve, as observed in EA, EB, EF and EG. The EF took ten years to approve purchase registration in a big business factory supplier. The EG owner-manager stated that he/she only got longer good payment terms (at least 75 days after purchase) when the SME achieved 12 years of activity.

Tributary load (10) negatively influenced ED only. Because 80% of all ED products originated from suppliers located in south of Brazil, the changing states tributary load during transportation made clothes more expensive. Owner-manager stated that market judged the price of clothing high. This influence was also perceived in Machado and Espinha (2010) and Rogoff, Lee and Suh (2004) studies.

Office robbery (14) negatively influenced ED, EE and EF, all failure SME sample. In EA and EG, both successful SME sample, owner-managers were able to recover from this setback, mainly because financial health was good and they had good business relationship with suppliers. EF, at first, managed to overcome this post office robbery phase, but having to purchase products generated capital limitation. The ED and EE were the most affected. The ED owner-manager stated that the last office robbery, out of three in six months period, was his/her “last breath of motivation”.

The last mortality factor related to business environment is related to the **franchise peculiarities (20)**. According to EE owner-manager, six factors related to the manager of the franchise directly influenced the sale of his enterprise: low quality products; lack of punctuality in delivery; sending of goods in disagreement with the request made; unlimited pressure from franchise supervisors; franchise credit card loss and, finally, the contract type between franchisor and franchisee with asymmetric rights and obligations for the parts. This finding was also observed in Machado and Espinha (2010).

Mortality factors related to SME's OLC

Organizational life cycle previous studies show that the early stages are characteristic of SME and, predominantly, in stages 1 and 2, SME ends its activities prematurely. Some of the findings from this research paper extol previous studies results.

Table 4 shows the seven case studies SME sample from this research and its OLC stage according to previous studies.

Table 4 –SME's sample OLC according to previous studies

Sample	Activity	Years	Stage			
			0	1	2	3
			(genesis)	(existence)	(survival)	(growth) a b
EA	yes	32				X
EB	yes	20				X
EC	yes	20				X
ED	no	4			X	
EE	no	4			X	
EF	no	14			X	
EG	no	24				X

The number of stages informed by SME sample owner-managers did not coincide as previous studies have assumed. The EB, for example, has passed, in owner-manager's view, through seven development stages. Considering previous studies, EB reached stage 3. The number of development stages from SME sample is higher than described in previous studies, despite the similarity of characteristics at each stage. Churchill and Lewis (1983) observe inappropriately addresses by OLC's literature on SME by neglecting the relevance of the early stages for these enterprises.

Although all SME sample have achieved economic viability (stage 2), the period of time of each stage and the ending OLC of these enterprises were different. Three SME out of seven case studies SME are still in business (EA, EB, EC), one ended activity by owner-manager's choice (EG) and three were sold at stage 2 (ED, EE, EF) because of debts with banks and suppliers.

Sample ED and EE confirmed the high rate of SME mortality in the first years of activity (Machado; Espinha, 2007; Storey, 2011; Strotmann, 2007). Sample EF stayed in business for 14 years and the result is similar to Lussier and Pfeifer (2001) that showed that failure SME stays in business for an average of 15 years.

SME sample closed due to financial constraint (ED, EE and EF) were able to form a portfolio of clients and produce results for their survival at the stage 1. From the stage 2 the conditions changed and a set of factors contributed to the end of their activities, such as economic conditions, competition, difficult to credit access.

Sample EG, that remained in business for 24 years, did not face financial constraint during its development and there was never a lack of money to honour commitments with suppliers. Closure was not an economic reason. The decision of the owner-manager to close an economically viable enterprise demonstrates the importance of non-financial measures to understand the success of SME as proposed by Walker and Brown (2004).

In order to enlighten this research paper purpose, Table 5 shows findings of environmental factors that require high monitoring of SME owner-manager to ensure survival at each OLC.

Table 5 – Findings from mortality factors related to business environment and OLC

Environmental factors		OLC		
		0 (genesis)	1 (existence)	2 (survival)
Economic condition	Economic growth	X	X	X
	Seasonality		X	X
Clients	Relationship based on friendship		X	X

	Loyalty	X	X
	Default	X	X
Competition			X
Credit access	Capital		X
	Investment		X
	IT		X
Professional/technical orientation	Architecture design		X
	Advertising		X
	Management	X	X
Supplier	Minimum purchase	X	X
	Improvement payment condition	X	X
Tributary load		X	X
Office robbery			X
	Product quality	X	X
	Punctual delivery		X
Franchise peculiarities	Reputation and image	X	X
	Asymmetric contract type	X	X

Client is a key mortality factor for SME at stage 1 and at stage 2. When proximity exists between owner-managers and clients a loyalty behaviour relationship is built, reducing the non-payment chances and increasing possibility of success, as observed in EA, EB and EG. It is in these stages that the SME establishes its client's portfolio, becoming a viable business.

Competition was one of the factors that contributed to ending activity of ED, EE and EF, at stage 2. The EF faced no trouble until achieved stage 1. But from stage 2 troubles began when "three or four small neighbourhood stores opened, sorting out my clients", as stated by the owner-manager. This tendency was part of Pascotto and Machado (2006) study that stated that the existence of many competitors, even with little economic and size power, is prejudicial to SME. The sale of ED, EE and EF at stage 2 confirms the study of Scott and Bruce (1987) that argued that competition factor gains importance of business failure when SME has already proven to be potentially viable. The problem is that at this stage new entrants will be attracted to the industry, leaded by the success of the first SME in the market (Scott; Bruce, 1987).

The research sample SME showed the importance of **suppliers** for business. Usually, the amount of products offered and required in negotiation are higher than the selling pattern of SME, resulting in large storage of products, especially at stage 1. At this stag, SME are still forming its client base, and its own capital is short. Purchase in early SME's OLC requires prudence, own capital, big sales effort, little competition and existing market demand. Owner-managers of EA, EB and EF began purchasing just a few amounts of products and strictly according to the observed selling volume. Higher products purchase must initiate in SME from stage 2, when they had already achieved economic viability.

Payment conditions also depended on suppliers and varied from one stage to another as SME consolidated in the market, like sample EA, EB, EF and EG. In the beginning (stage 0 and stage 1), the supplier requests a purchase history of the SME. Because they do not have it, purchase needs to be conducted only in cash. This condition enhances the importance of SME's own capital.

The **economic conditions** factor positively and negatively influenced SME in periods of expansion or decline of the economy and seasonality of trade at all stages of the life cycle. During periods of economic expansion, all SME have been favoured in some way, like sales growth. In periods of economic decline or seasonality (stage 2), selling just paid off debts, as stated by ED, EE and EF owner-managers.

Tributary load is another factor that contributed to failure of ED. Although taxes make the product more expensive since stage 1, the influence of this factor became more evident at stage 2, during the loss of clients and, consequently, sales number decreasing.

The **professional/technical orientation** factor was expressed at stage 2 of the OLC stage, when sells increased and the SME own capitals were available. The SME sought services of IT (EA and EB), architecture design (EA and EB) and advertising (EB). The ED also had external management advice at stage 0 and at stage 2, but did not follow the guidance of the consultant. At stage 2, when a financial global crisis arrived, the ED owner manager hired a consultant, suggesting changing the high rent of the mall center where located, but he/she did not accept the idea and dismissed the consultant. From there, the debts accumulated and the SME ended activity a few years later.

Credit access was manifested positively and negatively at stage 2. The positive influence was for SME that accessed credit for investment with long repayment term. The negative manifestation was observed in SME that required a loan for regular spending's, such as electricity, internet, regular building maintenance and employees' salary.

Office robbery was another factor that contributed to business mortality (ED, EE and EF) at stage 2, evidencing the interdependence of mortality factors. This factor undercapitalized the SME that were already in a delicate financial situation and discouraged the owner-managers to keep the business.

Finally, the **franchising peculiarities** factor negatively influenced EE at all stages. The lack of quality of products, delays in delivery and the asymmetric contract type between franchisor and the SME contributed to the great amount of initial dispended money and its closure a few years later.

Conclusion

The OLC stages show the specificities of SME at each stage of its evolution. In this way, the typical problems at each stage are identified and, consequently, the factors that may or may not contribute to their survival. Thus, it can be inferred that discussion on OLC stages improves the understanding of the factors that contribute to the continuity or mortality of SME. As shown in this research paper, the importance of each factor varies from one stage to another.

Through seven case studies it was possible to identify two main situations associating mortality factors with the OLC stage. In the first situation, factors as client, competition, suppliers, professional/technical orientation and access to credit can be explained by the stage of development of the SME and its manifestation is typical of that stage. In the second situation, factors as economic conditions, tributary load, office robbery and franchise peculiarities occurred at certain stages and accelerated the mortality of SME in an already deteriorated situation. There is an interdependence of factors.

A comparative analysis between previous studies and conducted case studies of this research shows important findings in contributing to mortality factors related to the SME environment. Previous studies have attracted attention on the importance of SME mortality factors. But while the extant researches are promising, the relationship between OLC and SME failure has not been thoroughly examined, as verified by Blackburn and Kovalainen (2009). The findings of this research paper add more specific evidences, such as:

- Some mortality factors demonstrated in previous studies were not observed. The SME owner-managers interviewed did not mention several mortality factors cited in previous studies, such as business sector, location, belonging to minority groups, access to new technologies, legislation, death of the partner, office fire, lack of successors, sales to government, fraud and intercompany transaction.
- However, SME owner-managers interviewed highlighted some mortality factors not mentioned in previous studies, like relationship with clients based on friendship, the

problem with minimum purchase required by suppliers, the relevance of economic conditions and seasonality of sales, professional/technical orientation in IT, architecture design and advertising at the survival stage; credit access for investment only after proving SME feasibility and difficulty in low fee in banks and franchise peculiarities with problems in the quality of the products, punctuality in delivery and asymmetric contract between franchisor and SME.

- Factors that contributed to the sale of ED, EE and EF were also observed in EA, EB and EC like high rate of non-payment of clients, minimum purchase required by suppliers, country's economic conditions and periods of seasonality of sales.
- Those failures SME did not assimilate factors like competition with big business and also with others SME, tributary load and asymmetric relationship with the franchisor.
- Successful SME known how to use factors like client's loyalty and professional/technical orientation in IT, architecture design and advertising.

This research, like most studies, also suffers from limitations. The most obvious is that the sample cannot be used to generalize to the overall population of SME. Taking these limitations into account, we believe that the contribution of this research paper is that the discussion on external environment factors and OLC show a valuable analysis on SME failure. Conducted multiple case studies hints at a deeper understanding of relevant emphasis to SME owner-managers training and public policies from government, since the importance of SME for national economies.

In particular, we would encourage the study of SME's OLC to examine the stages mentioned by sample SME owner-managers that was not described in previous studies, helping to create a more complete theoretical base to fully describe the changing importance of mortality factors in the SME's OLC. An avenue for further investigation is to expand the study to include additional business sectors and countries.

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