

Survivors: a tentative mapping of centenarian firms around the world

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Abstract

Despite the relevance that the business longevity topic has taken in managerial studies over the last years, there is a lack of cross-country and cross-industry studies on business survival. Namely, there have not been concrete attempts to map long-lived companies still in operation on a global scale. In this direction, this paper aims to census firms that survived over at least 100 years worldwide, whatever their size or branch of industry. The research allowed the authors to discover the countries and the industries in which centenarian firms are most concentrated and to investigate their characteristics, such as their size or the year of their foundation.

This research is the first step of a more complex and ambitious project directed to shed light on key factors of business longevity and explain the survival capacity of long-lived firms in response to rapid change in markets and society.

Keywords: business longevity, long-lived companies, centenarian firms, desk research.

Sommario

Nonostante la rilevanza che il tema della longevità aziendale ha assunto negli studi manageriali degli ultimi anni, mancano studi sulla sopravvivenza delle imprese a livello transnazionale e intersettoriale. In particolare, non ci sono stati tentativi

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concreti di mappare le aziende longeve ancora in attività su scala globale. In questa direzione, il presente lavoro si propone di censire le imprese che sono sopravvissute per almeno 100 anni in tutto il mondo, indipendentemente dalle loro dimensioni o dal settore di appartenenza. La ricerca ha permesso agli autori di individuare i paesi e i settori in cui le imprese centenarie sono maggiormente concentrate e di indagare sulle loro caratteristiche, come la dimensione o l'anno di fondazione.

Questa ricerca è il primo passo di un progetto più complesso e ambizioso volto a fare luce sui fattori chiave della longevità aziendale e a spiegare la capacità di sopravvivenza delle imprese longeve in risposta al rapido cambiamento dei mercati e della società.

Parole chiave: longevità aziendale, aziende longeve, aziende centenarie, analisi desk.

1. Introduction

In the last decades, the secrets of business longevity have intrigued many scholars from several disciplines, who have devoted increasing research efforts to uncover what helps firms to survive over time (Collins and Porras, 1994; De Geus, 1997; O' Hara, 2003).

The significant interest in the topic is offset by the data on business survival, which reveals an average life expectancy between 40 and 50 years for multinational corporations worldwide (De Geus, 1997). Discouraging data emerge when the research focus is shifted to European companies of all sizes, whose average life seems to be just over 12 years (Stadler, 2011). Even though the chances of survival seem to increase significantly for larger companies (Hannah, 1999), the overall high mortality rate is a significant economic and social problem needing explanations and solutions.

Based on this need, both scholars and practitioners have turned their attention to surviving firms, searching for the key factors of their enduring success (Stadler, 2011). Indeed, companies capable of surviving over centuries represent an exception in the economic world and have been investigated from several perspectives and with different research methods and purposes.

Research on business longevity has primarily focused on understanding factors that enable firms to persist and flourish over time. The firm's size, organisational culture, innovation capability, governance system, entrepreneurs' characteristics, and industry dynamics are among the numerous and heterogeneous factors used to explain business survival (Riviezzo *et al.*, 2015a).

More recently, an interesting debate has also emerged regarding the relationship between organisational age and performance; therefore, an increasing number of contributions have been directed to understand whether old

companies, taking advantage of their past experience, perform better than their young competitors (Stadler, 2011).

Nevertheless, if we consider the critical consequences deriving from the rapid decline of most firms around the world, studies on business longevity seem to be still few and findings on its explanation are not clear-cut yet. More specifically, due to the high failure rate registered within the first years of activities, business longevity research has been mainly focused on new firms' survival (Mata and Portugal, 1994; Geroski *et al.*, 2010). On the other hand, studies investigating business longevity over time are extremely scarce, as relatively few are the contributions looking for the secrets of lasting success in the realm of the oldest companies (De Geus, 1997; O' Hara, 2003).

Therefore, companies able to survive over centuries deserve more attention from the academic community and from public institutions and policy-makers, due to the central relevance held by business continuity as a source of economic and social renewable wealth. Of course, the attention towards long-lived companies is witnessed by the existence of exclusive clubs grouping the few companies able to win the challenge of time. A good example is *Les Hénokiens*, an international association which currently counts 50 member families and companies in Europe and Japan that crossed the two centuries; or the British *Tercentenarians Club*, founded in 1970 to bring together firms able to survive over three centuries that still have a connection to the founding family. Similar associations exist at country-level. For instance, in Italy there is the *Union of Italian centennial firms*, born in 2019, and other regional experiences, such as *I Centenari*, grouping family businesses located in the Campania region, or the *Club of historical companies* based in Lombardy. These associations normally comprise a few dozen members and, in many cases, only include firms able to survive overtime under the control of the same family.

Another evidence of the rising attention devoted to long-lived firms is the spread of nationwide surveys promoted in different countries to identify and categorize these companies, such as the *National Survey on Companies aged over 100 years* in Japan. Moreover, in some countries public registers have been created to give an account of companies able to survive over long periods, such as, for instance, the *Italian National Register of Historic Companies* promoted by the Association of Chambers of Commerce.

All these attempts to census the oldest companies are generally limited to single countries or even regions while, to the best of our knowledge, there have not been concrete attempts to map the “survivors” on a global scale. Considering these gaps, the paper seeks to answer the following research questions: Who are the companies able to survive over centuries? How many are they? Where are they? What do they do? In order to reach this aim, a

desk-research was carried out, gathering data on a global level through Orbis database. Addressing these basic questions is just the first step of our research path, aimed to map the surviving companies operating worldwide. Therefore, building a more robust and comprehensive picture of surviving firms is just the embryonic stage of a more complex and ambitious research project that aims to investigate business longevity on an un-heard global sample.

As the first step of this project, the main objective of the present paper is to identify all the centenarian firms still active all around the world.

The paper is organized as follows. First, we introduce the theoretical framework of studies on business longevity and a brief description of the method of analysis used. Then, we present preliminary results, followed by the discussion, limitations, and future developments of the study.

2. Theoretical framework

Since worldwide statistics agree that most companies die prematurely, understanding what enhances business survival is relevant to the current academic debate. Therefore, several studies have been carried out to address the numerous questions related to business longevity, which has been investigated by scholars of several disciplines adopting many different perspectives.

As stated before, most of the literature on business longevity dealt with factors able to promote long-term survival. In this regard, existing contributions mainly focused on investigating environmental characteristics, organizational characteristics, entrepreneurs' characteristics, and the family business succession process (Riviezzo *et al.*, 2015a). Dealing with the external environment, several elements such as spatial differences and access to resources widely affect organisational survival (Agarwal *et al.*, 2002; Brixy and Grotz, 2007), which is significantly influenced by the ability of a firm to adapt to continuously changing conditions. Therefore, several organisational characteristics have been investigated as possible explanatory factors of business longevity, including specific strategic choices, organizational values and culture, governance systems, but above all size and age, whose relationship with mortality was of central interest to many authors (Brüderl and Schüssler, 1990; Mata and Portugal, 1994; Geroski *et al.*, 2010). Furthermore, in recent years increasing attention has been dedicated to explore the opportunities of heritage marketing for the enhancement of historical heritage preserved by long-standing companies (Riviezzo *et al.*, 2021; Garofano *et al.*, 2020; Napolitano *et al.*, 2018). The impact of entrepreneurs'

characteristics, such as gender, age, education, and experience, on business survival was also highlighted in some contributions (Gimeno *et al.*, 1997). Finally, a determining place in examining the oldest companies' success has been reserved for the family, as witnessed by the significant number of studies addressing business longevity issues with specific reference to family firms (Aronoff, 2004). Indeed, great research attention has been paid to understanding how family businesses survive over time, dealing with the criticalities of the succession process and exploiting the wealth of values transmitted across generations (Napolitano and Marino, 2014; Riviezzo *et al.*, 2015b; Riviezzo *et al.*, 2016).

Despite the rich body of literature on business longevity and the numerous attempts to combine different explanatory models to reach a deep understanding of firms' long-run success, an integrative perspective seems to be, to a large extent, still lacking (Napolitano *et al.*, 2015). The lack of a more holistic explanation of business longevity is not only attributable to the heterogeneity of perspectives adopted to investigate the topic, but strongly depends on some central methodological issues mainly related to the level of analysis and research context. In this regard, the bibliometric analysis of business longevity literature carried out by Riviezzo *et al.* (2015a) highlighted the paucity of cross-industry and cross-national studies. Indeed, most of the existing studies were aimed at investigating the industry or cross-industry business longevity in a national context. At the same time, scarce efforts have been devoted to examining business survival at an international level.

In our view, a significant obstacle to the cross-industry and cross-national studies on business longevity is represented by the lack of a complete mapping aimed at identifying long-lived companies on a global scale. The need for a worldwide "census" of long-lived companies emerges if we consider the remarkable studies conducted in the last two decades to trace the profile of the oldest companies and uncover the reasons for their success.

Among the landmarks of business longevity research, the six-year project by Collins and Porras (1994) aimed to identify common features of great companies "built to last" was focused on US companies. Based on a survey conducted on around 7,000 CEOs, the authors made a list of eighteen visionary companies, all from Fortune 500 and founded before 1950. "The living companies" chosen by De Geus (1997) to investigate business longevity are 40 US large corporations going back to the last quarter of the nineteenth century or earlier that had preserved their corporate identity intact. Among the most valuable contributions to mapping the universe of the most enduring firms emerges the research by William O' Hara, who took almost a decade to identify the world's oldest family businesses (2003). The first attempt to

trace a kind of identity card of the most enduring businesses had been made by the author and his colleague Peter Mandel focusing on America and presented on the *Family business magazine* in 2001. The result of the definitive study carried out on a global scale was a compilation of 100 companies owned by the same family over time, able to survive at least 225 years and, in four cases, even reach the finish line of a millennium. As outlined in previous studies, the oldest was the Japanese temple-builder Kongo Gumi, founded in 578. Some countries emerge as particularly relevant in the geography of business longevity drawn by O' Hara, namely the United Kingdom (with 25 old family businesses), France (19), Italy (17), Germany (12), and Japan (7). The oldest companies identified in the study, carried out in collaboration with *Les Hénokiens* and *The Tercentenarians Club*, operate in several sectors, reflecting in many cases the production traditions of their own countries, such as the Italian wine company Antinori, the French Château de Goulain, the German Bernberg Bank and the Japanese soy sauce company Kikkoman. Despite the significant efforts devoted to providing a hardly scientific compilation, the author himself recognised that the list is not comprehensive and, even if hardly scientific, cannot be considered a complete census on a global scale. Another contribution to investigating business longevity in family companies was offered by Goto (2006), who examined long-lived Japanese firms from both the network and value perspectives to highlight the key factors of their long-lasting success. Based on a database of 1,146 family firms operating in Japan at least for two centuries, the author highlighted family firms' commitment to the perpetuation and their devotion to the public welfare as the most influential factors of business survival. In order to identify "the four principles of enduring success", Stadler (2007) focused on the 40 European companies older than 100 featured in the Fortune Global 500. After choosing the nine companies that had reached exceptional performance over the past 50 years, the scholar and his research team compared each of them with another old company in the same industry (and, when possible, in the same country) whose performance was not equally good. The research conducted by Tàpies and Fernández (2010) to investigate the relationship between values and longevity in the family business was based on the integration of different sources, namely data on Spanish family firms selected from a database previously realised by the authors; data on Italian and French companies' members of the association *Les Hénokiens* and secondary data on Finnish firms obtained from a previous scientific article.

As shown in this brief review of studies exploring enduring success within long-lived companies, an overall reconstruction of surviving companies is still missing despite the significant amount of empirical work

provided on the topic. Most studies, indeed, are based on samples from specific geographic contexts and industries or, even though aimed at world-based compilations, include limited numbers of companies, chosen according to specific research criteria or because of their membership to certain associations.

Table 1 – Main studies exploring enduring success within long-lived companies

<i>Study</i>	<i>Sample</i>
Collins and Porras (1994)	7,000 CEOs of US companies 18 US companies
De Geus (1997)	40 US large corporations
Goto (2006)	1,146 Japanese family firms
Napolitano <i>et al.</i> (2018)	20 Italian companies
O' Hara (2003)	100 family firms in the world
Riviezzo <i>et al.</i> (2016)	238 medium and large Italian companies
Stadler (2007)	40 European companies
Tàpies and Fernández (2010)	3,000 Spanish firms 14 Italian and French firms belonging to <i>Les Henokiens</i>

As far as we know, therefore, a comprehensive reconnaissance of long-lived companies operating all around the world is strictly necessary. In this direction, our study aims at identifying companies that survived for at least 100 years and are still in operation, outlining where they are located and in which industry they are active.

3. Method

In order to reach our objectives, we used a desk-research. Namely, we gathered secondary data from the database Orbis, accessed in April 2022. Produced by Bureau van Dijk, Orbis is a global company database, which is unique in its breadth of geographies and extent of companies covered, as well as in the availability of financial information. It contains information on more than 400 million listed and unlisted companies worldwide. Therefore, it allows screening for companies based on year of incorporation, geography, financial performance, industry, ownership structure, number of employees, and other criteria. It is a powerful comparable data resource on private companies.

As discussed above, the main aim of this paper is to identify all the centenarian firms still active all around the world. We focused on firms with at least 100 years, which is a timeframe commonly used in literature to investigate long-lived businesses. Thus, we searched the Orbis database with the following criteria: 1) still active firms; 2) listed and unlisted; 3) only corporations/limited liability companies; 4) operating in all the industries, with the exclusion of Public Administration and Defence; Education; and Health; 5) located in every country; 6) established up to 1921. Then, we took and processed the results of the database, as they emerged adopting all the mentioned filters.

Thus, we excluded the state-owned enterprises, such as public hospitals or schools, and not for profit organizations. At the same time, we excluded the micro firms, such as the sole proprietorships. Indeed, the database does not contain all the required information for micro-businesses, and we are perfectly aware of this limitation. Moreover, at least in this first phase of our research, there is no evidence to suggest that companies survived with the same properties and the same system of governance for the entire time frame considered. In parallel, since Orbis database considers the year of foundation not necessarily as the year the company started operating, but as the one of the last legal modification, companies established before 1921 may be excluded by our analysis.

Finally, not for all the companies included in the database all the financial and organizational information are available. This latest figure, for instance, depends very much on the country in which the firm is located.

Even considering such limitations, it is worth noting that this is the first attempt to map the centenarian businesses globally, trying to overcome the deficiencies of previous studies.

4. Preliminary results

As a preliminary step in our research path towards the reconnaissance of centenarian firms worldwide, we tried to answer very basic questions that, at least to our best knowledge, remained unanswered until now. These questions are: 1) How many centennial firms are still active? 2) Where are centennial firms geographically located? 3) In which industries are centennial firms active? 4) How big centennial firms are?

All figures presented and commented in the following sections to answer such questions result from our processing of data collected from Orbis's database.

How many centennial firms are still active?

Looking at the total number of firms established at least 100 years ago (i.e., up to 1921), we found out that they are 90,794 overall. As we expected, this number significantly drops as the age of the firm increases (Table 1). In particular, there are 219 firms worldwide with at least 300 years; about 60 firms with at least 500 years; and just 9 active firms with 1.000 years or more. On the other hand, the firms in the world established up to 1821 are more than 1,800.

Table 2 – Total number of active firms by established year

<i>Established year</i>	<i>N. of firms</i>
Up to 1914	90,794
Up to 1814	1,817
Up to 1714	219
Up to 1614	105
Up to 1514	63
Up to 1414	45
Up to 1314	36
Up to 1214	29
Up to 1114	16
Up to 1014	9

Where are centennial firms geographically located?

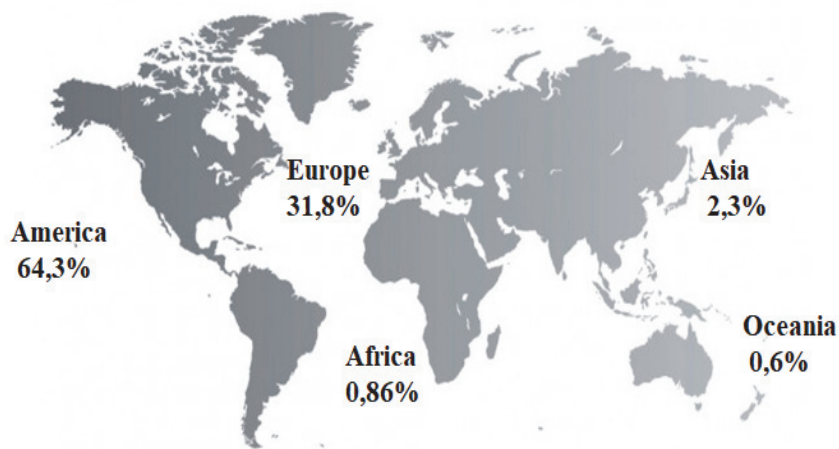
We identified centennial firms in each continent, although we observed a significant concentration in some of them. In particular, long-lived firms are mainly concentrated in America and Europe (Figure 1), while only 3,6% are located in the other continents.

More in details (Table 2), the highest number of firms with at least 100 years is located in North America (58,041), specifically in the US (54,660 centennial firms) and Canada (3,363). Instead, Central and South America count for less than 1% of the world's "survivors". They are about 300: Chile (78), Colombia (72), Mexico (53), and Brazil (46) are the countries in the area where more firms are located.

In Europe, there are more than 28,000 centennial firms, mainly concentrated in the western area of the continent (27,958). Germany (13,030) and

the Netherlands (6,045) are the countries where more than 65% of the total European “survivors” are active. Other European countries where we observed a significant concentration of long-lived firms are the United Kingdom (3,094), Switzerland (1,593), and Austria (956), followed by Portugal (486), Italy (422), Spain (352), and France (342). In Europe’s eastern area, instead, the countries with the highest number of long-lived firms are Russia (305) and Poland (257).

Figure 1 – Distribution of active firms established up to 1921 by continent



In Asia, we observed a significant concentration of centennial firms within specific countries too. Namely, 78% of Asiatic long-lived firms are located in Japan (1,119) and India (551). All the other countries in the area present lower figures, for instance The People’s Republic of China (112) or Malaysia (83).

In the Middle East, Oceania, and Africa, only a marginal part of centennial firms is still active. We observed a concentration in a few countries. In particular, in the Middle East, more than half of the “survivors” are located in Bahrein (26); in Oceania, more than 87% of “survivors” are in Australia (366); in Africa, 84% of “survivors” are spread in two countries: South Africa (417) and Ethiopia (242), followed by Egypt (40), Morocco (21), Mauritius Islands (13), and Kenya (11).

Table 3 – Total number of active firms established up to 1921 by geographic area

<i>Geographic area</i>	<i>N. of firms</i>
North America	58.041
Central and South America	325
Western Europe	27.958
Eastern Europe	937
Middle East	48
Asia	2.134
Oceania	566
Africa	784

To conclude, it's worth noting that the “geography” discussed above is completely different when we consider firms with longer life. For instance, considering the distribution of active firms with 1,000 years or more, we observed that they are quite all concentrated in Europe (and mainly in Austria), with very few exceptions from Africa (all located in Marocco). The same result is obtained if we consider active firms with at least 500 years: about 75% of these “survivors” are located in Europe, especially in Germany (30) and Austria (9); another significant share of these firms is located in North America.

In which industries are centennial firms active?

Centennial firms are active in quite all the industries, even though it is evident that the distribution among different sectors is not homogenous at all (Table 3). About 35% of these firms are operating in service industries; about 16% are in the wholesale and retail trade sector; about 13% are active in the manufacturing industry; more than 6% are in the construction sector, and just 3% are firms operating in the primary sector.

More in details, firms in the service industries are mainly operating in: financial service activities, except insurance and pension funding (10,892 centennial firms); banks (464); real estate activities (6,106); libraries, archives, museums, and other cultural activities (246); transport (2,400); food and beverage service activities (981); management consultancy activities (2,893); insurance, reinsurance, and pension funding, except compulsory social security (2,680); accommodation (839); creative, arts and entertainment activities (331); legal and accounting activities (640); service activities of travel agencies, tour operators and related activities (724); personal service activities (1,270).

It is worth noting that the highest number of centennial firms are working in the trade activities. The group of firms operating in the wholesale and retail trade industry is divided as follows: retail trade, except for motor vehicles and motorcycles (9,347); wholesale trade, except for motor vehicles and motorcycles (14,811); wholesale and retail trade and repair of motor vehicles and motorcycles (1,452).

Among the manufacturing activities, the highest number of “survivors” is in the manufacture of machinery and equipment (6,424); followed by the manufacture of fabricated metal products, except machinery and equipment (4,823); manufacture of chemicals and chemical products (3,267); the manufacture of food products (4,022); manufacture of electrical equipment (2,864); the printing and reproduction of recorded media (2,557); and manufacture of computer, electronic and optical products (2,740)

In all the other manufacturing activities, there are less than 2,000 centennial firms worldwide. In particular: manufacture of other transport equipment (1,847); manufacture of other non-metallic mineral products (1,819); manufacture of rubber and plastic products (1,697); manufacture of motor vehicles, trailers, and semi-trailers (1,656); manufacture of basic pharmaceutical products and pharmaceutical preparations (1,406); manufacture of beverages (1,192); manufacture of paper and paper products (1,176); manufacture of wood and products of wood and cork, except furniture (1,058); manufacture of articles of clothing (990); manufacture of furniture (864); manufacture of coke and refined petroleum products (633); manufacture of articles in leather and similar (293); manufacture of wearing apparel (229); manufacture of leather and related products (146); manufacture of tobacco products (77). These are added the centennial firms operating in all other manufacturing industries (2,155).

Within the construction, most of the centennial firms are operating in specialized construction activities (4,603), followed by firms working in the construction of buildings (3,270), and civil engineering (1,445).

Firms in the primary sector with at least 100 years are mainly operating in the crop and animal production, hunting, and related service activities (1,351), while other activities are less represented: for instance, forestry and logging (181) and fishing and aquaculture (59). More numerous are the centenary firms active in mining of metal ores, oil, natural gas, coal, and other activities related to extraction (1,893).

Finally, the centennial firms working in the activities of member organizations are 1,660.

Table 4 – Total number of active firms established up to 1921 by industry

Industry	N. of firms
Primary sector	2,666
Food, beverages, tobacco	4,476
Other manufacturing activities	799
Wood, furniture and paper industry	2,099
Publishing, printing	2,577
Chemicals, rubber, plastics, non-metallic products	4,930
Metals & Metal products	4,741
Textile and clothing industry	1,342
Products in leather, stone, clay and glass	1,364
Production of means of transport	2,305
Construction	6,011
Wholesale & Retail trade	14,512
Travel, entertainment and hospitality	3,190
Transport, customs services and storage	3,291
Media & Telecommunications	870
Business services	8,394
Banking, insurance and financial services	9,165
Other services	6,361

How big are centennial firms?

To get an idea of the centennial firms' size, we observed their last available turnover (Table 4). Unfortunately, such information is not available for a considerable part of the investigated firms (about 70%). Based on the available figures, it is evident that most of the "survivors" are very small in size: 16,5% have a turnover of less than 10,000 \$, and just 5,5% of the active firms with at least 100 years have a turnover of more than 50,000 \$.

Table 5 – Total number of active firms established up to 1921 by turnover

Turnover (\$)	N. of firms
Less than 10,000	14,944
From 10,000 to 20,000	1,975
From 20,000 to 50,000	2,095
More than 50,000	5,002
n.a.	66,778

The distribution of the “survivors” based on their turnover is, more or less, the same among different industries and countries. Therefore, it is possible to highlight that long-lived firms are small in size on average.

This result is confirmed by the Orbis database (Table 5), which classifies firms from all over the world into four categories (Very Large, Large, Medium, and small companies), based on the following three criteria: 1) turnover, 2) number of employees, and 3) total assets. Orbis classifies the companies as:

- Very Large companies (VL), when they are in at least one of the following conditions: revenues \geq 130 million US dollars; total assets \geq 260 million US dollars, Employees \geq 1,000, and listed companies;
- Large companies (L), when they are in at least one of the following conditions: revenues \geq 13 million US dollars; total assets \geq 26 million US dollars; Employees \geq 150;
- Medium companies (L), when they are in at least one of the following conditions: revenues \geq 1,3 million US dollars; total assets \geq 2,6 million US dollars; Employees \geq 15;
- Small companies (S), when they are not included in the other categories.

Indeed, considering this categorization, data confirm that long-lived firms are mostly small. However, it is worth noting that more than 5,300 centennial firms are classified as large companies, with a part of these represented by listed companies (1,675).

Table 6 – Total number of active firms established up to 1921 by dimension

<i>Categories</i>	<i>N. of firms</i>
Small company (S)	61,650
Medium company (M)	7,379
Large company (L)	16,440
Very large company (VL)	5,330

5. Discussion

As outlined in the previous section, our analysis revealed interesting results on the identity of companies able to survive at least 100 years. Regarding the geographic distribution of centennials, a significant concentration in specific countries emerged. Specifically, the Asian centennials are mainly located in Japan, which is consistent with other studies (e.g., Goto, 2006). The European countries with the highest number of long-lived companies are Germany, Netherlands, and the United Kingdom, while American

century-old companies are mostly located in the United States. These data are extremely relevant when considering that in the five mentioned countries are located around 85% of the total world population of companies that crossed the finish line of 100 years. Indeed, this means that contextual variables (such as national culture) cannot be neglected in the investigation of business longevity. They significantly impact the way companies use their internal resources and competencies to react and adapt to environmental conditions.

Regarding their activity, our analysis revealed an intense concentration of the centenarians in some specific sectors, namely trade and other services. Considering all the service activities and trade we obtained around 50% of the long-lived companies worldwide. More specifically, our results showed a significant concentration in specific activities: for example, financial services are the most represented in the universe of centenarians; focusing on manufacturers, the oldest companies operate mainly in the manufacture of machinery and equipment. These results highlight the need to address industry variables (such as competitive pressure or pace of innovation) in investigating elements that affect business survival.

More interestingly, a significant concentration of centenarians specialized in some activities has been registered in some geographic areas. For example, 50% of century-old firms operating in the business services sector is located in Germany; around 50% of centenarian firms operating in the food, beverage, and tobacco industries is located in the United States. A cluster logic seems to emerge in this line of thought, based on idiosyncratic relational dynamics, which are strongly rooted in the territory. This is clearly a perspective of analysis to be adopted when looking for determinants of business long-term survival.

Our study also revealed a very small average size, if we observe only the variable turnover and consider the Orbis classification. In the first case, the centennial firms having sales of less than 10,000 US dollars are about 60% of the “survivors” with available data; in the second case, the long-lived firms classified as small are more than 67%. This result is interesting from different points of view. First, it is partially in contrast with previous studies highlighting that size positively affects business survival (e.g., Hannah, 1999). Second, it highlights the central relevance of small firms in the global picture of survivors, while previous studies were mostly focused on large companies (e.g., Collins and Porras, 1994; De Geus, 1997; Stadler, 2007). Third, the small average size of the identified old companies draws attention to the individual dimension, which needs to be considered along with the organizational dimension to obtain a more precise and comprehensive framework of business longevity sources. The personal characteristics of the

entrepreneur or the family leading such companies need to be analyzed and investigated when searching for the determinants of business longevity. Considering the limited average size of long-lived companies, it is plausible to assume that most of them are family businesses. Therefore, it is confirmed that family dynamics and governance systems cannot be excluded from the areas of inquiry on firms' long-term success (e.g., Miller and Le Breton-Miller, 2005).

In conclusion, several interesting research ideas emerge from our analysis, which opens the way for a promising study on business longevity. The integration of several perspectives emerges as a key element for the advancement of business longevity literature, and multiple sources of information appear essential to identify and explain the secrets of firms' survival over the centuries.

6. Conclusion, implications, limitations and future research

In conclusion, long-lived companies are the exception and probably one of the most significant example of successful adaptation to environmental changes, therefore understanding what makes them survive over the centuries is a big challenge, that despite the abundance of conceptual and empirical studies has not found definitive and univocal answers. As stated above, this research is the first step of a more complex and ambitious project directed to shed light on key factors of business longevity. We assume that this project has the potential to impact in many ways on several audiences, including academics, companies and public community. Regarding research implications, we think that mapping long-lived companies on a global scale may add to current knowledge on business survival and thus help overcoming the limits that prevented the development of univocal and inclusive explanatory models. Regarding implications for practice, our mapping is a first step towards identifying specific conditions, both internal and external ones, able to foster or prevent companies' long-term success. Considering other possible impacts on the whole business community, we cannot ignore that mapping at a global scale long-lived firms means to provide them with a precious source of networking, usable to share their experiences and promote the values of corporate heritage at a larger scale. Regarding implications for public community, information deriving from our census and from further investigations represent a not negligible basis for promoting reflections on possible policies, able to favorably impact on business survival. Actually, even more attention needs to be paid on the dramatic consequences of failures regarding historical companies, concerning not only the financial and

economic lost for owners and employees, suppliers and whole territories, but also the social and emotional damages for all those people that see a central part of their memories to disappear.

As every study, this study also is not without limitations. In our attempt to identify all the centenarian businesses still active all around the world, we relied on the information gathered from the company database Orbis by Bureau van Dijk. Therefore, we missed part of the critical information, for instance, on micro-businesses. Anyway, this study contributed to shed light on a global phenomenon that is of great interest to both academics and practitioners and that definitively needs to be more deeply investigated.

What we presented here are just our preliminary findings. In future, we will deepen our investigation by focusing on the antecedents and the consequences of longevity within the identified companies. Precisely, we are going to collect environment-related information (i.e., national culture, competitive system, innovation rates, and so on.), organization-related information (i.e., strategic orientation, corporate culture, governance system, and so on), and individual-related information (i.e., the background of the CEO, the role of the family, and so on). Furthermore, we are going to collect information on the financial performance (i.e., comparing long-lived companies to their competitors along multiple dimensions). We aim to develop a comprehensive dataset on long-lived firms without geographic and/or industrial boundaries. In so doing, we will be able to contribute effectively to the ongoing debate on the determinants and the consequences of business longevity.

For the future developments of our study, we will use multiple research methods, including case studies, surveys, and desk-researches on secondary data from databases (including Orbis) and other sources of information related to single companies (e.g., institutional websites, internal reports, official presentations).

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