SESIÓN 1

Cambio Tecnológico, Innovación y Crecimiento: una perspectiva regional, 1700-2018

Driving through change at speed. Opportunity conditions and entrepreneurial responses in the history of the express industry.

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Abstract:

History encompasses some singular sequences of events and conditions that create entrepreneurial opportunities. This paper looks at the historical settings of the second and third waves of industrialization to consider the emergence and evolution of the express industry, whose origins date from mid-nineteenth century America. By using sequential historical reasoning, this work determines how these different settings created entrepreneurial opportunities and how entrepreneurs in the express industry exploited them through innovative responses that went on transforming the nature of the industry through time.

Keywords: entrepreneurship, opportunity, history, industry change, express industry, express companies.

INTRODUCCIÓN

Historical reasoning has played a critical role in the development of entrepreneurship research.[1] Indeed, although entrepreneurship became a topic of growing interest among management scholars since the late 1970s, historical research of entrepreneurship started much earlier and was particularly concerned with understanding the economic, institutional and socio-cultural foundations of nations' development.[2] A growing attention to the innovative capacity of individuals, as entrepreneurs, in bringing markets' transformation and economic dynamism started by the theoretical work of Schumpeter who argued that historical research should have a logical priority in the study of entrepreneurship.[3]

Inspired by Schumpeter, in the 1940s a group of scholars –led by Arthur Cole and joined by the Harvard Centre for Research on Entrepreneurial History– fuelled entrepreneurship research from a multidisciplinary, historically informed perspective. They became interested in the entrepreneur, his socio-cultural foundations, and the interlinks between this agent, the historical, institutional, and social environment and the evolution of organizations and industries. Cole indeed pointed out the guidelines to be followed by the scientific research on entrepreneurship, including the biographies of businessmen and the history of their companies, the analysis of different types of business, and the study of entrepreneurship in different contexts. Unfortunately, since the late 1970s, historical approaches to entrepreneurship weakened while the scholarly discipline started adopting more individualistic, abstract approaches. Economic historians devoted to emerging disciplines like cliometrics and the analysis of large professionally managed corporations following Alfred D. Chandler's path (1962). Yet, business historians kept the tradition of writing biographies of entrepreneurs and this played a key role in bringing back the historical approach to entrepreneurship contemporary research agenda towards the turn of the century. New studies brought back the analysis of the institutional framework and how it shapes entrepreneurship and, thus, economic growth.[4] Also, rooted in Chandler's pathbreaking approach, other studies explored how the historical context affects the entrepreneurial behaviour of stablished organizations, identifying factors driving innovation in large corporations.[5]

The Spanish economic historiography has also tried to go deeper into the study of entrepreneurship, its determinants and its contribution to economic growth, using existing theoretical literature and, in many cases, drawing on quantitative indicators allowing

[1] Landrström and Lohrke (2010), p. 8; Gil-López et al. (2016)
[2] Weber (1904/1970), Schumpeter (1942).
[3] Schumpeter (1949).
[4] Baumol (1988, 1990), North (1990), Davis and North (1971), Murmann (2003).
[5] Graham and Schuldiner (2001), Cuff (2002), Lazonick (2003), Díaz Morlan (2009).

results to be contrasted nationally and internationally.[6] The study of the determinants of entrepreneurship can also be seen in other South European countries. Education, kinship networks, family and, interestingly, the capacity to enhance technological transfer, appear to be key factors that lie beyond the existence of ambitious entrepreneurs in countries where institutional constraints have been recurrent obstacles to economic development.[7]

Despite the growing attention paid to the large industrial corporation, management scholars mostly focused on the entrepreneur and the small business as their unit of analysis, and individual, cognitive approaches dominated academic contributions in this filed until the late 20th century. It was not until the seminal works of Shane and Venkataraman that management literature broadened its scope, went beyond the individual, and paid substantial attention to the so-called construct of 'entrepreneurial opportunities'[8], which brought a wider perspective for generating understanding about how entrepreneurs respond to market and industry conditions.[9] According to this approach, entrepreneurship involves the discovery, evaluation and exploitation of opportunities to create new goods, services, raw materials, and organizing methods that did not exist before. So, entrepreneurship as an academic discipline should focus on understanding how opportunities "are discovered, created, and exploited, by whom, and with what consequences".[10] Thus, going beyond the focus on the individual entrepreneur alone, the 'entrepreneurial opportunities' approach links entrepreneurship to the 'nexus of two phenomena: the presence of lucrative opportunities and the presence of enterprising individuals' -and organizations-, and acknowledges that a more comprehensive explanation of entrepreneurship should consider together the environment, individuals and businesses.[11] Therefore, this approach draws on a close interdependence between the sources of entrepreneurial opportunities, the process of their discovery and exploitation, and the individuals (or organizations) who perform these processes as well as their surrounding institutional and socio-cultural framework.[12]

Literature suggest that opportunities emerge when market, technological, economic, institutional, or knowledge frameworks are transformed, so it is change itself which can allow a new combination of resources to be introduced that generates economic value.[13] According to this approach, the entrepreneur is an innovative agent who perceive those

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[6] Valdaliso and Garcia Ruiz (2013, Tortella, et al. (2009, 2011), Díaz Morlán (2009), Garcia Ruiz (2010), Tortella and Quiroga (2012).
[7] García Ruiz and Toninelli (2010).
[8] Venkataraman (1997); Shane and Venkataraman (2000).
[9] Casson (2003), Schumpeter (1934), Shane (2003), Shane and Venkataraman (2000).
[10] Venkataraman (1997), p. 120.
[11] Shane and Venkataraman (2000), p. 218, Venkataraman (1997).
[12] Shane (2003), Shane and Venkataraman (2000), Almaraz (2020), Roure et al. (2007).
[13] Drucker (1985), Companys and McMullen (2007).

changes and react, seeking to exploit new business opportunities with the ultimate goal of generating novel economic or social value.

Following the 'opportunity' construct, researchers have examined multiple topics such as the sources and the nature of entrepreneurial opportunities, the drivers of the opportunity identification, and the practices and strategies through which opportunities are exploited.[14] Despite this progress, concerns have been raised about how particular understandings in the field have emerged. Studies have highlighted that the construct of opportunities itself is too broad. This broadness has meant that some core issues have been ignored. These issues include the conditions that make opportunities emerge, their salient characteristics, the mechanisms through which they influence entrepreneurial processes or their actual results in terms of entrepreneurship failure or success.[15] Among these concerns, and especially relevant to historical research, scholars have suggested that 'opportunities' have been commonly addressed as standalone constructs which neglect how contextual and social influences shape and reshape how entrepreneurs act upon them.[16] This latter argument suggests the importance of considering how the historical context is a dynamic dimension that is likely to change across time and therefore impact on entrepreneurship conditions, behaviours, actions and outcomes in distinct ways.[17]

In this study, we build on a historical approach as a privileged viewpoint from where to explore how entrepreneurial opportunities emerge under specific historical contexts, and how entrepreneurs' responses work in driving change and taking advantage of the opportunities. To do so, we present the case of a long-lived industry, the express industry, which encompasses the provision of value-added, door-to-door transport and deliveries of next-day or time-definite shipments across the globe.[18] We analyse its historical evolution, since the mid- nineteenth century, by addressing the three underlying components for the explanation of entrepreneurship from a historical perspective: context, time and change.[19] The 'context' and 'time' for our study comprise the historical settings of the second and third industrialization waves and, particularly, the transformations introduced to transport and communications infrastructure. They encompassed a relevant sequence of events and conditions that, in the express industry, gave rise to specific opportunities for entrepreneurs. Their exploitation resulted in new ventures, services, concepts and conditions that propelled 'change' in the express

[14] Companys and McMullen (2007), Dahlqvist and Wiklund (2012), Eckhardt and Shane (2003), Grégoire and Shepherd (2012), Plummer, Haynie, and Godesiabois (2007), Sarasvathy, Dew, Velamuri, and Venkataraman (2010), Shane (2000).

[15] Davidsson (2015).

[16] Dimov (2011), Dodgson (2011), Popp and Holt (2013).

[17] Galambos and Amatori (2016), Üsdiken, Kipping and Engwall (2011), Wadhwani and Jones (2014). Galambos and Amatori (2016) propose the concept of the 'entrepreneurial multiplier' as a way to explore the relationship between entrepreneurship and historical change in economies over time.

[18] Campbell (2001); Gil-López (2015a); Gil-López and San Román (2020).

[19] Wadhwani and Jones (2014).

industry and drove its transformation during the nineteenth and twentieth centuries. We have focused on this industry because its historical evolution allows us to illustrate and explore that interlink between the historical context, entrepreneurial opportunities, and industry evolution, therefore contributing to the historical tradition of entrepreneurship studies and the advocacy that context matters. Moreover, with this study we bring to the business and economic history literature a largely overlooked, but important activity, whose global impact has been recently tested by the COVID-19 pandemic. The industry, which draws on sophisticated networks that connect business and people globally, is currently witnessing strong growth due to the new consumer and business needs associated to the global lockdown and the reduction of people mobility. The last published report of the Global Express Association, in 2015, already offered some magnitudes that suggested the significance of the industry in the global economy: over 140 Billion USD, and around 3 million employees (including direct, indirect, and induced jobs).[20] The express industry, its players and development have been commonly studied from the lens of industry reports, works focused on its economic structure and political economy,[21] and case studies of companies (including multinational operators and Spanish companies too)[22]. To our knowledge, this is the first work that addresses the study of this industry from an international and historical perspective.

Our approach to the study of entrepreneurial processes in this particular industry draws on what Wadhwani and Jones call ‘sequential historical reasoning’.[23] Represented in Figure 1, we describe the three main stages in the historical evolution of the express industry. We show, for each of these stages, the interplay between the historical setting, the emerging set of opportunities and the changes experienced in the express industry driven by entrepreneurial responses. The first stage relates to the development of the railroad network in the nineteenth century United States, along with the extension and integration of the domestic market, which led to the establishment of the former express companies. At that time, railroad technology and growing demand provided the opportunity to create a new service concept: the provision of faster and more reliable delivery services across the American transportation network, ensuring the protection of all shipments in transit. At a second stage, a new opportunity arose when mass consumption and mass distribution began to spread, and a new technology gave rise to more flexible transportation. At the beginning of the twentieth century, door-to-door delivery services arose as an entrepreneurial response to the diffusion of combustion engines and the stimulus of an increasing domestic market in the United States. Motorcycles, cars and, later, trucks were the pillars of this new business concept. By the

[20] Frontier Economics (2015).
[21] Taylor and Hallsworth (2000), Campbell (2001).
[22] Niemann (2007), Savignano (2011), Bowen (2012). About Spanish companies and the Spanish express industry, see Miravitlles (2000), Bahamonde et al. (2000), Tápies et al. (2012), San Román et al (2014), Gil-López (2015a; 2015b), Gil-López and San Román (2020), Gil-López et al. (2020).
[23] Wadhwani and Jones (2014).

end of the 1960s, ICT, increasing globalization, a new institutional framework for international economic relationships, along with improvements in air transportation, fostered the emergence of the modern courier companies, equipped to meet the challenges associated with the new flexible production model, the novel forms of business organization and agreements, and the integration of the global economy.

Figure 1. Historical settings, entrepreneurial opportunities and responses in the evolution of the express industry.

	c. 1800	**c.1900**	**c.1960s**
Historical settings	Railroad Technology and US market growth (2nd Industrial Revolution)	Mass consumption, mass distribution and combustion engine (2nd Industrial Revolution)	ICT, jet aircraft and globalization (3rd Industrial Revolution)
Entrepreneurial opportunity	Scheduled, reliable and faster transportation and communication services	Flexible transportation of next-day or time-definite shipments	International, integrated courier services
Entrepreneurial response	Fist express delivery services by railroad	Door-to-door express delivery services	Global courier services

Source: Own elaboration

Our study follows a multiple-case study method focused on the big players in the history of the express industry, employs –as mentioned– a sequential historical reasoning approach, and draws upon a wide range of sources. They include: historic press, industry reports –published by organizations like the U.S. Railroad Administration, the U.S. Bureau of the Census, the U.S. Interstate Commerce Commission, the U.S. Post Office Department and the Universal Postal Union–, companies' reports –of the big players in the industry–, legislation and secondary material. All are cited where appropriate throughout the text. Most primary documents have been collected from public, digitalized archives and libraries including those of the Harvard Law School, University of Michigan, University of Chicago, University of California and University of Illinois at Urbana-Champaign which have been accessed through *HathiTrust Digital Library*.

Our study offers two main contributions. First, it illustrates processes of opportunity exploitation across distinct historical settings. It therefore contributes to the study of entrepreneurship by showing the potential of historical approaches for understanding industry emergence and change as the interplay between sequences of settings, entrepreneurial opportunities, responses, and outcomes. Second, this 'historical sequences approach' also provides valuable insight when exploring how sources of opportunities connect over time and for understanding those conditions which enable new entrepreneurial opportunities to emerge or constrain the viability of previous responses. This insight, in turn, shows the importance of drawing on historical approaches to assess the success or failure of entrepreneurial ventures as an industry evolves and changes.

This paper is presented in four sections. The first three review each of the three stages in the history of the express industry, analysing how the development of entrepreneurial opportunities is a core dimension for the development of the industry. The fourth section presents our conclusions.

1. RAILROADS AND THE BEGINNING OF A NEW INDUSTRY

The express industry is closely linked to the emergence and development of the railroad during the second half of the nineteenth century. Its development thereafter has built upon advances in transport and communications, with the expansion of the railroad network and the invention of the telegraph being critical innovations which epitomise economic development in the nineteenth century in both continental Europe and the United States.[24] Both innovations were critical in offering, faster, more regular and more reliable transportation and communication systems, essential for offering high-volume production and the distribution of goods and services. Their backward linkages offered a strong affinity to the main industries that supplied them, such as iron, coal, timber or brick.[25] They were also critical for the integration of domestic markets and the ability to promote and build international communications. This was especially important in large countries such as the United States, where size and growing domestic market demands made it strikingly different from other industrialized countries in the second half of the nineteenth century. As early as 1840, the railroad network in the United States was twice the size of England's and four times the size by 1870. When compared with other large countries, such as Russia, the extraordinary growth of the North American railroad network is still outstanding: in 1870 its extension was eight times larger than that of the country of the czars.[26] This context of rapid growth, along with the resulting extension

[24] Fogel (1964).
[25] Landes (2003), p. 153.
[26] Figures related to England and Russia can be consulted in Mitchell (1975), table G1, pp. 581-584. For the case of the USA, see U.S. Bureau of the Census (1960), pp. 427–429.

and integration of the domestic market and an institutional environment which increasingly favoured business, provided American entrepreneurs with the opportunity to exploit an emerging context of opportunities, characterized by extensive and increasing economies of scale and scope.[27] At that time, American capitalism also started exposing many elements of what was later called "mixed economy". Although policies toward business were still rather disorganized and often chaotic, the institutional framework as a whole constituted an entrepreneurially oriented strategy for quick economic and business growth.[28]

In this context, the first express companies saw the opportunity to profit from shipping goods across the American transportation network while ensuring the safeguard of the shipments in transit. This led to an entrepreneurial response with the establishment of new companies, and the rise and shape of a new industry. Opportunities were constructed drawing on new, faster and more trustworthy forms of transportation. The emergence of this industry was also a response to a latent market need not met by the public postal service. In fact, the U.S. Postal Service in the mid-nineteenth century was slow, expensive and non-existent in many areas. Nothing larger than a letter-sized envelope could be sent by mail and certainly nothing valuable, as a considerable number of deliveries were lost or stolen en route.[29] Hence, express companies offered the only generally available method for the transportation of parcels across the American railroad network.[30]

In 1839, William F. Harnden launched the first express transport service, making four trips per week between New York and Boston, carrying valuables and small packages for his customers.[31] This entrepreneurial initiative, which guaranteed speed and safety, marked the birth of the express industry in the United States and subsequently worldwide.[32] By the mid-nineteenth century, six large express companies were exploiting

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[27] Chandler (1990).

[28] McCraw (1997), p. 316.

[29] Parcel post service by the United States Postal Service did not become generally available until 1913.

[30] Hatch (1950), U.S. Interstate Commerce Commission (1912), pp. 1–2. The risk posed by the rise of express companies as an alternative to traditional postal mail was early perceived by the U.S. Post Office. As early as in 1848, a report from the Committee on the Post Office warned: "Unless the public mails of the country, in their speed, keep full pace with the wants of the people, (…) they must, in time, on all the important routes, be entirely superseded by private expresses and individual enterprise, now often many days in advance of the regular mails." (U.S. House of Representatives, Report No. 731, 30th Congress, 1st Session, 1848).

[31] Stimson (1878).

[32] As explained in Hatch (1950), William F. Harnden (1812–1845) is regarded as the 'father of the Express' (p. 17), the man who really got the express business going on a large scale. His company, Harnden and Co., offered some important advantages over the express organizations later established in the United States: the messengers were not required to traverse hazardous, near-wilderness routes, and they could travel by rail and boat rather than by horse or stagecoach. Harndern's company definitely provided a model for other express companies that quickly appear. Five years after founding his express business, Harnden died from tuberculosis and Harnden and Co. ended up being absorbed by Adams Express in 1854. See Nevin (1974), p. 16.

the opportunities offered by the railroad and were operating across the United States: Adams Express Company, American Express Company, United States Express Company, Wells-Fargo and Company, Southern Express Company and Pacific Express Company.[33] All these companies began by delivering goods at a local level but early on in their development chose to expand their operations nationwide, following the growing railroad network. As their volume of business grew, driven by population growth and therefore consumer demand that extended in size and geographical scope, they also began to move a wider variety of goods, from light and valuable freight to standard goods carried in volume lots.[34] Table 1 shows the main characteristics of those 'big six' and the size of their operations at the beginning of the twentieth century. At that time, they already controlled 93 per cent of the express business of the United States. Interestingly, the success of their operations in the United States also led them to exploit similar opportunities abroad, opening subsidiaries in the main European cities like London, Liverpool, Paris, Rotterdam and Geneva, where similar infrastructure was prevalent.[35]

[33] Wells-Fargo was originally founded to offer banking services and express delivery of gold and valuable goods using horse carriages, pony rides and contracting with independent stagecoach companies. Retrieved November 11, 2020, from https://www.wellsfargo.com/
[34] Benedict (1919), Chandler (1977), Dixon (1905), U.S. Bureau of the Census (1908).
[35] In 1907 there were 34 express companies operating in the United States: 16 were corporations, 12 departments of railways, 4 were unincorporated associations, 1 owned by a partnership and 1 by an individual (Williams, 1910).

Table 1: The six important express companies in the United States, 1909

Name of carrier	Date of foundation	Founders	Main railroad lines covered	Principal Office	Total mileage
Wells Fargo & Co.	1866	Henry Wells and William Fargo	Atchison, Topeka & Santa Fe Railway; the Erie Railroad; the St. Louis & San Francisco Railroad; and the Southern Pacific Company.	New York	65.698,43
Adams Express Co.	1854	Alvin Adams	Chicago, Burlington & Quincy Railroad; The Louisville & Nashville Railroad; The New York, New Haven & Hartford Railroad; and the Pennsylvania Railroad	New York	34.360,00
American Express Co.	1850	Henry Wells, William G. Fargo and John Butterfield	Boston & Maine Railroad; Chicago & Alton Railroad; Chicago & North-western Railway; Illinois Central Railroad; Michigan Central Railroad; Missouri, Kansas & Texas Railway; and New York & Hudson River Railroad.	New York	48.224,78
United States Express Co.	1854	Joint-stock association	Baltimore & Ohio Railroad; Baltimore & Ohio South-western Railroad; Chicago, Rock Island & Pacific Railway; Philadelphia & Reading Railway; Lehigh Valley Railroad; and Pere Marquette Railroad.	New York	24.203,00
Southern Express Co.	1861	Henry Bradley Plant	Atlantic Coast Line Railroad; Florida East Coast Railway; Louisville & Nashville Railroad; Norfolk & Western Railway; Southern Railway; and Seaboard Air Line Railway.	Chattanooga	33.181,00
Pacific Express Co.	1879	Kansas Pacific and Union Pacific Express Co.	Missouri Pacific Railway; The Union Pacific Railway; and the Wabash Railroad	St. Louis	22.672,54

Source: Compiled from U.S. Interstate Commerce Commission, “Annual Report on the Statistics of Express Companies in the United States” (Bureau of Statistics and Accounts, Washington, D.C., 1910).

In a typical response to entrepreneurial opportunities developed through new ventures, incumbent companies providing the infrastructure soon began to understand the vast potential for growth and attractive rewards that express services offered. The railways reaped few rewards from this business and they began to feel that their network and infrastructures were being abused by the express companies. In effect, express companies received most of the benefits of transport because they usually carried valuable goods, such as stock certificates, notes, currency and other financial instruments, while railways developed the less profitable business of carrying heavy freight.[36]

In a typical incumbent fashion, the railway companies reacted by directly participating in the management of this new business and eventually they absorbed it.[37] Their managers, founders and owners adopted three main strategies throughout this process. The first consisted of buying shares of express companies, increasing their presence on the boards and expanding their influence on decision making. Table 2 shows the percentage of capital of express companies owned by railway corporations in 1906. Figures demonstrate that railway companies became large holders of express companies' stocks. Indeed, in 1906 they held $20.668.000 which accounted for more than one-third of total capital stock of express companies.[38]

Table 2. Holdings of railway companies in the stock of express companies (in 1906)

Railway corporation	**Express company**	**Amount of stock held (in current thousand dollars)**	**Total capital stock (in current thousand dollars)**	**Share**
Chicago, Burlington & Quiney R. R. Co.	Union Express Co.	1	n/a	n/a
Denver & Rio Grande R. R. Co.	Globe Express Co.	2,000	3,001	67%
El Paso and Southwestern R. R. Co.	Southwestern and International Express Co.	200	n/a	n/a
Minneapolis, St. Paul & Sault Ste. Maria Ry. Co.	Western Express Co.	25	50	50%
Missouri Pacific Ry. Co.	Pacific Express Co.	2,400	6,000	40%
New York Central & Hudson River R. R. Co.	American Express Co.	3,000	18,000	17%
Northern Pacific Ry. Co.	Northern Pacific Express Co	343	n/a	n/a
	Northern Express Co.	5,000	5,000	100%
Southern Pacific Co.	Wells Fargo & Co. Express	1,530	8,000	19%
Union Pacific R. R. Co.	Pacific Express Co.	2,400	6,000	40%
Wabash R. R. Co.	Pacific Express Co.	1,200	6,000	20%

Source: compiled from U.S. Interstate Commerce Commission, "Annual Report on the Statistics of Express Companies in the United States" (Bureau of Statistics and Accounts, Washington, D.C., 1909); n/a: not available

[36] Williams (1910).

[37] Grossman (1996).

[38] U.S. Interstate Commerce Commission (1909), pp. 19–20, Williams (1910), p. 27. The express companies also held stock of the railway companies ($24,420,950 in 1906) as well as of other express companies ($2,082,402 in 1906). Figures demonstrate a close relationship and collaboration between the express companies and between these and the railway companies. As studied in Grossman (1996), this collaboration turned the express railroad industry into one of the most successful cartels in U.S. business history.

The second strategy included the establishment of strategic alliances with express companies. In the mid-1850s, the first contracts between railways and express companies were signed. These contracts sought to bring mutual benefit: express companies received special tariffs, while the railways were guaranteed a certain volume of traffic on their lines and could also reduce the cost of rolling stock because the express companies often operated with their own cars.[39]

The third and final strategy used by railway companies for taking over the express business was the establishment of 'cooperative fast-freight lines' that worked as consortiums under the authority of the railways cooperating on each line. The first cooperative line was the Red Line which dated from 1866 and ran between New York, Boston and Chicago. The Blue Line began operations in 1867 with the same terminals as the Red Line, but using tracks to the north of the Lakes. The south was covered by the Green Line and the Pacific coast by the White Line.[40] All these lines worked as a consortium: the railways that were part of a consortium operated with their own cars and paid a proportion of the revenue from freight traffic to the relevant line. This cooperative venture worked well. At the end of the nineteenth century, the cooperative lines controlled almost all freight traffic.

As a consequence of these three strategies, by the beginning of the twentieth century railway companies had already taken over most of the express business in the United States. Only a few of the former express companies – Adams, American, United States and Wells Fargo – remained independent and had no option but to rely on their early business of delivering light and valuable freight, usually by retaining their association or contracts with the railways.[41] The express companies soon realized that they were fated to lose their core business, so some of them instigated new activities to compensate for the decreasing revenues. To make matters even worse, the former express companies had to face a new competitor: on January 1, 1913, the United States Postal Service (USPS) launched its parcel service, enabling the U. S. mail system to carry small packages as ordinary mail, at lower prices than those charged by the express companies[42]. This service instantly and seriously diminished the express companies' profitability, by removing an amount of parcels, especially the smaller ones, from their

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[39] The contract between an express company and a railway company usually stated that the express company would have the exclusive right to operate upon certain lines named in the contract for a definite term and upon the payment of a fixed per cent of its gross receipts form handling express matter, generally with a minimum payment guaranteed (Hatch, 1950, pp. 23–24; U.S. Interstate Commerce Commission, 1910, pp. 10–11).

[40] Chandler (1977), p. 128, Taylor and Neu (1956), pp. 71–72.

[41] Two of the four remaining express companies retained ties with railway companies: the U.S. Express with the Baltimore & Ohio and Wells Fargo with the Erie (Chandler, 1977, pp. 535–536).

[42] Parcel Post admitted packages weighing up to 11 pounds or measuring up to 72 inches in combined length and girth (U.S. Post Office Department, 1913, sec. 15).

business.[43] Estimates show that express companies lost about 26% of their revenue and almost 30% of their shipments of up to 11 pounds between January and March 1913, the three first months after the USPS parcel service was launched.[44]

Ultimately, the First World War dealt the final blow for the former express companies. All U.S. railroads were federalized and controlled by the United States Railroad Administration (USRA) in response to the need to move massive amounts of troops and materials around the country.[45] As well as taking over the railroads, the government decreed that the railway express operations of the remaining private express companies would be sold to the new government-operated American Railway Express Company (AREC), which was founded in July 1918. As a reward, these express companies received holdings in the stock of AREC and effectively became passive investors in a U.S. government operation. USRA was finally dissolved in 1920 and the railways were re-privatized. But AREC continued its operations until 1929, when the 86 major railway corporations founded the Railway Express Agency (REA) that absorbed the former AREC.[46]

This strategy allowed the railway corporations to recover total control of all the express industry in the United States. The former express companies eventually disappeared or moved into other businesses. American Express followed the latter strategy by expanding into financial and travel services. Adam Express moved into financial services, a business it continues to operate today.

In summary, the emergence and development of railways across the United States created the nexus for entrepreneurial opportunities to arise and the impetus for entrepreneurial individuals to exploit them thus making the express industry emerge. Overly relying on the infrastructure, the exploitation of these opportunities was short lived as, by the beginning of the twentieth century, railway incumbents had managed to absorb and monopolize all express business thus pushing the former entrepreneurial express companies out of the market. History, however, demonstrates that cycles of opportunities develop and emerge often linked to new technology and market conditions. In fact, the rise of a new historical setting was about to change this landscape by opening up new sets of opportunities while diminishing the attractiveness of the ventures and the market structure that previously existed.

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[43] Benedict (1919), pp. 12–13.
[44] U.S. Interstate Commerce Commission (1913). Figures are related to two of the largest express companies at that time: Adams Express and American Express.
[45] Gallamore and Meyer (2014), U.S. Railroad Administration (1919).
[46] Wiatrowski (2007).

2. THE TURNING POINT OF THE TWENTIETH CENTURY: MASS DISTRIBUTION, THE COMBUSTION ENGINE AND DOOR-TO-DOOR DELIVERY SERVICES

By the beginning of the twentieth century the railroad and the telegraph had managed to integrate the United States market. Moreover, that transport and communications infrastructure had a major impact on production processes, by supporting the rise of mass production, and the distribution of goods, which increased both in terms of size and speed. This was also driven by the emergence of mass consumption associated to the growth of the United States' population and income.[47] So, mass distribution quickly emerged as a response to the growing consumer demand and the availability of faster, more regular and more reliable transportation and to the increasing domestic market. As a result, the modern mass retailer began to dominate American distribution from the early 1880s.

Department stores and, later, mail-order companies and chain stores offered the advantage of reducing the number of intermediaries between the producer and the final consumer. This new mass distribution infrastructure put a premium on the economies of speed brought about by the availability of faster and more regular transportation. Thus, the competitive advantage of mass marketers actually relied on increasing not the size of their operation, but their stock-run. Consequently, economies of scale were no longer based on size but rather on speed.[48] Both department stores and mail-order companies depended largely on the railway and communications to articulate their purchasing operations. They provided their own delivery service, but this was not always available everywhere and could take days. Postal parcel deliveries were still limited, especially in rural areas, and few people owned cars for transporting their purchases. The articulation of the flow of goods from the retailers to an increasing number of dispersed customers provided a new setting for entrepreneurial opportunities, and these could now be underpinned by a new technology: the internal combustion engine or explosion engine and its widespread application to motorcycles and cars. As a result, the diffusion of these new methods of transportation, much more flexible than railroads, alongside the increasing retail business, created the opportunity that encouraged entrepreneurs to launch a new service in the express industry: the door-to-door delivery of packages.

The foundation of United Parcel Services (UPS) is the most outstanding example of this particular entrepreneurial response to the market conditions. The 19-year-old entrepreneur Jim Casey (1888 - 1983) founded the company in Seattle in 1907. He was perceptive enough to see that a local door-to-door retail delivery service would meet a

[47] Chandler pointed out that the transformation in businesses' size and activities occurred more rapidly in distribution (Chandler, 1977, p. 209). The railroad and the telegraph revolutionized the distribution of primary products and manufactured consumer goods and they were mainly responsible for the birth of the modern large-scale distributor.

[48] Chandler (1977), pp. 235–236.

growing demand, and understood that the existing express railway companies were neither interested in offering this type of service, nor were they equipped to. In fact, express railway companies were able to ship goods between railroad stations, but were unable to link that delivery with demands from shops to serve customers in a better way. The idea of helping stores to deliver door-to-door created an unexploited opportunity. With this in mind, the American Messenger Co., which later became UPS, was therefore created with the purpose of offering stores a same-day delivery service to their customers.[49] At that time, people made most of their retail purchases at department stores, and most department stores provided their own delivery service. The new service launched by UPS was therefore very innovative: UPS could help department stores increase the speed of their deliveries and cut costs by consolidating the delivery routes that various stores operated individually. This concept would eliminate duplication and thus yield efficiencies. Moreover, department stores no longer needed to maintain their own transport fleets.

A team of six UPS messenger boys began distributing department stores' parcels in the city of Seattle. This was initially done on foot, by bicycle and by motorcycle, or the messenger boys took streetcars, horse drawn-carriages or taxis if necessary.[50] As the flow of goods increased, Jim Casey decided to borrow enough money to purchase a new 1913 Model T. Ford. The new era of automobiles would allow messengers to carry more goods than could be loaded onto bicycles or motorcycles. This decision to embrace the automobile is evidence of UPS' determination to take advantage of new technologies and market opportunities in order to adapt its consolidated delivery model.[51] By 1915, UPS already had four automobiles, five motorcycles and 30 foot messengers; together, they covered 1,600 miles every day in Seattle (Niemann, 2007, p. 49). Over the next few years, the company extended operations to new cities both on the Pacific and Eastern Coasts and increased its range of services. By 1922 UPS launched the new 'common carrier' services in the city of Los Angeles.[52] The so-called common carrier service was a right granted by the U.S. Interstate Commerce Commission (ICC) that allowed a private company to provide virtually any type of delivery not only from a retail store to its

[49] Jim Casey acknowledged that UPS was not the inventor of retail delivery business itself. Other couriers already existed to deliver from department stores to customers, but it was as yet an imperfect service, slow and inefficiently organized. This was the contribution of UPS: refining the retail delivery business for customers by creating an integrated organization that offered a rapid and dependable delivery service, 24 hours a day, 7 days a week. Its motto was: 'never promise more than you can deliver and always deliver what you promise' (Niemann, 2007, p. 45).

[50] Niemann (2007), p. 45.

[51] Brewster and Dalzell (2007); Saxon, W. "James E. Casey is dead at 95", *The New York Times*, 07/06/1983; Hamburger, P. "Ah, Packages!", *New Yorker*, 10/05/1947.

[52] UPS received the 'common carrier' license with the purchase, in 1922, of Peck Company, a small delivery business based in Los Angeles, which had the rights to pick up and deliver packages to the general public in the Southern California area. UPS took over the rights with the acquisition of the company (Niemann, 2007, p. 59; U.S. Postal Service, 1984, pp. 25–26).

customers but also from one wholesaler to another or from store to store[53]. This 'license' also extended services including automatic daily collection calls, acceptance of checks for the payment of C.O.D.s or additional delivery attempts, among others. The early success of UPS in the provision of common carrier services in Los Angeles opened up the possibility of expansion into new markets. This expansion, however, clashed with the ICC regulations that gave exclusive rights for intercity parcel deliveries to the U.S. Postal Service, except under certifications. Acquiring a national scope required UPS to apply specific permissions each time a new city wanted to be covered. For almost three decades, from the 1950s to 1970s, UPS made over 100 applications for common carrier operating authority until in 1975 it became the first package delivery company to serve every address in the 48-contiguous United States by ground and air transport. UPS called this historic coverage of service areas the 'Golden Link'.[54]

3. GLOBAL COURIERS AND THE RISE OF A 'NEW ECONOMY'

In the late 1960s, a new generation of private express carriers arose, and the express industry was transformed yet again. Like the 1840s, the third revolution in transport and communications also created new opportunities for entrepreneurs that would ultimately change the nature of the express industry by giving rise to the global courier services[55].

Technological progress in the second half of the twentieth century sprang from improvements in two types of technology: air transportation and telecommunications. Jet aircraft were introduced into commercial airline fleets in the 1960s, triggering a boom in international trade by reducing costs and delays in long distance commerce. Similarly, improvements in telex technology, and later in the telecommunication and computer manipulation of data, allowed an individual 'track and tracing' of international shipments. The massive technological investment in the communications infrastructures brought with it movements in the deregulation of markets and the globalization of capital. In fact, from the 1970s, the new technological advancements gave rise to a new organization of production and markets. Demand became increasingly unpredictable, markets were internationalized and diversified, and the economic, institutional, and technological

[53] The Interstate Commerce Commission was created under the 'Interstate Commerce Act', passed by the Congress in 1887 to regulate the railroad industry and reduce its monopoly power. The act was later amended to include other types of transport and commerce, such as road transport, with the 'Motor Carrier Act', which was enacted in 1935. A comprehensive review of the history of this legislation is provided in Wagner (1936).

[54] "UPS History" in https://www.ups.com/cy/en/about/history.page (last consulted 01/06/2020), Niemann (2007), p. 115.

[55] The term 'courier', which emerged in the 1970s, puts an emphasis on a global scope. It extends the original concept of 'express' deliveries towards greater flexibility and traceability. Meanwhile, the term 'express' defines the former concept of fast delivery services which were much more focused on a national scope.

environment accelerated the pace of change. As a consequence, the mass production system became obsolete and costly in terms of meeting the demands of the emerging 'New Economy', which required the exchange of information in real time and a much more individualized approach to serving markets.[56] The flexible production system was developed to overcome this rigidity, responding to the changing and customized demand, whilst allowing greater flexibility in both production processes and distribution systems.[57] From an institutional perspective, the consolidation of the welfare state in the Western context, as a result of the Keynesian revolution, allowed the advantages derived from global economic growth to reach the majority of the population, while the new Western economic order prioritized stability and international cooperation. Since the 1970s, institutional and economic patterns drastically reversed towards deregulation, liberalization of many industries and waves of privatization which brough a novel context for business.

So, the consolidation of the flexible production system, the rise of the ICT, economic growth and a Western institutional context of stability, cooperation and –after the 1970s– greater openness and market deregulation, represented new opportunities for entrepreneurs who responded by founding companies capable of articulating sophisticated global delivery processes, closely related to the issues of adaptability and time-sensitivity.[58] Organizations capable of moving all types of merchandise, anywhere in the world, guaranteeing delivery times and providing real-time information on shipment status and global tracking information, were created. Modern courier companies emerged by the late 1970s as exemplars of globalization, just-in-time operations and lean production. Their innovative approach consisted of launching rapid, reliable, and inexpensive global delivery services based on the use of technologies to serve newly emerging demands. The rise of global couriers, such as DHL and FedEx, constitute the most representative examples of entrepreneurial responses to that new historical setting. While former express carriers, such as UPS, had established themselves in ground-based deliveries, FedEx and DHL provided an international express delivery service that was closely related to the rapid adoption of new technologies such as sophisticated package tracking that offered information in real time. Guaranteed delivery had therefore become as important as transport technology itself for gaining a competitive edge in this global world of express industry.

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[56] Castells (2002).

[57] Piore and Sabel (1984) pointed out that since 1973 there had been a 'Second Industrial Divide' involving the crisis of big business and mass production –typical of the 'first divide' that began around 1870– and the emergence of small and medium-sized companies, with a more flexible network structure. In López and Valdaliso (2003) and Valdaliso and López (2000) the two industrial ruptures of the late nineteenth and twentieth centuries, and their involvement in the development of the businesses are also analysed in perspective.

[58] Stalk and Hout (2003).

Federal Express (FedEx) was set up in Memphis, Tennessee, in 1973. Its founder, Frederick W. Smith (b. August 11, 1944) had conceived the idea of launching an overnight express delivery service in the United States while still at college. During that time, the venture seemed so outlandish. Smith, however, held onto the idea and, while serving in the Army, took note of how the military delivery process was carried out. When he left military service, he materialized his aim of creating an innovative business based on three concepts: night air transport, a central platform for managing the distribution of documents and packages, and a computerized monitoring of parcels in real time.[59] Smith had a capital of $80 million provided by some investors, including his brothers. This capital allowed the new company to acquire the fleet of 14 aircraft with which it began its activity, connecting 25 American cities.[60] FedEx operations did not really expand until the late 1970s due to certain air cargo regulations that impeded the full development of its activity[61]. In 1978, Congress passed the Airline Deregulation Act that liberalized the airline industry in the United States removing government restrictions on routes, fares and market entry.[62] This event was relevant for FedEx since it allowed the company to use larger planes and so stimulated the company's fast growth: in 1984 FedEx already controlled 53% of the American express market.[63] In 1989 FedEx acquired Flying Tigers, an international transport airline that allowed new opportunities to materialize. This operation built upon the established routes to 21 countries, a considerable fleet of aircraft and the entire Flying Tigers' experience in international air transport.[64] FedEx thus became the largest air cargo company in the world; its current air fleet comprises 657 aircraft.[65]

DHL, founded in 1969, also demonstrated its innovation by creating a service that responded to the increasing internationalization of business and trade. Its founders, Adrian Dalsey (1914–1994), Larry Hillblom (1943–1995) and Robert Lynn (1920–1998) pursued a single objective: the delivery by air of shipping documents in advance from San Francisco to the capital of Hawaii, Honolulu. This made it possible to begin the process of clearing customs for a ship's cargo before the actual arrival of the shipment, thereby significantly reducing waiting times in the harbour. Three years after its establishment, DHL was already offering door-to-door express mail services on an international scale with the opening of its first foreign office in Hong Kong, and the company saw significant global growth during the 1970s and 1980s. In 1990 it

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[59] Taylor and Hallsworth (2000), p. 238.
[60] "Fred Smith on the Birth of FedEx", *Bloomberg Businessweek*, 19/09/2004; Tucker (2001), p. 39.
[61] Any company carrying passengers or property by aircraft in the United States needed to obtain two separate authorizations: an air carrier certificate from the Federal Aviation Administration, created in 1958, and an economic permission from the Civil Aeronautics Board, created in 1940. (U.S. Committee on Public Works and Transportation, 1979).
[62] U.S. Committee on Public Works and Transportation (1979).
[63] "Air Express: A Service for All Reasons', ABA Journal, 70(6), September 1984, pp. 63–67.
[64] Adelson, A., "Federal Express to Buy Flying Tiger", *The New York Times*, 17/02/1988.
[65] FedEx Annual Report, 2017.

established strategic alliances with Lufthansa and Japan Airlines, which eventually gave DHL access to the cargo services and airport infrastructures of two major international airlines that, at those times, together controlled more than one-third of the international air-cargo market.[66] DHL's comprehensive international network now connects numerous countries around the world using a fleet of over 250 aircraft.[67]

Remarkably, the rise of the era of global couriers and the change in the conditions for entrepreneurial opportunities did not bring about the demise of the former express companies. Those that were already firmly established were able to adapt to the new setting and opportunity conditions brought about by the New Economy. This is true for UPS, which early on embraced innovations such as electronics, software and micro technology.[68] In 1981, it acquired its first fleet of cargo airplanes to secure the air delivery service. Four years later, it began offering international air services between the United States and some European countries through UPS Airline, one of the largest American airlines, reaching Asia in the late 1980s.[69] Currently, its fleet exceeds 200 aircraft. This has allowed it to transport more than 19 million packages and documents worldwide daily.[70] From being a local courier based on a 'good idea', UPS developed into one of the world's largest express and courier companies, with a service portfolio that ranges from domestic and international package deliveries to freight, supply chain and e-commerce services.

Thomas National Network (TNT) was another express company that fully exploited the potential of the opportunity created by the intersection of jet aviation and tracking technology. It was founded in Australia in 1946, by Ken Thomas (1913-1997), and offered road and rail freight services across the country. In the 1970s, TNT significantly expanded its activities to the European market through an extensive land and air transport network. In 1999, TNT founded its own airline, TNT Airways, which started operating between more than 77, mainly European, airports.[71] In 2015, it had a fleet of 56 aircraft.[72]

The new era of the global information economy also brought two new trends to the express business: the diversification of delivery services and the rise of strategic partnerships. The companies evolved and diversified their range of services beyond their original niches through a combination of information technologies along with physical

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66 Pearl, D. "Lost in Translation: Federal Express Finds Its Pioneering Formula Falls Flat Overseas", *The Wall Street Journal Europe,* 15/04/1991.
67 DHL Annual Report, 2017.
68 Day, C. R. "Shape up and ship out", *Industry Week*, 06/02/1995, pp. 14–20.
69 Bradsher, K. "UPS Plans to Widen Its Deliveries Abroad", *New York Times*, East Coast., 24/08/1989; Deans, B. "UPS looks to the east", *The Atlanta Journal-Constitution*, 25/08/1996.
70 UPS Annual Report, 2017.
71 Barnard, B. "Amsterdam's TNT post group to launch airline by year-end", *Journal of Commerce*, 06/05/1999.
72 TNT Annual Report, 2015.

transport means to become providers of comprehensive logistic solutions, ranging from integrated logistics, national and international transportation of full or partial loads, air and ocean freight services, e-commerce services, insurance and consulting, among others.[73]

With regard to strategic partnerships, the express industry began a process of supply concentration and strategic partnerships from the late twentieth century.[74] The large operators launched numerous mergers and acquisitions of companies through which they strengthened their market shares, conquered new emerging markets and increased the scope and geographical coverage of their services' portfolio.[75] Table 3 summarizes the main acquisitions by the four large express companies: UPS, FedEx, DHL and TNT. One of the most well-known occurred in 2016 when FedEx acquired TNT in order to strengthen its position in the European market.[76]

[73] Morphy, E. "The Box Rebellion", *Global Business*, January 2000, pp. 34–38; Sowinski, L. L. "This isn't your father's Express Shipper", *World Trade*, July 2000, pp. 52–55; Tausz, A. "Integrators Go for Global Contracts Distribution", *Distribution*, 91, October 1992, pp. 10, 38–46.

[74] Frontier Economics (2015), Universal Postal Union (2002), Hastings, P. "Mergers and Alliances", *Financial Times*, 13/06/1997.

[75] Carbone and Stone (2005), Oxford Economic Forecasting (2005), San Román, Fernández Pérez, and Gil-López (2014).

[76] The acquisition was announced in April 2015 and the agreement was reached worth €4.4 billion, one year later. As explained in a FedEx press release, the acquisition allowed for the strengths of the two companies to be combined: the world's largest air express network and an unparalleled European road network, which would allow FedEx to expand the existing portfolio and reshape the global transportation and logistics industry. See " FedEx Acquires TNT Express", Press Release, May 25, 2016, retrieved from https://about.van.fedex.com/newsroom/fedex-acquires-tnt-express/ Three years previously, in 2012, TNT had also attempted to be purchased, that time by UPS. The acquisition attempt failed, however. In January 2013 the European Commission blocked that operation arguing that it would mean a threat to competition in several European markets (European Commission, 2013, "Mergers: Commission blocks proposed acquisition of TNT Express by UPS", Press Release).

Table 3. Operators acquired by global couriers, 1999-2017 (by country and year)

Company	Operators acquired	Country	Year
DHL	Air Express International (AEI)	USA	1999
	Danzas	Switzerland	1999
	Airborne Express	USA	2003
	Guipuzcoana Euro Express	Spain	2003
	Blue Dart	India	2004
	Exel	United Kingdom	2005
	Unipost	Spain	2005
	Eurodifarm	Italy	2011
	Optivo	Germany	2013
	UK Mail	United Kingdom	2016
FedEx	American Freightways	USA	2001
	Kinko's	USA	2004
	Parcel Direct	USA	2004
	ANC Holdings Limited	United Kingdom	2006
	Tianjin Datian W. Group Co.	China	2007
	Multipack	Mexico	2011
	Unifreight India	India	2011
	Opek	Poland	2012
	TATEX	France	2012
	Rapidao Cometa	Brazil	2012
	GENCO	USA	2014
	Supaswift	South Africa	2014
	TNT	The Netherlands	2016
TNT	Bleckmann Group NV	The Netherlands	2001
	Advance Logistics Services	Italy	2001
	ADS	United Kingdom	2003
	Wilson Logistics	Sweden	2004
	Door-to-Door	Slovenia	2005
	TG+	Spain	2005
	Speedage Express Cargo Services	India	2006
	Mercúrio	Brazil	2007
	LIT Cargo	Chile	2009
	Expresso Araçatuba	Brazil	2009
	TopPak	The Netherlands	2010
	Mikropakket	The Netherlands	2011
UPS	Challenge Air	USA	1999
	Mail Boxes Etc. Inc	USA	2001
	Menlo Worldwide Forwarding	USA	2004
	Lynx Express	United Kingdom	2005
	Stolica	Poland	2005
	Overnite	USA	2005
	Trans Courier Service	Romania	2008
	Pieffe Group	Italy	2011
	Kiala	Belgium	2012
	CEMELOG Zrt	Hungary	2013
	Union Pak de Costa Rica	Costa Rica	2013
	VN Post Express	Vietnam	2013
	Polar Speed	United Kingdom	2014
	Coyote Logistics	USA	2015
	Nightline Logistics Group	Ireland	2017

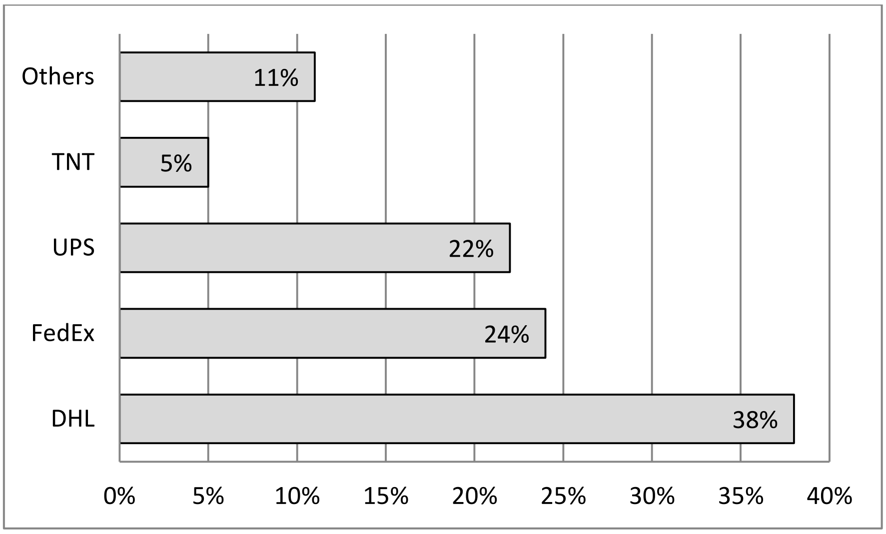
Source: DBK. "Sectores: Mensajería y Paquetería", 2007, 2009, 2010, 2011, 2013; and press.

Interestingly, some of the traditional postal service operators have also joined this wave of strategic acquisitions as a response to the increasing liberalization of the postal sector and the corresponding emergence of competition.[77] Combinations of public and private operations emerged.[78] Outstanding examples here include the already privatized Dutch Post, which acquired the Australia-based TNT in 1996, and the German postal operator that bought DHL in 1998.[79]

As a result of the wave of mergers and acquisitions that have occurred since the beginning of the twenty-first century, including the aforementioned combinations of private and public operators, the express industry has reached high levels of concentration, as shown in Figure 2. Currently, the four main global operators, each with different origins and different approaches, together control almost 90 per cent of the global express industry[80]. DHL, with almost 40 per cent, has the highest share, followed by FedEx with 24 per cent, UPS with 22 per cent, and TNT with 5 per cent.[81]

[77] Campbell (2001), Gil-López (2015a), Gil-López and San Román (2020); Gil-López et al. (2020).
[78] The first wave of merger and acquisition operations in Europe was triggered in 1998, coinciding with the first European Directive, passed in 1997, which initiated the liberalization of postal services. The main European postal operators, led by Deutsche Post, the French La Post, Austrian Poste and Royal Mail, pursued endless operations with which they sought to strengthen their presence in local markets while expanding their market share in the European and international markets. The second wave of acquisitions, more moderate, took place after the publication of the second European Directive in 2002 (ITA Consulting & WIK Consult, 2009).
[79] The purchase of the Australian company TNT by Dutch Post created the group TNT Post Group (TPG). The German Deutsche Post entered DHL by acquiring 51 per cent of the stock in 1998. The remaining 49 per cent was acquired in 2002 and this gave rise to the Deutsche Post DHL Group, of which DHL Express is the subsidiary that operates express business.
[80] It is worth mentioning that the express market in some countries is made up of many companies, mostly small and medium. Spain is an example: although the large global couriers have been operating in Spain for years, the market is still led by Spanish companies that, challenged by the high competition and the strong positioning of the large operators, decided to retreat within Spanish borders. This singular market structure has much to do with the distinctive features of Spanish history: a late-developed country that retained a highly protectionist framework until the late 1980s. For an account of the Spanish express market see Gil-López (2015a, 2015b), San Román et al. (2014), Tàpies et al. (2012), Gil López and San Román (2020).
[81] The Statistics Portal, Express shipping - global market share 2018. Retrieved June 1, 2020, from https://www.statista.com/statistics/236309/market-share-of-global-express-industry/

Figure 2. Market share of the leading global couriers in 2017



Source: Compiled from The Statistics Portal, “Express Shipping - Global Market Share 2017”.
Note: TNT and FedEx networks are still in the process of integration.

4. CONCLUSIONS AND CONTRIBUTION

The express industry has undergone a vast transformation over the years. There have been outstanding changes in the portfolio of services, the geographical scope of operations, the business structure, market demands, as well as the technologies and means of transport that sustain these delivery services.

The trigger for such deep transformations has been a series of entrepreneurial ventures responding to the opportunities that different historical settings —with their technological, market and institutional conditions— opened up. This paper has provided a description of three specific settings and has analysed the interplay between the conditions they provided, the resulting entrepreneurial responses and their outcomes. More specifically, this work has highlighted how these three settings, defined by particular technology, institutional and market conditions during the nineteenth and twentieth centuries, created entrepreneurial opportunities and how some American entrepreneurs pursued them through innovative responses that continued to drive change in the express industry.

The first historical setting illustrated in this paper was based on the development of the railroad network in the United States which, along with the rise of an institutional context that favoured business and the growth of population and demand, instigated the establishment of the first express companies and set the starting point of this industry in the second half of the nineteenth century. The new business concept that arose differed from traditional transport in terms of the added services that express companies offered such as greater safety and speed.

The beginning of the twentieth century brought novel technologies and market conditions which impacted on this industry. In this second historical setting, entrepreneurs responded to the opportunities that market changes – the expansion of retail trade and mass consumption – and new technologies – the combustion engine and its application in cars and motorcycles – offered the industry and its operations. Indeed, automobiles, unlike railroads, provided a more convenient transport for the new model of mass distribution that, in the early twentieth century, articulated the North American market. The rise of door-to-door delivery services permitted quicker and more efficient management of the myriad of commercial transactions between thousands of producers and hundreds of thousands of consumers. Obviously, rail freight transport survived and, in a country like the United States, it remained the key infrastructure for long-distance transport until the development of aviation. Yet, the express industry began gradually to separate from the railway and to change its scope by adopting faster and more flexible methods of transportation: initially the automobile, for short-distance transport, and the aeroplane from the 1960s. The old express companies that operated using railways were unable to adapt to the new business model, because they had invested in an expensive technology – railroads – and their operations had little to do with local distribution, which was on a smaller scale. At the heart of this is a process of creative destruction: the new historical setting, in the early twentieth century, led to the opening up of new opportunities but diminished the viability of those that previously existed and the ventures based on them. This happened because the new technology and market conditions created a new framework that diverted the competitive advantage of the express delivery operations and the means that supported them: from large-scale railroad transport to small-scale, more flexible, door-to-door ground deliveries.

In order to survive, the former express companies that were being absorbed by the large railway companies and, during the First World War, by the government itself, had to take advantage of the great structure to which they already had access. American Express, for example, took advantage of its extensive network and the experience it had gained in transporting securities and money – because many of its customers were banks – to create and sell their own financial products: travellers' checks. The company ended up specializing in travel, financial and credit card services.

The third historical setting analysed in this paper, which was underpinned heavily by the development of ICT, the possibilities created by commercial and cargo aviation, globalization, and an institutional framework of greater liberalization in the Western context, opened up new entrepreneurial opportunities and allowed new value to be delivered to customers. The new business model was based not only on speed and greater flexibility, but also achieving a global scope and being capable of articulating sophisticated delivery processes required by the flexible production system and the novel forms of business organization. Therefore, global couriers emerged to articulate international, integrated services: some of them were originally established to pursue these aims. Some others extended their original business concept, based on ground transport and national scope, to embrace the opportunities of this new historical setting and became global couriers. Unlike what happened during the second stage discussed – the demise of the express railway companies as players within this sector – in this third stage some of the companies that had emerged at the early twentieth century, such as UPS, were able to adapt to the new historical setting. Why could companies adapt now but not then? Drawing on a sequential historical reasoning, our work delves into this question of adaptation of incumbent companies. For the express railway companies to adapt, they would have to leave the large and expensive railroad technology they had already invested in heavily. However, for the express companies of the early twentieth century, adapting to the new setting meant keeping their resources, know-how and infrastructure – based on ground, local door-to-door transport – and extending them towards a global scope using aircraft and ICT which supplied the speed, flexibility and traceability needed to exploit the new opportunities.

Through this insight, and responding to recent calls at the intersection of business history and entrepreneurship, our study offers several contributions.[82] First, we illustrate how long sequences of opportunity conditions and entrepreneurial responses and actions intertwined, and what their outcomes were in terms of industry evolution and change. This is important because it shows how entrepreneurial opportunities at a particular point in history are intrinsically connected to previous opportunities exploited in the past. In this regard, we show how the advent of new transport and communications technologies – the railway, the combustion engine, and ICT – and their resulting historical conditions, created a set of opportunities for entrepreneurs in the express industry, and how the industry emergence and transformation were driven by entrepreneurs' responses and actions. This, in turn, helps account for the interplay between the entrepreneurs' broader context, their actions and behaviour, and structural changes at industry level. Second, we also show that, while the availability of new transport and communications methods created the conditions for the emergence of new opportunities, ventures and service concepts in the express industry, they also hampered the viability of other ventures and concepts within the same industry. Thus, our study provides a valuable attempt to understand conditions either enabling new entrepreneurial opportunities or even constraining previous responses. It is precisely the study of sequences of historical settings that can provide the insight to understanding successes and failures, and this

[82] Baumol and Strom (2010), Cassis and Minoglou (2005), De La Torre and García-Zúñiga (2913), Forbes and Kirsch (2011), Gil-López, et al. (2016), Jones and Wadhwani (2008), Landstrom and Lohrke (2010), Lippmann and Aldrich (2015), Wadhwani (2016), Wadhwani and Jones (2014), Wadhwani and Lubinski (2017), Wadhwani et al. (2020).

makes history a valuable tool to explore entrepreneurship as a dynamic process which intertwines with industry evolution and change.

This article has also offered to the economic and business history literature the evidence of a largely overlooked industry, whose evolution since the mid- nineteenth century allows illustrate the important role that the interplay between institutional, economic, market and technological frameworks plays in creating opportunities and shaping business and industries. More specifically, our work has shown that throughout the three historical settings studied here, transport improvements, population and economic growth, technological changes, and globalization have brought the opportunity to bring faster, more dependable, flexible and, then, global transport and communications which adapted to the changing forms of business organization, consumer demands and institutional norms. These opportunities, which evolved and changed as the economy became more integrated, urban, and global, were identified and exploited by a group of entrepreneurs and entrepreneurial organizations whose creative responses drove the express industry growth and change.

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REFERENCES

ALMARAZ, ARACELI (2020) “Origins of entrepreneurship: the other faces of the rhombus”. In ALMARAZ, Araceli; MONTIEL, Oscar (Eds.), *The History of Entrepreneurship in Mexico: contextualizing theory, theorizing context*, Emerald Group Publishing

BAHAMONDE, Ángel; MARTÍNEZ, Gaspar; OTERO, Luis E. (2000), *El Palacio de Comunicaciones. Un siglo de historia de Correos y Telégrafos*, Madrid, Correos y Telégrafos, Lunwerg.

BAUMOL, William J. (1988), *Entrepreneurship, Management, and the Structure of Payoffs.* Cambridge, MA, MIT Press.

BAUMOL, William J. (1990), “Entrepreneurship: productive, unproductive and destructive”, *Journal of Political Economy*, 98 (5), pp. 893-921.

BAUMOL, William J.; STROM, Robert J. (2010), “Useful Knowledge of Entrepreneurship: Some Implications of the History”. In LANDES, David S.; MOKYR, Joel; BAUMOL, William J. (Eds.), *The invention of enterprise: entrepreneurship from ancient*

Mesopotamia to modern times, Princeton, N.J., Princeton University Press, pp. 527-541.

BENEDICT, Bertram (1919), *The express companies of the United States: a study of a public utility*, New York: Intercollegiate Socialist Society. Retrieved from Library of the University of Michigan.

BOWEN, John T. (2012), “A spatial analysis of FedEx and UPS: hubs, spokes, and network structure”, *Journal of Transport Geography*, 24, pp. 419-431.

BREWSTER, Mike; DALZELL, Fred (2007), *Driving Change: The UPS Approach to Business*, New York, Hyperion.

CAMPBELL, James. I. (2001), *The rise of global delivery services,* Washington, D.C., JCampbell Press.

CARBONE, Valentina; STONE, Marilyn A. (2005), “Growth and Relational Strategies Used by the European Logistics Service Providers”, *Transportation Research Part E: Logistics and Transportation Review*, *41*, pp. 495–510.

CASSIS, Youssef; MINOGLOU, Ioanna P. (Eds.) (2005), *Entrepreneurship in Theory and History*, New York: Palgrave.

CASSON, Mark (2003), *The Entrepreneur: An Economic Theory* (2nd ed.), Cheltenham, UK, Edward Elgar.

CASTELLS, Manuel (2002), *The Information Age: Economy, Society and Culture. Vol. I: The Rise of the Network Society* (Second edition), Oxford, UK, Blackwell Publishing.

CHANDLER, Alfred D. Jr. (1962), *Strategy and Structure. Chapters in the History of the Industrial Enterprise*, Cambridge, Mass., MIT Press.

CHANDLER, Alfred D. Jr. (1977), *The visible hand: the managerial revolution in American business,* Cambridge, MA, The Belknap Press of Harvard University.

CHANDLER, Alfred D. Jr. (1990), *Scale and Scope: The Dynamics of Industrial Capitalism*, Cambridge, MA, The Belknap Press of Harvard University.

COMPANYS, Yosem E.; MCMULLEN, Jeffrey S. (2007), “Strategic Entrepreneurs at Work: The Nature, Discovery, and Exploitation of Entrepreneurial Opportunities”, *Small Business Economics*, *28*(4), pp. 301–322.

CUFF, Robert D. (2002), “Notes for a Panel on Entrepreneurship in Business History”, *Business History Review*, 76 (1), pp. 123-132.

DAHLQVIST, Jonas; WIKLUND, Johan (2012), “Measuring the market newness of new ventures”, *Journal of Business Venturing*, *27*(2), pp. 185–196.

DAVIDSSON, Per (2015), “Entrepreneurial opportunities and the entrepreneurship nexus: A re-conceptualization”, *Journal of Business Venturing*, *30*(5), pp. 674–695.

DAVIS, Lance E.; NORTH, Douglass C. (1971), *Institutional Change and American Economic Growth,* Cambridge, University Press.

DBK (2007), *Sectores: Mensajería y Paquetería*, DBK Informa, análisis de sectores.

DBK (2009), *Sectores: Mensajería y Paquetería,* DBK Informa, análisis de sectores.

DBK (2010), *Sectores: Mensajería y Paquetería*, DBK Informa, análisis de sectores.

DBK (2011), *Sectores: Mensajería y Paquetería*, DBK Informa, análisis de sectores.

DBK (2013), *Sectores: Mensajería y Paquetería,* DBK Informa, análisis de sectores.

DE LA TORRE, Joseba; GARCÍA-ZÚÑIGA, Mario (2013),” Instituciones y «empresarialidad» en el norte de España, 1885-2010”, *Revista de Historia Industrial*, 22 (51), pp. 141-171.

DHL *Annual Report* 2017, Retrieved from http://www.dpdhl.com/content/dam/dpdhl/Investors/Events/Reporting/2018/FY2017/DPDHL_2017_Annual_Report.pdf

DÍAZ MORLÁN, Pablo (2009), *Capitalistas y empresarios. El mercado de la función empresarial*, Alicante, Publicaciones de la Universidad de Alicante.

DIMOV, Dimo (2011), “Grappling with the Unbearable Elusiveness of Entrepreneurial Opportunities”, *Entrepreneurship Theory and Practice*, *35*(1), pp. 57–81.

DIXON, Frank H. (1905), “Publicity for Express Companies”, *The Atlantic Monthly*, *96*(1), pp. 1–8.

DODGSON, Mark (2011), “Exploring new combinations in innovation and entrepreneurship: social networks, Schumpeter, and the case of Josiah Wedgwood (1730-1795)”, *Industrial and Corporate Change*, *20*(4), pp. 1119–1151.

DRUCKER, Peter F. (1985), *Innovation and Entrepreneurship: Practice and Principles*, Nueva York, Harper & Row.

ECKHARDT, Jonathan T.; SHANE, Scott A. (2003), “Opportunities and Entrepreneurship”, *Journal of Management*, *29*(3), pp. 333–349.

FEDEX *Annual Report* 2017, Retrieved from http://annualreport.van.fedex.com/2017/

FOGEL, Robert W. (1964), *Railroads and American Economic Growth: Essays in Econometric History*, Johns Hopkins Press.

FORBES, Daniel P.; KIRSCH, David A. (2011), “The study of emerging industries: Recognizing and responding to some central problems”, *Journal of Business Venturing*, *26*(5), pp. 589–602.

FRONTIER ECONOMICS (2015), *Express Delivery and Trade Facilitation: Impacts on the Global Economy. A report prepared for the Global Express Association*.

GALAMBOS, Louis; AMATORI, Franco (2016), "The Entrepreneurial Multiplier Effect", *Enterprise & Society, 17*(4), pp. 763–808.

GALLAMORE, Robert E.; MEYER, John R. (2014), *American Railroads. Decline and Renaissance in the Twentieth*, Cambridge, MA, Harvard University Press.

GARCÍA RUIZ, José Luis (2010), "El mayor empresario privado en la historia del sector automovilístico español", *Entelequia*, 12, pp. 295-308.

GARCÍA RUIZ, José Luis; TONINELLI, Pier A. Eds. (2010), *The Determinants of Entrepreneurship: Leadership, Culture and Institutions,* London, Pickering and Chatto.

GIL-LÓPEZ*,* Águeda (2015a), "El transporte urgente en España. Una perspectiva histórica". In GARRÚES, Josean; RUBIO, Juan Antonio (coords.), *Haciendo historia económica: nuevas investigaciones, nuevos investigadores*, Granada, Universidad de Granada, pp. 117-128.

GIL-LÓPEZ, Águeda (2015b), *Desde la encrucijada: historia empresarial y emprendimiento en el transporte urgente*, Doctoral Thesis, Universidad Complutense de Madrid.

GIL-LÓPEZ, Águeda; ARZUBIAGA, Unai; SAN ROMÁN, Elena; DE MASSIS, Alfredo (2020), "The *Visible Hand* of Corporate Entrepreneurship in State-Owned Enterprises: a longitudinal study of the Spanish National Postal Operator", *International Entrepreneurship and Management Journal,* Online.

GIL-LÓPEZ, Águeda; SAN ROMÁN, Elena (2020), "Emprendimiento público y privado en la configuración del transporte urgente español", *Investigaciones de Historia Económica - Economic History Research* (avance online)

GIL-LÓPEZ, Águeda; ZOZIMO, Ricardo; SAN ROMÁN, Elena; JACK, Sarah L. (2016), "At the crossroads. Management and business history in entrepreneurship research", *Journal of Evolutionary Studies in Business*, *2*(1), pp. 156-200.

GRAHAM, Margaret B. W.; SCHULDINER, Alec T. (2001), *Corning and the Craft of Innovation,* Oxford, Oxford University Press.

GRÉGOIRE, Denis A.; SHEPHERD, Dean A. (2012), "Technology-Market Combinations and the Identification of Entrepreneurial Opportunities: An Investigation of the Opportunity-Individual Nexus", *Academy of Management Journal*, *55*(4), pp. 753–785.

GROSSMAN, Peter Z. (1996), "The dynamics of a stable cartel: The railroad express 1851-1913", *Economic Inquiry*, 34(2), p. 220.

HATCH, Alden (1950), *American Express. A century of service*, New York, Doubleday.

ITA CONSULTING; WIK CONSULT (2009), *The evolution of the European Postal Market since 1997*, Study for the European Commission, DG Internal Market and Services.

JONES, Geoffrey; WADHWANI, R. Daniel (2008), “Entrepreneurship”. In JONES, Geoffrey; ZEITLIN, Jonathan (Eds.), *The Oxford Handbook of Business History*, New York, Oxford, pp. 501–528.

LANDES, David S. (2003), *The Unbound Prometheus: Technological Change and Industrial Development in Western Europe from 1750 to the Present, Cambridge*, New York, Press Syndicate of the University of Cambridge.

LANDSTROM, Hans; LOHRKE, Franz (2010), *Historical Foundations of Entrepreneurship Research,* Cheltenham, Edward Elgar.

LAZONICK, William (2003), “Understanding Innovative Enterprise: Toward the Integration of Economic Theory and Business History.” In AMATORI, Franco; JONES, Geoffrey Eds.), *Business History around the World*, Cambridge, Cambridge University Press, pp. 31-61.

LIPPMANN, Stephen; ALDRICH, Howard E. (2015), “A Rolling Stone Gathers Momentum: Generational Units, Collective Memory, and Entrepreneurship”, *Academy of Management Review*, *41*(4), pp. 658–675.

LÓPEZ, Santiago; VALDALISO, Jesús M. (2003), “Empresas, emprendedores y monopolistas en las rupturas industriales de dos fines de siglo”, *Cuadernos de economía y dirección de la empresa*, (17), pp. 17–44.

MCCRAW, Thomas K. (1997), “American Capitalism”. In MCCRAW, Thomas K. (Ed.), *Creating Modern Capitalism,* Cambridge, Harvard University Press, pp. 303-350.

MIRAVITLLES, Luis (2000), *La ruta del éxito. MRW, claves de un modelo de gestión innovador*, Barcelona, Gestión 2000.

MITCHELL, Brian R. (1975), *European Historical Statistics, 1750-1970*, New York, Columbia University Press.

MURMANN, Johann P. (2003), *Knowledge and Competitive Advantage: the Coevolution of Firms, Technology and National Institutions,* New York, Cambridge.

NEVIN, Davida (1974), *The Expressmen*, New York, Time-life Books.

NIEMANN, Greg (2007), *Big Brown. The untold story of UPS*, San Francisco: Jossey-Bass.

NORTH, Douglas (1990), *Institutions, Institutional Change, and Economic Performance,* Cambridge, Cambridge University Press.

OXFORD ECONOMIC FORECASTING (2005), *The Impact of the Express Delivery Industry on the Global Economy*.

PIORE, Michael J.; SABEL, Charles F. (1984), *The Second Industrial Divide: Possibilities for Prosperity*, New York, Basic Books.

PLUMMER, Lawrence A.; HAYNIE, J. Michael; GODESIABOIS, Joy (2007), "An Essay on the Origins of Entrepreneurial Opportunity", *Small Business Economics*, *28*(4), pp. 363–379.

POPP, Andrew; HOLT, Robin (2013), "The presence of entrepreneurial opportunity", *Business History*, *55*(1), pp. 9–28.

ROURE, Claudia Lucía; GONZÁLEZ, Nuria; NIETO, Mariano (2007), "Oportunidades innovadoras y tecnológicas de la creación de empresas". In AYALA, Juan Carlos (Ed.), *Conocimiento, innovación y emprendedores: camino al futuro*, La Rioja, Universidad de La Rioja, pp. 1186 – 1201.

SAN ROMÁN, Elena.; FERNÁNDEZ PÉREZ, Paloma; GIL-LÓPEZ, Águeda (2014), "As old as history: Family-controlled business groups in transport services: the case of SEUR", *Business History*, 56 (8), pp. 1201-1222.

SARASVATHY, Saras D.; DEW, Nicholas; VELAMURI, S. Ramakrishna; VENKATARAMAN, Sankaran (2010). "Three Views of Entrepreneurial Opportunity". In ACTS, Zoltan J.; AUDRETSCH, David B. *Handbook of Entrepreneurship Research*, New York, Springer, pp. 77–96.

SAVIGNANO, Marcelo (2011), *The Multiple Identities of an Employer: A Case Study on DHL*, Munich: Grin Verlag.

SCHUMPETER, Joseph A. (1934), *The Theory of Economic Development*. Cambridge, MA, Harvard University Press.

SCHUMPETER, Joseph A. (1942/1976), *Capitalism, Socialism and Democracy,* Nueva York, Harper and Brothers.

SCHUMPETER, Joseph A. (1949/1989), ''Economic Theory and Entrepreneurial History.'' In CLEMENE, Richard (Ed.), *Essays on Entrepreneurs, Innovations, Business Cycles, and the Evolution of Capitalism*, New Brunswick, Transaction Publishers, pp. 253-272.

SHANE, Scott A. (2000), "Prior Knowledge and the Discovery of Entrepreneurial Opportunities", *Organization Science*, *11*(4), pp. 448–469.

SHANE, Scott A. (2003), *A General Theory of Entrepreneurship. The individual-opportunity Nexus*, Massachusetts, Edward Elgar Publishing.

SHANE, Scott A.; VENKATARAMAN, Sankaran (2000), "The Promise of Entrepreneurship as a Field of Research", *The Academy of Management Review*, *25*(1), pp. 217-226.

STALK, George J.; HOUT, Thomas M. (2003), *Competing Against Time: How Time-Based Competition Is Reshaping Global Markets*, New York, Free Press.

STIMSON, Alexander L. (1878), *History of the Express Companies and the origin of American Railroads.* New York, Baker & Goodwin.

TÀPIES, Josep; SAN ROMÁN, Elena; GIL-LÓPEZ, Águeda (2012), *SEUR 1942-2012. 70 años de entrega*, Eunsa, Ediciones Universidad de Navarra.

TAYLOR, George R.; NEU, Irene D. (1956), *The American railroad network, 1861-1890*, Cambridge, Harvard University Press.

TAYLOR, Michael; HALLSWORTH, Alan (2000), "Power relations and market transformation in the transport sector: the example of the courier services industry", *Journal of Transport Geography*, 8 (4), pp. 237-247.

TNT Annual Report 2015. Retrieved from https://www.tnt.com/content/dam/corporate/pdfs/Archive/Quarterly%20reports/2016/AR2015/tnt-express-annual-report-2015.pdf

TORTELLA, Gabriel; GARCÍA RUIZ, José Luis; ORTIZ-VILLAJOS, José María; QUIROGA, Gloria (2009), *Educación, instituciones y empresa. Los determinantes del espíritu empresarial,* Madrid, Academia Europea de Ciencias y Artes.

TORTELLA, Gabriel; QUIROGA, Gloria and MORAL-ARCE, Ignacio (2011), "¿El empresario nace o se hace? Educación y empresarialidad en la España contemporánea", *Revista de Historia Económica, Journal of Iberian and Latin American Economic History* 29 (1), pp. 123-53.

TORTELLA, Gabriel; QUIROGA, Gloria. Eds. (2012), *Entrepreneurship and Growth. An International Historical Perspective*, Houndmills, Basingstoke, Palgrave Macmillan.

TUCKER, Irvin (2001), *Fundamentos de Economía*, Mexico, Thomson.

U.S. Bureau of the Census (1908), *Express Business in the United States, 1907,* Washington, D.C. Government Printing Office. Retrieved from University of Michigan.

U.S. Bureau of the Census (1960), *Historical Statistics of the United States, Colonial Times to 1957*, Washington, D.C.

U.S. Committee on Public Works and Transportation (1979), *Legislative history of the Airline deregulation act of 1978*, Washington: U.S, Government Print. Off.

U.S. House of Representatives, Report No. 731, 30th Congress, 1st Session, 1848.

U.S. Interstate Commerce Commission (1909), *Annual Report on the Statistics of Express Companies in the United States,* Bureau of Statistics and Accounts, Washington, D.C. Retrieved from University of California.

U.S. Interstate Commerce Commission (1910), *Annual Report on the Statistics of Express Companies in the United States*. Bureau of Statistics and Accounts, Washington, D.C. Retrieved from University of California.

U.S. Interstate Commerce Commission (1912), *Annual Report on the Statistics of Express Companies in the United States*, Bureau of Statistics and Accounts, Washington, D.C.

U.S. Interstate Commerce Commission (1913), *Annual Report on the Statistics of Express Companies in the United States*, Bureau of Statistics and Accounts, Washington, D.C.

U.S. Post Office Department (1913), *Parcel Post Regulations. Effective from January 1, 1913,* Washington, Government Printing Office.

U.S. Postal Service (1984), *Competitors and competition of the U.S. Postal Service* (No. Volume XVII), Retrieved from Library of University of Illinois at Urbana-Champaign.

U.S. Railroad Administration (1919), *Annual report. 1918-1919*, Washington: Govt Print, Off. Retrieved from University of Chicago.

UNIVERSAL POSTAL UNION (2002), *Acquisitions, Mergers and Strategic Alliances. Current Trends and Directions in the Parcel, Courier and Postal Industries*, UPU, Research and Development Collection.

UPS Annual Report 2017. Retrieved from http://www.investors.ups.com/phoenix.zhtml?c=62900&p=irol-reportsannual

ÜSDIKEN, Behlül; KIPPING, Matthias; ENGWALL, Lars (2011), "Historical perspectives on organizational stability and change: Introduction to the special issue", *Management & Organizational History*, 6:1, pp. 3-12.

VALDALISO, Jesús M.; GARCÍA RUIZ, José L. (2013), "El espíritu empresarial en la historia económica española", *Revista de Historia* Industrial, 51, pp. 15-18.

VALDALISO, Jesús M.; LÓPEZ, Santiago (2000), *Historia económica de la empresa.* Barcelona, Crítica.

VENKATARAMAN, Sankaran (1997), "The Distinctive Domain of Entrepreneurship Research", *Advances in Entrepreneurship, Firm Emergence and Growth*, *3*(1), pp. 119-138.

WADHWANI, R. Daniel (2016), "Entrepreneurship in historical context: using history to develop theory and understand process". In WELTER, Friederike; GARTNER, William (Eds.), *A Research Agenda for Entrepreneurship and Context*, Edward Elgar Publishing, pp. 65–78.

WADHWANI, R. Daniel; JONES, Geoffrey (2014), "Schumpeter's Plea: Historical Reasoning in Entrepreneurship Theory and Research". In BUCHELI, Marcelo; WADHWANI, Daniel (Eds.), *Organizations in Time. History, Theory, Methods*, New York, Oxford University Press, pp. 192–216.

WADHWANI, R. Daniel; KIRSCH, David; WELTER, Friederike; GARTNER, William B.; JONES, Geoffrey G. (2020), “Context, time, and change: Historical approaches to entrepreneurship research”, *Strategic Entrepreneurship Journal*, 14(1), pp. 3-19.

WADHWANI, R. Daniel; LUBINSKI, Christina (2017), “Reinventing Entrepreneurial History”, *Business History Review*, *91*(04), pp. 767–799.

WAGNER, Warren H. (1936), *A legislative history of the Motor Carrier Act, 1935*, Denton, Md., Rue publishing company.

WEBER, Max (1904/1970), *The Protestant Ethic and the Spirit of Capitalism,* London, Unwin University Books.

WIATROWSKI, Claude (2007), *Railroads Across North America: An Illustrated History*. Minneapolis, MN, MBI Publishing.

WILLIAMS, Nathan B. (1910), *The American Post-Office. A discussion of its history, development, and present-day relation to express companies*, Washington, D.C., Govt. print. off. Retrieved from Library of the University of Michigan.