

### UNIVERSITAT DE BARCELONA

# Industrializing Chocolate in Barcelona

#### Market Transformation, Competitive Advantages, and GenderDynamics at Chocolates Amatller, 1850-1925

Xavier Jou Badal



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# UNIVE I BARC ]



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#### Title

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#### Introduction

Promenading along Barcelona's Passeig de Gràcia during the late 19th century, one would have been enveloped by an air of opulence, a testament to the burgeoning wealth of the Catalan bourgeoisie. This period marked a significant cultural and economic upturn, with the affluent classes eager to display their newly acquired prosperity and status by emulating the traditions of the old aristocracy. The boulevard emerged as the emblematic showcase for the elite, where families stemmed from the textile sector such as the Batlló, Milà, Güell, Fabra, and Puig stood prominently, each telling its own story of success and social ascent.

Architectural extravagance became the language of this newfound wealth, characterized by the construction and renovation of magnificent structures under the guidance of the time's celebrated architects: Antoni Gaudí, Lluís Domènech i Montaner, and Josep Puig i Cadafalch. These structures, resplendent in their Modernist style, were marked by intricate, ornamental designs and an unapologetic grandeur that captured the essence of the era. Within the glittering social stratum that propelled Barcelona into this golden age, the Amatllers, a family of chocolatiers, carved out a significant presence. Their legacy is immortalized in one of the most iconic buildings, designed by Josep Puig i Cadafalch, which stands as a testament not only to their success in the chocolate industry but also to their integral role in the city's historical and cultural tapestry.

While the influence of the textile industry on the industrialization and economic growth of Catalonia and Spain during the nineteenth century has been well-documented (Carreras, 1990; Nadal, 1992; Nadal et al., 2014; Vicens Vives, 1961; Vilar, 1974), the role of the agri-food sector, particularly the chocolate industry, and the history of the entrepreneurial families running these businesses, has not been thoroughly examined. This thesis aims to analyse and underscore the importance of chocolate manufacturing in the broader context of industrialization from 1850 to 1925. In doing so, it also seeks to enhance research in the field of business history by tracing the development pathway of industrialization for a food company in Barcelona, exploring the dynamics such as technological change, labour relations, operations management, and marketing practices.

The historical examination of the chocolate sector and Chocolates Amatller aims to answer the central research question of this thesis: how a chocolate manufacturer ascended to a prominent position amongst the industrialists and the bourgeoise elite in Barcelona.

The economic and business structure of Catalonia has historically been characterized by the predominance of small and medium-sized enterprises (SMEs), from the arrival of the First Industrial Revolution (Fernández Perez & Lluch, 2015; Maluquer de Motes, 2004; Nadal, 1987) to the present day, still constitute 99% of the national business organizations and also employ 62% of the Spanish workforce. (INE, 2024). Despite their dominant role in the economic landscape, SMEs have been underrepresented in economic and business history, primarily due to the scarcity of preserved primary sources. In contrast, the historiographical references of Spanish enterprises during the industrialization period often focus on case studies of the large textile factories of the time, such as Vapor Bonaplata (Nadal, 1983), La España Industrial (Calvo, 2006; Gutiérrez, 1997), Fabra i Coats (Colomer, 2014), and the Fàbrica de Vilanova (Nadal & Ribas, 1974; Soler, 2001). Similarly, the foundations of Barcelona's business biographies, initiated through the seminal compendiums by Cabana (1992, 2006), initially concentrated on key sectors such as raw materials, textile manufacturing and banking. Subsequent studies have reinforced this focus to include examinations of prominent family dynasties such as the Güell (Farràs, 2016), Girona (Blasco & Pla, 2009; Pla, 2014), Comillas (Rodrigo, 2000) and Gil (Rodrigo, 2010).

Broadening the traditional emphasis on the central role of major sectors in industrialization, Nadal and Catalán (1994) introduced the concept of Non-Leading sectors. This definition encompassed auxiliary industries that have played a crucial role in Spain's modernization. Comparing the textile manufacturing as the engine and initial carriages of an industrialization train, whereas other divisions, which they referred to as Non-Leading, evolved over time and became attached as new compartments. This analogy emphasizes the necessity for economic and business historians to examine the interconnectedness of these sectors, which together function cohesively like a series of train carriages. This framework has prompted increased scholarly attention to the investigation of other significant but less-studied industrial sectors such as tobacco, electricity, paper, and the food industries.

In this vein, a rich body of research has been built around the manufacturing of processed

foods. Studies have examined products such as olive oil (Ramon, 2000, 2003; Zambrana, 2003, 2015; Zambrana & Parejo, 1994), flour (Germán Zubero, 2006; Moreno Lázaro, 2018), canned food -meat, fish and vegetable- (Carmona, 1994; Manzanares, 2003; Martínez Carrion, 1989; Ríos Jiménez, 2005), sugar (Germán Zubero, 2003; Martín, 1994); wine and brandy (Giralt, 2007), beer (Garcia Barber, 2016, 2017; García Ruiz, 2003; Moreno, 2013), red pepper (Martínez Carrion, 1999), cod (Espido Bello & Giráldez Rivero, 2018), milk (Domínguez Martín, 2003; Pujol Andreu et al., 2007), or even biscuits (Moreno Lázaro, 2008). However, specific research focusing on the Spanish chocolate industry within economic history remains notably absent.

This scenario switches when analysing the international historiography, where numerous articles and publications have explored the industrialization of chocolate, the evolution of its factories, and the processes of cocoa arriving in Europe. The main economic historian dedicated to the chocolate sector is British historian Clarence-Smith, who specializes in the history of Africa and Asia. He has extensively studied the colonial trade of cocoa and, subsequently, European chocolate factories (Clarence-Smith, 1994, 1995, 1996, 2000, 2016). The second key reference in economic history for the chocolate industry is *The Economics of Chocolate* (Poelmans & Swinnen, 2016). This book is a comprehensive compilation of articles on various aspects such as consumption, manufacturing, quality, and case studies. It also begins with an introductory article on the economic history of chocolate and the main technological innovations that took place in the sector during the nineteenth and early twentieth centuries.

Other works have studied the chocolate industry on an international scale from the perspective of technological diffusion at the European level (Beerbühl, 2014), based on factors of location for cocoa cultivation and chocolate factories (Ullman, 1997), or examining the consumption of chocolate and the main factories in Europe and the United States (Alberts & Cidell, 2006). On the other hand, several generalist publications with an informative character have delineated the history of chocolate and its consumption, among which stand out those by historians Harwich (1992), Coe and Coe (1996), and Mercier (2008). At the Spanish level, historian Martí Escayol (2004) published a book on the culture of chocolate in Barcelona and Sant-Gisbert (2018, 2020) has recently published about the Spanish cocoa plantations in the African colony of Fernando Poo.

Beyond the Spanish sphere, numerous works in the fields of economic and business history have been dedicated to the chocolate sector from a national perspective, as well as case studies of chocolate manufacturers. Noteworthy are the publications on the British chocolate industry by Loveman (2013), French (2017), and Hayes (2017). Case studies of British chocolate manufacturers have also spurred various research publications; on the Cadbury brands (Bradley, 2012; Dellheim, 1987; Fitzgerald, 2005; Jones, 1984, 1986), Rowntree (Fitzgerald, 1989, 1995; Goodall, 1986; Jones, 1986; Vernon, 1958), and Mackintosh (Fitzgerald, 2000). In France, there are studies from a sectoral view (Jarrige, 1993; Terrio, 2000) and also of the Menier company, known at the time as the chocolate cathedral of Europe (Drouard, 2013). Germany also accounts for both national industry studies (Beerbühl, 2017; Lummel, 2005) and a historical analysis of the manufacturer Sprengel (Huttenlocher, 2016). The Swiss chocolate tradition is covered in four research publications (Beerbühl, 2008; Chiapparino, 1998; Fromm, 2016; Rossfeld, 2007, 2014), and also with the investigation of the commercial practices of Suchard (Huguenin, 2010; Rossfeld, 2008, 2014). Finally, the European history of chocolate manufacturing is enriched by further national studies, including Belgium's production of confectionery and pralines (Garrone et al., 2016; Scholliers, 1996), Italy's notable contributions through gianduia, a blend of cocoa and hazelnuts (Chiapparino, 1997), and the Czech's examination of chocolate's impact on national propaganda (Franc, 2013).

In response to the scarcity of specific studies on chocolate manufacturing in Spain, and inspired by research methodologies employed in other European countries, this thesis proposes a sectoral investigation at the national level, followed by an in-depth case study of a Spanish chocolatier, Chocolates Amatller. The impetus for this investigation stems from the discovery of the corporate archives within Casa Amatller, an untapped primary source comprising over 100,000 documents. These records, spanning 17 meters of shelving and contained within 290 box files, offer a wealth of quantitative (accounting records, invoices, inventories) and qualitative (business correspondence) data. The analysis of these documents facilitates a detailed reconstruction of the company's operational history, addressing essential research questions concerning what the company produced, how its products were crafted, and the means employed in these processes. The examination of the commercial correspondence illustrates where its raw materials were purchased and where Amatller's products were sold, while an exploration of the accounting books can shed light on its management practices and the reasons behind its financial and commercial strategies. Additionally, the temporal framework provided by the archival series provides evidence of the timeline of all these activities.

The archival records trace the Amatller's origins of chocolate manufacturing activity back to 1808, starting with the company's founder, Gabriel Amatller Mas, and extending through to the tenure of his successors, brothers Domingo and Antoni Amatller Ràfols. The records from these early generations consist mainly of commercial correspondence and invoices for raw materials. The archival material expands significantly during the leadership of the third generation with Antoni Amatller Costa, with a complete collection of daily and general ledgers dating from 1873 to 1899, not only overlapping with the majority of the years of his management (1874 to 1910) but also marking the significant phase of growth and modernization of the company. This era witnessed the construction of the new factory in Sant Martí de Provençals, and the family's emblematic residence. In contrast, the documentation from the fourth generation, led by Teresa Amatller Cros, is limited to accounting books spanning from 1926 to 1936, with no surviving correspondence or invoices. Consequently, this thesis focuses on the developmental history for the third generation, incorporating context on both the preceding and subsequent generations. This selected period represents a crucial era in the industrialization of chocolate manufacturing according to the international studies and is also characterized by the availability of the most comprehensive and informative Amatller's archival resources.<sup>1</sup>

While archival research has been demonstrated as effective to the study of business and management (Forbes & Kirsch, 2011; Tennent & Gillett, 2023), aiding the identification of key actors in organizational development (Kipping & Üsdiken, 2014) and understanding the context of continuity and change (Tennent, 2021), it may also encounter limitations. These challenges may arise due to selective preservation and inherent gaps in historical records, which reflect the selectivity and occasional omissions within the archives (Decker, 2013). To address these issues, this thesis employs complementary archival materials and secondary sources to mitigate the impact of these hurdles. For the evolution of the chocolate industry in Spain, the international trade of cocoa and its associated tariffs have been consulted using the *Anuario Estadístico de Comercio Exterior* (1850-1933), while taxes on manufacturing activities have been examined through the Anuario *Estadístico de la Contribución Industrial* (1854-1910),

<sup>&</sup>lt;sup>1</sup> The extended exploration of Chocolates Amatller's historical impact across four generations is the subject of a forthcoming book, which is under contract with Emerald Publishing (SPI Q1 15/76 Foreign Publishers), to be included in their 'Frontiers of Management History' series.

alongside records from the *Arxiu de la Corona d'Aragó* covering the same period. To contextualize the broader socio-economic environment, an extensive review of Spanish newspapers has been carried out via the digital archives of the *Biblioteca Nacional de España* (1800-1936). The scope of this research also explores labour dynamics, drawing on archival materials from the *Instituto de Reformas Sociales - Estadísticas de las Huelgas* (1905-1915), *Memoria de Servicios de Inspección* (1907-1923), and the *Comisión de las Reformas Sociales* (1883-1919). Additional research into the Amatller family has been conducted using public municipal archives from the *Arxiu Històric de la Ciutat de Barcelona*, the *Arxiu Municipal Contemporani de Barcelona*, and the *Arxiu Municipal de Sant Martí* (1797-1936).

The methodology of the case study research employs a sequential historical analysis, systematically examining Amatller's archival materials in conjunction with supplementary archives and secondary sources. Concentrating on this specific case facilitates a deeper investigation and enriches the understanding of its historical context (Dyer & Wilkins, 1991), while emphasising its distinctive circumstances and specificity (Popp & Holt, 2013). Ultimately, this thesis aims to contribute to the fields of economic and business history by using historical research methods to empirically test theories concerning business and management strategy (Perchard et al., 2017) and the longevity of family-run enterprises (Fernández Pérez & Colli, 2013).

This thesis is comprised as a compilation of three distinct chapters, each standing as an independent entity that contributes unique research findings. Conceived as stand-alone papers, this research has embraced the interdisciplinarity of economic and business history, with each paper targeted at academic journals in the fields of food history, business and management history, and social history. Collectively, they form a coherent narrative that addresses the central research objectives of exploring the significance of chocolate manufacturing and the role played by Chocolates Amatller during the period of Spanish industrialization from 1850 to 1936. The three papers included in this thesis have been published in peer-reviewed journals. These chapters inherently contain some redundancies and repetitions, necessary for contextualizing the chocolate sector in Spani and introducing the Amatller company. While efforts have been undertaken to reduce these occurrences, maintaining the integrity and internal coherence of each chapter has been prioritized, even at the risk of some overlap within the overall compendium. These papers are incorporated into this thesis in the same form as they appear in the published

journals, although adjustments have been made to the format to ensure consistency across the thesis.

Chapter I, "Chocolate manufacturing in Spain, 1850-1925",<sup>2</sup> serves as an exploratory analysis of the sector at a national level and provides a comparative analysis with its European neighbours. Initially positioned as a primary gateway for cocoa into Europe, Spain experienced a significant decline in its import dominance by the 1860s, ultimately ranking fifth by the end of the nineteenth century, with British and French imports quadrupling those of Spain.

This particular research investigates into the factors contributing to these imports decline and the protracted industrialization of chocolate manufacturing in Spain. Firstly, the government-imposed protective tariffs on cocoa, designed to increase tax revenues from colonial goods were higher than the European average. These tariffs significantly raised the costs of raw materials and restricted their supply, negatively impacting the sector's competitive positioning. Additionally, the slow pace of nutritional transitions affected demand; despite efforts to make chocolate more affordable, it remained a luxury that only the wealthy could regularly enjoy. Thirdly, the heritage of the entrenched guild systems further exacerbated these challenges by controlling the entire chocolate supply chain, from procurement of raw materials to manufacturing and sales, which stifled innovation and delayed the adoption of new production technologies.

However, during the second half of the nineteenth century, a transformation was underway as select chocolatiers began to embrace mechanization, constructing modern factories and adopting new cocoa processing technologies. This period also marked the emergence of significant market players who were instrumental in transforming the landscape: La Colonial and Matías López in Madrid, Chocolates Amatller in Barcelona, and La Riojana in Málaga. Their efforts in constructing modern factories and importing machinery were complemented by targeted marketing strategies that aimed to gradually democratize chocolate consumption through effective promotional tools such as billboards, collectible cards, and calendars.

<sup>&</sup>lt;sup>2</sup> Jou-Badal, Xavier (2024). Chocolate manufacturing in Spain, 1850-1925. *Food & History*, 22(1), 121-154. https://doi.org/10.1484/J.FOOD.5.137479. SJR Q2 History. Date of acceptance: 28 April 2023.

Chapter II, "The Recipe to Sweet Success: Competitive Advantages for a Spanish Chocolatier, 1874-1910",<sup>3</sup> employs a case study approach to investigate the success factors behind Chocolates Amatller. The concept of competitive advantage has long been recognised as the central element of a company's leadership and success (Teece et al., 1994; Teece, 2020). This chapter also aims to engage in current business history debates by applying corporate strategy frameworks to understand the company's historical development. The methodology extends beyond conventional cross-sectional business analysis by adopting a longitudinal perspective, which shifts the analysis from static to dynamic models. Adhering to Michael Porter's Value Chain model (Porter, 1985, 1996, 2001), the paper evaluates how Chocolates Amatller built and sustained competitive advantages, conducting a thorough analysis of each corporate activity, thereby identifying key factors contributing to the company's success.

Data exploration is derived from the corporate archives of Chocolates Amatller, providing a detailed examination of the company's value chain activities. This includes the review of inbound logistics, as evidenced by invoices from cocoa and sugar suppliers; operations, highlighted by taxes levied on machinery and facilities; outbound logistics, traced through accounting ledgers documenting the distribution to sales points; marketing efforts, demonstrated through press advertisements, collectible cards, and registered trademarks; and customer service, revealed through correspondence from traveling salesmen. The methodology not only scrutinizes the performance of Chocolates Amatller but also engages in a comparative analysis with other Spanish chocolatiers during the same period to assess the differentiation capabilities

The findings illustrate that Chocolates Amatller adeptly balanced cost management with value creation, achieving competitive advantages through four key activities. The company's strategic sourcing and procurement practices, supported by a network of international connections for direct imports, ensured access to raw materials at costs significantly lower than typical market prices, providing substantial cost benefits. In terms of marketing, Amatller effectively used trademark registrations and partnerships with artists to produce distinctive collectible cards and posters, thereby boosting consumer brand recognition. Moreover, despite initial financial challenges, the

<sup>&</sup>lt;sup>3</sup> Jou-Badal, Xavier (2024). The Recipe to Sweet Success: Competitive Advantages for a Spanish Chocolatier, 1874-1910. *Journal of Management History*. https://doi.org.10.1108/JMH-05-2024-0075. SJR Q1 History, and JCR/ESCI Q4 Management. Date of acceptance: 19 September 2024.

company's savvy financial management strengthened the family's capital base and minimized reliance on external financing, which facilitated continued investment in the factory and ultimately the acquisition of the iconic family residence.

Chapter III, "Gender Conflict on the Shop Floor: Barcelona Women at Chocolates Amatller, 1890-1915",<sup>4</sup> examines the societal norms that upheld domesticity and the breadwinner family model at the dawn of the twentieth century. These stereotypes fostered gender-based labour divisions and assigned distinct societal roles where men were seen as the primary income earners and women were relegated to the roles of homemakers and caretakers. This situation perpetuated inequalities and embedded the belief that women were undeserving of equal work opportunities, pay parity, or similar job roles as men.

The focus of this chapter to analyse the dynamics of gender conflicts during the industrialization process, using Chocolates Amatller as a case study. The research explores the tactics men used to prevent women's integration into the factory workforce, exemplified by a strike in 1890 at the chocolate factory. This incident at Chocolates Amatller is notable as one of Spain's earliest documented where efforts were specifically made to block the entry of women into the factory positions.

Furthermore, this paper benefits from the archival sources that provide complementary information about the company's employees. Exploring the workforce composition twenty years post-strike illustrates a company shift: despite the protest, the number of female employees at the company rose sharply, with women comprising over 60% of the factory workforce by 1910. Nonetheless, traditional societal norms and expectations continued to enforce a gendered division of labour. Women were predominantly assigned manual and supportive tasks within the manufacturing process, while managerial and supervisory roles were reserved for men, directing operations and making decisions. Career trajectories for female employees were generally capped, highlighting ongoing gender disparities and limited professional advancement opportunities.

The outcomes of the 1890 strike at Chocolates Amatller defy simple categorization as a

<sup>&</sup>lt;sup>4</sup> Jou-Badal, Xavier (2024). Gender Conflict on the Shop Floor: Barcelona Women at Chocolates Amatller, 1890-1915. *International Review of Social History*, First View, 1-28. https://doi.org/10.1017/S0020859024000555. JCR/SSCI Q1 History (27/518). Date of acceptance: 3 June 2024.

clear win or loss for either gender. These men were advocating for improved working conditions, yet their efforts regrettably targeted female workers, reflecting the dominant social narratives of the era. Although this conflict led to the incorporation of women into the factory workforce, it would be misleading to describe them as beneficiaries of the outcome since horizontal and vertical segregation persisted. The examination of the male strike and its consequences aims to provide insight into the complex interplay of gender dynamics, societal demands, and labour practices at the turn of the twentieth century.

Finally, the thesis concludes with the final remarks, synthesizing the findings from the preceding chapters and clearly linking them to the central research objectives. It highlights the relevance of the study of chocolate manufacturing from the economic and business history perspective, within the broader spectrum of Spain's industrialization during the late nineteenth and early twentieth centuries. By conducting a comprehensive case study of Chocolates Amatller, this thesis illustrates the transformative processes affecting SME companies in Barcelona's food industry, showcasing their evolving role within the historical industrial context.

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#### **Chapter I**

#### Chocolate Manufacturing in Spain, 1850-1925<sup>5</sup>

#### Abstract

Spain failed to establish a significant presence in the nineteenth-century chocolate manufacturing revolution, despite having held a central position as the gateway for cocoa into Europe. Notwithstanding their advantageous position in the cocoa supply chain, Spanish chocolate producers were impeded by obsolete practices and a dearth of innovation, largely due to the controlling influence of powerful guilds. Moreover, governmental protectionist policies, including high tariffs on colonial products, also obstructed progress. In addition, the industry's growth was curtailed by a gradual shih in dietary preferences, which limited chocolate consumption to being an exclusive luxury item for the affluent.

Despite the sluggish modernization of the Spanish chocolate industry, a select group of manufacturers adopted mechanization through the construction of contemporary factories and the use of technological advancements.

Subsequently, these prosperous entrepreneurs employed marketing tactics to popularize chocolate as a sought-after commodity for the working classes, emphasizing its nutritional advantages.

Keywords: chocolate, cocoa, Spain, business, industrialization, guilds, imports.

<sup>&</sup>lt;sup>5</sup> Jou-Badal, Xavier (2024). Chocolate manufacturing in Spain, 1850-1925. *Food & History*, 22(1), 121-154. https://doi.org/10.1484/J.FOOD.5.137479. SJR Q2 History. Date of acceptance: 28 April 2023.

#### 1. Introduction

Spain served as the principal entry gateway for cocoa into Europe and enjoyed a distinct competitive advantage as a result of its exclusive access to Latin American colonial imports until the early eighteenth century. In spite of this, it failed to emerge as a significant player during the modernization of chocolate manufacturing in the nineteenth century. Spanish chocolatiers were unable to lead the international industrialization process because of the sector's deep- seated attachment to the past and the legacy of local guilds with monopolistic manufacturing privileges. This led to a dearth of innovation and incentivization for mechanization, with a strong reliance on manual production processes and only a slow adoption of animal- and steam-powered mills. With respect to cocoa imports, Spain maintained a highly protectionist environment, with authorities using the entry of colonial products as an opportunity to augment tax revenue through the imposition of tariffs. Finally, the slow transition where chocolate remained an exclusive indulgence for the affluent classes did not create strong demand for the product when its consumption did eventually become more democratized, popular accusations of adulteration and subpar quality arose

It was only during the latter half of the nineteenth century that a particular group of Spanish chocolate producers embraced mechanization by establishing state-of-the-art factories and capitalizing on the technological advances in cocoa processing and refinement. Subsequently, manufacturers employed various promotional strategies to disseminate the advertising message of chocolate as an aspirational product targeted at the working classes, emphasizing its nutritional benefits.

The notion of Non-Leading sectors as a way to understand the history of industrialization was pioneered in 1994 by Jordi Nadal and Jordi Catalán to refer to auxiliary industries which facilitated the modernization process in Spain during the nineteenth and twentieth centuries (Nadal & Catalán, 1994). According to the authors, while the leading sectors may be thought of as the first carriages of the industrialization locomotive, additional industry divisions, referred as Non-Leading, emerge gradually and become the new compartments. As a result, historians must explore the relationships among all these sectors, which, much like the carriages of a train, constitute a cohesive whole. This approach generated increased scholarly attention towards the study of non-textile

industries such as tobacco, electricity, paper and food production.<sup>6</sup>

Studies in Spanish economic history form a rich tradition of work on the production of processed foods. However no research has yet focused on the economic history of Spanish chocolate. In contrast, a number of articles and publications have investigated the industrialization of chocolate, the evolution of its factories and the processes surrounding the introduction of cocoa in the rest of Europe.

Numerous studies have also explored the development of chocolate production on a global scale, investigating aspects such as chocolate factories, technological dissemination and chocolate consumption, (Alberts & Cidell, 2006a, 2006b; Beerbühl, 2014; Clarence-Smith, 1996, 2000, 2016; Poelmans & Swinnen, 2016; Ullman, 1997) but without considering Spain in their analysis. Moreover, further research on the industrialization of chocolate has been published from a national perspective, along with case studies of chocolate manufacturers. Studies of the British chocolate industry are particularly noteworthy (Church, 1999; French, 2017; Hayes, 2017; Loveman, 2013); this longstanding tradition in manufacturing has resulted in case studies of popular brands such as Cadbury (Bradley, 2012; Fitzgerald, 2005; Jones, 1984, 1986), Rowntree (Fitzgerald, 1989, 1995; Goodall, 1986; Jones, 1986) and Mackintosh (Fitzgerald, 2000). France also boasts chocolate studies that present a national industry analysis, (Jarrige, 1993; Terrio, 2000) as well as analyses of individual companies, such as Menier, known at the time as the Chocolate Cathedral of Europe (Drouard, 2013).<sup>7</sup>

The history of chocolate manufacturing in Germany has been studied from a national overview, (Beerbühl, 2014; Chiapparino, 1997; Lummel, 2005) as well in the historic analysis of Sprengel (Huttenlocher, 2016). As for the Swiss chocolate tradition, there exist numerous national studies (Beerbühl, 2008; Chiapparino, 1998; Fromm, 2016; Rossfeld, 2007, 2014) and analyses of the acclaimed Lindt, Suchard, Milka and Sprüngli companies (Huguenin, 2010; Rossfeld, 2008; Schmid, 1970). The case of Italy is covered

<sup>&</sup>lt;sup>6</sup> Economic history has traditionally analyses the food sector from the perspective of agrarian history and demography/nutritional transition; therefore, the authors call for the study of food from an industrial and business perspective, covering the complete cycle (a holistic approach) of the food chain, from procurement to marketing, including manufacturing and technological changes in the production of processed foods (Claflin, 2012; Sarasúa & Scholliers, 2005).

<sup>&</sup>lt;sup>7</sup> This research was published by the International Commission for Research in Food History (ICREFH) which has played a dynamic role with the organization of its biannual symposium, giving rise to various research projects on the industrialization of the chocolate industry.

by analyses focusing on the factories located in the northern regions of the peninsula (Chiapparino, 1997). Belgium specialization in confectionery and pralines has been also been researched (Garrone et al., 2016; Scholliers, 1996). Furthermore, a study has been devoted to the history of chocolate manufacturing in the Czech Republic and its connection to national propaganda (Franc, 2013).

The aim of this article is to investigate the significance of chocolate manufacturing in the industrialization of the Spanish food sector from 1800 to 1925. To accomplish this, I will emphasize the importance of this economic sector, scrutinize its industrial modernization processes and showcase the successes of Spanish chocolate manufacturers during this period. Additionally, the study will offer a comparative analysis of the development of chocolate manufacturing in other European countries, thereby providing an international perspective to the analysis and situating the Spanish chocolate sector within a global context.

#### 2. The origin of chocolate and cocoa

Chocolate is a processed food that is made from cocoa – a fruit and the essential ingredient for making chocolate. As a finished product fit for consumption, chocolate offers both nutritious and stimulating benefits. Its value as a restorative is attributed to the presence of theobromine,<sup>8</sup> a psychoactive alkaloid that also contributes to the addictive nature of the food. Moreover, chocolate has a high nutritional value;<sup>9</sup> approximately 5 to 9 grams of protein and 30 grams of fat are estimated to be present in every 100 grams of chocolate (Barry Callebaut, 2019).

The roots of cocoa can be traced back to the American continent, where pre-Columbian cultures used to prepare fermented concoctions with this fruit. In 1572, the Swedish botanist Carl Von Linnaeus gave a scientific name to the cocoa plant, referring to it as Theobroma, which is translated from Latin as Food of the Gods (Poelmans & Swinnen, 2016, p. 11). With regards to the origin of its name, etymological studies link it to the

<sup>&</sup>lt;sup>8</sup> It is a psychoactive alkaloid; it is not caffeine like coffee, tea, mate or guarana. The alkaloid is similar to tobacco or coca leaves. For the nervous system it is healthier to consume chocolate than coffee or tea. Chocolate was used to give strength to the workers, but also to give energy to German, British and American soldiers (Clarence-Smith, 2000, p. 28).

<sup>&</sup>lt;sup>9</sup> Carob was a nutritional alternative but was never successful because of its taste.

Nahuatl language, which is associated with the dominant Aztec culture in the region of Mexico. The name combines the root *choco* meaning bitter and *atl* meaning drink.

Chocolate was introduced to Europe through Spanish colonization, along with other foods such as potatoes, tomatoes and maize. Hernán Cortés, the conquistador, was responsible for arranging the first shipment of cocoa to Europe, along with a recipe on how to process this fruit into chocolate. This first shipment was delivered to the Spanish monastery of Piedra (in the province of Zaragoza). During the seventeenth century, Mexico was the world's leading cocoa producer; however, Venezuela surpassed it by the middle of the 1600s.

The first recorded chocolate shop in Barcelona dates back to 1700, located on the central promenade of La Rambla (Tatjer, 2014, p. 17). In 1755 the Royal Barcelona Trad- ing Company was founded, which traded directly with America, hence break- ing the Cádiz monopoly before 1778.<sup>10</sup> Throughout the eighteenth century, local chocolate producers worked with cocoa from Venezuela, the Dominican Republic, Colombia and Ecuador. According to a manuscript from 1706, the retailer Pau Martí Rovellat, a chocolate producer and seller settled in the city, worked with four types of cocoa beans: large and smaller ones from Caracas, and large and smaller ones from Santo Domingo.<sup>11</sup> In 1791 a document from the Guild of Chocolatiers of Barcelona explained that the cocoa used for chocolate manufacturing in the local workshops came from various places, such as Caracas, Cunamá, Madadela, Maracayo, Guayaquil, Martinique, Soco, etc., but the best quality cocoa originated from Caracas (Venezuela) and Guayaquil (Ecuador).<sup>12</sup> The economic historian Pierre Vilar (1979) also found that the cocoa from Caracas was the most prized of its kind in the Barcelona area during that time (p. 583).

After 1760, the flow of trade between America and the port of Barcelona underwent a marked intensification. From the last decades of the eighteenth century until the midnineteenth century, Catalans were the largest group of peninsular immigrants to the

<sup>&</sup>lt;sup>10</sup> Pierre Vilar (1979, pp. 529-614) shows that the Catalans anticipated the granting of freedom of trade with the colonies established by the Royal Decree of 2 February 1778 signed by Charles III. Vilar details the cargoes of cocoa transported by the Royal Company of Barcelona between 1767 and 1777, from Cunamà (1767, 1769, 1769, 1770 – 2 ships –, 1771, 1772, 1773, 1775 and 1777), Sant Domingo (1775), Puerto Rico (1767 and 1773) and Havana (1770 and 1771).

<sup>&</sup>lt;sup>11</sup> UB Fons Antic, ms. 1,395. Pau Martí Rovellat, Llibre de Confitures y de Drogues (1706).

<sup>&</sup>lt;sup>12</sup> Arxiu Municipal de Barcelona, Guild Section, Junta de Comerç, box no. 4, folder 16 chocolate makers (1817).

Spanish colonies in America. In relation to cocoa cultivation, the presence of Catalan landowners in Ecuador was particularly notable, including, for example, the Madinyà Lascano family, who arrived at the beginning of the nineteenth century. Additionally, Pere Amat, who arrived in 1888, dedicated himself to the export of agricultural products and the harvesting of cocoa. Pere Maspons y Camarasa, who settled in Guayaquil in 1914, founded the Casa Española, a business dedicated to the commercialization of coffee and cocoa beans (Prados de la Escosura, 1982, pp. 187-216).

Origin	1882	1933
Ecuador	55	2
Venezuela	22	4
Cuba	15	0
Fernando Poo	0	89
France	3	0
Great Britain	3	0
Germany	2	0
French possessions in America	0	1
Brazil	0	1
British possessions in America		1
British possessions in Africa		1

Table 1: Origin of Cocoa Imports by Weight (kg) in Spain, 1882 – 1933

Index Base = 100

Source: Own elaboration using the yearbooks of Anuario Estadístico de Comercio Exterior (1882, 1933)

Notwithstanding the independence of the majority of the American colonies during the first half of the nineteenth century, Spain remained the main entry market for cocoa from Venezuela and Ecuador. Cuba and Puerto Rico, which remained under Spanish rule, functioned as the distribution hub for cocoa destined for the metropolis, facilitated by the Cantabrian ports (Bilbao, San Sebastián and Santander) and Barcelona. However, Puerto Rico's role as an intermediary for colonial products from other regions of the continent declined from the 1960s onwards, with France emerging as the world's main importer of cocoa (Clarence-Smith, 2000, pp. 54-56; Martí Escayol, 2004, pp. 194-195).

After losing their exclusive access to the colonial market, Spanish chocolate
manufacturers were compelled to purchase cocoa on the international market and on equal terms with other European countries. Prior to the Spanish Disaster of 1898 and the loss of their remaining overseas colonies, the growth in international demand for cocoa and the resulting increase in price had already spurred the search for new cocoa producing territories. In Spain's case, finding an alternative market was one of the primary objectives that led to colonial expansion in Africa. By the turn of the century, cocoa plantations had started to emerge on the island of Bioko, also known as Fernando Poo (Equatorial Guinea), under Spanish sovereignty.

Until 1880, the primary source of cocoa was still the Americas. However, the establishment of the first cocoa farms on the island of Bioko led to an increase in the import of African cocoa.<sup>13</sup> Moreover, the Marquis of Comillas' Transatlantic Company established commercial facilities with naval connections between Fernando Poo and Río Muni to Barcelona and Cádiz in 1887, which would have also facilitated the increase in African imports.<sup>14</sup> As a result, the colonial dominions of Central and West Africa surpassed Latin America as the main cocoa-producing areas. Barcelona became the main port of entry for Bioko's cocoa, accounting for 92.6% of the total in 1910,<sup>15</sup> and this Guinean dominance persisted throughout the twentieth century. Spain lost control of the island through Equatorial Guinea's independence referendum in 1968, marking the end of the dominance of cocoa from Bioko.

<sup>&</sup>lt;sup>13</sup> This cocoa could have been introduced in 1822 to the Portuguese island of Sao Thomé from Brazil; and from Sao Thomé it passed in 1850 to the neighbouring island of Bioko. It could also have originated directly from Cuba and been introduced to Bioko around 1860 (Sant, 2017, p. 34).

<sup>&</sup>lt;sup>14</sup> This naval company signed a contract with the government to make a minimum of four trips a year. In 1907, according to the editor of the newspapers Mercurio and Comercio, the frequency of these ships was still bimonthly, a frequency much lower than that of the four ships, two English (Liverpool) and two German (Hamburg) steamers, which docked at the port of Santa Isabel every month. Shortly afterwards, the periodicity of the Spanish ships of the Transatlántica Company was extended to twice a month until 1911 (De Castro & De La Calle, 2007, p. 160).

<sup>&</sup>lt;sup>15</sup> La Voz de Fernando Poo, no. 35, 15 November 1911, p. 10. Once in Barcelona, this cocoa was controlled by a series of trading houses, called *receptoras*, which sold it to wholesalers or directly to chocolate manufacturers. Many of these houses belonged to the producing landowners themselves, who thus controlled the raw material from its origin until it reached the factories (Sant, 2017, pp. 69-70).

#### 3. International cocoa imports

In light of cocoa's Latin American origins, a critical component for chocolate production, Spain was able to maintain an exclusive hold on its trade until the Treaty of Utrecht in 1716. At that point, Britain obtained permission to engage in commerce with Spanish colonies in the Americas. Notwithstanding this erosion of its competitive advantage in logistics and supply, Spain managed to preserve its market leadership and continued to serve as the primary point of entry for cocoa into Europe throughout the first half of the nineteenth century.

Between 1830 and 1860, Spanish cocoa imports showed a positive trend, increasing from 4,000 tonnes to nearly double by 1860, exceeding 7,000 tonnes per year. However, in the following decade, there was a decline in cocoa imports, returning to the initial levels of 4,000 tonnes. From 1870 onwards, there was a resumption of growth in cocoa imports, reaching a high point of 8,500 tonnes per year, coinciding with the period of chocolate industrialization in Spain and the construction of major modern factories, such as Matias López's factory in Madrid's suburbs (1874), La Riojana in Málaga (1857) and Chocolates Amatller in Barcelona's premium manufacturing district, Sant Martí de Provençals (1878). Imports remained above 8,000 tonnes per year until 1890, after which they declined until the end of the century.

**Figure 1:** Cocoa Imports (in tonnes) in Spain, France, Great Britain, Germany and The Netherlands, 1830-1900 (calculated in 10 year intervals)



Source: Own elaboration using different sources: Spain 1830-1850 (Prados de la Escosura, 1982) and 1850-1900 (*Anuario Estadístico de Comercio Exterior* 1849-1900); data for France, UK, Germany and Netherlands (Clarence Smith, 2000: 46-56)

France initially lagged behind Spain in cocoa imports, receiving a mere 600 tonnes in 1830 – a figure six times lower than that of Spain. However, a period of convergence ensued in subsequent years, characterized by strong import growth that doubled every decade. From 1870, France outstripped Spain and ascended to the rank of global leader in cocoa imports, receiving more than 12,000 tonnes annually. Despite a gradual deceleration in growth thereafter, France's cocoa imports approached 18,000 tonnes by the century's end – a figure triple that of Spain. French chocolatiers proved pioneers in the development and implementation of specialized machinery, particularly with the introduction of steam engines in chocolate factories and mixing and refining machines. Chocolat Menier established itself as a global leader in this industry through technological modernization,<sup>16</sup> successful marketing campaigns leveraging poster art (featuring the first-ever signed poster by the artist Firmin Bouisset in 1893) (Fitzgerald, 1995, p. 21), and notable promotional endeavours, such as the construction of an Arc de Triomphe made of 250,000 chocolate bars for display at the 1889 World Exhibition in Paris (Drouard, 2013, p. 98).

Great Britain's entry into the cocoa market was initially delayed due to the cocoa dispute with Spain. It was not until 1870 that cocoa imports began to increase, with only 3,000 tonnes arriving in British ports up to that point, a stark contrast to the peaks reached by Spain and France. From then on, a more favourable tariff policy in Britain compared to Spain and France provided a boost to cocoa imports (Clarence-Smith, 2000, pp. 47-57). This liberal policy was instrumental in fostering exponential growth in imports, which reached 20,000 tonnes by 1900, making Britain the world leader in cocoa imports, surpassing France and exceeding Spanish imports by four times. Notably, several British chocolatiers distinguished themselves during the second half of the nineteenth century, including John Cadbury, who had 300 employees by 1880.<sup>17</sup> Fry is also noteworthy, starting with a pharmacy in Bristol and moving on to become a world pioneer in marketing single-portion chocolate bars (Vernon, 1958, pp. 58).

Germany's incursion into the chocolate and cocoa market started slowly, with cocoa

<sup>&</sup>lt;sup>16</sup> With the complete conversion to steam engines at its Noisiel factory, it earned the nickname of "The Cathedral". In 10 years, it quadrupled its manufacturing capacity from 688 tonnes per year in 1853 to 2,500 tonnes in 1865 (Clarence-Smith, 2000, p. 73).

<sup>&</sup>lt;sup>17</sup> The business started in the English town of Birmingham in 1824 with a shop selling chocolate, coffee and tea. In 1866 Cadbury decided to reorient the business to focus solely on the chocolate market and grew from 30 employees (1860) to 300 employees in 1880.

imports not surpassing 1,000 tonnes until the 1870s. However, taking a cue from England, Germany's cocoa imports grew rapidly in the last three decades of the nineteenth century, tripling in volume. By the end of the century, Germany had caught up with France and England in terms of cocoa imports. German chocolatiers' more efficient manufacturing processes allowed them to surpass their French counterparts in machinery innovation, with Lehmann leading the world in the production of cylinders and mixing machines (Coe & Coe, 1996, p. 250). German-made nickel moulds became widely used in European chocolate production, with Anton Reiche being a major manufacturer. These technological advances spurred the emergence of new chocolate manufacturers in the Dresden industrial area, such as Hildebrand and Jordan & Thimeus (Dorchy, 1987, pp. 199-204).

The Netherlands holds a notable position in the global cocoa market, renowned for the invention of the hydraulic press by Van Houten in 1828. This revolutionary innovation enabled the separation of cocoa butter from the fat, resulting in a less bitter and more delicate taste. This invention opened the way to the marketing of chocolate powder which could be dissolved in water or milk. Despite this significant technological achievement, Dutch cocoa imports lagged behind those of other European leaders, not exceeding 1,000 tonnes until 1880. However, as with most neighbouring countries, cocoa imports in the Netherlands witnessed a surge during the final quarter of the nineteenth century, reaching 6,000 tonnes per year in 1900, slightly surpassing Spanish imports.

#### 4. The impact of import tariffs

To produce chocolate, cocoa was a necessary ingredient. Consequently, the ability to import it from international markets determined access to the raw material. However, an import tariff was always imposed on cocoa upon entry into Spanish territory, resulting in an increase in the final price of chocolate.

The Spanish administration viewed colonial products as a means of boosting public revenues and therefore imposed highly protectionist policies through taxes on products such as sugar, cocoa and coffee. Cocoa was one of the main products contributing to import tariff revenue for Spanish customs between 1850 and 1900. According to data compiled by the Spanish Annuary of International Trade (*Anuario Estadístico de Comercio Exterior*), cocoa import duty collections accounted for between 5% and 10%

of total revenue, with an average of 6.3% in the second half of the nineteenth century. While sugar (due to the large quantities imported) was the leading product in terms of customs revenue, cod ranked second. These top three products (sugar, cod and cocoa), which were all foodstuffs, accounted for approximately 35% of import duties collected during the decades between 1850 and 1870.

Despite not being one of the most heavily imported products in terms of weight, cocoa was subject to the highest tax collection by volume. On average, 50 pesetas per 100 kg of cocoa entering Spanish ports were collected in taxes, whereas other colonial products like sugar or coffee were taxed at an average of 15 to 20 pesetas per 100 kg (as shown in Table 2).

	Cocoa	Sugar	Coffee
1850-1854	57	18	18
1855-1859	53	18	22
1860-1864	49	20	27
1865-1869	45	18	18
1870-1874	55	19	19
1875-1879	56	17	24
1880-1884	54	14	20
1885-1889	51	1	16
1890-1894	52	1	22

 Table 2: Import Tariff Collection by Spanish Customs Authorities (peseta/100kg;

 calculated in 5-year intervals)

Source: Own elaboration from Anuario Estadístico de Comercio Exterior (1850-1894)

Chocolate manufacturers, feeling unsupported by the government, sought to acquire the highest quality cocoa at the most competitive prices by importing it from various international ports outside of Latin America (and later, from Bioko). As a result, some manufacturers were compelled to purchase cocoa from non-producing markets like London, Liverpool or Hamburg.<sup>18</sup> Britain and Germany, who had spearheaded the

<sup>&</sup>lt;sup>18</sup> Chocolates Amatller, the main Barcelona chocolate manufacturer in the 1800s, bought cocoa from Guayaquil in Liverpool, as shown by commercial letters and shipping notices dated 1883 and 1885 (*Chocolates Amatller Archive*, notification of cocoa from Liverpool in Barcelona, 21

industrial chocolate revolution, experienced an exponential increase in their demand for cocoa, turning their ports into principal destinations for vast quantities of cocoa from all corners of the globe.<sup>19</sup>

The López brothers (1870), proprietors of La Riojana, a prominent chocolate manufacturer based in Málaga, published a booklet in 1870 in which they expressed their direct dissatisfaction with the Ministry of Finance regarding excessive tariffs (pp. 6-8):

We address our observations to the Minister of Finance to modify and bring cocoa duties into harmony with coffee taxes, without it being an unfair request on our part to ask for the disappearance of the tariff. [...] Cocoa, which is intended for the manufacture of chocolate, an article of prime necessity, pays 30 per cent more of the value over other markets in Europe. [...] If chocolate is considered as a staple food, we do not see the reason for the enormous difference in the surcharge on cocoa, compared with coffee ... more than two and a half times. [...] One cannot understand the enormous difference between two articles that are not cultivated in Spain.

Furthermore, the owners of La Riojana contended that a drop in raw material costs would result in a lower final product price, and consequently, consumption would increase at a much higher rate: "Consumption would increase so prodigiously that it is not easy to calculate it, because the working classes would be able to enjoy and have within their reach this food, which today is only used by the aristocracy and the middle classes." They claimed that chocolate had become a staple, yet it was the most heavily taxed food item because of its high price, stating that "Duties are excessive on a component which needs to be imported for manufacturing." Lastly, they argued that the removal of tariffs on cocoa was necessary to make chocolate an affordable food for all and emphasized that governments had a responsibility to provide society with measures to minimize the cost of living.

Matías López (1875), a chocolate manufacturer from Madrid who was granted a lifetime

January 1883; and letter with notice of market prices – Guayaquil cocoa in Liverpool vs London, signed by Lemonius Co, 4 March 1885). Madrid chocolate maker Matías López, in his 1869 manifesto, also indicated his need to access international markets to seek better prices (López, 1869, p. 6).

<sup>&</sup>lt;sup>19</sup> The first cocoa plantations on the island date back to 1880, initially controlled by the islanders (Fernandinos) and, once their economic viability was demonstrated, by Spanish settlers (Sant, 2017, p. 53).

appointment as a senator by King Alfonso XII in 1883, expressed his opposition to protectionist policies through various publications in which he described (pp. 83-84):

Raising my voice on the side of people who could influence the improvement of industry, to get it out of the narrow nets that oppress it, making it impossible for the industrialist to enter fully into the exercise of that industry because of the controls, obstacles and taxes that all governments have put in the way of its development, out of a misunderstood zeal in favour of the Treasury; and others, lastly, by appealing to the administrative authorities and even to the Congress of Deputies, by means of respectful and reasoned requests, always complaining about this oppression, which, to the detriment of the country, was being exercised on the chocolate manufacturer.

 Table 3: Cocoa Import Tariffs in Europe, 1882 (peseta / 100kg)

Country	Tariff
Spain	
- Foreign Origin	75
- Colonial Origin (Cuba, Puerto Rico, Filipines & Fernando Poo)	25
France	
- Foreign Origin	133
- Colonial Origin	67
Germany	55
Great Britain	29
Switzerland	1.5
Italy	126

Source: Own elaboration using data for Spain (*Anuario Estadístico de Comercio Exterior*, 1882); France (Jumelle, 1900: 74-75); Germany, Switzerland and Italy (Chiapparino, 1994: 71); Great Britain (Clarence-Smith, 2000: 40-41).

In terms of international comparison, Spain, along with France, had the highest tax rate on cocoa imports. The Spanish authorities implemented a policy of differentiation based on the origin of cocoa cargoes, providing preferential treatment for trade with its colonies. This policy encouraged a triangular trade between Venezuela and Ecuador (the origin of cocoa), Cuba and Puerto Rico (Spanish colonies), and Spanish ports (metropolis). Following the loss of the last Latin American colonies in 1898, this preferential treatment extended to cocoa imports originating from the remaining Spanish territories of Equatorial Guinea, which accounted for nearly 90% of imports from the twentieth century onwards (as shown in Table 3).

When it came to cocoa tariffs, France had the highest tariff rate among European countries, similar to Spain. France also provided preferential treatment for trade with its colonies, specifically Guadeloupe and Martinique (Jumelle, 1900, p. 74). For non-preferential origins, France imposed a duty that was up to twice as high. On the other hand, Germany applied a lower tariff compared to Spain and France, despite the administration's preference for a protectionist policy. Manufacturers in Germany pressured the government to reduce taxes to promote industrialization and exports. This was also the case in Switzerland (Chiapparino, 1997, pp. 69-71). In Britain, chocolate manufacturers commonly lobbied the government through the Confectionery Manufacturers' Association to prevent repeated attempts to increase taxes. The entry of cocoa into Europe with lower tariffs, such as in Britain and Germany, facilitated intra-European trade, which also led to frequent cases of smuggling between countries (Clarence-Smith, 2000, p. 42).

## 5. Chocolate in a time of nutritional transition

The advent of processed foods, which is associated with the emergence of modern food factories, did not begin in Spain until the 1860s. Prior to this, most food production was oriented towards subsistence, with any surplus being sold in local markets (Nadal, 1992, pp. 164-168). This gradual introduction of new foods and manufacturing processes can also be observed in the development of modern chocolate making in Spain. Therefore, while Spain initially established an advantage over its European counterparts due to the exclusivity of cocoa imports until the early eighteenth century, chocolate consumption did not become widespread until the end of the nineteenth century.

The slow pace of the nutritional transition in Spain can be attributed to two main factors. Firstly, the difficulty in preserving fresh food, which until then had mainly been done through salt or ice, making transportation difficult. Secondly, the lack of technological advancements in food production, which had a strong artisanal character with small-scale mills and cylinders, resulting in slow and limited production. Although technological innovations in agri-food mills existed in the late eighteenth century, they were not widely

adopted in European factories until 30 years later (Clarence-Smith, 2000, pp. 68-69; Oddy, 2013, pp. 3-7; Pujol Andreu, 2003, pp. 227-232; Ramon, 2013, pp. 71-77).

Mechanization made food processing faster and cost-effective, but it required a market with sufficient demand to generate sales. This demand was spurred by the social and economic changes resulting from industrialization. In the first place, the rise in household incomes within expanding urban centres<sup>20</sup> provided greater access to foods previously available only to the affluent (Camps, 1997, pp. 67-68; Garrabou & Cussó, 2004, pp. 3-7). Secondly, the availability of higher monetary income compensated for the lack of time and space to produce the food needed to meet dietary needs. This led to a nutritional transition that initially focused on providing the population with a sufficient caloric intake to meet their nutritional needs (Nicolau & Pujol Andreu, 2005, pp. 128-129; 2006, pp. 30-32). With reduced trade costs and increased disposable income, consumption of subsistence goods such as cereals, tubers and legumes increased, as well as other products such as milk, coffee and chocolate. In a second stage, although household income continued to rise, consumption of staple foods remained stable with a tendency to decrease, while consumption of fresh products such as meat, vegetables and fruits increased. Consumption of new processed foods with high sugar content also increased, as new refining processes enabled the creation of new products like biscuits or margarine, which had high nutritional value and provided new taste stimuli for the population (Gallego, 2016, pp. 139-160; Garrabou & Cussó, 2004, pp. 36-38; 2007, pp. 70-77; Pujol Andreu, 2003, pp. 246-247).

Throughout the nineteenth century, chocolate was primarily consumed as a beverage and was highly valued for its restorative properties, much like coffee and tea. It was considered a luxury food item reserved for the wealthy, as stated by the Barcelona-born Baron of Maldà (1746-1819), a member of the local aristocracy and an avid chocolate consumer, in his memoirs titled Calaix de Sastre (which translates to "hotchpotch" in Catalan (Amat de Cortada, 1985)

Chocolate was highly favoured among upper-class Western societies. Historians posit that the process of democratization of chocolate began after the Industrial Revolution, specifically towards the end of the nineteenth century (Clarence-Smith, 2000, pp. 28-32;

 $<sup>^{20}</sup>$  It is necessary to consider the growth of Barcelona in absolute terms (from 64,000 inhabitants in 1880 to more than 300,000 in 1900) at the same time that the agricultural and commercial sectors were developing.

Poelmans & Swinnen, 2016, pp. 10-14). New technological innovations, including the mechanization of chocolate production and reduced trade costs such as transportation, allowed for increased production and decreased costs, resulting in greater affordability and accessibility for the general population. Furthermore, the recognition of chocolate's nutritional benefits contributed to an increase in consumption per capita. However, it is important to acknowledge that chocolate remained a luxury item for some time, and its widespread availability and consumption among different social classes took time to become a reality.

Francesc Cabana's accounts (1998) of a typical day in the life of Barcelona in 1863, based on the original guide *Guía y Añalejo Perpetuo de Barcelona* by Gaietà Cornet y Mas, illustrates this growing popularity (p. 38):

Church bells announce the beginning of the celebration of the Eucharist. Stores and artisans' workshops begin to open, while the movement on the streets increases progressively. Newspaper delivery boys run up and down, slipping the tabloids under the closed doors for the early birds who will read their paper while they take their chocolate for breakfast.

Using published prices of Madrid's chocolatier Matías López as a reference, in 1839 his chocolate was advertised with a consumer price ranging from 6 to 12 pesetas/kg,<sup>21</sup> depending on the quality, origin of cocoa and final mixture with different spices. Within a quarter of a century, prices had dropped significantly by 1874, ranging from 2.73 to 11 pesetas/kg. By the beginning of the new century, advertisements from the year 1900 showed prices ranging from 1.75 to 3.6 pesetas/kg.<sup>22</sup>

One serving of drinking chocolate was comprised of one *xicra*, a square-shaped tablet that weighed one ounce, which was then mixed with water or milk. Based on the unit weight, it can be estimated that 1 kg of chocolate contained 35 portions. As such, the final cost of a cup of chocolate ranged between 0.17 and 0.34 pesetas in 1839, between 0.07 pesetas and 0.31 pesetas in 1874, and between 0.05 and 0.10 pesetas in 1900. Using the

<sup>&</sup>lt;sup>21</sup> The original prices were listed in reales de Vellón and in pounds: 12-24 reales/pound (*Diario La Época*, 10 May 1839); it was not until 1868 that the peseta became the only official coined currency in Spain.

<sup>&</sup>lt;sup>22</sup> Original prices of 1874 were 5 to 20 reales/pound (*Diario La Iberia*, 10 February 1874); in 1900 they were 3 to 6 pesetas/pound (*El Álbum Iberiamericano*, 7 January 1900).

average daily wages paid in Barcelona as a reference for the standard of living, it can be estimated that a Spanish worker in the mid-nineteenth century had to work for one hour to afford one serving of chocolate, while at the end of the century, only 12 minutes of work were needed to enjoy a serving of chocolate.<sup>23</sup>

	1859	1874	1900
1 chocolate serving (1 ounce)	0.25 pta.	0.19 pta.	0.07 pta.
Daily salary per worker	2.46 pta.	-	3.62 pta.
Working Time to afford 1	1 hour		12 minutes
chocolate serving			

**Table 4:** Average Cost (pesetas) of a Chocolate Serving in Spain (1859, 1874, 1900)

Source: Own elaboration using data obtained from the prices of chocolate (*Diario La Época*, 10 May 1859); *Diario La Iberia*, 10 February 1874; *El Álbum Iberioamericano* 7 January 1900); salaries and working hours in Barcelona (Maluquer de Motes & Llonch, 2005).

Chocolate was still considered a non-essential food during the nineteenth century and was primarily consumed by the upper classes or on special occasions. The Spanish diet was focused on subsistence consumption, based mainly on cereals, legumes and potatoes, which accounted for 66% of the population's caloric intake (Simpson, 1989, p. 67). Despite its relatively low weight in total kilograms consumed, the nutritional richness of its ingredients doubled chocolate's caloric importance. This aspect was often used by manufacturers, who emphasized its restorative characteristics and nutritional value. However, despite its high caloric value, chocolate consumption remained limited, according to available data on chocolate consumption (Table 5), and was stable during the second half of the nineteenth century, coinciding with the period of industrialization. It was not until the twentieth century that chocolate consumption increased, doubling over sixty years thanks to new production possibilities, such as bars, powder and other formats, together with the incorporation of milk into the Spanish diet.

<sup>&</sup>lt;sup>23</sup> Salaries estimations in Barcelona and average weekly working hours of 64.8 hours in Spain (1870-1899) (Maluquer de Motes & Llonch, 2005)

	1865	1900	1930	1961
Spain				
Chocolate (in grams)	255	260	420	820
Weight over total food consumption		0.05%	0.11%	
Chocolate (in calories)		1,215	1,890	
Weight over total food consumption		0.13%	0.18%	
Other countries (in grams)*				
France		- / 880*	720	1,220
Germany		320 / 708*	730	1,826
Great Britain		551 / 746*	660	1,390
Switzerland		600	690	2,825
Italy		30	210	420

 Table 5: Annual chocolate consumption per capita in Spain, 1865-1961

\* Differences are due to disparities in available data from secondary sources.

Source: Own elaboration using data for Spain: 1865 (López, 1865); 1900 and 1930 (Simpson, 1989); 1961 (Food and Agriculture Organization – FAO data tool). For international comparative, 1900 (Chiapparino, 1994; Jarrige, 1993); 1930 (Chiapparino, 1994); 1961 (FAO data tool).

Chocolate consumption also increased throughout Europe, since its first industrialization and exponentially in the following century, multiplying its consumption up to five times as in the cases of Germany, Great Britain, Switzerland and Italy. Until the end of the nineteenth century, chocolate was consumed internationally as a beverage, with coffee and tea as substitutes. In 1880, tea clearly dominated this market, consumed by some 300 million people, mainly in Britain and India (black tea), East Asia and Islamic countries (green tea). In second place was coffee, with some 200 million consumers globally; it was the most widely consumed stimulant beverage in the United States and in continental European countries such as Germany and France. Chocolate ranked in third place, with 30 million consumers, and was the main restorative beverage in Mexico, Colombia, the Philippines and Spain. When comparing the evolution of import data amongst the three between 1870 and 1897, world cocoa imports grew by 900%, while tea grew by 200% and coffee by 30% (Clarence-Smith, 2000, pp. 26-28).

#### 6. Chocolate manufacturing in Europe

To create the chocolate drink concoction, cocoa underwent a complex and labourintensive process that included harvesting, roasting, grinding and re- fining. During the early stages of chocolate manufacturing, the process was completely manual, with harvested cocoa beans roasted to remove the shell from the nib, which was then ground in hand-operated mills called "metates". The resulting paste was then dissolved in water and often combined with complementary ingredients such as sugar, cinnamon, or pepper to achieve the desired flavour.

One of the earliest innovations in chocolate production was the hydraulic chocolate press created by Van Houten in 1828. This press allowed for the separation of cocoa butter from the paste by pressing the nibs after grinding. In the early 1800s, manual grinding produced around 6 kg of chocolate per grinder. By the end of the century, however, this amount had increased to 300 kg per day per operator, resulting in a remarkable 84-fold increase in productivity (Clarence-Smith, 2000, pp. 67-68). Furthermore, innovations in chocolate manufacturing provided significant improvements in the quality of the final product. By reducing the fat content through better separation of cocoa butter and refining the chocolate mixture, manufacturers were able to create a better-tasting chocolate with reduced bitterness.

Britain and France were at the forefront of innovation in chocolate manufacturing. In 1793, the Fry brothers pioneered the mechanization of production by acquiring a Watt's steam engine machine to grind cacao beans (Coe & Coe, 1996, p. 243). In France, manufacturers used cylinders with larger surface areas and introduced steam-powered machinery to support new processes, such as mixing and refining. The Pelletier brothers, for example, integrated a new four-horsepower engine into a mixing machine, enabling them to produce 73 kg of chocolate per day in 1819 (Harwich, 1992, p. 129). In the second half of the nineteenth century, modern machinery became commonplace in French chocolate factories, and processes were optimized to increase productivity.

However, the main advances in chocolate flavour and composition came from Switzerland. Robert Lindt's invention of the conching process in 1879 was a major breakthrough, which involved using a shell-shaped stirrer to produce finer chocolate with reduced bitterness and enhanced flavour. Further contributions came from Daniel Peter (1873) and Henri Nestlé (1869), who introduced powdered and condensed milk to the mixing process, resulting in the creation of milk chocolate, which proved to be a highly successful product in the market (Clarence-Smith, 2000, p. 22; Sant, 2017, p. 40).

# 7. Chocolate manufacturing in Spain

During the seventeenth, eighteenth and early nineteenth centuries, the pro- duction and sale of chocolate were subject to the control of guilds. In Catalonia, this monopoly was established through two guilds in Barcelona, which distributed the product to the rest of the region.<sup>24</sup> The first of these guilds was the shopkeepers' guild (*adroguers* in Catalan), which held the exclusive right to trade colonial products such as cocoa, sugar, coffee, pepper and cinnamon. The guild could also sell derivative products such as chocolate.<sup>25</sup> The second authorized guild was the chocolate grinders' guild, which was established in 1770 after a lengthy dispute with the shopkeepers' guild. The apprenticeship programme lasted three years, and grinders specialized in the art of chocolate-making in their workshops, but they also had the option to prepare their recipes at clients' homes, which was a popular choice among wealthy families. In Madrid, the guild of chocolatiers was established shortly after Barcelona's, in 1773, with 130 members and a six-year apprenticeship programme (Clarence-Smith, 2000, p. 67).

The Royal Statute of 1834, along with the Decrees of January 1834 and December 1836, declared the freedom of industry in Spain, resulting in the abolishment of guilds. This dissolution of the guild structures allowed anyone to engage in chocolate manufacturing without the previous limitations on ingredients and manufacturing procedures imposed by these organizations. Most of the renowned chocolate manufacturers who led the Spanish industry had their origins in the drugstore and shopkeeper's guilds, while others emerged during the industrialization process of the agri-food sector, which began in the 1850s and 1860s, following the deregulation of the guilds.

To examine the role of the chocolate industry in the process of food industrialization in Spain, a comparative analysis can be employed, gathering data on the industry's industrial

<sup>&</sup>lt;sup>24</sup> However, there were chocolatiers in other cities, but they worked outside the guild structures. In Girona there were chocolatiers who struggled to join, but never succeeded. In 1806 their request was rejected because they considered the monopolies to be abusive. In 1835 they still appeared as a non-unionized trade (Martí Escayol, 2004, p. 47).

<sup>&</sup>lt;sup>25</sup> Barcelona's shopkeepers included chocolate amongst the food articles they commercialized (Martí i Rovellat, 1706, *UB Fons Antic*, ms. 1.395)

contribution, using a comparative approach that is common in Spanish economic history.<sup>26</sup>

The manufacturing of chocolate was monitored through the utilization of mills, and taxes were levied based on the quantity and size of grinding stones, grinders, mixers and, later, on refining innovations. Manufacturers had to pay higher taxes if they utilized larger cylinder sizes or higher levels of mechanization. Throughout the nineteenth century, the total revenue generated by chocolate manufacturers increased, following a trend similar to that of other food sectors that developed during the same period. Despite not attaining the collection levels of flour, a vital sector in subsistence agriculture and the feeding of the urban population (Nadal, 1992, p. 92; Pujol Andreu, 2003, p. 232), and oil, which had high manufacturing capacity in different regions of Spain (Ramon, 2000; Zambrana, 2003), chocolate companies contributed between 3% and 9% of the total food factories' revenue. When applying this comparative analysis across all sectors and industries, chocolate represented 3% of total state revenues, which is comparable to soap manufacturing that also accounted for 3% but more significant than paper manufacturing that only contributed 2%.<sup>27</sup>

<sup>&</sup>lt;sup>26</sup> Economic historian Jordi Nadal saw in the collection of taxes a valuable source to reconstruct the processes of industrialization in Spain. The first issue of this Spanish compendium, under the name *Estadística Administrativa de la Contribución Industrial y de Comercio*, was published for the first time in 1857 with data from the previous year (1856). The yearbook recorded the number of taxpayers classified by province and activity; it was counted on the basis of the means of production (mills, presses, cylinders, etc.), and not by counting the products manufactured or the income of the company. The manufacturing activity was included in the fifth section of the yearbook, applying the third tariff where the contribution was collected by factories grouped by industrial activities. Food manufacturing industries were included under two headings: "mills" and "others"; the former mainly included the production of flour, oils, wines and also chocolate; and the latter, at the end of the yearbook, included other types of processed foods, such as biscuits, and preserved foods like, canned vegetables, fish and meat.

<sup>&</sup>lt;sup>27</sup> Other example of food factories that gained relevance at the end of the nineteenth century are meat salting, canned foods, soup pasta/noodles and biscuits. Despite accounting for a much lower percentage than flours, the increase in their contribution indicates how the new commodity-oriented products gained in importance over subsistence products, thus giving way to the nutritional transition and the progressive change in consumption patterns. These new subsectors were listed at the end of the yearbooks under "other industries", a catch-all for small industries.

	Total Contribution			Percentages						
	1856	1863	1879	1889	1906	1856	1863	1879	1889	1906
Flour	595,716	631,438	573,828	887,021	948,321	42%	46%	44%	53%	43%
Oil	422,527	312,475	274,228	363,327	379,688	30%	23%	21%	22%	18%
Sugar	1,757	2,738	15,814	40,193	365,135	0.1%	0.2%	1%	2%	17%
Chocolate	74,425	87,558	108,846	141,628	133,708	5%	6%	8%	9%	6%
Meat and Fish Salting	58,672	52,925	59,311	65,733	121,348	4%	4%	5%	4%	6%
Canned food	334	922	14,888	39,635	74,466	0.02%	0.1%	1%	2%	3%
Soup Pasta/Noodles	42,614	41,283	55,517	57,544	57,592	3%	3%	4%	3%	2.5%
Biscuits	0	0	0	5,699	13,841				0.5%	1%
Bonbons/Candy	0	0	0	9,619	10,239				1%	0.5%
Others	217,226	241,087	207,691	67,720	79,401		17.7%	16%	3.5%	3%
	1,413,269	1,370,425	1,310,123	1,678,119	2,183,739					

**Table 6:** Industrial Contribution by Food Category in Spain (constant prices, 1900 peseta)

Source: Own elaboration using the yearbooks of *Estadística de Contribución Industrial* (1856, 1863, 1879, 1889, 1906)

Within the Spanish regional participation, Catalonia, and especially the province of Barcelona, was at the forefront of the chocolate industry, as shown by the industrial contribution data, representing an average of 23% of the sector's total revenue in Spain.

The regional dominance of Catalonia and Barcelona in the chocolate industry was not only limited to production but also encompassed the marketing chain and consumption patterns. This was evident in the high levels of chocolate production, sales and consumption in the region, as indicated by the data presented in Figure 2. Moreover, chocolate was widely distributed through numerous specialized markets, chocolate shops, confectioneries and even soup stores, which further solidified the region's leadership in the chocolate industry.<sup>28</sup>

<sup>&</sup>lt;sup>28</sup> Candy shops and those selling soup and pasta were among the main resellers for chocolate manufacturers, as in the case for Chocolates Amatller (*Chocolates Amatller Archive*, Commercial Letters, ref. 140, 191). Lonjas de chocolate was the local name for chocolate shops; this etymology is usually related to food markets, but several advertisements in Spanish newspapers promoted chocolate in this kind of establishments (*Diario de Avisos de Madrid*, 29 January 1818, p. 158; 22 February 1830, p. 211).



Figure 2: Map of Spain Showing the Contribution of Chocolate Factories, 1856-1906

Source: Own elaboration using data from *Estadística de Contribución Industrial* (1856, 1863, 1889, 1906)

Table 7: Chocolate-related companies in Catalonia, comparison with Spain

	1856	1865	1879	1889	1906
Chocolate Factories	23	30	27	19	21
Chocolate Shops ( <i>Lonjas de chocolate</i> ) <sup>29</sup>	22	14	28	16	31
Chocolate Bars / Cafeterias	-	-	-	78	45
Candy and Sweet Shops	27	27	25	18	-
Soup Pasta / Noodle Shops	75	60	80	85	74

(Index 100 = Total Spain)

Source: Own elaboration using the yearbooks *Estadística de Contribución Industrial* (1856, 1863, 1879, 1889, 1906)

<sup>&</sup>lt;sup>29</sup> *Lonjas de chocolate* was the local name for chocolate shops; this etymology is usually related to food markets, but several advertisements in Spanish newspapers promoted chocolate in this kind of establishments (*Diario de Avisos de Madrid*, 29 January 1818, p. 158; 22 February 1830, p. 211).

The Madrid region ranked second in terms of chocolate production, representing about a third of chocolate manufactured in Spain by the end of the nineteenth century. Although the number of contributors was relatively small, their contribution was notable, indicating that the manufacturers had a large number of modern machines with high production capacities.<sup>30</sup>

The Basque Country (Euskadi) was the third leading region in chocolate production. However, analysing the case of the Basque provinces and Navarre presents a comparative challenge as their data was not included in the Spanish industrial contribution due to their distinct tax regime. Nonetheless, the yearbook *Anuario Riera*, which compiled all Spanish manufacturers for various industries, offers an alternative primary source. According to the yearbook, at the beginning of the twentieth century, the Basque Country came third in terms of the number of chocolate manufacturers in Spain. Unfortunately, a regional comparison cannot be established in terms of production capacity because the yearbook only recorded the number of factories and not their level of mechanization.

In 1900, Madrid, Catalonia and the Basque Country were among the Spanish regions with the highest per capita income. According to data published by Rosés, Martínez-Galarraga and Tirado (2010), the Basque Country ranked first with a value of 205 in the income per capita index, followed by Catalonia with 184, and Madrid in third place with 163 (pp. 244-257). This suggests that a higher level of wealth may have resulted in greater demand for luxury goods like chocolate, creating more favourable conditions for the development of chocolate factories in these regions.

The evolution of technological change in the chocolate industry can also be analysed as part of the industrialization process. The Spanish yearbook for taxes and contributions provides valuable information for studying the development of mechanization in this industry. The earliest published editions of 1856 and 1863 only distinguish between two categories of mills: roller mills (mostly manual) and stone mills, known as *piedras de tahona*, without specifying whether they were animal or manually powered. In 1879, several categories were introduced to account for technological innovations, such as steam, animal or manual power, and the mills were classified according to size. The 1889 yearbook expanded the categories to include mills with three cylinders and those over 60 cm2, although none were registered at the time. In the same year, the first machines with

<sup>&</sup>lt;sup>30</sup> Taxes due for each company were based on the number of mechanical means of production.

more than one mixer were registered, but only one, located in Málaga, was recorded.<sup>31</sup> Later, in 1906, companies in Barcelona, Madrid and La Coruña registered chocolate mixing machines, indicating the spread of this innovation to other regions.

Table 8 demonstrates that as of the late nineteenth century, only 30% of company taxpayers employed machines with mechanical traction, leaving the majority of chocolate production still reliant on manual labour and hand- operated cylinders.

	1879	1889	1906
Base = 100 Spain	100	100	100
% Mechanization in Spain	31%	28%	31%
Catalonia	154	163	209
Madrid	288	273	239
Castilla León	47	68	67
Galicia	42	72	37
Asturias	75	101	161
Aragón	27	34	47
Com, Valenciana	29	55	68
Andalusia	68	85	115
Balearic Islands	39	49	41
Cantabria*	178	82	82
Castilla La Mancha*	197	176	140
Murcia*	116	141	16
Extremadura*	58	99	59
La Rioja*	160	176	133
Canary Islands*	80	282	64

**Table 8:** Level of mechanization for chocolate manufacturers in Spain, 1879-1906

\* In the case of communities such as Cantabria, Castilla la Mancha, Murcia, Extremadura, La Rioja and the Canary Islands, the index loses robustness as it is calculated with a low number of taxpayers; these territories represented between 1% and 3% per community in the total Spanish tax collection,

Source: Own elaboration using Estadística de Contribución Industrial (1879, 1889, 1906)

<sup>&</sup>lt;sup>31</sup> This is likely to represent the case of La Riojana. Founded in 1836, it was the main chocolate manufacturer in Andalusia and became one of the benchmark chocolate brands in Spain (Velasco, 1989).

Catalonia and Madrid not only represented the largest share of Spanish chocolate production, but their level of mechanization was significantly higher than in other regions. The available contribution data suggests that towards the end of the nineteenth century, Galicia and the Valencian Community also experienced growth in the number of chocolate producers. However, the concentration of chocolate manufacturers in these regions was largely based on a significant number of contributors, where traditional methods of production were still prevalent, such as hand-operated cylinders and workshops. Even Castilla y León surpassed Madrid in terms of the number of contributors, but the factories in these regions were also predominantly using manual means of production. As a result, their relative importance in the industry was lower than that of the leading provinces of Barcelona and Madrid.<sup>32</sup>

The emergence of the chocolate industry in Asturias at the end of the nineteenth century was facilitated by the region's specialization in food production, particularly in sugar and butter, as well as its proximity to ports of entry for cocoa. As a result, Asturias saw the establishment of over one hundred chocolate factories (Prieto, 2015).

# 8. Main chocolate manufacturers in Spain

The process of industrialization in the chocolate industry can be regarded as a phenomenon that unfolded across the entirety of Spain. Within the chocolatier community, four companies emerged as the frontrunners of this process: Matías López, Amatller, La Riojana and Colonial.

#### Matías López

Matías López (1823-1891) was a Galician entrepreneur who arrived in Madrid and started working as an assistant in a colonial products shop, where he learned the trade. He became an entrepreneur after saving 2,000 pesetas and set up his own company in 1830 near the Chamberí neighbourhood where he lived. Following a visit to different chocolate manufacturers in France, he decided to invest in the mechanization of his workshop. By 1861, he already had a 13-horse-powered steam engine and was producing 920 kg per

<sup>&</sup>lt;sup>32</sup> Given that the tax collected was higher in factories with mechanical cylinders than in those with manual cylinders, the regions with greater mechanization generated higher tax revenues.

day. Within just a few years, the company had significantly increased its manufacturing capacity to 3,500 kg per day in 1868 (López, 1875, pp. 8-12).

These constant production increases required continuous changes in the facilities, and after relocating his workshop several times around the centre of Madrid, López decided to build a new modern factory. However, the space required for the facilities was not available according to the urban planning of the capital.

In 1874, the entrepreneur purchased Alianza Industrial, a sugar factory located in the suburban town of El Escorial, approximately 63 km from Madrid, which he transformed into his new production centre. The facility spanned over 6,300 m2 and was equipped with modern machinery, including cocoa roasters, mixers and French refinery grinders, all operated by three steam engines of 40, 30 and 6 horsepower. The factory also became one of the first industrial colonies in the country, complete with housing, schools and a church for its workers (Blázquez, 2018).

In contrast to the luxury strategies commonly adopted by chocolate companies during the nineteenth century, Matías López opted for a different approach, the cost-leadership strategy, focusing on high production volumes to achieve economies of scale and lower unit production costs to offer competitive prices. His main objective was to democratize chocolate and spread consumption across all popular classes. In 1871, he published the first national advertising poster designed by Ortego Vereda, *Los Gordos y los Flacos* ("The Fat and The Thin"), which featured four characters and conveyed a message to show the nutritional benefits of his chocolate. The caricature presented a satirical image, easy to understand even for people who could not read and with an aesthetic canon completely opposite to the current one.

Matías López's legacy was continued by his sons, who inherited the company after his death in 1891. At that time, the company had a turnover of eight million pesetas and 300 workers in the factory. However, the following years brought difficulties in economic management, which eventually led to the decline of the company. In 1964, the factory was closed and later demolished, marking the end of an era in the history of chocolate production in Spain. Despite the company's ultimate fate, Matías López's innovative strategies and dedication to making chocolate accessible to all social classes left a lasting impact on the industry.

# **Chocolates** Amatller

The earliest documented business activity of Gabriel Amatller, the founder of the business, dates back to April 1797,<sup>33</sup>, when he purchased cocoa from Caracas and Dutch cinnamon. In just a few years, Amatller began trading cocoa and other ingredients necessary for the production of chocolate, such as pepper and sugar, in Barcelona, as well as in neighbouring towns and larger cities like Valencia and Zaragoza. After his passing in 1830, his sons, Antoni and Domingo, assumed control of the enterprise. The second generation oversaw a period of continuity in which the manufacturing of chocolate in the workshop situated in Barcelona's city centre was combined with the trade of colonial products.

Soon after the 73th anniversary of the company, the third generation arrived in 1877, with a determination to confront the Buddenbrook syndrome<sup>34</sup>. Antoni Amatller Ràfols, after touring chocolate factories in France and Switzerland, executed a comprehensive transformation of the company by establishing a modern factory and a chocolate brand. The company made a deliberate decision to specialize in chocolate production, which entailed relinquishing the colonial trade, following a process that had been undertaken by other European chocolate manufacturers.<sup>35</sup>

In terms of production, the company relocated from the city centre to establish a new modern factory in the emerging industrial district of Sant Martí de Provençals.<sup>36</sup> For the new factory, Amatller imported new machinery from France, including a new mixer from

<sup>&</sup>lt;sup>33</sup> Son of a well-to-do peasant family from Molins de Rei, he was the youngest of eight siblings. Having accepted his legitimate share of the family inheritance, he went to Barcelona where he started the chocolate business. He settled at number 10, Calle Manresa in the Ribera district, on the first floor of what became his family home. The marriage of his daughter Mariana to a member of the shopkeeper's guild opened the way to an expansion of the chocolate business with trade in overseas products, such as coffee, tea and spices, as well as cocoa.

<sup>&</sup>lt;sup>34</sup> Based on Thomas Mann's 1901 novel about the story of a bourgeois family, the Buddenbrooks, and the beginning of its decline in the third generation, the grandchildren of the founder.

<sup>&</sup>lt;sup>35</sup> As Cadbury and Rowntree had done in England (Clarence-Smith, 2000, p. 73; Fitzgerald, 1995, pp. 48-51)

<sup>&</sup>lt;sup>36</sup> Known as the Manchester of Catalonia, Sant Martí de Provençals became the main industrial district of Spain at the end of the nineteenth century. According to Marshallian theory, the concentration of firms allowed the exploitation of external economies, improving efficiency by sharing knowledge and innovations within the industry. The district was dominated by textile companies, although until 1920 the agri-food industry was in second place, ahead of strategic sectors such as metallurgy and chemicals. In 1904 Chocolates Amatller was ranked 74th in size according to industrial contribution (Nadal & Tafunell, 1992, p. 94).

Breyère Frères,<sup>37</sup> and a refrigerated ice maker from the renowned inventor Raoul Pictet,<sup>38</sup> which was essential to maintain the chocolate's coolness during warm weather. The new factory was already powered by steam and, by 1894, had two engines of 35 and 10 horsepower (Nadal & Tafunell, 1992, p. 319). Thanks to a neighbourhood complaint lodged with the local authorities in 1879, we have information that the factory operated day and night.<sup>39</sup>

Towards the turn of the century, Amatller's successful marketing campaigns and transport innovations allowed for an expansion of the commercial network with resellers across the Spanish territory and occasional exports to France and Cuba. The culmination of Antoni Amatller's time at the helm of the company came with the remodelling of the house on Passeig de Gràcia, the showcase avenue par excellence of the Catalan bourgeois elite.

In 1910, Antoni Amatller died and passed the baton to his daughter Teresa Amatller Cros. During her time, the brand continued investing in the modernization of the factory, and in 1913 it had a steam generator that occupied 40 m2 and powered eight engines of different powers: 50, 40 and 32 horsepower; two 8 horsepower engines; two of 4 horsepower; and one of 2 horsepower. She also oversaw various extensions of the building, which went from one to three floors.

With the start of the Spanish Civil War (1936), the company was collectivized, and the businesswoman left for Italy. Upon her return, she regained control of the company until her death in 1960. After passing through several hands, the business was bought by local chocolate maker Simon Coll, who has maintained the original brand to this day to market his range of premium chocolate.

<sup>&</sup>lt;sup>37</sup> Archive Chocolates Amatller, Commercial letter "Purchase of a mixer mill to Beyer Frères – Machines et Installations (manufacturer of machinery for perfumery, chocolates and pastry making)", 13 February 1882.

<sup>&</sup>lt;sup>38</sup> Archive Chocolates Amatller, Accounting Book 1890, "Accounting note for purchase of 128,911 reales".

<sup>&</sup>lt;sup>39</sup> Barcelona Municipal Archive for Sant Marti District Municipal. Claim. 20 August 1879. "The neighbour Domingo Figueres complains to the municipal authorities about the existence of a machine that works day and night in the factory of Mr Amatller", Ref. 0102\_00\_1879.

# La Riojana

Fernando López (1829-1871) emigrated from his village in La Rioja to settle in Málaga. He began working in an agriculture seed warehouse and later became an apprentice in a shop selling colonial products. In 1856, at the age of 26, he decided to become an entrepreneur and started his own colonial business selling cocoa, sugar, coffee and chocolate.

Soon the rest of the family arrived, along with his three brothers who also helped in the new endeavour. Shortly after, they expanded the business and opened a factory on the outskirts of the city. They employed 25 workers and bought a steam engine that allowed them to manufacture around 900 kg of chocolate a day. They quickly established a commercial network in larger cities, with sales offices and their own warehouses in Seville and Madrid.

La Riojana claimed quality above all else, and they advertised free samples in the local press so that customers could appreciate "its taste, delicious aroma and excellent manufacturing conditions without disbursement".<sup>40</sup> The untimely death at the age of 4s of the eldest brother and founder was a hard blow to the family, and the two younger brothers, Alejo<sup>41</sup> and Gumersindo, took over the family business.

The company stood out in product innovation with the creation of acclaimed chocolate cigarettes, while combining the product portfolio with biscuits, tea and coffee. A fire in 1888 in their factory in the Trinidad district of Málaga caused a loss of 15,000 pesetas and a situation of economic destabilization that forced the López brothers to sell the company a year later (Alonso, 2020). The valuation of the sale was 71,475 pesetas and included the factory, the machinery, the registered trademark of La Riojana, as well as the family house, a horse and a carriage (Velasco, 1989, pp. 315-322).

In the following two decades, La Riojana underwent several changes in ownership and location within the city. Despite this, the company persisted in the manufacturing of chocolate, and by 1900 had an impressive 80-horsepower steam engine and approximately 80 workers. The company continued to expand, and, by 1925, it employed

<sup>&</sup>lt;sup>40</sup> Diario El Economista, 14 November 1876.

<sup>&</sup>lt;sup>41</sup> Alejo López González also went into politics, like the chocolatier Matías López; with a republican political view, he was appointed senator for Vélez-Málaga in 1875.

100 workers and produced an estimated 2,220 kg of chocolate daily.

However, La Riojana was not immune to misfortune, and a second fire in 1928 resulted in the company being acquired by Vienesa, a prominent candy manufacturer. The Spanish Civil War and the post-war period were challenging for the company, which was forced to limit its business to retail sales from its shop located in the centre of Málaga. The shop sold chocolate, candies and other groceries to its customers. Sadly, La Riojana finally closed its doors in 1973, after relocating five times within the city, including to the streets named Nueva (1856-1863), San Juan (1863-1900), Larios (1900-1925), Arriola (1925-1936) and Cisneros (1938-1975).

# La Colonial

The Madrid-based businessman Jaime Méric Saisset (1800-1888) founded a colonial products business in 1834. From its beginnings, he combined the retail sale of chocolate, sugar, coffee and tea in a shop located in the central Calle Montera, with the production of chocolate at Madrid's Tivoli factory, where a 25-horsepower steam engine powered the grinding stones to manufacture 1,300 kg per day (Coronas, 2016). Its success among Madrid's elites and registration as an official supplier to the Royal House boosted its growth.

In 1868, Méric decided to build a new factory and chose the town of Pinto, 20 km south of the capital, for its direct train links with Madrid and the port of Alicante. The new facilities consisted of 10 buildings across 10,000 m2, and taking advantage of the owner's ancestry and ties, the factory relied on French machinery. Production increased, reaching 6,300 kg per day by 1880, when there were 245 workers in the factory, including 80 women assigned to tasks that required greater manual precision, such as moulding and packaging.

In 1893, after having received up to 33 awards for its participation in international fairs, the production capacity reached 9,000 kg per day.<sup>42</sup> The company's success led to the remodelling of a building on Calle Mayor in Madrid in 1906, which would later be named Palacio de la Colonial. The Méric family commissioned architects Miguel and Pedro Mathet to carry out the renovation, which followed the Modernist style. The design combined ornamental details from the industrial field, such as the figure of the god

<sup>&</sup>lt;sup>42</sup> Diario La Justicia, 16 January 1893.

Mercury (protector of trade), with more artistic decorations such as tiles with drawings of cocoa, coffee and tea plants. The building layout consisted of a warehouse on the first floor and offices located on the second floor.

Despite its success, the company faced challenges, including a fire that occurred in 1911, which destroyed the factory's production line, and the Spanish Civil War, which had a significant impact on the company's operations. Coinciding with the third generation, in 1963 the Méric family decided to sell the company to the López Moltó agri-food group.

Production (kgs / day)			
	1850 - 1875	1875 - 1900	1900 - 1925
La Colonial	1,500	9,000	
Matías López	1,800	7,250	
La Riojana	900	4,500	2,200
Chocolates Amatller			11,400
Employees			
	1850 - 1875	1875 - 1900	1900 - 1925
La Colonial	60	245	
Matías López		500	
La Riojana	25	80	100
Chocolates Amatller		110	150
Points of Sale			
	1850 - 1875	1875 - 1900	1900 - 1925
La Colonial			
Matías López	1,000	3,000	
La Riojana		2,000	2,000
Chocolates Amatller	200	1,500	3,000

 Table 9: Indicators for Major Chocolates Manufacturers in Spain, 1850-1925

Source: Author's own elaboration using primary sources and advertisements published in the newspapers *La Vanguardia, El Liberal, El Economista, El Imparcial, La Época, Crónica de la Industria, La Iberia* (1854-1925).

# 9. Conclusions

Studies of Spain's economic history reveal a significant lack of publications on the agrifood sector, especially in comparison to textiles. Despite Spain being the gateway for cocoa into Europe and its main importer until 1860, the history of Spanish chocolate manufacturing remains largely unknown.

The mechanization of the manufacturing process of chocolate, from hand- rolling stones to steam-driven cylinders, represents an example of the industrialization of the food sector. When analysing the industrial contribution of Spain, the weight of the chocolate industry was comparable to that of soap or paper, which have received more attention from researchers than chocolate.

Spain's role as the entry point for cocoa into Europe provided Spanish chocolate makers with a competitive edge over their European counterparts. However, the processes of independence and the loss of influence of trade routes with Venezuela and Ecuador (the main origin of cocoa) caused the world leadership in cocoa imports to pass into the hands of French and British in the mid-nineteenth century. Despite the nutritional contributions of chocolate, the majority of the Spanish population continued with a subsistence diet of cereals, legumes and potatoes, while new products such as chocolate, milk and meat were slow to catch on, generally being reserved for special occasions. The industrialization of chocolate manufacturing allowed the development of small agri-food companies oriented towards processed products that could deliver added value to the market. However, the protectionist policy of Spanish authorities did not help in this drive towards industrialization, as manufacturers lacked protection from the state.

The evolution of chocolate manufacturing in Spain was similar to that of the English and French manufacturers, but Spanish chocolatiers were slower to modernize their factories. They built new production facilities far from city centres and opted for mechanization with steam mills to increase production and productivity, taking advantage of imported technology from France and Germany. This industrialization process represented a business success story exemplified by several Spanish chocolate manufacturers, such as Matías López, Amatller, La Riojana and Colonial.

In summary, Spain went from being a world leader in cocoa imports and a reference in chocolate manufacturing to becoming a follower of the major trends of British, French, German and even Swiss chocolatiers in just fifty years. The industrialization of the

chocolate manufacturing process played a crucial role in the development of the small agri-food industry in Spain, but the slow modernization of factories and the lack of state protection hindered its full potential.

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# **Chapter II**

# The Recipe to Sweet Success: Competitive Advantages for a Spanish Chocolatier, 1874-1910<sup>43</sup>

## Abstract

At the turn of the 20th century, Barcelona's industrialist bourgeoisie flaunted their wealth by commissioning opulent family residences from architects who championed the Modernist style. Among these families was a chocolatier, who highlighted their status through the iconic Casa Amatller, now a landmark of the city. The objective of this article is to examine why, when, and how a manufacturer of staple foodstuffs achieved a position of prominence alongside the nation's foremost industrial figures.

This article aims to uncover a success story in family business history, while engaging with debates in business history through the application of corporate strategy frameworks. The case study specifically focuses on the creation of competitive advantages within the third generation of the Amatller family dynasty, from 1874 to 1910, during the height of Barcelona's industrial boom. The analysis uses Michael Porter's Value Chain model (1985, 1996, 2001) to meticulously examine the emergence and maintenance of competitive advantages through a detailed assessment of each corporate activity.

Data exploration draws from an extensive corporate archive of approximately 100,000 documents. These primary sources provide an in-depth examination of value chain activities, covering inbound logistics (invoices from cocoa and sugar suppliers), operations (taxes on machinery and facilities), outbound logistics (distribution of sales points), marketing (press advertisements, collectible cards, and registered patents), and customer service (correspondence from traveling salesmen).

Keywords: competitive advantage, Porter, strategic management, chocolate.

<sup>&</sup>lt;sup>43</sup> Jou-Badal, Xavier (2024). The Recipe to Sweet Success: Competitive Advantages for a Spanish Chocolatier, 1874-1910. *Journal of Management History*. https://10.1108/JMH-05-2024-0075. SJR Q1 History, and JCR/ESCI Q4 Management. Date of acceptance: 19 September 2024.

#### 1. Introduction

As industrialization reshaped Barcelona with new factories and chimneys in the latter half of the 19th century, the local bourgeoisie eagerly showcased their progress by embracing customs of the old aristocracy. This era of opulence was evident in the construction and renovation of their residences, which were entrusted to prominent architects such as Gaudí, Domènech i Montaner, and Puig i Cadafalch, whom embraced the Modernist style. The ostentatious display of wealth became a hallmark of their business success, with many rooted in the textile industry. Family names such as Batlló, Milà, Güell, and others shone brightly among this select group of the country's leading figures. Within this exclusive cohort, a family of chocolatiers arises, the Amatller, who lent their name to one of the most celebrated buildings along the iconic Passeig de Gràcia. The objective of this article is to examine why, when, and how a manufacturer of staple foodstuffs achieved a position of prominence alongside the nation's foremost industrial figures.

Although Spain was the initial gateway for cocoa into Europe and dominated cocoa imports until the 1860s, the historical narrative of Spanish chocolatiers remains largely unexplored. In contrast, the historiography of chocolate companies has been extensively studied in other European contexts. For instance, significant scholarly attention has been directed towards British manufacturers such as Rowntree (Fitzgerald, 1989, 1995; Goodall, 1986; Jones, 1986) and Cadbury (Bradley, 2012; Fitzgerald, 2005; Jones, 1984, 1986). Switzerland's legacy of chocolate is documented through the narratives of Suchard (Huguenin, 2010; Rossfeld, 2008, 2014) and Toblerone (Chiapparino, 1998). French manufacturer Menier has been celebrated as the "chocolate cathedral of Europe" (Drouard, 2013), while German's contribution has been enhanced by the study of Sprengel (Huttenlocher, 2016). Exploring the narrative of a Spanish chocolatier would address this gap in business history and provide a more balanced and comprehensive view of the industry's development across Europe.

The aim of this research is to unravel a success story of a chocolate family business, while engaging with debates in business and management history through the application of corporate strategy frameworks (Argyres et al., 2020; Maclean et al., 2017). The methodology employs a longitudinal approach to the company's practices, departing from traditional cross-sectional business analyses, transforming static models into dynamic ones. The analysis of competitive advantage adheres to Michael Porter's model within the Value Chain (1985), and his subsequent revisions (1996, 2001), examining how
advantages emerged and sustained through an in-depth evaluation of each corporate activity.

The case study concentrates on the development of competitive advantages within a family-owned company, specifically examining the success of the third generation from 1874 to 1910. This period, bridging the late nineteenth century and early twentieth centuries, is recognized in international studies as a booming era in the industrialization of chocolate (Clarence-Smith, 2000; Coe & Coe, 1996). For Chocolates Amatller, these years were also characterized by significant milestones, including the construction of a modern factory (1874), substantial increases in sales attributed to successful marketing strategies, and the construction of the emblematic family residence (1898).

Ultimately, this article aims to contribute to the fields of business and management history by using historical research methods to empirically test theories concerning corporate strategy (Perchard et al., 2017) and to explore the factors driving the success and longevity of family-run enterprises (Chrisman, et al. 2005; Colli & Fernández-Pérez, 2013, 2020; Miller, & Le Breton, 2005).

#### 2. Methods & Competitive Advantage

The study of business history inherently explores the evolution of companies and organizational management over time. Early pre-Chandler scholars displayed a keen interest in understanding the mechanisms behind corporate success, defining business history as the examination of coordinated efforts undertaken in the pursuit of profits (Gras, 1944) or the exploration of vicarious business experiences (Larson, 1947). Current debates among scholars centre around the future challenges and the necessity of reuniting with strategic management—a path that had, over time, drifted apart (Lamberg et al., 2022). There is a consensus is on the need to reintegrate theoretical strategic frameworks back into business history (Ghemawat 2002, 2016; Vaara and Lamberg 2016), potentially capitalizing on the longitudinal expertise of historians to enrich history-informed strategy research (Argyres et al., 2020).

This reintegration calls into question fundamental issues in strategic management, once identified in 1994 as "what determines a company's success?" (Teece et al., 1994). Over twenty years later, revisiting the same research question, Teece (2020) reaffirmed that the

primary objective of strategic management should remain understanding how firms build and sustain competitive advantages. To achieve this, companies must enhance their dynamic capabilities to effectively create and deliver value (Teece et al., 1997), ensuring efficient conversion of customer transactions into profits (Teece, 2010).

The term "competitive advantage" has seen significant use in academic journals from 1985 to 2024, particularly in the field of strategic management. Initially defined by Porter in 1980 and Barney in 1991, the term now features in over 1,000 article titles and nearly 10,000 topic mentions according to the Web of Science. Despite its prevalence in broader academic discussions, the term remains notably underrepresented in business and management history themed journals, with only 17 articles focusing on competitive advantage over the last decade (Jou-Badal and Fernández-De Sevilla, 2024)<sup>44</sup>. This dichotomy prompts reflection on a plausible narrative of disconnect between the disciplines, yet also unveils a prospect opportunity to reconnect them.

The methodology of sourcing competitive advantage encompasses a broad spectrum of conceptual factors. Barney's approach within the Resource-Based View (RBV) posits that competitive advantage arises from utilizing unique resources and capabilities that are valuable, rare, and difficult to imitate. In contrast, Porter's Value Chain model contends that competitive advantage cannot be understood by examining a firm as a whole. Instead, it suggests that each specific activity—whether in logistics, marketing, or R&D—must be assessed individually to contribute to the company's profitability. Conversely, Teece's dynamic capabilities refer to a firm's ability to systematically adapt and renew its resources and competencies in response to a rapidly changing environment. All these frameworks aim to explain how a company can achieve superior performance relative to its competitors, collectively emphasizing the importance of leveraging internal competencies into strategic advances.

While business historians have advocated for integrating strategic management and longitudinal frameworks into the discipline, the focus has predominantly been on theoretical articles that explore incorporating approaches such as the Resource-Based View (Lockett and Wild, 2014) and Dynamic Capabilities (Wadhwani and Jones, 2017). However, this article aims to underscore the importance of strategic frameworks within

<sup>&</sup>lt;sup>44</sup> The search encompasses the following journals: Business History, Business History Review, Enterprise and Society, Journal of Management History, Management and Organizational History, and Industrial and Corporate Change.

business and management history through a case study approach. This research utilizes Michael Porter's Value Chain (figure 1), a widely taught frameworks in business schools (David et al., 2021), demonstrating its applicability and potential to bridge business and management history back to strategic management.



Figure 1: Michel Porter's Generic Value Chain Framework

This case study extensively employs the Archive Chocolates Amatller (ACA), which houses over 100,000 company documents, offering a rich repository of both quantitative records —including accounting books, inventories, and invoices— and qualitative sources primarily comprising commercial correspondence. These documents span the company's operations from 1797 to 1960, with a particular emphasis on the third generation from 1874 to 1910 (the focal point of this research). Archival research has proven effective to the study of business and management (Forbes & Kirsch, 2011; Tennent & Gillett, 2023), aiding the identification of key actors in organizational development (Kipping & Üsdiken, 2014) and understanding the context of continuity and change (Tennent, 2021), it may also encounter limitations. These challenges may arise due to selective preservation and inherent gaps in historical records, which reflect the selectivity and occasional omissions within the archives (Decker, 2013). For instance, the archive only retains commercial letters received, not those sent to clients; and accounting ledgers are available only from 1873 to 1899, excluding the final decade of the third generation's activities.

To mitigate these potential limitations, this research incorporates secondary sources and the consultation of additional archives, including *Arxiu Històric de Barcelona*, *Arxiu de la Corona d'Aragó, Anuario Estadístico de la Contribución Industrial*, and *Archivo Histórico de Patentes y Marcas*. Additionally, an extensive review was conducted in the

Source: Porter, 1985.

digital library of the *Biblioteca Nacional de España*, focusing on Spanish newspapers from 1850 to 1925, including *La Vanguardia, Diario de Barcelona, El País, La Iberia, El Economista*, and *Diario Liberal*. This multidimensional approach not only compensates for the missing data in the Archive Chocolates Amatller but also enables a comparative analysis of Spanish chocolatiers during the designated period.

The use of both primary and secondary sources enables an in-depth examination of the chocolatier's value chain activities, covering corporate activities, such as inbound logistics (evidenced by invoices from cocoa and sugar suppliers), operations (inventories and taxes), marketing (advertisements and trademark registrations), and infrastructure capabilities (company's capital records). The methodology of the case study research employs a sequential historical analysis. Concentrating on this specific case facilitates a deeper investigation and enriches the understanding of its historical context (Dyer & Wilkins, 1991), while emphasising its distinctive circumstances and specificity (Popp & Holt, 2013). thereby enriching the understanding of organizational studies (Wadhwani and Bucheli, 2014).

Case study methodology is valued in management research for providing rich, empirical descriptions of specific phenomena and leveraging on a diverse array of data sources (Eisenhardt, 1989; Dyer & Wilkins, 1991; Yin, 1994; Baxter & Jack, 2008). Its focus on contextual distinctiveness enables the generation of deep insights into the intricacies and complexities of individual and organizational behaviours (Miskell, 2018). This approach also supports the development of constructs and measures to enhance the rigor of inductive research (Eisenhard & Grabner, 2007). Moreover, the detailed examination inherent in case studies contributes to both the construction and validation of theoretical frameworks (Eisenhardt, 1989; Yin, 1994), thereby underscoring the methodology's substantial value in research application.

The primary limitations of case study research stem from its inherent methodology. An intensive reliance on empirical evidence may hinder the clarity and conciseness of reported findings (Eisenhardt, 1989). Additionally, difficulties in summarizing and extrapolating can compromise their broader application (Baxter & Jack, 2008) and pose significant challenges in generalizing from specific instances to broader theoretical contributions (Yin, 1994). Consequently, these limitations often render case studies more effective for hypothesis generation than for expansive theoretical development (Flyvbjerg, 2006).

#### 3. Chocolate manufacturing in Spain

Spain had positioned itself as the primary gateway for cocoa into Europe, leveraging on exclusive trade agreements with its Latin American colonies. However, with the independence of the principal cocoa-producing regions —Venezuela and Ecuador, Spain's control over these vital trade routes diminished, eroding its long-lasting trade advantage. In the early 1800s, despite these geopolitical shifts, Spanish cocoa imports experienced robust growth, climbing from 4,000 tonnes annually in the early 1830s to over 7,000 tonnes by 1860 (Prados de la Escosura, 1982), marking Spain's zenith in the global cocoa market.

During the 1870s, Spanish imports declined back to 4,000 tonnes, as France, Britain, and Germany began to significantly close the gap. These nations adopted liberal trade policies and capitalized on internal technological advancements, which in turn increased the demand for raw materials and enhanced their import capacities. By the end of the century, Britain had become the leading cocoa importer with 20,000 tonnes annually, while France reached 18,000 tonnes (Clarence-Smith, 2000). Germany, initially slower to react, eventually caught up, achieving import levels comparable to its British and French counterparts.

Spain influence in the cocoa market faced a major downturn. Cocoa imports had stagnated, remaining around 5,000 tonnes in 1900—a figure reminiscent of the mid-1850s. This evidenced the country's reliance on outdated practices and was further exacerbated by protectionist policies that discouraged innovation and competitiveness (Jou-Badal, 2024a).

From the seventeenth to the early nineteenth century, chocolate production and commercialization in Spain were tightly controlled by guilds, particularly in Catalonia. The system was dominated by two main Barcelona-based guilds: the shopkeepers, known locally as adroguers, which exclusively handled the imports and sale of colonial products like cocoa, sugar and cinnamon; and the chocolate grinders', artisans who crafted chocolate in their workshops or directly in the homes of affluent families (Martí Escayol, 2004, p. 47). Deeply embedded in this monopolistic landscape, Gabriel Amatller, originating from a rural upbringing in Molins de Rei and the youngest of eight, used his forced heirship to join the grinders guild. The earliest company records, dating from April 1797, show purchases of Caracas cocoa and Dutch cinnamon. Gabriel swiftly expanded

his offerings, commercializing essential chocolate ingredients such as pepper, cinnamon, and sugar, thereby broadening his market reach to include neighbouring areas and major cities like Valencia and Zaragoza. By 1823, the Barcelona cadastre reflected a tenfold increase in capital since his arrival, establishing him as the wealthiest of over 101 registered chocolatiers in the city.<sup>45</sup>

Gabriel passed away in 1830, leaving the business in the hands of his sons, Antoni and Domingo Amatller. Their tenure coincided with the Royal Statute of 1834, ushering the freedom of industry and deregulating guilds. Despite opening the doors to widespread entrepreneurial activity, the sector remained dominated by former guild members and slow to industrialize, with many chocolatiers persisting with traditional methods, such as manually grinding chocolate on their knees and eschewing modern equipment (Clarence-Smith, 2000, p. 70). The Amatller brothers prioritized the lucrative trade market of colonials, becoming the 22nd leading merchants in Barcelona by 1848 (Blasco-Martel, 2009, p. 76).

Chocolate manufacturers began emerging across Spain, transforming Madrid into a hub for chocolatiers. Matías López, after learning the trade as shopkeeper, opened his workshop in 1851 on a mission to make chocolate affordable to all social groups (Blázquez, 2018). His popularity soared, eventually leading to his election as a senator. In close temporal proximity, Jaime Méric, leveraging his French ancestry, founded La Colonial in 1854. The company soon earned the distinction of being the official supplier to the Royal House and the preferred choice among the city's elites (Coronas, 2016). Meanwhile, La Riojana was founded in Málaga by Fernando López and his brothers, who initially also apprenticed in a colonial-specialized shop, and quickly extended their operations also opening a shop in Madrid (Alonso, 2020).

Back in Barcelona, Chocolates Amatller was celebrating its 75th anniversary when the third generation arrived in 1874. After visiting chocolate factories in France and Switzerland, Antoni Amatller-Ràfols transformed the company in a comprehensive way; he built a modern factory and created a distinctive chocolate brand. This specialization entailed moving away from the colonial trade, mirroring trends among other European chocolate manufacturers (Jones, 1986, pp. 97-98). As the century turned, Amatller's effective marketing campaigns and transport innovations allowed the company to expand

<sup>&</sup>lt;sup>45</sup> Arxiu Històric de Barcelona, IX-10, pp. 104-110.

across the Spanish territory.

However, the modernization of Spain's chocolate factories lagged behind other European nations. Over a span of fifty years, Spain went from being a world leader in cocoa imports and a benchmark in chocolate manufacturing to following the trends of English, German, and Swiss chocolatiers (Coe and Coe, 1996, p. 250). Backed by Spain's protectionist tariffs, domestic chocolate manufacturers were shielded from foreign competitors. While exports among European partners were minimal, the presence of international brands in Spain was insignificant. Suchard only entered the market through a distribution agreement in 1907, while Nestlé, despite establishing his first Spanish factory in 1905, did not begin producing chocolate until the late 1920s (Rossfeld, 2008, p. 740).

In 1910 Antoni Amatller died and passed the baton to his only daughter Teresa. During her time, the brand continued investing in the modernization of the factory, which went from one to three floors. With the start of the Spanish Civil War (1936), the company was collectivized, and Teresa left for Italy. Upon her return, she regained control of the company until her death in 1960. After passing through several hands, the business was bought by local chocolate maker Simon Coll in 1972, who has maintained the original brand to this day to market his range of premium chocolate.

#### 4. Primary Activities

#### **Inbound Logistics**

The acquisition of raw materials stands as a crucial component in the chocolate supply chain, where cocoa, though indispensable, cannot be cultivated in Europe. In an era where bean-to-bar practices<sup>46</sup> were rare and only adopted by large international firms like Menier and Cadbury (Clarence-Smith, 2000, pp. 72-75), manufacturers depended on intermediaries for their supply. Nonetheless, some managed to bypass and directly import large cargo shipments from origins. Ecuador and Venezuela became Spain's foremost suppliers, providing almost 80% of Spain's cocoa imports until the 1880s (Jou-Badal, 2024a, p. 131).

<sup>&</sup>lt;sup>46</sup> Vertically integrated approach in which the chocolate manufacturer directly owns and controls the entire supply chain, from collaborating with farmers in the cultivation of cocoa beans to producing the final chocolate product.

As Europe witnessed an explosive growth in cocoa demand, the Spanish government saw an opportunity to boost national revenue by levying substantial tariffs. This fiscal policy resulted in Spanish chocolatiers facing rates three times higher than those in neighboring countries, sparking widespread dissent, and promoting manufacturers to seek alternatives sources from markets in London, Marseille, and Hamburg. Meanwhile, Spain's new territory of Equatorial Guinea emerged as a potential source for cultivation. Although of lesser quality, the cocoa from Fernando Poo benefited from preferential tariffs and offered a more cost-effective option, which shifted the origin of Spain's cocoa imports as the new century dawned (Sant-Gisbert, 2018, p. 138).

During the second generation at Amatller, the brothers pioneered the direct importation of commodities, as detailed in shipping manifests for Venezuelan cocoa and Cuban sugar, reflecting an initial enhancement in supply chain operations.<sup>47</sup> Under Antoni's subsequent leadership, the practice of direct sourcing gained substantial momentum, evidenced by local newspaper reports of import cargo shipments arriving at Barcelona's port, with at least 11 recorded in the 1870s, a number that doubled in the following decade.<sup>48</sup>

This expansion in direct sourcing can be partly attributed to advancements in communication technologies which facilitated a globalized trade for primary products. In line with these advancements, Amatller established a network of permanent sourcing agents stationed at trade hubs, particularly in Great Britain. In 1873, the company forged partnership with Pons&Cia, a Catalan trading firm based in London. <sup>49</sup> The strengthening of this network continued with the enlistment of the British agency Lemonius,<sup>50</sup> which provided regular updates via telegraph on cocoa price fluctuations between Liverpool and London. By 1888, a third commodities trading agency, Ruffer & Sons rose as the primary supplier of Amatller's imports, demonstrating a sourcing strategy adept at navigating in global market trends. <sup>51</sup>

<sup>&</sup>lt;sup>47</sup> Archive Chocolates Amatller, commercial correspondence 1868-1872.

<sup>&</sup>lt;sup>48</sup> La Vanguardia, 1870-1890.

<sup>&</sup>lt;sup>49</sup> Archive Chocolates Amatller, Accounting General Ledger 1873.

<sup>&</sup>lt;sup>50</sup> Archive Chocolates Amatller, commercial correspondence March and May 1885.

<sup>&</sup>lt;sup>51</sup> Archive Chocolates Amatller, Accounting Daily Ledger, 31 December 1888.



**Figure 2:** Evolution of Raw Material Prices for Chocolate Manufacturing, 1874 – 1910, peseta<sup>52</sup> / kilogram)

Source: Own elaboration using data for Amatller prices (*Archive Chocolates Amatller*, commercial correspondence and accounting ledgers); Barcelona market prices, *Diario de Barcelona*.

A comparative analysis of Amatller's purchasing records for cocoa and sugar, derived from archival invoices and accounting books, and compared with the weekly wholesale market prices published in the *Diario de Barcelona* newspaper, provides a methodological approach to identifying potential competitive advantages in inbound logistics (Figure 2). From 1874 to 1910, the price of Caracas cocoa displayed a consistent upward trend in the Barcelona market, starting at 3.96 pesetas per kilogram and peaking at 4.77. This cocoa type, being the most expensive raw material for chocolate production, exhibited a long-term increase with periodic market fluctuations. From the onset, Amatller managed to procure this cocoa at prices lower than those listed in the wholesale market. Initially securing a 5% cost advantage during the 1870s, this benefit increased to over 20% in the 1880s, averaging a 14% better rate throughout the third generation. Cacao Guayaquil, serving as Amatller's mid-range staple until the 1890s, followed a similar

<sup>&</sup>lt;sup>52</sup> Prices have been deflated to 1900 peseta using GDP deflator (Prados de la Escosura, 2017)

price trajectory, though with more pronounced fluctuations. These market dynamics might have difficulted the sourcing, yet the company often obtained more competitive rates than the market, albeit with a narrower margin, maintaining an average price advantage of 5%. The introduction of cocoa from Fernando Poo offered a new affordable alternative, priced up to 40% less than Guayaquil and over 60% lower than Caracas. The ownership of these plantations by the Catalan elite reduced reliance on unpredictable international markets (Sant-Gisbert, 2018). Capitalizing on this opportunity, Amatller achieved the most significant price differential, securing a 22% cost advantage compared to market rates.

Sugar, a complementary ingredient in chocolate manufacturing, was primarily sourced from Cuba. Antoni maintained partnerships for direct imports from Matanzas and La Habana until the loss of the colony.<sup>53</sup> Sugar prices, substantially lower than cocoa —often only a quarter of the cost—remained stable. While the company occasionally managed to source sugar below market rates, it was more common for purchases to be at par or even at a premium. On average, the company's sugar acquisitions were 5% more expensive than the prevailing market prices.

The sourcing strategies for raw materials at Amatller underscore a competitive advantage in inbound logistics. Firstly, direct importing, as evidenced by an increasing number of shipping manifests from Latin America, enabled the company to bypass intermediaries and potentially leveraging economies of scale to reduce costs. Secondly, partnerships with European wholesalers and trading agencies such as Pons&Cia, and later Lemonius and Ruffer&Sons, provided complementary sourcing points for cocoa and timely market data via telegraph, enabling informed purchasing decisions at optimal prices. As a result, Amatller consistently procured cocoa at prices below market rates, achieving an average cost advantage of 11% during the third generation. This demonstrates the attainment of competitive advantage, affirming a superior market position through minimized costs and diversified cocoa sourcing.

<sup>&</sup>lt;sup>53</sup> Archive Chocolates Amatller, commercial correspondence and Accounting General Ledgers, 1880-1910.

### **Operations**

The operations activity transforms raw of inputs into outputs, with cocoa beans undergoing several stages of food processing until becoming chocolate. A widespread adoption of modern machinery for grinding and refining occurred during the second half of the nineteenth century in newly established modern chocolate factories across Europe, including Menier (1860-72), Cadbury (1878), Rowntree (1890), and in Spain, La Colonial (1868), Matías López (1874) and Amatller (1879). These developments allowed for a technological shift in production; a chocolate worker who could produce up to 6 kg at the start of the 1800s, could manage 40 kg per day by mid-century, and up to 500 kg daily by the century's end (Clarence-Smith, 2000, pp. 67-68).

From the outset of his leadership, Antoni was committed to advancing the company. In his second year (1875), he allocated 86,629 pesetas towards the development of a new modern factory.<sup>54</sup> Prior to this, the facilities were based in the heart of Barcelona, with factory assets valued merely at 5,495 pesetas.<sup>55</sup> The new facility was constructed in Sant Martí de Provençals, an emerging district originally home to textile manufacturers, which gradually developed into a robust hub for the food industry, accommodating Spain's largest flour mill, several distillery companies, as well as biscuit and noodle factories (Nadal and Tafunell, 1992).

The facilities inaugurated in 1879 embraced advanced grinding cylinders: one with a 46dm2 surface area powered by a 10hp motor, and a larger one exceeding 60dm2, driven by a 35hp motor.<sup>56</sup> To support these, Amatller acquired a new steam engine to upgrade the energy supply. Beyond merely grinding cocoa, the company was attuned to new technology opportunities. After a trip to France, Antoni returned with a cocoa mixing machine in 1882, acquired from the Breyère Frères.<sup>57</sup> Its primary function was to blend cocoa paste with sugar and cinnamon, resulting in a finer, and less bitter chocolate.

To accommodate its expanding operations, the factory underwent further development in

<sup>&</sup>lt;sup>54</sup> Archive Chocolates Amatller, Accounting Daily Ledger, 31 December 1875.

<sup>&</sup>lt;sup>55</sup> Archive Chocolates Amatller, Accounting Daily Ledger, 31 December 1873.

<sup>&</sup>lt;sup>56</sup> Archive Chocolates Amatller, Accounting General Ledgers and commercial invoices, 1877-1879.

<sup>&</sup>lt;sup>57</sup> Archive Chocolates Amatller, commercial letter dated from 13 February 1882.

1888 with the addition of an extra floor.<sup>58</sup> Once the space became available, Amatller invested 8,676 pesetas in a lithographic machine from Gaffuri & Gatti in Bergamo<sup>59</sup>, Italy, for producing collective cards and calendars, key to the new marketing strategy. Additionally, the new space facilitated of a machine to address one of Barcelona's foremost climatic challenges—preserving chocolate's integrity during the summer months. The solution came with the Raoul Pictet Machine, named after the Swiss inventor renowned for his work in nitrogen liquefaction. In 1890, they imported an ice machine valued at 31,919 pesetas, accounting for 20% of the company's total machinery assets.<sup>60</sup>

The sequence of innovation among Spanish manufacturers can be traced through the yearbooks Anuario Estadístico de la Contribución Industrial (AECI), first published in 1857. This annuary categorized taxpayers by province and activity, focusing on their production means-mills, cylinders, etc.-rather than products manufactured or revenue. Taxes were assessed on the quantity and size of production equipment, with higher taxes levied on larger and more mechanized machinery. Integrating Amatller's data into this context (Table 1) highlights the modest beginnings of the company with an initial industrial contribution of 306 pesetas.<sup>61</sup> Notably, at the onset of his generation, the tax obligations as traders were eight times higher than their taxes as chocolatiers, indicating a stronger orientation towards trading rather than manufacturing. Following the factory's modernization, there was a steadfast upward trajectory in tax obligations as chocolatiers, rising from 608 pesetas in 1884.<sup>62</sup> 1,408 pesetas in 1894.<sup>63</sup> reaching 2,380 pesetas by 1898,<sup>64</sup> and culminating a peak of 2,880 in 1910,<sup>65</sup> Amatller's foray into mechanization coincided with a comparative increase in its proportion of the total tax revenue from Barcelona chocolatiers. Initially capturing a modest 2% share, the figure rose to 4% in the early 1880s, eventually reaching 13% and securing the highest market share among

<sup>&</sup>lt;sup>58</sup> Arxiu Històric de Barcelona, construction permit, ref. 0895\_00\_1886.

<sup>&</sup>lt;sup>59</sup> Archive Chocolates Amatller, Commercial correspondence from 1886 and Accounting Daily Ledger 1888.

<sup>&</sup>lt;sup>60</sup> Archive Chocolates Amatller, Accounting General Ledger 1890.

<sup>&</sup>lt;sup>61</sup> Arxiu de la Corona d'Aragó, Industrial Taxes 1857, ref. Hac16610.

<sup>&</sup>lt;sup>62</sup> Arxiu de la Corona d'Aragó, Industrial Taxes 1884, ref. Hac16613.

<sup>&</sup>lt;sup>63</sup> Arxiu de la Corona d'Aragó, Industrial Taxes 1894, ref. Hac12644.

<sup>&</sup>lt;sup>64</sup> Arxiu de la Corona d'Aragó, Industrial Taxes 1898, ref. Hac12646.

<sup>&</sup>lt;sup>65</sup> Arxiu de la Corona d'Aragó, Industrial Taxes 1898, ref. Hac12658.

the region's chocolate producers.<sup>66</sup>

However, the broader Spanish market presented a more complex picture. While in the 1870s and 1880s Amatller only held a 1% share of the total tax revenue, this share modestly increased to 3% nationally by 1910. The proliferation of small workshops and medium-sized factories, coupled with the expansion of Madrid's chocolatiers, presented significant competition. Consequently, while Amatller's influence in Barcelona was unmatched, its impact on the overall Spanish chocolate landscape of was less pronounced compared to that of Madrid's manufacturers.

		% Tax	% Tax				
	Industrial	revenue	revenue	Accounting			
	contribution	choc.	choc.	Value	Machinery Description		
	(pesetas)	makers	makers	(pesetas)			
		Barcelona	Spain				
1871-1875	306	2%	1%	5.495	➢ 1x 46dm2 10hp		
1876-1880	-	-	-	48.348	mechanical cylinder mill		
1881-1885	690	4%	1%	99.655	1x mechanical cylinder		
1886-1890	-	-	-	115.364	mill of +60dm2 of 35hp		
1891-1895	1.408	-	-	156.810	➢ 2x presses		
1896-1900	2.380	9%	2%	155.723	> 1x mixer		
1901-1905	-	-	-	-	> 1x ice maker machine		
1906-1910	2.880	13%	3%	-	> 1x lithographic machine		

 Table 1: Factory Machinery at Chocolates Amatller, 1871 - 1910

Source: Own elaboration using Industrial Contribution Taxes (Anuario Estadístico de la Contribución Industrial), Barcelona's Taxpayers Information (Arxiu Corona d'Aragó), and Machinery Description (Archive Chocolates Amatller)

In 1874, Matías López expanded by acquiring a sugar factory in El Escorial, equipping it with French grinders, mixers, and 76 horsepower from three steam engines across a 6,500-square-meter site that included housing, a school, and a church. This facility contributed 30,000 pesetas in industrial taxes, including its trading duties (López, 1875). Similarly, La Colonial reported an industrial tax contribution of 18,000 pesetas. Emulating López, Méric established a 10,000 square meter factory outside central Madrid

<sup>&</sup>lt;sup>66</sup> Anuario Estadístico de la Contribución Industrial, yearbooks 1871-1910.

with a 25-horsepower engine, boosting production from 4,000 kg to 7,500 kg by 1880.<sup>67</sup> La Riojana,was the first in Southern Spain to use steam engines in chocolate production. However, a devastating fire in 1888 forced the López brothers to sell their business for 71,475 pesetas, a sum reflecting 1% of Amatller's assets and double the cost of an ice machine Antoni had recently purchased (Alonso, 2020).

Throughout its tenure, Antoni Amatller was committed to enhancing operational systems by incorporating modern and imported machinery. The new factory helped the company keep pace with industry standards, but it primarily provided a competitive advantage within the markets of Barcelona and Eastern Spain only. Despite these advancements, Amatller struggled to scale operations sufficiently to rival the industrial prowess and market reach of its Madrid-based competitors. This limitation remained a persistent barrier, preventing the company from gaining a true competitive advantage on operations for a national scale and hindering deeper market penetration.

#### **Outbound logistics**

In the late 18th and early 19th centuries, Spain's internal market faced significant logistical challenges that impeded the free movement of goods across its territories. Institutional obstacles such as a variety of tolls, tariffs, and even the persistence of domestic customs borders led to poorly integrated regional markets (Simpson, 1995, p. 201). Significant advances in the second half of the nineteenth century dramatically transformed Spain's internal commerce. This period saw a series of institutional reforms by liberal governments, which standardized currencies, weights, and measures across regions and led to the elimination of internal tariffs (Martinez-Galarraga et al., 2015, pp. 338-340). Furthermore, the railway network underwent significant expansion beginning in 1855, initially focusing on linking Spain's major economic hubs and subsequently extending to peripheral regions (Herranz-Loncán, 2004, pp. 26-30). Enhanced transportation and standardized regulations enabled firms like Amatller to distribute their products more effectively throughout Spain, solidifying their presence in the market.

By the early 1870s, during the concluding years of the second generation, the commercial network had remained its focus on Eastern Spain, maintaining the reach since the

<sup>&</sup>lt;sup>67</sup> Revista Escenas Contemporáneas, 01-1882

company's inception. The sales infrastructure comprised over twenty external sales representatives stationed in Catalonia, who were tasked with visiting resellers and submitting reports detailing commercial orders directly to the company's proprietors. In urban centres farther to Barcelona, such as Zaragoza, Valencia, and Mallorca, Amatller had placed wholesalers with managing stock and overseeing smaller points of sale within those regions. Despite these efforts, the company's predominant emphasis on colonial goods, coupled with the challenges posed by an inadequately integrated Spanish market, resulted in a network of merely 200 resellers.<sup>68</sup> This figure was markedly less than Matías López, whose chocolate-centred operations encompassed over 1,000 retail outlets during the same period (López, 1875).

The transformation of logistics began anew under Antoni, who capitalized on the exogenous factors of the national market integration to propel the commercial expansion. In 1883, the sales team was supported by more than eighty representatives across Spain, serving both specialized colonial retailers and grocery stores. The third generation expanded from operating in 7 provinces to 30 (Figure 3), aided by the new train infrastructure in Spain, thereby strengthening its commercial reach, especially along the Mediterranean coast.<sup>69</sup> In 1887, the company strategically established its presence in Madrid, which included a company-owned warehouse and achieved thirty resellers in Madrid that year alone.<sup>70</sup>





Source: Archive Chocolates Amatller, Accounts Receivable in General Ledgers, 1874-1925

<sup>&</sup>lt;sup>68</sup> Archive Chocolates Amatller, Accounting General Ledger 1875.

<sup>&</sup>lt;sup>69</sup> Archive Chocolates Amatller, Accounts Receivable in Accounting General Ledger 1873-1899.

<sup>&</sup>lt;sup>70</sup> Diario de Barcelona, 4 July 1887.

By the end of Antoni's tenure, the company had internalized part of its sales force, directly employing eight travellers to ensure greater control in its sales processes. Complemented by a network of 50 external representatives, the points of sale surged to 1,500, significantly increasing the visibility across the eastern, central, and southern regions.<sup>71</sup> Despite these advancements, the northern markets remained challenging. Madrid-based chocolatier Matias Lopez continued to dominate the national market with 3,000 sales points,<sup>72</sup> while La Riojana maintained a strong presence with 2,000, just edging out Amatller.<sup>73</sup>

The consolidation of national distribution was only achieved with the fourth generation. Following Antoni's death, Chocolates Amatller bolstered its southern presence by opening two warehouses in Andalucía, Sevilla, and Málaga, along with new depots in Alicante, Valencia and Murcia, totalling eight logistic facilities by 1935.<sup>74</sup> This expansion enabled the company to double its sales points to 3,000 from those during Antoni's era and fourteenfold from the second generation.<sup>75</sup>

Throughout much of its history, the Amatller family contended with the fragmented Spanish market, which confined their distribution to regional scopes until the latter half of the 19th century. While Madrid-based chocolatiers quickly expanded nationwide, during Antoni's leadership the company was still amid its transformation. This shift encompassed the reorganization of the sales team, coordinating new representatives for areas where now goods could be distributed by train, and opening the first Amatlleroperated warehouse in Madrid. However, hints of competitive advantage in outbound logistics only emerged in Teresa's tenure, when the company ultimately surpassed the sales points of Madrid manufacturers.

## Marketing

Marketing has long been recognized by business historians as a fundamental element in

<sup>&</sup>lt;sup>71</sup> Archive Chocolates Amatller, Accounts Receivable in Accounting General Ledger 1899.

<sup>&</sup>lt;sup>72</sup> *El País*, 13 September 1912.

<sup>&</sup>lt;sup>73</sup> El País, 5 August 1907.

<sup>&</sup>lt;sup>74</sup> Archive Chocolates Amatller, Inventories, 1935.

<sup>&</sup>lt;sup>75</sup> Archive Chocolates Amatller, Accounts Receivable in Accounting General Ledger 1936.

understanding how companies achieve success (Wilkins, 1992; Lopes, 2019). Since the mid-nineteenth century, these strategies became increasingly relevant, particularly for entrepreneurs in the consumer goods sector (Church, 1999). In the chocolate industry, numerous studies have focused on brand promotion to examine the failures and successes of British chocolatiers, supporting the hypothesis that effective branding alone could significantly enhance a company's market presence and drive its success (Fitzgerald, 1995, 2005; French, 2017).

As print advertising in Spain intensified with the rise and consolidation of newspapers after the 1870s (Fernández-Poyatos and Feliu-García, 2012), Madrid chocolatiers saw an opportunity and ramped up their marketing efforts (Table 2). Matías López and La Colonial launched extensive advertising campaigns, publishing hundreds of advertisements each year, proclaiming their modern factories, and the prestigious awards received from the royal family.<sup>76</sup> Amatller, in contrast, did not capitalize on this medium until 1887, when the company expanded to Madrid. That year, it launched a vigorous campaign, placing 54 advertisements in national newspapers.<sup>77</sup> However, their efforts soon waned, leaving them trailing behind competitors. Amatller's publicity remained focused only in Barcelona press, emphasizing their regional superiority.

**Table 2**: Press Advertisements in Newspapers (A) and Trademark Registrations (B) of

 Chocolate Manufacturers in Spain, 1870-1910

	Amatller		La Colonial		La Riojana		Matías López		Suchard	
	А	В	А	В	А	В	А	В	А	В
1870-1885	1	3	1.473	3	215	-	6.382	2	-	-
1886-1900	80	-	2.573	-	220	-	7.679	2	44	2
1901-1910	63	21	251	9	25	-	1.938	16	59	-
TOTAL	144	24	4.297	12	460	0	15.998	20	103	2
Barcelona press*	91		24		14		45		0	

Source: Own elaboration using data for Advertisements (*Biblioteca Nacional de España, Digital Archive*); Trademarks (*Archivo Histórico de Patentes y Marcas*, Saiz et al., 2008)

<sup>&</sup>lt;sup>76</sup> Biblioteca Nacional de España, Digital Archive, 1850-1936

<sup>&</sup>lt;sup>77</sup> Diario Liberal, El País, April – July 1884.

Despite adopting a more subdued approach to printed advertising, Amatller stood out significantly in trademark registration—a domain in which Catalan companies, especially those in the food sector, demonstrated excellence (Sáiz and Fernández Pérez, 2012, pp. 253-256). Amatller secured 24 trademark registrations (Table 2), more than any other chocolatier, registering variations of the word chocolate and the family name along with numerous images for packaging.<sup>78</sup>

Advertising posters became a trend that significantly influenced consumer behaviors. In Spain, Matías López pioneered this movement with the country's first promotional poster in 1871. This strategy also caught on with international chocolatiers, as seen with Chocolat Menier, whose visuals were created by Bouisset in 1893 (Fitzgerald, 1995, p. 21). Amatller entered the fray somewhat later but made a distinctive mark by commissioning Czech artist Alphonse Mucha, a luminary of the Art Nouveau movement. His creations for Amatller, produced in 1899, 1900, and 1901, raised the aesthetic bar for promotional art and remain celebrated today as quintessential examples of the era's illustrated advertisements.<sup>79</sup>

Trading cards also became an effective marketing tool, appealing to consumers with a penchant for collecting. Originating in France as *cartes-reclame*, Poulain was the first chocolatier to utilize them in 1884 (Duggan, 2023, pp. 2-4). Amatller quickly adopted this strategy the following year, leveraging his contacts with French and Italian printers.<sup>80</sup> In 1888, he enhanced these capabilities by importing a lithographic machine. The production volume of trading cards grew exponentially, reflecting their popularity among chocolate enthusiasts: from 15,000 cards in 1885 to 285,000 in 1888, 1,276,000 in 1896, and 2,334,000 by 1899.<sup>81</sup>

Despite Amatller's initial reticence toward printed advertising, their subsequent focus on alternative promotional avenues yielded a significant competitive advantage. By prioritizing trademark registration and pioneering innovative marketing tools, Amatller not only differentiated its brand aesthetically but also targeted potential customers more directly, moving beyond the broad audience reached by newspapers. These deliberate

<sup>&</sup>lt;sup>78</sup> Archivo Histórico de Patentes y Marcas, Database search from 1850-1940.

<sup>&</sup>lt;sup>79</sup> Archive Chocolates Amatller, commercial correspondence and inventories, 1898-1901.

<sup>&</sup>lt;sup>80</sup> Archive Chocolates Amatller, Accounting General Ledger and Inventories, 1885.

<sup>&</sup>lt;sup>81</sup> Archive Chocolates Amatller, Inventories, 1885-1899.

strategies, including the adoption of trading cards and the commissioning of artful posters by Alphonse Mucha, were not merely diversions; they represented a sophisticated approach to cultivating a distinctive brand identity and fostering consumer recognition.

## Service

Service transcends traditional market offerings, becoming a crucial component of value creation (Edvardsson et al., 2005). Chocolate manufacturers realized that securing long-term customer loyalty necessitated a balance between managing of raw materials, production costs, and the unwavering commitment to high product quality (Fitzgerald, 1989). Nonetheless, the strategies employed by chocolatiers often masked underlying issues of quality control. The practice of adulteration in foodstuffs, including chocolate, was widespread throughout Europe in the 19th century, posing a threat with poor quality of life in overcrowded cities (Collins, 1993). Historians have long scrutinized the standards of Spanish chocolate, tracing concerns over its quality back to the era of the guilds and continuing to question adulteration practices well into the twentieth century (Coe and Coe, 1996, p. 253; Clarence-Smith, 2000, pp. 84-85).

Reflecting on the historical context, Spain's approach to food safety legislation was notably underdeveloped, characterized by a lack of comprehensive regulatory frameworks and systematic enforcement (Guillem-Llobat, 2011). This absence of institutional oversight allowed Spanish chocolatiers to frequently substitute cocoa with less expensive alternatives. Public claims reveal the use of additives such as starches, red clays, and even ground bricks to increase product weight, reduce costs, navigate raw material shortages, and ultimately enhance profitability (Martí Escayol, 2004, p. 74).

In response to regulatory vacuum, Spanish chocolatiers adopted self-certification as a form of market self-regulation (Ogus, 1995), positioning their marketing messages to showcase their dedication to quality, taste, purity, and the art of chocolate-making. La Colonial announced the implementation of an improvement plan aimed at elevating the standards of previously overlooked processes<sup>82</sup>. Similarly, Matías López underscored his dedication to manufacturing foods that were not only nutritious but also adhered to stringent hygiene standards (López, 1875). La Riojana, in a confident move, sent

<sup>&</sup>lt;sup>82</sup> La Iberia, 2 February 1868.

chocolate samples to customers free of charge, promising an experience characterized by "its taste, delicious aroma, and excellent manufacturing conditions without any expense".<sup>83</sup> Amatller, however, remained relatively inactive in magazine advertising during this period. Nonetheless, feedback from commercial correspondence indicated a rising presence of customers indicating dissatisfaction, noting that the quality of chocolate had deteriorated compared to their initial purchases, posing a potential threat for the continuity of loyalty.<sup>84</sup>

The first comprehensive Food Safety code was finally enacted in 1908, outlining control services and specifying technical conditions. The decree stipulated the composition of chocolate, limiting sugar content to no more than 60% sugar, restricting cocoa shell to 4%, and requiring at least 40% cocoa in the formulation. Influenced by Spanish chocolate lobbyists, the framework also introduced the concept of a "mixed chocolate formula", permitting variations in ingredient ratios, subject to approval from a municipal laboratory before market release.

Spanish chocolatiers grappled with the ongoing challenge: producing at the lowest possible cost to increase public consumption. In 1900, retail chocolate prices commenced at 2.50 pesetas per kilogram for deemed "popular" in quality, escalating to 5 pesetas for premium varieties.<sup>85</sup> In contrast, cocoa prices in the wholesale markets, ranged from 2 pesetas/kg for lower quality Fernando Poo, to 3 pesetas for mid-quality Guayaquil, and up to 4.5 pesetas/kg for the superior quality Caracas.<sup>86</sup> This meant that the cost of the raw cocoa nearly matched or even surpassed the retail price of the finished chocolate product, squeezing the margins and leaving minimal room for additional costs such as labour, machinery, and marketing expenses. Confronted with these financial pressures, manufacturers continued to substitute cocoa for other additives, despite the new legislations, in an attempt to broaden market appeal and democratize chocolate consumption. Various letters from Amatller customers reveal continuous grievances, which escalated when a distributor reported finding worms in the received merchandise.<sup>87</sup>

<sup>&</sup>lt;sup>83</sup> El Economista, 14 November 1876.

<sup>&</sup>lt;sup>84</sup> Archive Chocolates Amatller, various commercial correspondence 1880-1885.

<sup>&</sup>lt;sup>85</sup> Diario de Barcelona, 3 February 1900.

<sup>&</sup>lt;sup>86</sup> *Diario de Barcelona*, published market prices 1900.

<sup>&</sup>lt;sup>87</sup> Archive Chocolates Amatller, commercial correspondence, October 1907.

A similar issue afflicted La Colonial, resulting in public sanctions up to 50 pesetas for selling chocolate containing worms.<sup>88</sup>

Amatller nor their competitors truly secured a competitive advantage in services, primarily due to their exploitation of regulatory loopholes that allowed them to minimize production costs and artificially enhance product weight, often compromising quality. This strategy, while perhaps boosting short-term profits, ultimately hindered their ability to achieve a lasting competitive edge rooted in service and product quality. The industry's reliance on these practices reflects a deeper issue within the sector, where the pursuit of immediate financial gains was frequently prioritized over sustainable quality improvements and genuine consumer satisfaction.

## 5. Support Activities

## Firm infrastructure

The conceptualization of infrastructure underscores the importance of utilizing a company's resources—whether technological, human, or capital (Porter, 1985). A well-developed infrastructure, coupled with a firm's strong financial capacity, acts as a catalyst for innovation, efficiency, and improvements. An enduring bond between a firm's prosperity and the resilience of the family unit has been crucial for understanding family business dynamics (Church, 1993), where survival has traditionally served as the main indicator of success (Colli, 2012). The importance of family ownership, particularly when the business bears the family name, has been instrumental in motivating capital accumulation (Rose, 1995). Family-owned enterprises have typically pursued dual objectives: preserving their legacy while simultaneously expanding through strategic investments. These goals, inherent to family business history, are not mutually exclusive but synergistic, demonstrating their capacity to complement one another (Sharma and Salvato, 2013).

The well-documented accounting records covering most Antoni's tenure enable a detailed tracing of capital evolution and, consequently, the financial health of the company. During that era, it was common for business and personal accounting to be unified

<sup>88</sup> El País, 26 February 1924.

(Goxens, 1976), meaning all balances included the company's economic activities alongside the personal assets of the family. The operational profitability of each year directly impacted capital fluctuations; capital would increase in profitable years or decrease during losses, as dividends were not distributed due to the family-oriented administration of the company. Initially, Amatller's capital declined due to the corporate reorganization, which involved significant investments in the new factory and a commercial shift from trading colonial goods to specializing in the chocolate business, leading to a preliminary decrease in sales. From 1874 to 1879, the capital decreased at annual rates between 20% and 30%, effectively halving within just five years compared to its predecessor's capital (Figure 4). Despite this potential weakening of the financial position, the company continued investing in the new facilities, predominantly relying on internal resources and avoided external borrowing from the banking system, mirroring a broader trend of self-sufficiency common among Catalan entrepreneurs (Nadal, 1992). Once the new factory became fully operational in 1879, the financial trajectory of the company shifted dramatically. Positive operational outcomes consistently yielded profits, leading to systematic increases in capital and fostering a compound annual growth rate of about 10%. Over just two decades-from 1879 to 1898-his capital and wealth were propelled from 352,178 pesetas to 1,810,376 pesetas.

The financial health of Chocolates Amatller can be effectively gauged through its debt ratios, which measure the relationship between the company's liabilities (such as loans and accounts payable to suppliers) and its capital. A high ratio suggests poorer financial stability, while a low ratio indicates minimal debt. During Antoni's ownership, these ratios consistently improved. Initially impacted by heavy investments and capital reductions, the debt ratio started at 0.39 (1880). As the company's structure solidified, this ratio significantly declined, reaching 0.14 (1885), 0.11 (1890), 0.05 (1895), and ultimately 0.03 by 1898.<sup>89</sup> While this trend demonstrates strong financial governance and a reduced reliance on external financial markets, it may also indicate a potential underutilization of external financing and may have limited its ability to leverage external funds for growth and investment opportunities —a characteristic often typical of family-owned companies (Blanco-Mazagatos, et *al.* 2007).

<sup>&</sup>lt;sup>89</sup> Archive Chocolates Amatller, Accounting General Ledgers 1885-1989.

**Figure 4:** Evolution of Corporate Capital and Debt-to-Equity Ratio at Chocolates Amatller, 1870 – 1900 (pesetas<sup>90</sup>)



Source: Archive Chocolates Amatller, Accounting Ledgers 1873-1899.

Amatller's robust capital afforded the opportunity to diversify and expand his investment portfolio. The accounting records reveal a diverse investment strategy; Antoni Amatller held shares in leading banking and insurance institutions, including Banc de Barcelona, Banco de Madrid, and La Catalana de Seguros, but also invested in societal projects such as El Canal de Duero, and El Cercle del Liceu (Barcelona's opera). Despite the variety of these allocations, the amounts committed were relatively modest, totalling just over 15,000 pesetas.<sup>91</sup> Reflecting a more conservative approach, Antoni opted to purchase public debt through mortgage bills from the Treasury Department of Cuba, then a Spanish colony, valued at over 200,000 pesetas with an annual yield of 6%.<sup>92</sup> However, within less than two years, he transferred the entire amount to a silver deposit at the Banc de Barcelona, valued at 400,000 pesetas. This financial prudence and liquidity enabled him to acquire the house on Passeig de Gràcia, which cost 490,000 pesetas in 1898 (equivalent to over 2 million euros today), paid entirely with bank funds, thereby avoiding the need for external financing such as loans or mortgages.<sup>93</sup>

Antoni Amatller skilfully navigated initial financial setbacks, ultimately enhancing

<sup>&</sup>lt;sup>90</sup> Prices have been deflated to 1900 peseta using GDP deflator (Prados de la Escosura, 2017)

<sup>&</sup>lt;sup>91</sup> Archive Chocolates Amatller, Accounting Daily Ledger 31 December 1880.

<sup>&</sup>lt;sup>92</sup> Archive Chocolates Amatller, Accounting Daily Ledger 31 December 1889.

<sup>&</sup>lt;sup>93</sup> Archive Chocolates Amatller, Property Deed, 12 March 1898.

capital accumulation for the family. Despite initial declines in capital due to reorganization and investments in a new factory, operational successes led to consistent increases in capital and significant reductions in debt ratios, and a diversified investment portfolio that balanced risk and growth. By leveraging internal resources and minimizing external debt, he doubled the financial capital from the previous generation and increased it thirteenfold from that of the original founder. This achievement not only ensured robust financial health, but also established a benchmark for competitive advantage, culminating in the acquisition of the iconic family residence.

#### Human Resources

The First Industrial Revolution ushered in significant opportunities for women to take on roles and industries once dominated by men, including various factory positions (Goldin, 1984). In Spain, this shift toward female workers became pronounced in the 1880s, as they began to replace male labourers, prominently in the textile industry but extended across various sectors (Smith, 1995). Chocolate factories in Europe were also noticing an increase in the employment of female and juvenile workers, who were particularly sought after for their precision in delicate tasks such as chocolate moulding and packing (Robertson, 2009). This recruitment strategy was influenced not only by gendered perceptions but also by a likely aim to reduce labour costs. Amid the industrialization period in Spain, the gender wage gap in food factories was significant, averaging 0.51, with men earning twice as much as women.<sup>94</sup>

In May 1890, male workers at the Amatller factory, prompted by the socialist trade union UGT, began a strike in response to men's jobs being reassigned to women.<sup>95</sup> This organized protest, which lasted for at least 15 days, was widely covered by local newspapers. The strikers' voiced concerns that women operating machinery was detrimental to their health and harmful to the salary of men and could lead to depreciation of their salary (Jou-Badal, 2024b).

Payroll records and employee logs for these years are absent for Amatller as well as other Spanish chocolatiers, indicative of a prevalent reluctance among Spanish employers to

<sup>94</sup> Instituto de Reformas Sociales, 1906-1923

<sup>95</sup> La Vanguardia, 25 May 1890.

reveal the working conditions (Vicens Vives, 1986). An alternative archival document, sourced from family correspondence around the time of Antoni Amatller's death in 1910, reveals a complete employee roster, where women constituted 56% of the workforce at the factory. This percentage was slightly below the average seen in European counterparts like German chocolate factories (60%) or British firms such as Cadbury (68%) and Rowntree (71%) (Jou-Badal, 2024b). However, the feminization rate of at Amatller was notably higher than that at Matias Lopez, which reported 32% in 1907, and La Colonial, which had 34% in 1882 (Jou-Badal, 2024b). At Amatller, women were primarily relegated to tasks requiring dexterity, such as moulding, demoulding, and packaging, while men were tasked with operating machinery and overseeing production processes. This arrangement of tasks illustrates both horizontal and vertical segregation, severely restricting women's opportunities for professional growth, but it also likely provided cost savings by capitalizing on lower pages typically paid to female workers.

Managerial and administrative roles were held exclusively by a cadre of 25 men at the headquarters, situated away from the production facility in the heart of Barcelona.<sup>96</sup> These white-collar jobs were categorized into accounting, sales, and logistics and boasted longer seniority compared to more transient factory positions. Santiago Fisas, who entered the company at 19, climbed the ranks to become managing director. Antoni's strategy of employing professional managers, rather than relying on familial succession— a choice possibly influenced by his sole heir being a daughter—may have been a strategic one. Studies suggest that family firms employing professional managers frequently surpassed those adhering strictly to hereditary succession in effectiveness (Fellman, 2010). In contrast, familial management persisted at Matías López, with involvement from sons and in-laws until 1928, and the Meric family retained direct control of La Colonial into the 1930s.<sup>97</sup>

The strategic choices endowed Amatller with a nuanced, yet significant competitive advantage in the human resources field. Antoni adeptly harnessed the industrial shifts of his time by leveraging the industry-wide move towards feminization. As a result, the company likely reaped the benefits of reduced labour costs, achieving a higher female employment ratio than its domestic rivals. Confronted with the potential challenge of

<sup>&</sup>lt;sup>96</sup> Archive Chocolates Amatller, Employee roster 1910.

<sup>&</sup>lt;sup>97</sup> El País, La Vanguardia, news and published advertisements 1920-1935.

family succession, he sidestepped the pitfalls of family-run businesses by promoting internal workers to professional managerial roles. This divergence from traditional reliance on familial management successions, could have fostered operational efficiencies and avoid confrontation of internal succession.

# Technology development

Employing patents as an indicator of innovation activity has long been a well-established approach in the fields of economic and business history, and their impact on growth and success (Sokoloff, 1988; Moser, 2005). In Spain, the evolution of patenting practices has been meticulously documented by Patricio Sáiz across various studies offering in-depth and comparative analysis for the Spanish case (Sáiz, 1999, 2002). His efforts in reconstructing Spain's OEPM database have become invaluable resources for historians, offering detailed insights into the country's innovation landscape during 19th and early 20th centuries (Saiz et al., 2008).

The foundation of Spanish patent laws was laid in 1826, originally established as Royal Privileges under the influence of French law, provided patent protection for a duration of 15 years. This framework underwent a major overhaul in 1878 with the restoration of King Alfonso XIII, adapting to the new economic reality to foster innovation in Spain. The revised legislation extended patent durations to 20 years and reduced the cost from the previous hefty sum of 6,000 reales, an amount equivalent to a skilled worker's annual salary.

In the field of cocoa and chocolate manufacturing, Spain traditionally exhibited a low number of patent applications. Prior to 1878, there were merely 25 registries constituting only 0.5% of industrial registrations (*Archivo Histórico de Patentes y Marcas*). Among these, the only renowned Spanish chocolatier was Jaime Méric (La Colonial), who in 1864 registered a patent for a refinement in chocolate production using improved steam machinery.<sup>98</sup>

The late industrialization of Spanish chocolate industry, coupled with the 1878 Royal Decree, boosted chocolate patent registrations, which peaked at 102 by 1930 (AHPM).

<sup>98</sup> Archivo Histórico de Patentes y Marcas, 26 April 1864.

This rise was characterized by a growing presence of foreign-registered patents, comprising up to 54% of the filings. International contributions during this period featured innovations such as the German Stollwerk brothers' chocolate cooling apparatuses, Carl Bingham's automatic chocolate vending machine from the Netherlands, and Swiss Otto Krueger's method for producing chocolate bars. Chocolates Amatller's sole contribution to the patent database (1826-1940) was recorded in 1911, shortly after the death of Antoni. The patent delineated a method for creating chocolates with infused coconut fragments,<sup>99</sup> which were later marketed as part of the premium product range. In contrast, other chocolatiers such as Matías López and La Riojana are absent from the patent records, indicating a limited engagement with the patent system among Spanish chocolate manufacturers.<sup>100</sup>

Although Amatller did not have a competitive edge in inventions per se, their commitment to integrating advanced factory machinery from France, Germany, and Italy suggests a potential alignment with Schumpeter's theory of innovation (1951). According to Oddy (2013), food industry entrepreneurs typically did not focus on inventing new foods or machinery. Rather, they concentrated on utilizing available ingredients and leveraging existing technological advances to achieve market success. This strategic emphasis on adopting rather than inventing technologies was not unique to Amatller but was a common approach among chocolatiers of the period, who typically did not serve as primary inventors in their industry.

#### Procurement

The procurement function encompasses not only raw materials but also machinery and services essential for manufacturing. The effectiveness of these acquisitions is contingent upon comprehensive access to a diverse pool of suppliers and in-depth market information. In business history, the adept utilization of social networks served as a gateway to refining procurement strategies, where a strong company's networks could amplify knowledge, reduce uncertainty, and foster innovation (Borgatti and Foster, 2003; Knoke et al., 1996). While established networks —or strong ties— are vital for providing

<sup>&</sup>lt;sup>99</sup> Archivo Histórico de Patentes y Marcas, 5 April 1911.

<sup>&</sup>lt;sup>100</sup> Archivo Histórico de Patentes y Marcas, Database search 1826-1936.

local cohesion and robust support, the true social circle success is often found in the development of weak ties (Granovetter, 1973). These infrequent, isolated relationships have the potential to bridge diverse groups, facilitating new opportunities and fostering innovative integrations.

The Amatller dynasty, spanning the first two generations, built an extensive network within the regional trade sector. The founder was an integral part of the guild system, and his descendants emerged as some of the most prominent colonial traders in Barcelona. In 1870, Antoni extended his training beyond national borders by apprenticing at chocolate factories in France and Switzerland, a practice common among Catalan heirs of family businesses (Vicens Vives, 1986). This approach also mirrored the experiences of other European chocolatiers. For example, the second generation of Germany's Stollwerck family trained at the French Menier chocolate company in the late 1860s, while Philippe Suchard's son honed his skills at various French firms (Chiapparino, 1997, p. 103). This exposal to international cooperation broadened Amatller's understanding of advanced machinery used abroad, paving the way for the import of cutting-edge technology for the new factory and building the contacts for the international supply of cocoa.

Within the industrialists' networks, Antoni was actively involved in Foment del Treball Nacional, the regional association advocating for manufacturers' interests while also championing the concerns of Catalonia. Appointed as a board member in 1886, Antoni focused on industrial defence rather than entering directly into political ambitions. Other Spanish chocolatiers leveraged their influence into the Spanish Senate—Matías Lopez for Madrid, and Alejo Lopez for Malaga- raising their voice to advocate for reduced tariffs on cocoa imports. Amatller's political involvement was limited to lobbying; he represented the Spanish chocolate manufacturers' association during a 1903 parliamentary commission investigating food adulteration accusations.

His social activism was entrenched in local institutions such as the Centre Excursionista de Catalunya (mountaineering) and the Cercle del Liceu (opera), where Amatller was also a shareholder.<sup>102</sup> His involvement epitomizes the strong connections within the Barcelona elite, exemplified by his close friendship with financier Josep Garí, co-founder of Banc Arnús-Garí. Together, they embarked on long travels, including a six-week journey to

<sup>&</sup>lt;sup>101</sup> El País, 24 March 1903.

<sup>&</sup>lt;sup>102</sup> Archive Chocolates Amatller, commercial and family correspondence, 1870-1910.

Egypt in 1890 (Alcolea, 2019). In a related weak-tie connection, the esteemed architect Josep Puig i Cadafalch, who had recently redesigned Garí's family home, was later commissioned to design Amatller's iconic residence.

Antoni Amatller built upon his family's legacy by actively engaging with Barcelona's institutions, thereby solidifying his local influence. He further expanded his focus by tapping into international networks, improving the company's capabilities in accessing raw materials and advanced technologies. This strategic use of global insights led to creation of value through social networks, enabling cost reductions in the access of raw materials and facilitating the import of specialized machinery. Aware of the marketing trends followed by European manufacturers, he pioneered the adoption of lithographs from France and Italy into Spain.

While competitors often engaged in political manoeuvring to defend their corporate interests, Amatller chose a different path, aligning with the bourgeois approach and leveraging relationships within the arts and broader international networks. Thus, rather than blending into Madrid's sphere, he avoided direct political confrontations. Instead, he integrated his liaisons with international suppliers and bankers into his business strategy, while concentrated on advancing his family's interests through the arts.

## 6. Results and Conclusions

The historical development of Chocolates Amatller, examined through the lens of Porter's Value Chain analysis, offers a narrative on how a family business strategically navigated amidst the industrializing landscape. This analytical approach dissects a granular perspective of individual corporate activities, illustrating how they synergistically contribute to building a superior market position and enhance competitive advantages, ultimately elevating profit margins. This case study underscores the importance of integrating strategic management frameworks into business history, proposing a structured methodology to evaluate a company's strategic efforts and explore how businesses historically achieved competitive advantages over time. This approach not only garners historical insights but also attempts to deliver contemporary lessons on the significance of strategic depth, innovation dynamics of innovation, and the enduring impact of visionary leadership on a company's prosperity. By potentially bridging business history and strategic management, it is possible to gain deeper understanding of

why, when and, how these successes occurred.

To quantitatively assess the overall performance of Chocolates Amatller, examining metrics such as corporate yearly profits and Return on Assets (ROA) can validate the economic impact of the company's strategic choices. According to Porter (2001), the efforts directed on each activity are designed to boost competitive advantage and ultimately enhance company's profitability and solidify its market position over the long term.

**Figure 4:** Annual Profits and Return on Assets (ROA) of Chocolates Amatller, 1873 – 1899 (pesetas<sup>103</sup>)



Source: Archive Chocolates Amatller, Accounting Ledgers 1873-1899.

The evolution of corporate profits (Figure 5) delineates two distinct phases within the third generation. Initially, the company embarked on a strategic reorientation towards modernization in chocolate production, which necessitated significant investments. This period of internal transformation led to substantial losses until the late 1870s, with a noteworthy loss exceeding 38,000 pesetas in 1877. However, the early 1880s marked an exceptional turnaround, consistently yielding annual profits around 40,000 pesetas and improvements in ROA to 0.08, reflecting robust performance despite increased asset capacity.

<sup>&</sup>lt;sup>103</sup> Prices have been deflated to 1900 peseta using GDP deflator (Prados de la Escosura, 2017)

This period of prosperity extended through the decade, with the company leveraging corporate initiatives to double the average yearly profit and achieve peaks exceeding 150,000 pesetas—equivalent to nearly 1 million euros today. The upward trajectory continued, maintaining high positive operational profits into the late 1890s and ROA ratios averaging at 0,10, demonstrating an increasingly efficient use of assets and continue generating earnings. However, the profitability began to wane towards after 1897 due to the purchase and subsequent reconstruction of the Modernist house, which was financed entirely from the company's cash reserves, thus impacting the overall profitability-

This analytical if Porter's Value Chain allows to dissect a granular perspective of individual corporate activities, illustrating how they synergistically contribute to building a superior market position. For the case of Chocolates Amatller, the interplay of activities, balancing cost control and value creation, weaves a detailed picture of how a modest-sized enterprise has been epitomized by the acquisition of the iconic Passeig de Gràcia building, placing them squarely amongst Barcelona's industrial elite. The key factors to success were effectively channelled through competitive advantages in the activities of inbound logistics, procurement, marketing, and infrastructure. Its adept sourcing strategy, hinged on a network of international contacts for direct imports, allowed the company to secure favourable raw material rates well below market norms, thus ensuring significant cost advantages. In marketing, Amatller championed trademark registrations and collaborations with artists for illustrative collectible cards and posters, enhancing brand recognition among consumers. Despite initial financial hurdles, Antoni Amatller's skilful financial strategies fortified the family's capital and reduced dependency on external debt, supporting ongoing investments in the factory and the purchase of the family residence.

While Amatller demonstrated exceptional prowess in several aspects of the value chain, its advancements in other areas merely paralleled the broader Spanish economic context, lacking a superior positioning against his competitors. The modernization of the operations with imported machinery, gained an edge in Barcelona and Eastern Spain but struggled to match the scale of Madrid's chocolatiers. This limitation hindered its national expansion, and the growth of its distribution network remained in lockstep with the integration of the domestic market and railway system, overcoming earlier geographical constraints. Similarly, the belated implementation of food safety regulations and the broader feminization of the labour force reflected a ubiquitous exploitation of regulatory gaps and industry norms to curb production costs, rather than innovative differentiation.

Reflecting on the use of Porter's Value Chain, originally devised in the late twentieth century, to analyse the industrialization-era management activities of Chocolates Amatller, several considerations emerge. While the framework facilitated a structured study of Amatller's strategic efforts, applying this contemporary model to a historical context revealed inherent limitations. Porter's framework was fundamentally grounded on operational efficiency, encountering challenges amidst the rapidly changing socio-economic conditions, non-standardized industrial practices, and evolving operational dynamics of early 1900s companies. Adapting the Value Chain to better reflect historical contingencies and the specific dynamics of earlier industrial eras could significantly enhance its utility, effectively bridging the gap between theoretical constructs and practical, historical applications.

As insights are drawn from the historical development of Chocolates Amatller, it is pertinent to reflect on the broader implications and potential generalizability of the findings. This case study, while unique in the context of chocolate manufacturing in Spain, aims to demonstrate how companies can achieve success through strategic foresight and adaptability to the changing environments. Future research endeavours could build upon this study by conducting a comparative analysis of Amatller's successive generational strategies across different periods. Such exploration would critically assess the creation, sustenance, and evolution of competitive advantages, underscoring the importance of strategic management in the extended long term and the capacity for adaptation and value retention within a business's legacy. Further studies could also benefit from examining Chocolates Amatller in conjunction with other European chocolatiers, or by comparing its corporate performance with similar food enterprises within Spain. This approach would provide complementary insights into industrial practices and strategies, enhancing the evaluation of how findings specific to Chocolates Amatler could be applicable in broader contexts, and contribute to the understanding of strategic continuity and innovation in business practices.

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# **Chapter III**

# Gender Conflict on the Shop Floor. Barcelona Women at Chocolates Amatller, 1890-1914<sup>104</sup>

# Abstract

The cry of "Get married women out of the factories!" echoed across the Spanish industrial landscape at the turn of the twentieth century, driven by two intertwined factors. From a societal perspective, women's place was at home, not in factories. On an economic note, concerns arose over women's lower wages displacing men from jobs. This research delves into a case study of a workers' claim aimed against women. Its aim is to illuminate the interplay of social demands and gender dynamics in labour history and business operations. Using as a case study a strike among male workers at the Amatller chocolate factory in May 1890, it seeks insights into gender complexities and women's challenges when joining the workforce. Male factory workers sought better conditions but directed their frustrations at women, influenced by prevailing social discourse. Women joined the factory, but portraying them as victors would be an oversimplification. Their presence was restricted, confined to manual tasks, with few opportunities for advancement.

Keywords: strike, gender conflict, female labour, feminization.

<sup>&</sup>lt;sup>104</sup> Jou-Badal, Xavier (2024). Gender Conflict on the Shop Floor: Barcelona Women at Chocolates Amatller, 1890-1915. *International Review of Social History*. First View, 1-28. https://doi.org/10.1017/S0020859024000555. JCR/SSCI Q1 History (27/518). Date of acceptance: 3 June 2024.

#### 1. Introduction

The cry "Get married women out of the factories!" echoed across the Spanish industrial context at the turn of the twentieth century due to the prevailing view that the place of married women was in the home and not in the factory, and amid economic concerns that lower-paid women were taking jobs from men.

The relevant historiography documents how these stereotypes created gender-based divisions of labour and distinct social roles for men and women, leading to inequality and the belief that women were not entitled to work, pay parity, or the same job opportunities as men. The implications of gender conflict and the position of women in industrial occupations have been thoroughly examined, particularly from a European perspective (de Pleijt & van Zanden, 2021; Frader & Rose, 1996; Honeyman & Goodman, 1991; Rose, 1993). Country-specific studies from Great Britain, for instance, provide in-depth instances of male resistance to female integration into various manufacturing roles, such as cotton spinning (Burnette, 2008; Rose, 1988), chain-making (Morgan, 1997, 2013), pottery (Land, 1980), mining (Humphries, 1987), and postal services (Harrison, 1989). Broadening the perspective, complementary case studies from Germany (Canning, 2002; Ogilvie, 2004), France (Downs, 1995; Hilden, 1984; Tilly, 1993), and the Netherlands (Van Nederveen Meerkerk, 2006, 2010) have enhanced our understanding of labour dynamics between male and female counterparts.

The consequences of gender conflicts have also been extensively studied in Spain from different research perspectives, such as domesticity and women's participation in the workplace (Borderías & Gálvez, 2016; Borrás Llop, 2012; Gálvez & Sarasúa, 2003; Jiménez Sureda, 2009; Nash, 1991), the analysis of salary and gender gaps (Beneito & Garcia-Gómez, 2022; Borderías, 2004, 2021; Borderías & Martini, 2020; Vilar Rodríguez, 2014), and the role played by regulatory institutions (Borderías, 2008; Borrás Llop, 2009; Nielfa, 2003; Vallès Muñío, 2019). To gain a deeper understanding of what transpired in Spanish factories, scholars have delved into sector-specific analyses. While a significant number have focused on gender dynamics within the textile sector (Enrech, 2010; A. Smith, 1991, 1995; A. Smith & Díaz-Andreu, 2003), researchers have also explored the consumer goods sector, whether canned fish(Muñoz-Abeledo, 2003, 2007), wine (Martínez-Soto, 2003), shoes (Escartín, 2003), or tobacco (Gálvez, 2000). Additional investigations have extended into male-dominated domains, including Spain's metal (Villar, 2007, 2022), glass (Ibarz, 2007), and railway industries (Ballesteros, 2003,

# 2016).

Under the guise of domesticity, male workers in factories and workshops aimed to preserve their labour market monopoly. The societal expectation was built around the breadwinner family model, where men were viewed as the primary income earners and women confined to homemaker and caretaker roles (Horrell & Humphries, 1995, pp. 89-90). This practice, resulting from the merging of patriarchy and the industrial capitalist system, aimed to displace female labour and reserve more jobs for men (Janssens, 1997, pp. 1-3).

This article explores the mechanisms men employed to prevent women's integration into the factory workplace, highlighting a gender-based conflict on the shop floor through the use of strikes. In Spain, this pushback gained momentum as male labour was increasingly replaced by female workers, a trend that intensified during the 1880s. This shift was particularly noticeable in the leading textile industry, where ring-frame machinery was adopted, replacing male-operated self-acting mules (Domenech, 2008, p. 2; Smith, 1995, p. 123). The appeal of the ring-frame lay in the simplicity of its mechanism and the economy of its operation, and its straightforward use allowed for the increased employment of women and girls (Smith, 1991, p. 337).

Contributing to the study of gender conflict on the shop floor through a compelling case study, the present article focuses on a social claim targeted towards women during the feminization of the Spanish chocolate industry during the latter half of the nineteenth century. Based on the exploitation of contemporary sources, its primary objective is to shed light on the complex relationship between social claims and gender dynamics in the context of labour and business operations. Incorporating both primary and secondary materials addresses potential challenges arising from selective archival preservation and gaps in historical records associated with the selectivity and silence of the archives (Decker, 2013; Kipping et al., 2013). A sequential historical analysis approach, which involves delving into archival materials alongside supplementary secondary sources, proves particularly effective in identifying the key actors at the heart of the development of evolving industries (Forbes & Kirsch, 2011).

By utilizing the case-study methodology, this research aims to produce valuable insights into the complexities of gender dynamics and the challenges women have faced when joining the workforce. According to Alfred Chandler, only through case studies, with their original actors and intact narratives, can extremely complex problems be clearly depicted, allowing for the adequate presentation of their impact (Chandler, 1962, p. 7). Concentrating on a singular case study provides a deeper exploration and a richer understanding (Dyer & Wilkins, 1991) while also highlighting its specific historical circumstances and specificity (Popp & Holt, 2013). Historical research has been instrumental in the formulation and empirical testing of theories within the fields of organizational and management studies (Kipping & Üsdiken, 2014), as well as in the domains of business strategy and practice (Perchard et al., 2017). In short, this study adopts a comprehensive historical methodology to examine the dynamics of social conflict within a workplace setting.

The central event – a strike at Chocolates Amatller – illuminates the causes behind the stereotype that women were meant for procreation and not production, thus expelling them from the productive sphere and relegating them to a domestic role as wives and mothers. While the presence of women as paid workers was accepted, it was generally limited to jobs men were either unwilling or disinclined to do.

The entry of women into factories was shaped by a multifaceted set of factors, including demographic changes, labour market conditions, and social attitudes towards women and work. In this context, an undocumented archival collection at Chocolates Amatller houses corporate records from two decades after the strike. Their discovery yielded two comprehensive lists of its sixty-five employees, featuring their names, gender, age, marital status, number of children, and the roles they held within the company. This discovery contributes to the research into labour practices, revealing a noteworthy development despite the 1890 strike: the company witnessed a significant increase in the number of women employees – over sixty per cent of factory employees were women by 1910. Young and old, maiden and married, sisters and flatmates made their way to Barcelona's most renowned chocolate factory, challenging traditional gender roles and paving the way for greater economic independence.

The historical significance of Chocolates Amatller's case lies in its portrayal of Spain's earliest documented gender conflicts on the shop floor, where workers specifically aimed to obstruct the entry of female labour. Moreover, the unique archival discovery, which details vast information about its employees, serves as a valuable resource for studying labour and business history. The male strike and its aftermath offer a window into the intricate interplay between gender dynamics, social claims, and labour practices in the

late nineteenth and early twentieth centuries.

#### 2. Gender Conflict in Spanish Factories, 1890–1914

The earliest evidence of gender conflict-based strikes emerged in the region of Catalonia, which was pivotal to Spain's industrial revolution. In 1891, Manlleu witnessed protests following attempts to replace male workers with women on ring-frames, leading factory owners to implement a lockout to disband trade unions and establish new work practices. This move incited a town-wide strike lasting twenty-three days, effectively countering the industrialists' agenda (Smith, 1995, p. 130). The Ter Valley, renowned for its strong tradition of unionized labour led by male spinners, who spearheaded the reorganization of unions and the relocation of the central committee of the Federación Téxtil de la Región Española (FTE) to their area, played a key role in the 1899 general strike. This strike again saw male workers successfully counter attempts to replace them with women, culminating in an agreement with factory owners that ensured available spinning machines were reserved exclusively for men. This achievement underscores the influence and strategic capacity of the male-dominated unions in negotiating labour terms (Smith & Díaz-Andreu, 2003, p. 93). In 1901, when three textile industrialists attempted to replace male spinners with women, who subsequently refused the positions, a new lockout ensued, leading to eight days of unrest and violence, including an attack on a former mayor and factory owner's residence. The conflict only receded after local authorities intervened, promising to seek a resolution and reinstate the displaced workers (Smith, 1991, p. 359).

Sustained evidence highlights strikes in other industries, with male workers explicitly protesting against the employment of women. An illustrative example is the chocolatier industry. On 25 May 1890, the workers (presumably men, given the nature of their claim) at the Amatller chocolate factory<sup>105</sup> initiated a strike after certain positions previously occupied by men had been assigned to women. Local newspapers reported the story that same day, emphasizing the event's immediate significance: "The workers of the Amatller chocolate factory have gone on strike because several jobs previously assigned to men

<sup>&</sup>lt;sup>105</sup> Chocolates Amatller was established in 1797 and became a benchmark brand for the quality of its products during the nineteenth century. The family company became a model of technological innovation and advertising strategy in the Spanish market (Jou-Badal, 2024, p. 149).

have been given to women. The affected workers seem to be trying to appeal to the authorities."<sup>106</sup>

More comprehensive evidence of Spanish strikes after 1905 is documented in the yearbook *Estadísticas de las Huelgas*, published by the Instituto de Reformas Sociales (IRS). This publication detailed records of all strikes in Spain, categorizing them by location, sector, start and end dates, number of participants, and workers' demands. For example, in 1907, the dock loaders in A Coruña initiated a strike to demand the removal of women from coal shovelling tasks, arguing that such labour should be exclusively undertaken by unionized men. The action involved 150 workers and lasted eleven days.<sup>107</sup> The employers eventually acceded to the workers' demands to exclude women from these positions, yet they retained the authority to hire men for these roles, irrespective of their union membership.

Male workers in pasta and vermicelli production declared a strike on 29 September 1915. The protest was driven by demands to dismiss women handling manual vermicelli tasks, replacing them exclusively with male, unionized workers. According to data from Barcelona's IRS board, the strike concluded after five days due to the civil governor's direct intervention. He convened representatives from the employers' and workers' societies, leading to new work agreements. These stipulated women's continued employment in vermicelli production, with the condition that factory owners raise male workers' salaries by one real and guarantee no pre-strike employees would be dismissed or replaced by women. In terms of unpaid wages, the financial losses amounted to 16,605 pesetas.<sup>108</sup>

Since the inception of industrial trade unions in Spain during the latter half of the nineteenth century, robust solidarity mechanisms were devised to safeguard their members. Men established unions to secure employment and the continuity of apprenticeship systems, systematically excluding women (Enrech, 2010, p. 111). Another tactic was linking worker recruitment to union job pools, requiring membership for access. This practice was prevalent in the textile sector but was also applied in complementary industries such as metal and glass production (Ibarz, 2007, p. 226; Villar,

<sup>&</sup>lt;sup>106</sup> La Vanguardia, 25 May 1890.

<sup>&</sup>lt;sup>107</sup> IRS, *Estadísticas de las Huelgas* (1908), pp. 30–31.

<sup>&</sup>lt;sup>108</sup> IRS, *Estadísticas de las Huelgas* (1918), p. 42.

2007, p. 182). As a result, there were few women within unified workers' associations until the 1910s due to prevailing attitudes regarding masculine unionization and distrust (Smith, 1991, p. 361).

When unions' attempts to restrict hiring through their unionized pools failed, they often resorted to strikes. Although these protests might have had multiple motives, such as exerting control over the workforce and demonstrating their strength, union practices clearly served as a strategy for curbing female employment. For instance, in 1905, 450 metal locksmiths went on strike, demanding that only union members be hired and non-members be dismissed. However, they failed to achieve their goals, and industrialists' freedom to shape employment practices continued. Similarly, in 1911, workers at Envases Sensat, a lamp manufacturer, undertook a five-day strike with comparable goals, yet once again the workers' objectives were not met (Villar, 2007, p. 170). IRS statistics from 1905 to 1915 reveal that strikes involving non-union workers fluctuated between 2 and 10 per cent, revealing the conflict between balancing union solidarity and preserving men's roles in the workforce.

An alternative strategy for marginalizing women involved gender-specific negotiation tactics, exemplified by the 1906 strike at the Oliveros cork factory in Badajoz. The strikers – ninety-five men and twenty-five women – demanded higher wages and a guarantee of continued employment as long as cork was available in the factory. After work ceased for fourteen days, the intervention by the local IRS board at the behest of the workers led to an offer from the employer of a wage rise of 0.125 pesetas for daily workers, except for women – a condition that the strikers ultimately accepted.<sup>109</sup>

The shift from employing male to female workers, initially significant in the textile sector, expanded to other traditionally male-dominated industries like glass and metalworking. The pace and extent of this transition varied, influenced by male workers' concerted efforts to restrict women's access to these jobs. In some sectors, resistance to incorporating female labour persisted until the 1930s, illustrating the complex interplay between gender dynamics and work practices across different industries during this period of economic change (Villar, 2007, p. 166).

<sup>&</sup>lt;sup>109</sup> IRS, *Estadísticas de las Huelgas* (1918), p. 109.

Year	Industry	Location	Motive / Workers' Justification	Duration		
				(days)		
1890	Chocolate	Barcelona	Several jobs previously performed by men	15		
			had been given to women.			
	Textile	Manlleu	After an attempt to replace men by women on			
1901			the ring-frames, factory owners coordinated a			
1071			lockout to dismantle trade-union organization	23		
			and impose new working practices.			
	Textile		The employment of a woman on a ring- frame	-		
1000		Torelló &	led to the union requesting the reinstallation			
1899		Roda de Ter	of weaving machinery and, when a position			
			became available, the employment of men.			
	Textile	Roda de Ter	Factory owners replaced three male spinners			
1001			by women. The women refused to operate the	8		
1901			ring-frame machinery, leading to a factory			
			lockout and social violence.			
1005	Locksmiths	Barcelona	Exclusive hiring of associated workers, and			
1905			dismissal of non-associated workers. *	115		
	Cork	Badajoz	After demands for higher wages, the			
1006			employer offered an increase of 0.125 ptas,			
1900			except for women, which the strikers			
			accepted.			
1007	Logistics	Coruña	150 male loaders demanded the exclusion of	11		
1907			women from coal-shovelling operations.	11		
1011	Lamps	Barcelona	Exclusive hiring from among the associated			
1911			workers. *	1		
1915	Soup Pasta	Barcelona	Claim against women doing manual labour a			
			the noodle factory and insistence they be			
			dismissed and replaced exclusively by			
			associated male workers.			

**Table 1.** Labour Strikes in Spain to Oppose Women Becoming Factory Workers, 1890–1915.

\* While these were not direct rejections of women's employment, the exclusive hiring of associated workers was a tactic employed by trade unions to promote male hiring in factories.

Source: Compiled strike data from *La Vanguardia*, 1890; IRS, 1905–1915; Smith, 1991, Villar, 2007.

#### 3. Women Shaping Chocolate Manufacturing

Throughout history, chocolate-making has been regarded as a bastion of male dominance. This feature dates back to at least pre-Columbian cultures, where men prepared the sacred drink to gain strength and go to war (Coe & Coe, 1996, pp. 75-79). However, women have also been involved in chocolate preparation since its origins; in Mesoamerican culture, the ability to prepare food well and make good cacao was considered a desirable trait, and women who possessed these skills could be taken as wives by nobles (Norton, 2008, p. 16).

During the colonial era, European men were credited with introducing cocoa to Europe, monopolizing the production of chocolate, and catering exclusively to the aristocracy (Poelmans & Swinnen, 2016, pp. 41-42). This pattern continued with the manual grinding of cocoa nibs, a physically demanding task reserved for men. Shifting focus to Spain's chocolate industry, deep-rooted gender conflicts emerged as early as its manufacturing origins. From the seventeenth to the early nineteenth century, chocolate production and sales were tightly regulated by guilds, a system especially pronounced in Catalonia. Control was monopolized by two Barcelona-based guilds: firstly, the shopkeepers' guilds, known as adroguers in Catalan, which held exclusive rights to commercialize colonial imports, thereby controlling access to raw materials for chocolate such as cocoa, sugar, cinnamon, and pepper.<sup>110</sup> Secondly, the chocolate grinders' guild, comprised solely of artisans, specialized in making chocolate in their workshops and at clients' homes, a service favoured by wealthy families (Martí Escayol, 2004, p. 47). Entry systems into these traditional guilds were endogamous, typically restricting access to family relatives and explicitly excluding women (Epstein, 1998, p. 687; Romero, 2007, p. 59). These female exclusion policies were widespread as defence mechanisms, preserving the income of journeymen and the power of male masters within the institutions, not only in Spain but across Europe. This reinforced gender-based limitations on career advancement, which would lead to better compensation, improved benefits, and increased job security (Lazear & Rosen, 1990, p. 106).

The Royal Statute of 1834 marked a pivotal shift in the Spanish economy, proclaiming the freedom of industry and allowing anyone to manufacture chocolate, thus challenging the monopoly enjoyed by male chocolate workers. Yet, the industry's evolution was slow,

<sup>&</sup>lt;sup>110</sup> UB Fons Antic, ms. 1,395. Pau Martí Rovellat, Llibre de Confitures y de Drogues (1706).

as many leading manufacturers had roots in druggist and shopkeeper guilds (Jou-Badal, 2024, p. 139). This strong legacy influenced the sluggish pace of industrialization, with reports suggesting Spaniards continued to use traditional methods like grinding chocolate on their knees without modern equipment, yielding products of inferior quality compared to those of other European chocolatiers (Clarence-Smith, 2000, p. 70).

Britain, France, Switzerland, and the Netherlands were at the forefront of chocolate industrialization, with significant contributions by male inventors such as Van Houten, Pelletier, and Lindt. The establishment of the first modern factories in Western Europe to leverage these innovations was predominantly driven by male entrepreneurs, including Cadbury, Menier, and Rowntree, underscoring the dominant role of men in the evolution of chocolate production (Coe & Coe, 1996, pp. 235-240). This onset of the First Industrial Revolution opened up opportunities for women to assume traditionally male-dominated roles, including factory work and certain industries previously closed to women (Goldin, 1984, pp. 24-25). Concurrently, the European chocolate industry witnessed a significant uptick in the employment of female and juvenile workers, notably for their dexterity in delicate tasks such as chocolate moulding and packing.

In the United Kingdom, the number of women employees at Cadbury exceeded that of men, with a ratio of two to one, resulting in a total of 3,310 employees (Dellheim, 1987, p. 22). Similarly, Rowntree experienced a continuous rise in female workers. In 1877, between fifty and sixty girls were working, but by 1894 this number had risen to 456. By 1904, women outnumbered men – with 1,107 women compared to only 520 men (Fitzgerald, 1995, pp. 235-238). Meanwhile, in Germany, in the 1890s, the majority of chocolate workers were women, and by 1912 women accounted for two-thirds of the 4,000 workers in Dresden's chocolate factories (Clarence-Smith, 2000, p. 79). As for Belgium, the number of female employees working in chocolate factories also increased significantly, from one-twentieth of all workers in 1846 to half after 1918 (Clarence-Smith, 2000, p. 79).

In spite of these increasing numbers, certain restrictions remained. At Rowntree, a marriage bar was implemented, which prohibited married women from working in the factory. It was not until 1912 that this restriction was lifted, but even then, married women were allowed to work only as seasonal staff during the winter months. Cadbury maintained a similar policy, and its founder, George Cadbury, gave a flower, a Bible, and money to women who married and quit the company (Dellheim, 1987, p. 30). Likewise,

Joseph Fry, who held the same Quaker beliefs, gave a copy of *Mrs. Beeton's Book of Household Management* – providing detailed instructions on cooking, household management, and etiquette – to every woman who left to get married (Diaper, 1988, p. 47). A paternalistic concern for workers was a shared value among chocolatiers of the time, including non-religious businessmen, and the French company Menier was legendary for its guardian-like practices (Jeandelle, 1994, 53-54).

This patriarchal approach also extended to the organization of tasks. Chocolate employers reserved physically demanding tasks for men while highlighting the manual dexterity of women workers in delicate operations. This benevolent plan not only reflected gendered assumptions about work but may have also been motivated by a desire to reduce wage costs (Robertson, 2009, pp. 179-180). As a member of the Royal Commission on the Civil Service, Cadbury's founder's son Edward even argued that men deserved a higher wage than women since they had to support their families and perform physically and skill-demanding work (Dellheim, 1987, p. 35).

Factory lines were often segregated by gender, resulting in a dual labour market where men were assigned jobs that required greater physical strength or effort, conceived as primary jobs, while women were responsible for auxiliary and support tasks. This practice was also observed in renowned chocolatiers, such as Hershey, Cadbury, and Rowntree (Clarence-Smith, 2000, p. 79). In 1896, Rowntree went a step further and established the Department of Lady Welfare Supervisor to oversee the lives of female workers both within the factory and at home. They also set up a domestic school in 1905 to address concerns that the industrial employment of women could undermine the family structure (Fitzgerald, 2005, p. 514). At Cadbury, there was also gender-based segregation, with a designated men's and women's department at the Bournville factory. The female workers' department was staffed entirely by women, including management and supervision positions, which included family members such as Dorothy Cadbury (Smith, et al., 1990, p. 71). Gender-based segregation also affected the hours worked: in 1911, women worked a total of 42.5 hours; men worked 48 (Dellheim, 1987, p. 29).

During the Great War, women played a crucial role in maintaining the production of chocolate. To recognize their contribution, the industry publication *Cocoa Works Magazine* featured group photographs of all-female departments (with their male supervisors) at Rowntree, which were captioned "Helping us Carry On" (Robertson, 2009, p. 181).

Evidence for the feminization of the chocolate workforce in Spain is elusive due to the scarcity of corporate records from chocolatiers. However, government studies examining the working and living conditions of the working class can serve as an approximate means of analysis. From 1906 to 1923, the IRS conducted labour inspections and published annual reports titled *Memoria General de la Inspección del Trabajo*, detailing the results of their investigations with statistics and special mentions of any factories visited.

Within the scope of the reports, the presence of women in the workplace emerged as a recurring theme. An in-depth analysis in the 1908 yearbook reveals that chocolate manufacturing was experiencing a "moderate" degree of feminization, not as significant as in textile or tobacco manufacturing but on a par with the furniture and book factories and less prevalent than in the iron and paper industries.<sup>111</sup>

Although detailed statistics for the chocolate subsector were absent, a category for processed food factories was compiled in Catalonia, detailing the numbers of male and female employees along with their average salaries.<sup>112</sup> This data evidenced a gradual trend towards feminization; during the first five years leading up to 1911, women constituted an average of 14 per cent of the specific factory workforce, a figure that increased to 26 per cent in the period from 1918 to 1923.<sup>113</sup> Additionally, wage data reveal a significant increase in women's wages, from 1.64 pesetas per day in 1910 to 3.33 pesetas in 1919 and then to 3.74 pesetas in 1920. Despite these increases, a persistent gender wage gap was evident throughout the second decade of the twentieth century, with an average gap of 0.51, meaning men earned, on average, twice as much as women.

The labour inspection yearbooks featured data from random visits conducted at various factories throughout the year. Documentation for a single evaluation at a chocolatier was registered: in 1907, a review of the Madrid-based Matías López's chocolatier factory recorded a workforce comprising 130 employees: ninety-eight men and thirty-two women. The report specified that all men were older than sixteen years, while the women's ages ranged from fourteen to twenty-three years.<sup>114</sup>

<sup>&</sup>lt;sup>111</sup> IRS, Memoria General de la Inspección de Trabajo (1908), p. 192.

<sup>&</sup>lt;sup>112</sup> IRS, Memoria General de la Inspección de Trabajo (1907–1924).

<sup>&</sup>lt;sup>113</sup> In Spain, historical employment statistics treat women's waged labour as an anomaly, explaining the systematic under-recording of female activity and potential issues of underrepresentation (Humphries & Sarasúa, 2012, p. 43).

<sup>&</sup>lt;sup>114</sup> IRS, Memoria General de la Inspección de Trabajo (1908), p. 56.

An 1882 article in *Escenas Contemporáneas* magazine furnishes additional evidence of female employment at La Colonial company.<sup>115</sup> The piece elaborated on the new company's Pinto facility, outfitted with a 25 horsepower engine designed to produce 20,000 pounds daily, and highlighted the employment of 150 men and 80 women. Nonetheless, it did not specify the tasks or age-related roles assigned by gender.

In the case study of Chocolates Amatller, which will be explored in subsequent sections, a notably more pronounced feminization process occurred compared to its competitors and the broader food industry. By 1910, women constituted over half of the workforce, a figure that rose to sixty per cent four years later. For Amatller, distinct vertical and horizontal segregation was evident, mirroring patterns observed in England: men were primarily responsible for machinery operations while women were relegated to manual post-production tasks, such as placing chocolates into moulds.

### 4. About Chocolates Amatller

Rooted in the historical context of strict guild regulation, Chocolates Amatller originated with Gabriel Amatller. Coming from a well-off peasant family in Molins de Rei, Amatller ventured into Barcelona in 1797, joining the chocolate grinders' guild. His daughter Mariana's marriage to a shopkeepers' guild member (*adroguer*) enabled the business to expand into trading products overseas, including coffee, tea, spices, and cocoa. During the Peninsula War, Amatller relocated his operations to Agramunt, using the Vilanova port for merchandise entry. Despite challenges, he swiftly began trading colonial goods in Barcelona, nearby towns, and major cities like Valencia and Zaragoza.

Upon Gabriel Amatller's death in 1830, his legacy was upheld by his sons, Antoni and Domingo Amatller Ràfols, who operated under the name Hermanos Amatller. This second generation pursued continuity, combining artisanal chocolate production in their Barcelona workshop with expanding colonial trade. Reflecting Spain's slow pace in the chocolate industry's advancement, in 1863 the company acquired grinding cylinders still powered by animal traction, indicative of the sector's gradual modernization. Company sizes remained modest, exemplified by Spain's premier chocolate producer, La Colonial in Madrid (sixty employees), and Malaga's La Riojana (twenty-five employees) (Jou-

<sup>&</sup>lt;sup>115</sup> Escenas contemporáneas, 1882, pp. 241–243.

Badal, 2024, p. 151). Focused on local markets in Catalonia, Valencia, the Balearic Islands, and Aragón, Hermanos Amatller gradually built brand recognition through participation in exhibitions like the General Catalan Exhibition of 1871 and the Barcelona Commercial Salon of 1873.

The advancement of Chocolates Amatller into the industrial age was markedly influenced by third-generation Antoni Amatller Costa's forward-thinking leadership. His dedication to modernizing production facilities and establishing a unique chocolate brand was crucial. This new phase began with the inauguration of a modern factory in 1874, located in the industrial zone of Sant Martí de Provençals, equipped with advanced machinery imported from France (Nadal & Tafunell, 1992, p. 94). The transition facilitated opportunities for workers proficient in mechanical processes, especially with steampowered engines, and the integration of specialized machinery, such as a chocolate mixer and an ice machine, essential for cooling chocolate in warmer months. By the end of the nineteenth century, Amatller had emerged as Barcelona's premier chocolate manufacturer, employing sixty-five workers and commanding the Catalan market. Although its workforce was above average for food factories, which had fifteen employees,<sup>116</sup> it was notably smaller than that of Madrid's leading chocolatiers – La Colonial with 245 employees (Coronas, 2016) and Matías López with 130 (Blázquez, 2018) - and more closely resembled Malaga's La Riojana, which employed eighty individuals (Alonso, 2020).

The third generation intensified brand promotion strategies by distributing posters and calendars, symbols that quickly became synonymous with the Amatller brand. Esteemed artists of the time, like Alphonse Mucha, contributed designs, significantly enhancing the brand's visibility and allure. Antoni Amatller's noteworthy contribution included the architectural renovation of the family's residence on Passeig de Gràcia, reflecting the opulence of the Catalan bourgeoisie. Following his death in 1910, his daughter Teresa Amatller Cros assumed the leadership, persisting in the legacy of modernization. By the end of the decade, the factory grew from one to three floors, adding a steam generator that powered eight engines and accommodating a workforce that expanded to 150 employees. However, the outbreak of the Spanish Civil War in 1936 led to the collectivization of the company, forcing Teresa Amatller to flee to Italy. Upon her return,

<sup>&</sup>lt;sup>116</sup> IRS, Memoria General de la Inspección de Trabajo (1907), p. 87.

she regained control of the company, maintaining its leadership until her death in 1960. After several ownership changes, the business was acquired in 1972 by local chocolate maker Simon Coll, who has since preserved the original Amatller brand, continuing its legacy by marketing its premium chocolate range.

#### 5. Methodology and Data

The narrative of the strike events is explored through an investigation into newspapers of the time. Published media provide an external perspective through the lens of journalists not directly involved in the conflict. Primary sources from both national and local newspapers have been meticulously examined, including *El País, La Vanguardia, El Noticiario Universal*, and *Diario de Barcelona*. The timeline spans two months before the strike (March and April), focusing on the background and events leading up to the strike in May, and continues for two months after (June and July) to observe the consequences and aftermath of the strike.

However, the uniqueness of this case lies in the archival collection of Chocolates Amatller. The collection comprises over 100,000 documents, including commercial correspondence and original accounting books, notably the daily ledger and general ledger for the period 1873–1899. While this primary source facilitates the possibility of contributing to the account of work in the factory, unfortunately there are no explicit references to employee details, such as payroll records or correspondence originating from personnel. According to local historian Vicens Vives, this was common practice in Barcelona during the period and may suggest the employers' reluctance to expose the conditions and social situation of their employees (Vicens Vives, 1986, p. 229).

Despite the absence of employee records in the corporate archive, a significant discovery has arisen from the family documentation, also archived at Casa Amatller, which has more limited records consisting mainly of official family files, such as wills and marriage certificates. Upon the death of the businessman Antoni Amatller in 1910, a document was registered along with his will that contained the amounts to be gifted to his closest associates, including family members, friends, charities, and a small sum to each employee of the company. It provides a comprehensive list of the sixty-five employees' names and surnames, along with their gender, work location (offices or factory), and the tasks they performed at the company.

This finding is complemented by an additional document located in the financial records of Teresa Amatller, Antoni's only daughter and the fourth-generation head of the company. Although she was the sole owner, she was not involved in the company's daily management. Her personal records included a list of the workers from 1914, including each worker's name, address, age, year of joining the company, marital status, and number of children, although this time the job position or task of each worker was not indicated.

Using the daily ledger, it is apparent that salaries were paid weekly to all workers every Saturday. The account was registered as "expenses", which encompassed various items such as salaries, transportation costs, and extraordinary expenses, making it difficult to ascertain the exact details of payroll activity. This expense account has been examined for the year in which the strike occurred, but no significant changes could be observed before and after the strike. Due to the broad range of expenses included in the account and the absence of clear indicators of change in value, no empirical payroll evidence can be derived to shed light on the specific practices of the company.

Although the company's accounting information does not allow for an analysis of the immediate impact of the strike or payroll activity (1890), the documents found in the family archive offer extensive insight into the long-term impact and the process of feminization within the company (1910–1914). These employee rosters enable the segmentation of employees by gender, marital status, address, whether they had children, years working in the company, and the tasks they performed at the factory.

#### 6. The Male Factory Workers at Chocolates Amatller Go on Strike

The strike among male workers at Chocolates Amatller occurred during a critical period for the implementation and development of the workers' movement in the city of Barcelona and throughout the country. In 1889, the Second International was convened in Paris, establishing the revolutionary observance of May Day. The following year, this event was celebrated for the first time in Barcelona. It was a day of global protest aimed at securing the so-called "three eights": eight hours of work, eight hours of leisure, and eight hours of rest (Rodríguez Calleja, 2013, pp. 1-3). Barcelona's workers recognized the conditions they shared with workers globally, driving them to embrace the general strike for a labour sector revolution. Violent clashes followed, leading to a state of war, mass arrests, and the closure of media outlets. The movement's failure and ensuing repression laid the groundwork for future anarchist terrorism (Pérez Ledesma, 1976, pp. 13-16).

Trade unions were frowned upon by authorities and the powerful classes, who viewed them as bastions of social agitation due to their main tool – strikes, which disrupted the order and normal functioning of the productive sector. While anarchists predominated in worker organizations in southern Spain and would not see a resurgence in Barcelona until the early 1900s (Abelló, 2010, pp. 215-216), socialists were in the majority in Catalonia and the Basque Country (Fesefeldt, 2004, pp. 71-73). Since the 1880s, the number of workers' organizations and their members increased: socialist federations went from seven in 1882 to fifteen only five years later. Among the notable trade unions was the Unión General de Trabajadores (General Union of Workers), also known as the UGT, which was founded in Barcelona prior to 1888 and remains in operation today (Termes, 2000, p. 83).

These early labour movements were also observed in the working-class community of chocolatiers. News articles appearing in the local press referred to the collective of chocolate workers in Barcelona rather than a specific factory. Local periodicals extensively discussed the celebration of May Day and expounded at length on the strikes, including their adherence and the repressive tactics of the authorities, while also noting the beginnings of worker associations in particular sectors, such as the case of chocolatiers.<sup>117</sup> The first articles from the weeks leading up to the strike indicate that chocolate workers across different levels of expertise, such as stone mill workers, grinders, and machinery workers, were gathering for the first time to form an organized labour movement supported by socialist movements and the UGT (the chocolatiers met at the trade union's headquarters in Barcelona).<sup>118</sup> Ultimately, on 25 May, the chocolate workers decided to unite and organize themselves as a labour union society – the first since the fall of the guild monopolies due to the Bill of Freedom of Industry in 1834.<sup>119</sup>

According to news reports published on the first day of the strike, 25 May 1890, workers clearly stated that their primary motivation was to protest female labour intrusion, and

<sup>&</sup>lt;sup>117</sup> El País, 26 April 1890.

<sup>&</sup>lt;sup>118</sup> Diario de Barcelona, 29 April 1890; La Vanguardia, 30 April and 14 May 1890.

<sup>&</sup>lt;sup>119</sup> Noticiero Universal, 15 May 1890.

they expressed their opposition to the employment of women in jobs previously held by men. The workers also urged the authorities to hear their grievances and provide a resolution.<sup>120</sup> The following day, an additional article reported the solidarity of other chocolate factory workers in Barcelona, who offered their support and resources in the event an agreement could not be reached between the parties.<sup>121</sup> In the days to come, additional meetings were held by the chocolatiers, once again with the support of the Socialist Centre, culminating in the establishment of a specialized workers' association. A board of directors was nominated to lead the association (1 June), though no mention was made regarding their place of employment, nor can any connection be established between the members and the Amatller factory workers.<sup>122</sup>

Nine days after the proclamation, on 3 June, local newspapers included a detailed explanation of the three reasons for the strike and the workers' proposals for a resolution. Unlike the news articles released at the outset, which presented a single motivation for the work stoppage – the supposed "intrusion" of female labour – both incorporated two supplementary demands related to wages and the duration of the workday.

The first proposition centred around the alleged labour encroachment of women in the workplace. This demand was motivated by both sociological and economic factors. Sociologically, it was linked to the discourse on domesticity: "these jobs are detrimental to their health";<sup>123</sup> "because it is harmful to their health during monthly periods, gestation, and lactation, a human and moral measure".<sup>124</sup> From an economic perspective, they believed employing women would negatively impact their wages, claiming: "it is harmful to the salary of men", "which, at the same time, causes prevents the depreciation of men's salary".<sup>125</sup>

Secondly, workers demanded a fixed schedule of ten hours (instead of the current ten and

<sup>&</sup>lt;sup>120</sup> La Vanguardia, 25 May 1890.

<sup>&</sup>lt;sup>121</sup> La Vanguardia., 26 May 1890.

<sup>&</sup>lt;sup>122</sup> As per the documentation of employees available at Chocolates Amatller from 1910 and 1914, these names were not on the list of employees. The board members in 1890 were: President, Adjutorio Velada; Vice President, Jaime Casals; Secretaries, José Pericar Partear and Tomás Maimó; Treasurer, Miguel Canals; Auditor, Lorenzo Fígols; and members, Agustín Puity, Juan Basora, and Jacinto Caminals. *El País*, 1 June 1890.

<sup>&</sup>lt;sup>123</sup> La Vanguardia, 3 June 1890.

<sup>&</sup>lt;sup>124</sup> El Barcelonés, 3 June 1890.

<sup>&</sup>lt;sup>125</sup> La Vanguardia. 3 June 1890.

a half hours), citing that other Barcelona factories had similar conditions but shorter hours.<sup>126</sup> In 1891, the textile industry's average work week amounted to 61.5 hours (Llonch, 2004, p. 139), equivalent to 10.25 hours per day, a figure similar to that of the Amatller factory. The eight-hour workday would not become mandatory in Spain until the Royal Decree of 1919, which established a maximum work schedule of eight hours for all jobs, regardless of type, gender, and age.

The third demand concerned workers' wages: they requested a rise to 3.5 pesetas in the daily salary (from 13.50 to 14 reals), equivalent to a four per cent increase. The average daily income for factory workers in Barcelona was 3.3 pesetas, according to the official Barcelona Yearbook, showing that the Amatller workers' demand was slightly higher than the norm, even ten years later (Nicolau, 1983, p. 77). There are further series of salary data available for several textile firms in Barcelona at the time, but the notable disparities in wages – with some paying as little as 2.25 pesetas per day (Llonch, 2004, p. 138) and others paying nearly twice as much: 4.3 pesetas (Soler, 2001, p. 179) – make it challenging to establish an empirical comparison.

Table 2. Timeline of Events Relating to the Strike at Chocolates Amatller, 1890.



Source: Compiled data from newspaper printed editions, 1890.

<sup>&</sup>lt;sup>126</sup> La Vanguardia, 3 June 1890.

On 7 June, four days after the workers' proposal and two weeks after the strike began, news media reported that no compromise had been reached and the walkout was ongoing.<sup>127</sup> The following day, a press editorial outlined conflicts between workers and employers in various local factories, including the Amatller chocolatiers, and expressed optimism about a peaceful resolution.<sup>128</sup> On that same day, the employees of the tram system went on strike and public transportation was suspended, garnering more attention and overshadowing other local strikes. Unfortunately, there is no additional evidence of the exact time the protest ended. However, it can be inferred that the strike lasted for at least fifteen days (from 25 May to 8 June).

In the context of the gender conflict under study, the voices of female workers remain silenced. The difficulty in accessing direct sources and the social environment of the time complicated finding a platform for the claims of female workers at Chocolates Amatller, as was the case for all working women of the era.

Potential avenues for amplifying working women's voices could be traced back to the embryonic stages of workers' associations in the latter half of the nineteenth century. The division within textile unionism, spurred by shifts in craftwork traditions, resulted in the creation of gender-specific unions. These female-only associations faced challenges due to limited membership and low affiliation rates, which constrained their capacity for significant representation or bargaining power until the late 1910s (Enrech, 2010, pp. 98-106). In sectors such as vineyard labour, metalworking, and glass manufacturing, the labour movement's emphasis on male exclusivity – reinforced by entrenched notions of masculinity and virility – further side-lined women's participation in advocating for social rights (Ibarz, 2007, pp. 191-194; Martínez-Soto, 2003, pp. 86-87; Villar, 2007, pp. 163-165).

In the pursuit of institutional representation, the state government established the *Comisión para las Reformas* Sociales (CRS) in 1883 as a consultative body dedicated to examining work habits, marking one of the earliest efforts to tackle social issues through legislative means. During parliamentary debates, over 300 speakers were invited, encompassing stakeholders from across the industrial spectrum: entrepreneurs, lawyers, doctors, union leaders, and merchants. Among these contributors, only one presentation

<sup>&</sup>lt;sup>127</sup> El Barcelonés, 7 June 1890.

<sup>&</sup>lt;sup>128</sup> La Vanguardia, 8 June 1890.

by a woman – who was associated with a Catholic organization – highlighted the severe implications of women's employment, particularly its impact on family obligations and the potential negative influence on dress codes and the decorum of single women.<sup>129</sup> Beginning in 1903, social reform efforts continued under the IRS, which devised numerous legislative proposals concerning women's labour. However, the IRS did not admit any female members until 1919 (Nielfa, 2003, p. 49).

Women's presence in platforms for social advocacy was both anecdotal and exceptional: even in sectors where they constituted the majority of the workforce, they were represented by male union leaders. This exclusion from executive bodies resulted in the marginalization of proposals uniquely championed by women, subsuming them under the guise of "general interests" aimed at enhancing the living conditions of the broader working class (Capel, 1986, pp. 239-242).

#### 7. Female Labour at Chocolates Amatller, 1910–1914

In 1910, Chocolates Amatller employed a total of sixty-five workers: sixty-two per cent men and thirty-eight per cent women. However, when looking at the workforce breakdown by location, the results differ slightly. The company had two locations: the headquarters in Barcelona city centre and the factory in the industrial district. In the offices, there were only twenty male employees and no women.<sup>130</sup> However, a different situation prevailed in the factory, where arduous manual and machinery-operated tasks were performed. All of the women employed by Amatller worked in the factory and accounted for the majority – fifty-six per cent of the factory workforce.

During the following four years, the trend towards higher rates of female employment in the chocolate factory continued. Although there were no changes at the headquarters, the company's success led to an increase in the number of factory employees from forty-five to fifty-six, most of them women. Female workers continued to be in the majority, increasing the gender ratio from fifty-six per cent to sixty-one per cent.

<sup>&</sup>lt;sup>129</sup> Participation of Estefanía Orroz, President of Asociación de las Conferencias de señoras de San Vicente Paúl, 4 October 1884. CRS, *Reformas sociales. Información oral y escrita, 1889–1893* (1985), V, pp. 299–300.

<sup>&</sup>lt;sup>130</sup> This absence of women in office jobs was consistent with the situation in other chocolate manufacturers such as Rowntree and Cadbury (Clarence-Smith, 2000, pp. 69-70; Fitzgerald, 1995, pp. 235-238).

	19	10	1914		
	Men	Women	Men	Women	
Headquarters / Office	20 (100%)	0 (-)	25 (100%)	0 (-)	
Factory	20 (44%)	25 (56%)	22 (39%)	34 (61%)	
Subtotal	40 (62%)	25 (38%)	47 (58%)	34 (42%)	
Total Workforce	65		81		

**Table 3.** Workers by Gender and Location at Chocolates Amatller, 1910–1914.

Source: Compiled data from Archive Chocolates Amatller, 1910, 1914.

**Table 4.** Employment by Gender, by Industry, and Geography, 1882–1924.

Chocolate factories	М	W	Barcelona factories	М	W
Amatller, 1914	39%	61%	Amatller, 1914	39%	61%
Spain – La Colonial, 1882	66%	34%	Food industry, 1906-1923	82%	18%
Spain – Matías López, 1907	68%	32%	Textile industry, 1905	24%	76%
UK – Rowntree, 1904	32%	68%	La Rambla – textile, 1919	22%	78%
UK – Cadbury, 1899	29%	71%	Ind. Jorba – textile, 1924	20%	80%
Germany – Dresden area, 1912	34%	66%			
Belgium average, 1918	50%	50%			

Source: Compiled data for Amatller (Archive Chocolates Amatller); Spain (IRS, 1882-1907); Rowntree (Fitzgerald, 1995); Cadbury (Dellheim 1987); Germany (Clarence Smith, 2000); Belgium (Scholliers, 1996); Barcelona's textile industry (Balcells, 2015); La Rambla (Soler, 2001); Industrias Jorba (Ferrer Alós, 1994)

Amatller's workforce composition was in line with that of other chocolate factories across Europe, with women representing between half and two-thirds of the workforce, a percentage that gradually increased over time (Clarence-Smith, 2000, pp. 52, 79; Scholliers, 1996, p. 172). This proportion surpassed that observed in Madrid's La Colonial and Matías López by thirty percentage points, a disparity that may be attributed to the differing years of observation, 1882 and 1907, respectively, possibly not capturing the full extent of the progressive feminization process. However, when compared to other industries in Barcelona during the same period, the process of feminization was more pronounced in the textile industry, where women accounted for as much as eighty per cent of factory employees (Balcells, 2015, p. 171; Ferrer Alós, 1994, p. 210; Soler, 2001, p. 179).

When analysing the breakdown of marital status among men and women, it is notable that a significantly higher percentage of female workers (eighty-two per cent) were single compared to male workers (thirty-six per cent in the factory and thirty-two per cent in office positions). This disparity can be attributed to the historical context: unmarried women were more likely to work in order to support their families, save money for their dowries, and leave their jobs once they got married due to the prevailing domesticity stereotype and their role in looking after the family (Camps, 1997, p. 48).

On the other hand, a higher percentage of male workers were married, suggesting that they may have prioritized their role as the primary breadwinner and sought more stable, long-term positions. The figures confirm the theory that women's participation in the workforce was brief and that they were not expected to remain employed for long periods – if at all – after marriage. Additionally, the inclusion of widows in the register indicates that women who lost their husbands (breadwinners) may have sought employment to support themselves and their families. These statistics are consistent with trends in women's participation rates in Europe during the early twentieth century, whereby married women had the lowest rates of participation, widows had intermediate rates, and unmarried women had rates approaching those of men (Humphries & Sarasúa, 2012, p. 29).

Reflecting the prevailing social norms of the time, there was a clear correlation between the marital and parental status of the workers. No unmarried worker (male or female) was recorded as having children. A higher proportion of married male workers compared to female workers implied a higher proportion of male workers (45 per cent) versus women (12 per cent) with children. Interestingly, despite a lower proportion of working mothers, those with children had the highest average number of children per worker (2.4). The data also highlights differences in family structures between factory workers, who had an average of over two children per household and tended to have larger families, and office workers, who usually held better positions, received higher pay, and had an average of 1.38 children per worker.<sup>131</sup> In terms of the gender of children, the data shows that there was an equal distribution of male and female children among workers, with both sexes

<sup>&</sup>lt;sup>131</sup> While there is no record of what salaries were paid at Chocolates Amatller, the 1910 document drawn up upon the death of Antoni Amatller (third generation) includes the full list of employees and the corresponding amounts left to each worker by the business owner. On average, factory workers received 300 pesetas per worker, while office workers received 50 pesetas.

accounting for 50 per cent of all children born to employees, albeit with a slight difference among office workers.

The information available from 1914 reveals that the age distribution of the workers at Chocolates Amatller was different for male and female employees. The majority of women (56 per cent) fell into the age group of 14–19 years, with a total of 19 employees. No female employees were found in the age groups over 44 years, with the eldest female worker being 41 years old. This data aligns with the marital status analysis, which showed that the majority of female workers were single. Therefore, it was reasonable to assume that younger people were more likely to work in the factory. In contrast, male employees were more evenly distributed across different age groups, with the highest number of male employees falling into several disparate age groups, including 14–19, 25–29, 45–49, and 50–54 years.





Source: Compiled data from Archive Chocolates Amatller, 1914.

A considerable age gap can also be observed between male and female employees. Men were, on average, eighteen years older than their female counterparts. The average age of male factory workers was thirty-nine years, while that of women was twenty-one. The age difference was even greater for male office (headquarters) employees, with an average age of forty-one. This could indicate that the company had a more established workforce of male employees in the factory and office positions, with potentially more opportunities for career advancement within the organization.

In 1914, male factory workers at Chocolates Amatller boasted an average seniority of nine years, indicating a relatively established and experienced workforce. Upon comparing both available employee rosters (1910 and 1914), the retention rate for male employees at the factory was fifty per cent over the four-year period. This trend of extensive male seniority was even more pronounced in office positions (only men worked at the headquarters) – they had worked an average of eleven years, and the retention rate increased to ninety per cent. These administrative positions were recognized as avenues for professional development, especially during the establishment of functional corporate structures. This shift increased the number of external management positions outside the family circle, a feature of managerial capitalism (Chandler, 1984, p. 474).

At variance with the men, the average seniority for female factory workers was only four and a half years in 1914. When comparing the female employees listed in the previous four rosters, the retention rate dropped to sixteen per cent, indicating a relatively shorter duration for women compared to their male counterparts. An exception to this brief presence was a select group of four women who had been working at the factory for over fifteen years, including two unmarried sisters who had been Amatller employees for more than twenty years. Excluding these outliers, the average seniority for female factory workers dropped significantly to 2.2 years, highlighting the lack of continuity of female employees in the company. Notably, there were no discernible differences in seniority among female workers based on their marital status. Overall, this indicates a gender disparity gap in terms of seniority and experience, with male employees holding a distinct advantage in job security and greater opportunities for long-term career growth.

The list of job tasks in 1910 provides additional evidence of the advancement of male workers' careers at the factory. Positions such as apprenticeships and assistants were exclusively assigned to men at Amatller, indicating that women were not given the opportunity to move into these learning-process positions. This trend was also observed in other Barcelona factories, highlighting one of the barriers to women's career progression in the workforce (Borrás Llop, 2012, p. 95). The historical division of tasks by gender, often based on physical or moral reasons, was prevalent in factories, leading to a dual labour market. Men were assigned physically demanding roles, conceived as primary jobs, while women were relegated to auxiliary and support tasks (Blau & Kahn, 2017, p. 824).

This pattern was evident in multiple manufacturing sectors in Spain. For example, in the

canned fish industry, men were responsible for fishing (primary task), and women handled cleaning and salting (auxiliary task) (Muñoz-Abeledo, 2003, pp. 303-305). In the textile sector, men took on arduous weaving tasks while women performed spinning duties (Borderías, 2008, pp. 16-20). Similarly, in glass factories, men engaged in glass blowing while women worked as crystal decorators (Ibarz, 2007, p. 223). In chocolate production, a consistent gender-based division was also evident. Men were predominantly assigned to pre-production and early stages of chocolate manufacturing, which often involved operating machinery. In contrast, women were more prevalent in post-manufacturing roles, which required manual abilities and dexterity.

The initial phase of the chocolate-manufacturing process involved the transformation of cocoa beans, the primary raw material. To produce a paste from which cocoa was extracted, the beans were roasted and peeled. This fully mechanized process was exclusively performed by men who possessed the necessary skills in machinery operation and advanced chocolate-making knowledge acquired through years of apprenticeship and labour. The preparation of cocoa paste was an example of career advancement possibilities in the factory, where tasks were divided between a manager and an assistant. After the cocoa paste was prepared, the next stage was grinding. In the past, this involved rolling mills with either manual or animal traction stones to grind the nibs into smaller particles. However, in the latter half of the nineteenth century, the industry underwent mechanization due to newly available technological innovations.

In 1876, Chocolates Amatller introduced steam-operated engines with the inauguration of their new factory. This significantly increased the company's production and productivity. The engines consisted of two units, one of thirty-five horsepower and the other of ten horsepower. All this machinery related to cylinders and steam engines was operated by male workers, as it was commonly believed that only men possessed the necessary strength and skills required for such tasks. In addition, the Spanish regulation of 28 January 1908 prohibited women under the age of twenty-three from handling machinery with certain materials, including iron, copper, and other chemicals, due to the risk of intoxication, injury, fire, or explosion.

Factory Foreman M							
<b>Pre-Production</b>		Production		<b>Post-Production</b>		Accessory Jobs	
Paste Manager N		Machinist*	М	Moulds Manager	М	Lithographer*	Μ
Paste Assistant	М	Steam Engine *	М	Moulds	W	Assistant Lit.*	M
Roaster*	М	Grinder*	М	Moulds	W	Trading Cards	W
Roaster*	М	Cylinders*	М	Moulds	W	Butler	M
		Cylinders*	М	Moulds	W	Watchman	Μ
		Cylinders*	М	Moulds	W		
		Apprentice	М	Moulds	W		
		Apprentice	М	Moulds	W		
		Mixer*	W	Chocol. Cigarettes	W		
		Mixer*	W	Shaped Chocolate	W		
		Mixer*	W	Cold-Ice Machine	W		
		Mixer*	W	Cold-Ice Machine	W		
		Mixer*	W	De-moulder	W		
		Weigher*	М	Packaging Manager	М		
		Weigher*	W	Packer	W		
				Packer	W		
				Packer	W		
				Packer	W		
				Packer	W		
				Warehouse	W		

Table 6. Factory Tasks and Gender Distribution at Chocolates Amatller, 1910.

\*Task requiring machinery operation. M = Man / W = Woman Source: Compiled data from Archive Chocolates Amatller, 1910.

Nonetheless, a select group of women played a significant role in manufacturing and operating machinery alongside male workers. Specifically, five women employees were involved in the mixing process, which involved blending ground cocoa with ingredients like sugar, cinnamon, and pepper to enhance the texture and flavour of the chocolate. The mixer mill used in the factory was imported from France and purchased in 1885 from Breyère Frères. The all-female team was solely responsible for this mechanized factory task, which was essential to the taste and reputation of the final chocolate product. It is worth noting that seniority was not a requirement for this role, as one of the employees who operated the mixing mill had been at the factory for over twenty-five years, while

the other four female workers had been with the company for less than four years. Finally, the manufacturing process also included two weighers, who were responsible for accurately measuring out the ingredients to be put into the mixing mill.

The 1910 employee roster reveals an exceptional instance within the factory's tasks: one man and one woman jointly carried out the weighing task, marking a rare exception to gender-based horizontal segregation. However, due to limited data, it is challenging to explore the development of this role further or ascertain the presence of vertical segregation within it. The roles of mixers and weighers were pivotal in the 1890s strike, pitting male workers against the employment of female labour in the factory. The men's proposal explicitly demanded the exclusion of women from these specific factory tasks, arguing for their removal from machine operation and weighing sections due to health concerns and to prevent the devaluation of men's wages. Despite these demands, the inclusion of women in such tasks highlights the industrialists' refusal to acquiesce to the men's requests.

Once the chocolate was produced, it needed to be poured into moulds to create the bars and shapes desired. This step demanded delicate and dexterous skills due to the small size of the moulds. As was the case in other industries that relied on such manual abilities, this job was included in the feminization process of the workforce (Vilar Rodríguez, 2014, p. 76). At Amatller, this task was exclusively carried out by nine women, comprising the largest number of workers in the factory's process, all under the supervision of a male supervisor. Among these female employees were some who had worked in the factory for over twenty years without any evidence of opportunities for career advancement, performing tasks similar to those of their entry-level female colleagues.

In 1890, to maintain the manufactured chocolate at a low temperature, especially during warm weather, Amatller imported a refrigerated ice maker from the acclaimed inventor Raoul Pictet.<sup>132</sup> This process did not require specific machinery operation, strength, or dexterity, yet it was exclusively managed by women. After the cooling process, the packaging phase commenced, beginning with the de-moulding of the chocolate bars, a task that indeed required manual dexterity. This post-manufacturing task was executed by a team of five women under the supervision of a male manager, mirroring the

<sup>&</sup>lt;sup>132</sup> The ice-machine represented a cost of 32,000 pesetas in 1890, a significant investment for the company at the time (Archive Chocolates Amatller, Accounting Accounting General Ledger, 1890).

arrangement in the moulding process. Once packaged, the final products were transferred to the company's warehouse, a role typically assigned to men due to the physical strength required for carrying and handling the goods. Surprisingly, this task was assigned to one woman only, challenging conventional beliefs about women's abilities in the workplace.

Promotional techniques for chocolate products included popular trading cards, which had been introduced during the late nineteenth century by several Spanish manufacturers (Martí Escayol, 2004, pp. 140-145). For Chocolates Amatller, these cards were printed with an Italian lithographic printing press supplied by Gaffuri & Gatti and operated by the manager and his assistant – both were men.<sup>133</sup> This specific machinery task was banned for "underage" women (those under twenty-three years old) by law in 1902 due to the risk of intoxication. Nevertheless, a female employee was responsible for placing the trading cards in the packaged products.

The employee roster with tasks from 1910 illustrates the segregation of labour between men and women, which was common in chocolate factories and other industries at the time. Men held managerial and supervisory roles, while women were responsible for manual labour tasks such as chocolate moulding and packaging. The factory task list reflects the gendered work patterns, reflecting broader societal norms and expectations at the beginning of the twentieth century.

# 8. Conclusions

Examining the history of women workers at Chocolates Amatller provides valuable insights into the intricate interplay between social claims and gender dynamics within the context of labour and business history. As a focused case study, this article offers a nuanced exploration and comprehensive understanding of the historical context, including workforce practices and operational strategies.

The outcome of the strike men staged in 1890 cannot be simply framed as a victory or defeat for either men or women. The male factory workers were expressing their demands for better working conditions, but unfortunately they chose to direct their frustrations towards women, influenced by the prevailing social discourse of the time. While it is true

<sup>&</sup>lt;sup>133</sup> Archive Chocolates Amatller, commercial letters and invoices from Bergamo's arts company (1886) and Accounting General Ledger (1894).

that women joined the factory as a result, it would be inaccurate to claim that they emerged as winners. Their presence in the factory remained limited, with restricted opportunities for career development and a segregation of tasks that predominantly confined them to manual labour. This gendered division of labour limited their progression up the job ladder, potentially leading to wage disparities and further marginalizing women in the workplace.

Under the guise of domesticity, the ideology justified the undermining of female wage labour. Male workers weaponized this belief to depict their female counterparts as disloyal rivals – a cheaper labour force that challenged men's privileged access to employment. Importantly, work itself held the potential for women's emancipation, challenging the patriarchal model that subordinated them to marital authority. Additionally, women faced the hostility of their male colleagues, who perceived them as intruders and a threat to male job security.

The case of Chocolates Amatller holds particular significance as it places the strike among the earliest documented gender conflicts in Spain, where workers sought to impede the introduction of female labour. The male strike highlighted the complex dynamics surrounding gender and factory work during that period and is clear evidence of male resistance to the employment of women in certain roles, which reflected deep-seated norms as a fear of job displacement.

Investigating the role of female workers in the factory twenty years after the strike demonstrates that women subsequently played a participative role in the chocolate factory. However, the prevailing societal norms and expectations of the time persisted, resulting in a distinct division of labour based on gender. Women were primarily assigned manual tasks and other supporting roles in the manufacturing process, while men occupied managerial and supervisory positions, overseeing operations and decision-making processes. Although there were exceptions, female employees lacked seniority and faced limited opportunities for career progression, highlighting the gender disparity and restricted professional growth.

Delving into the experiences of male and female workers, we can gain a deeper understanding of how social claims can manifest as gender conflicts in the workplace. Although limited by the available corporate records, this case study provides valuable insights into the feminization of workplaces in Barcelona at the dawn of the twentieth
century. Further, we can better appreciate the significance of these narratives in illuminating the complexities surrounding social claims for better living conditions by male workers and the challenges faced by female labourers in their pursuit of employment opportunities in modern factories.

This article reveals possible avenues for future research to complement the exploration of female labour introduction in factories. These investigations might examine the balance between men and women, analysing the extent to which they were competitors or complementary figures. Such inquiries would enhance the comprehension of gender dynamics, power, skill distribution, and societal perceptions within industrial workplaces. Moreover, these future studies would contribute to a more comprehensive understanding of the multifaceted transformations in the labour landscape and business practices.

Figure 1. Female Employees in the Moulding Section at Chocolates Amatller, 1915.



Source: Mundo Gráfico, 1915.

Figure 2. Female Employees in the Cooling Section at Chocolates Amatller, 1915.



Source: Mundo Gráfico, 1915.

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## **Concluding remarks**

The primary objective of this thesis has been to address a significant oversight in the fields of economic and business history by providing an in-depth study of chocolate manufacturing in Spain. While the histories of chocolatiers have been extensively explored in countries such as Great Britain, France, Germany, and Switzerland, the Spanish perspective has remained largely underrepresented in international historiography. This omission is particularly striking given Spain's seminal role in introducing cocoa to Europe and its dominance in cocoa imports until the 1860s. By focusing on Spain, and specifically on the case of Chocolates Amatller, this research fills a critical gap, shedding light on how a chocolate manufacturer not only ascended to prominence among Barcelona's bourgeois elite but also influenced broader economic and industrial trends. This thesis aims to enrich the existing discourse by contextualizing the Spanish chocolate industry's historical evolution within both regional and global frameworks, illustrating its contributions to and its role within the economic and business history of chocolate.

This thesis centres on the case study of Chocolates Amatller, a distinguished family of chocolatiers primarily renowned for their iconic family residence on Passeig de Gràcia. However, this study also aims to celebrate their role in the development of the Spanish chocolate industry. The research conducts a longitudinal analysis of a broad spectrum of business operations, including technological innovation, labour dynamics, marketing initiatives, and management strategies. Collectively, these aspects have fuelled the company's growth and fostered innovation within the chocolate sector during significant periods of industrialization and modernization.

Furthermore, by contextualizing Chocolates Amatller within the broader economic and business frameworks of Catalonia—where small and medium-sized enterprises (SMEs) have historically been prevalent—the research deepens the understanding of business strategies in both regional and national economic development. By examining the interactions between these enterprises and the broader industrial growth, particularly through the specialized lens of the chocolate sector, this thesis offers a nuanced analysis that illustrates detailed examples of how SMEs navigated industrial changes and adapted their operations over the long term.

This thesis has been structured into three distinct chapters each dedicated to exploring interrelated themes that collectively offer an examination of the industrialization of chocolate in Spain. Chapter I analyses the evolution of Spain's chocolate industry, Chapter II investigates the strategic business decisions that catalysed Chocolates Amatller's rise, and Chapter III explores the broader societal implications on gender dynamics within the workforce. Each chapter meticulously correlates with the central research questions, underscoring the critical importance of chocolate manufacturing in the context of Spanish economic and business history, and elucidating Chocolates Amatller's influential role within this sector. This research approach not only enhances our understanding of the historical and procedural aspects of the chocolate industry but also clarifies the dynamics within the agri-food sectors, offering observations on how industry-specific practices influence broader economic trends.

The findings in Chapter I provide a comprehensive analysis of the evolution of chocolate manufacturing in Spain, tracing its journey from being a primary gateway for cocoa into Europe to its developments through the industrialization period after the second half on the nineteenth century. This chapter situates the Spanish chocolate industry within a historical context and on an international comparative scale, detailing major transformations during a critical period of industrial and economic change.

Initially, Spain was a leading importer of cocoa, thanks to its colonial connections, particularly with Venezuela and Ecuador. By the 1860s, however, Spain's dominance began to wane due to the loss of these colonies and a shift in trade routes that increasingly favoured the British and French markets. This marked a stark contrast from its earlier prominence and set the stage for subsequent industrial shifts. Compounding this decline were high protective tariffs imposed by the Spanish government, which aimed to increase tax revenues from colonial goods but instead made cocoa more expensive and less accessible, severely hampering the competitiveness of the national chocolate industry.

Moreover, the slow pace of nutritional transitions within Spain meant that chocolate, despite its growing global popularity, remained a luxury product consumed mainly by the wealthy, further constraining the market. The entrenched guild systems also stifled innovation by dominating the entire supply chain of chocolate, from procurement of raw materials to manufacturing and sales, thereby delaying the adoption of technological changes.

Over time, a few forward-thinking chocolatiers, including Chocolates Amatller in Barcelona, began to break away from these constraints, embracing mechanization and constructing modern factories after the 1870s. This transition from traditional handgrinding methods to steam-driven production significantly altered the landscape of chocolate manufacturing. The period also witnessed the emergence of large market players in Madrid such as La Colonial and Matías López, as well as La Riojana in Málaga, who modernized their production facilities and adopted new technologies. Accompanied by targeted marketing strategies, such as the use of billboards, collectible cards, and calendars, these efforts began to democratize chocolate consumption and shift the market landscape towards branded strategy orientation.

This chapter aims to present the status of Spanish chocolate manufacturing and also provides a comparative analysis with European counterparts. It highlights that although Spanish chocolatiers initially lagged behind in terms of industrial modernization, they eventually adopted similar technologies and production methodologies. This alignment was crucial in helping the Spanish chocolate industry regain some of its lost stature, although it never fully recovered its former leading role. Through these findings, Chapter I lays the groundwork foundation for understanding the theme of chocolate industrialization discussed in subsequent chapters, detailing the connections of economic policies, market dynamics, and technological changes in shaping the sector's development trajectory in Spain.

Chapter II contributes to ongoing debates in business history by utilizing strategic frameworks for longitudinal analysis of companies over the long term. This chapter introduces a structured methodology to evaluate a company's strategic initiatives and examines how businesses historically secure competitive advantages over time. Specifically, this study employs Michael Porter's Value Chain model to offer a comprehensive understanding of individual corporate activities. It reveals how integrated corporate functions, including logistics, operations, marketing, and human resources, synergistically enhance the company's market position and create competitive advantages.

The strategic sourcing practices at Amatller, which included establishing a network of international contacts, enabled the company to procure essential raw materials for chocolate production, such as cocoa and sugar, at costs significantly lower than typical market prices. This approach provided substantial cost advantages through direct imports

from major cocoa-producing countries such as Venezuela, Ecuador, and Fernando Poo, as well as from intermediary countries like England and France. Another successful strategy that distinguished Chocolates Amatller was their innovative approach to marketing. Although their printed advertisements in newspapers did not perform as well as those of their Madrid competitors, the company effectively utilized trademark registrations and collaborated with renowned artists to create distinctive collectible cards and posters. These efforts not only enhanced brand recognition but also deepened consumer engagement and loyalty. Additionally, the financial acumen of Antoni Amatller, who improved the company's capital base and minimized reliance on external financing, supported ongoing investments in both the factory and the iconic family residence, ensuring the company's long-term sustainability.

The comparative analysis among the Spanish chocolatiers reveals that while Amatller demonstrated exceptional prowess in several aspects of the value chain, its advancements in other areas merely paralleled the broader Spanish economic context, lacking superior positioning against its competitors. Specifically, Amatller incorporated modern machinery and technology that enhanced production capabilities and operational efficiencies, thereby increasing productivity. Yet, these improvements, although valuable, did not confer a competitive advantage, as they merely enabled the company to align with the standards of Madrid-based chocolatiers. Similarly, in distribution, Amatller expanded its presence in southern and central Spain by establishing warehouses in major cities, but this expansion only served to match the scale of its rivals in Madrid.

These findings also underscore the context in which Spanish chocolatiers operated, benefiting from high tariffs on international competition that created a protected environment. Unlike their European counterparts, Spanish chocolatiers did not pioneer or patent new technologies; instead, they imported advancements that had been developed elsewhere in Europe. This adoption strategy highlights a lack of innovative differentiation within the local industry. Additionally, the delayed implementation of food safety regulations and the broader feminization of the labour force were characterized by an exploitation of regulatory gaps and industry norms, aimed primarily at reducing production costs rather than fostering genuine innovation

This second chapter merges insights from business history with strategic management to deepen the understanding of Chocolates Amatller's corporate performance. It examines

the synergy between cost management and value creation strategies, demonstrating how this enterprise was able to succeed in the Spanish chocolate market.

Chapter III examines the historical context of gender dynamics at Chocolates Amatller, set against profound shifts in societal and industrial landscapes at the end of the nineteenth century. This section begins by analysing the impact of the feminization process in factories and how prevailing social norms and trade union movements influenced employment practices and gender conflicts. During this period, the societal stereotype of domesticity justified the economic marginalization of women by portraying men as the breadwinners and primary earners, while relegating women to the role of caretakers at home. These norms were often exploited by male workers who viewed their female colleagues as economic threats, illustrating a broader societal conflict over gender roles and economic security.

A critical moment for this study is the 1890 strike at Chocolates Amatller, where male workers protested against the integration of women into the factory workforce. This event, marking one of Spain's earliest documented gender conflicts in an industrial setting, serves as a starting point and catalyst for exploring how male workers sought to maintain their employment monopoly by opposing the entry of women into the workplace, viewing them as rivals.

Following the staged protest, the chapter explores the shift in workforce composition at the Barcelona chocolate factory. Despite initial resistance, the inclusion of women in Amatller's workforce significantly increased, with women comprising over 60% of the labour force by 1910. This shift indicates a gradual but marked transformation in employment practices, although it did not necessarily translate into equal career development opportunities for women. Further findings reveal that even as more women joined the workforce, they were predominantly assigned to manual and supportive tasks, while managerial and supervisory roles continued to be reserved for men, perpetuating a gendered division of labour and limiting professional advancement for female employees. Persistent societal norms and gender expectations maintained a strict division of labor based on gender, resulting in both vertical and horizontal segregation within the factory.

The case study presented in Chapter III provides an example of the defence mechanisms employed by male workers to prevent female counterparts from entering the workplace and contextualizes the strike within the historical labour dynamics. The analysis sets the stage for a broader discussion on labour practices that resonates with ongoing debates in social and business history, revealing the long-standing effects of exclusionary practices on economic and social structures.

The comprehensive analysis provided in the preceding chapters offers a nuanced understanding of the chocolate manufacturing in the broader context of Spanish industrialization and its societal implications. Each chapter, distinct yet interconnected, forms a coherent narrative that weaves together the strands of economic, business, and social history. The findings from this thesis not only address the central research question concerning the success history of Chocolates Amatller, but also enriches the historiography of Spain's Non-Leading sectors. Furthermore, they serve as an example of longitudinal study in SME operations and strategies during a period marked by significant transformation in the late nineteenth and early twentieth centuries.

Additionally, these chapters underscore how Chocolates Amatller's rise to prominence among Barcelona's bourgeoisie was not merely a story of the construction of a renowned family residence, but also one of industrial innovation and social influence. The company's trajectory illustrates the broader impacts Spanish industrialization on chocolate manufacturing, revealing how external and internal pressures shaped its development. This included the transition from traditional handcrafting to mechanized production through the construction of a modern factory equipped imported machinery, the necessity of accessing international networks to secure competitively priced raw materials, and the use of innovative marketing techniques that fostered brand recognition. These corporate strategies supported the evolution of chocolate as a consumer product in Spain, which gradually evolved from a luxury item to a staple food available to a wider public.

The methodological implications of relying heavily on archival materials to reconstruct business histories are significant, offering a perspective on the research approach. While archival research provides historians with firsthand accounts of business operations, strategies, and economic contexts, it also presents challenges. The availability and condition of the sources, as well as the inherent biases in the materials preserved, can limit the scope of analysis. However, these challenges have been addressed by consulting additional archival sources and incorporating complementary secondary sources. The thesis adopts a more empirical understanding of history, but also seeks to ground its findings in theoretical frameworks, which are then illustrated through concrete examples and detailed case analyses. By situating this discussion within the context of the findings, the influence of these methodological choices on both the depth and the interpretation of historical narratives becomes evident.

This research is subject to certain limitations that merit consideration, particularly its reliance on archival materials from Chocolates Amatller. While these documents provide valuable insights, they offer a singular perspective that may not fully capture the broader industry dynamics or the experiences of Madrid chocolatiers, whose archives have not been preserved. Potential biases and gaps in these archival records, such as missing documents or unrecorded aspects of labour dynamics—especially concerning female workers—could limit the comprehensiveness of the historical narrative constructed. Additionally, the focus on a specific company within a specific industry might restrict the generalizability of the findings. The unique context of Chocolates Amatller, influenced by its specific market position and business strategies, provides a distinct lens on the Spanish perspective of chocolate industrialization, but may not fully encapsulate the experiences of other chocolate manufacturers in Spain or Europe.

These inherent limitations suggest potential avenues for further exploration, enriching the impacts of the broader economic and social implications of the chocolate industry. Future studies might benefit from a comparative approach, analysing Chocolates Amatller alongside chocolatiers across Europe or comparing the corporate performance with similar food enterprises within Spain. Such research would expand insights into industrial practices and strategies, enhancing the assessment of the findings' applicability from Chocolates Amatller to other contexts.

While this thesis has primarily focused on the third generation of Chocolates Amatller's leadership, due to its historical significance during Spain's industrialization, the depth of archival resources available, and the construction of the iconic family house, extending the analysis to cover the company's entire timeline from its founding in 1797 to its sale in 1972 could offer complementary insights. Such an extension would allow for a comprehensive examination of the company's adaptive strategies and resilience over nearly two centuries and four generations. This broader scope would not only reinforce the lessons gleaned from the focal period but also provide a richer understanding of how the company navigate in the extended long-term.<sup>134</sup>

<sup>&</sup>lt;sup>134</sup> The extended exploration of Chocolates Amatller's historical impact across four generations

Further studies could explore specific topics raised in this thesis. For instance, an in-depth analysis of tariff claims and public discourse among Spanish manufacturers could shed light on the impact of public policies and corporate strategies. Similarly, exploring marketing dynamics, particularly how Chocolates Amatller utilized the talents of renowned artists like Alphonse Mucha, would contribute to the understanding of brand differentiation and the integration of art in promotional strategies. Additionally, investigating the role of art and philanthropy in shaping corporate identity and community engagement within the Spanish economic and business history context could uncover how businesses leverage cultural capital and actively participate in public giving.

As the concluding thoughts of this thesis, it has become evident that the exploration has cast a spotlight on key elements of Spain's industrial history, particularly through the example of the chocolate manufacturing industry, with a particular focus on Chocolates Amatller. This analysis has underscored the substantial role such enterprises play within the broader economic and social landscape, demonstrating how their strategies, technological innovations, and interactions with societal trends profoundly influence the industrial landscape. The comprehensive examination of Chocolates Amatller's strategic manoeuvres and their wider societal impacts has deepened the understanding of how industrialization is integrally connected with both environmental and operational factors.

The enduring legacy of Chocolates Amatller provides valuable lessons on the resilience and adaptability—qualities essential to prosper through the continuous waves of change in the long term. The company's skilful navigation of complex market dynamics, regulatory challenges, and societal shifts serves as a model for contemporary business facing similar environmental transformations. In today's globalized landscape, filled with both opportunities and challenges, Chocolates Amatller's strategic responses underscore the relevance of embracing a holistic approach to managing company operations. Understanding corporate success involves integrating various business activities, from supply chain management to customer engagement, ensuring that strategic decisions are shaped by a balanced understanding of internal capabilities and their adjustment to external market condition

is the subject of a forthcoming book, which is under contract with Emerald Publishing (SPI Q1 15/76 Foreign Publishers), to be included in their 'Frontiers of Management History' series.

Reflecting on this historical narrative prompts a broader contemplation of how businesses can actively engage and foster cultural and economic dynamism. As Barcelona evolves into a global city, the legacy of its historical enterprises reinforces the necessity of integrating business success with cultural heritage. In this context, the story of Amatller enriches the understanding through its corporate achievements and serves as an inspiration for future businesses striving to harmonize economic objectives with cultural richness and social responsibility.