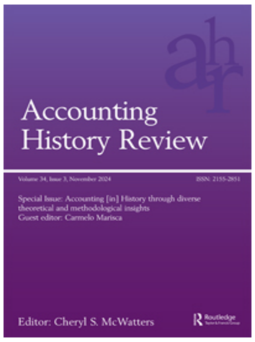

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Explaining stable accounting practices at the Mahou brewery, Madrid, 1890s to 1970s

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ABSTRACT
Given the generally ubiquitous practice of brewing, exploring accounting in breweries is useful to understand the evolution of accounting practices within firms over time. Breweries, many of which have survived for centuries, operate(d) in differing political, legal, professional and economic contexts, yet produce a relatively standardised product. A standard product but differing context may influence how accounting was practised within breweries over time, and some prior studies have adopted institutional concepts to explore the stability/change of brewery accounting. To date, much of the existing research is in an Anglo-Saxon context. This study contributes to a growing literature in other contexts by exploring Mahou, a Spanish brewer with the aim to examine how internal accounting practices were affected by a differing institutional context and the stability/change of these practices. The accounting records of Mahou reveal stable practices over the study period, despite change in its operating context. They also reveal an emphasis on meeting legal requirements, with less evidence of accounting information which may be useful for decision making. This conclusion is in apparent contrast to practices at other breweries of a similar period.

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Introduction

While the accounting history literature on brewing has seen an increase in its volume recently (e.g. Moreno, Jones, and Quinn 2019), much of this research draws on data from breweries in the Anglo-Saxon context. There is also some work on breweries in Germany (e.g. Quinn and Kristandl 2021), Spain (e.g. Moreno and Cámara 2014, 2016), and Italy (Antonelli, D'Alessio, and Cafaro 2016; Doni, Frausin, and Gasperini 2016). Brewing is relatively ubiquitous, with a similar production process and output regardless of the context. This profile creates an interesting context to study how accounting may have evolved in different contexts over time, as it might be expected to be similar. However no prior studies have explored similarities or differences in accounting within breweries in this way.

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In addition to an Anglo-Saxon context, some of the aforementioned research has used an institutional framing. While theoretically valid and useful to help explain change and stability in accounting over time, the fact that the institutional context is predominantly that of the United Kingdom (UK) limits our knowledge of other contexts. Thus, this study's objective is to explore how accounting practices at Mahou may have been affected by a different institutional context over time. Mahou occupied third position in rankings of Spanish breweries according to production share in 1936 and second position in 1980 (García Ruiz and Laguna Roldán 1999). While its product (beer) was/is the same as other previously studied breweries, the institutional context in which Mahou operated was quite different. Some differences include legislative requirements, the popularity of wine (García Barber 2014), the lack of a formalised accounting profession (compared to the Anglo-Saxon context), and business size and structures. To achieve the study's objective, we draw on accounting records covering a timeframe of about 80 years of Mahou's history as determined by the available archival data. Using these data, alongside secondary sources and legislation to build a picture of the institutional context faced by Mahou, we analyse how that context affected accounting within the brewery and how it compares to other contexts. To tease out the external institutional context, we draw upon two of Scott's (2014) pillars of institutions – namely regulative and normative. Additionally, what the accounting records convey about the institutionalised (or not) nature of accounting within Mahou is considered by drawing on the concept of routines. Thus, the study follows an institutionalist history approach as suggested by Rowlinson and Hassard (2013), that is, using an institutional lens to illuminate history.

The remainder of the study is structured as follows. The next section provides a summary of relevant literature on accounting in breweries – particularly those using an institutional framing – and prior historical research on accounting in Spanish breweries. The section also summarises the institutional pillars noted by Scott (2014) and organisational routines, justifying their use for the present study. The following section provides important contextual data, including an overview of the history of Mahou and a summary of the professional and regulative context of accounting during the period covered by this study. The methods and sources are also outlined. The accounting practices as evidenced from the Mahou archival records are then revealed and analysed. The final section summarises the study, offering suggestions for future research and noting limitations of the present study.

Literature review

Institutional pillars

Given this study adopts an institutionalist history approach, a review of relevant literature on institutions and the use of institutional concepts helps set the context of the study. To begin a definition of an institution is useful. Scott defines institutions as 'composed of cultural-cognitive, normative, and regulative elements that, together with associated activities and resources, provide stability and meaning to social life' (2014, 56). Two broad theory streams are used to study institutions – institutional economics and institutional sociology (IS). Organisations are institutions and are influenced by other institutions. Accounting is also an institution, or at least an institutionalised practice (Burns and

Scapens 2000). In this study, a neo-institutionalist history approach is adopted (Rowlinson and Hassard 2013), which is mobilised by using contemporary IS concepts; namely pillars of institutions and routines and rules (see next subsection) to analyse historical institutionalised accounting practices. IS has been utilised previously by accounting scholars (e.g. Seal 2006; Tsamenyi, Cullen, and González-González 2006; Nor-Aziah and Scapens 2007); and in historical studies (e.g. Antonelli, D'Alessio, and Cafaro 2016).[1] We use Scott's (2014) three pillars of institutions to analyse the institutional context faced by Mahou for the period of study (see Table 1). Scott's (2014) pillars of institutions are termed regulative, normative, and cultural-cognitive. The regulative pillar reflects sources of power, including laws, which are coercive mechanisms which may bring about institutions. The normative pillar refers to norms and values, such as legitimate profit-seeking behaviour or professional norms – the latter applies in the case of an accounting profession. These norms and values similarly may bring about institutions, but are not mandated as in the regulatory pillar. The cultural-cognitive pillar focuses on common meanings and conceptions within a cultural setting, that is, within an organisational field. Given the historic nature of this study and the documentary sources used, the cultural-cognitive pillar is not utilised (see more detail on methods later).

In the context of the present study (namely Spain) a study by Rodrigues and Craig (2022) is worthy of mention. Their study 'investigate[s] factors that have influenced the professionalisation of accounting in five Latin American countries (Argentina, Brazil, Chile, Colombia and Mexico)' (2022, 1) – four of these countries have strong historic links to Spain. The study focuses on how organised labour/labour relations affected the professionalisation of accounting. The authors utilise historical institutionalism, which they suggest 'offers a beneficial approach to institutional analysis because it recognises that historical change is shaped over long periods by sequences of social political and economic behaviours' (2022, 4). We propose, however, that the approach used by Rodrigues and Craig (2022) is less suited here. Peters, Pierre, and King (2005, 1279) summarise historical institutionalism as stemming from 'scholarly interest among comparative political sociologists in the state as an analytic concept' and 'analytical significance ascribed to institutional arrangements, both formal and informal, in western democracies for explaining behaviours and policy choice'. Steinmo (2008, 118) similarly highlights the focus on the State and change in defining historical institutionalism as 'an approach to studying politics and social change'. These definitions highlight that historical institutionalism as used by Rodrigues and Craig (2022) is useful when the State as an institution and/or

Table 1. Three pillars of institutions (Scott 2014).

	Regulative	Normative	Cultural-cognitive
Basis of compliance	Expedience	Social Obligation	Cultural-Cognitive
Basis of order	Regulative Rules	Binding expectations	Constitutive schema
Mechanisms	Coercive	Normative	Mimetic
Logic	Instrumentality	Appropriateness	Orthodoxy
Indicators	Rules Laws Sanctions	Certification Accreditation	Common beliefs Shared logics of action Isomorphism
Affect	Fear of guilt/innocence	Shame/honour	Comprehensible Recognisable Culturally supported

Note: the Cultural-cognitive pillar is shown for completeness but is not used in this study's analysis.

political change is the focus of the study. Our study's objective implies an analysis of organisational practices (accounting at Mahou) and the institutional context which may have affected them – including the influence of the State. Thus, as mentioned, we adopt a neo-institutionalist history approach to illuminate history, not to explain political or social change. The elements of Scott's (2014) pillars of institutions are more detailed and more appropriate to the present study, as the level of analysis is at a lower level (i.e. organisational) than studies such as Rodrigues and Craig (2022). How these concepts as given by Scott (2014) are utilised in this study is detailed later.

Institutionalised accounting practices

The previous subsection highlights that the macro-level institutional context affects how organisations perform certain functions and tasks – such as accounting. However, even institutionalised (i.e. taken-for-granted) accounting practices can change from within an organisation (Burns and Scapens 2000), often initiated by institutional agents (Clerkin and Quinn 2021) or institutional work (Lawrence and Suddaby 2006). Such change can be conceptualised as change in accounting routines and/or rules (Burns and Scapens 2000). Indeed, some of the above-mentioned accounting history studies have utilised routines and rules to interpret accounting stability/change over time. Thus, accounting practices within an organisation can be influenced by external institutions as mentioned earlier, but also by forces within the organisation itself which bring about change.

A brief overview of routines and rules as concepts is useful prior to outlining how they are applied in accounting histories of breweries – only routines are considered in this study, however. Pentland (2011, 280–281) defines (organisational) routines as having four features: (1) repetition; (2) the occurrence of a recognisable pattern of action; (3) interdependent actions; and (4) the involvement of multiple actors. Routines are presented as a crucial element of organisational life and a key building-block for stable practices (such as accounting), but they are also a source of change. Earlier work by Feldman and Pentland (2003) highlights how change to routines occurs. They, and Pentland and Feldman (2005, 2008), underscore how interactions within dimensions of routines – the ostensive and performative dimension – can bring about change, but also foster stability. Thus, routines have potential for change (at each performance through the performative routine dimension), but foster stability of what the routine is about in the actors' minds (the ostensive routine dimension). Pentland's (2011) definition, with its checklist of elements of routines, allows us to determine more easily what is/is not a routine (e.g. an action performed once is not a routine). Over time, if actions are repeated, they may become institutionalised and stable, but there is always potential for change from within or without the organisation, for example, through external shocks or regulation as highlighted by Burns and Scapens (2000).

Although not used here, the concept of rules in organisations has also been the subject of much research. Burns and Scapens (2000) suggest rules in management accounting represent how tasks should be done, portraying a more formal quality of routines. While Burns and Scapens (2000) argue that rules should be formal, others such as Hodgson (2006) and Reynaud (2005) propose that rules are explicit but can be informal.

Rules, like routines, can also change. Morgen and Olsen (2011) suggest for example rules are not fixed, and over time, rules can and do change in response to external events and action – linking rules to the institutional context mentioned in the previous subsection.

Accounting in breweries

Kristandl and Quinn (2018, 207) note that 'the brewing industry […] has much potential value to accounting history researchers'. Most literature on accounting in brewing covers a period from the late 1800s onwards – an exception being Quinn and Kristandl (2021) which explores a German brewery from the 1600s. A reason most studies date after the 1800s is that many breweries were floated on British stock markets,[2] resulting in more stringent accounting and audit requirements, which in turn implies a likelihood of more available historic records. We next review some key studies, particularly those drawing on institutional concepts and a Spanish context.

Quinn and colleagues have published several studies on the Irish brewery, Guinness, some using institutional concepts. Quinn (2014) uses rules and routines to outline both change and stability in accounting practices in one department of Guinness over a century or so. He follows the accounting history of the cooperage within the Guinness brewery, establishing that accounting practices as routines remained quite stable over many years, although change did occur in response to internal and external stimuli. He also notes how changes to accounting practice occurred such as departmental account changes and new ledger accounts, and how repetition of these practices implied routinisation. Quinn and Jackson (2014) similarly exploit routines in their case exploring how some accounting routines within Guinness changed with the outbreak of the First World War, reporting how new accounting routines were established following the outbreak of the First World War. They note how the increased cost of insuring beer shipped by sea from Ireland to Britain was allocated to various stores the company had at Liverpool, Newcastle-on-Tyne, Glasgow and Bristol, amongst others. This new practice of allocating additional war-related cost was repeated and became routinised, but drew on the existing practice at Guinness of allocating costs to stores (i.e. cost centres in contemporary accounting speak). Other studies on Guinness include Hiebl, Quinn, and Martínez Franco (2015), Martínez Franco et al. (2017) and Martínez Franco and Hiebl (2018), all of which provide insights on various accounting-related items from the Guinness brewery. Moreno, Jones, and Quinn (2019) analyses parts of the annual reports of Guinness using content analysis methods, whereas Moreno and Quinn (2020) employs content analysis and institutional sociology to help explain differences in the content of the documents used across various time periods. The authors, in a similar way to Rodrigues and Craig (2022), suggest certain changes to institutions over time may have affected the document content.

Beyond the Guinness brewery, Kristandl and Quinn (2018) establish accounting practices in the Whitbread brewery as routinised, focusing mainly on tax compliance (Talbot 2006) with some year-end summary reports prepared by the external audit firm which may have been useful for management decision making. They note how, in contrast to Guinness, the external shock of the First World War did not affect accounting at Whitbread and the internal records remained quite stable over their 35-year analysis period. An additional study is that of Antonelli, D'Alessio, and Cafaro (2016), which examines accounting at the Italian brewer Peroni from 1896 to 1946. The authors use an institutional lens to explore Peroni's accounting practices, noting their similarity to those in breweries in Anglo-Saxon countries.

In the Spanish context, Moreno and Cámara (2014) focuses on the *El Alcázar brewery* and draws on the institutional contexts encountered in Spain over time. Their study of the content of a narrative report to shareholders (a management report, or *Memoria* in Spanish) from 1928 to 1993 offers insights on the (political) institutional settings faced by the brewery. This period, in their words, witnessed 'deep social, economic, cultural and political changes' (2014, 369). The study focuses on political change as a key driver of institutional change (see Scott 2014 later) and how such change affected the content of the *Memoria* over time. They thus regard the organisation (the *El Alcázar* brewery) and accounting as institutions (or at least institutional practices in the latter case). Moreno and Cámara (2014) describes three political institutional stages from 1928 to 1975 (a period relevant to this study), namely political instability (1928–1939), dictatorship – autarchy (1939–1959) and dictatorship – opening (1959–1975). Their analysis reveals some statistically significant differences in the content of *Memoria* across the periods, highlighting that at least this element of accounting practice was affected by changing political contexts in Spain. The present study follows a similar vein, but goes into more depth by examining accounting practices through the books of account of a business rather than an outward-facing report (see later).

Some general historical literature relevant to the Spanish brewing sector and/or individual Spanish brewers is also worthy of mention. García Barber (2014) provides an extensive history of brewing in Spain from the sixteenth century to 1913. According to García Barber (2014), wine was the primary alcoholic drink in the mid-1800s, at least in part due to the difficultly of conserving beer in a warmer climate. In 1871, Camps and Küntzmann founded Spain's first brewery to use artificial cooling to brew at lower temperatures. The resulting beer was lower in alcohol, but more refreshing in taste. This development in brewing methods saw more beer producers emerge across Spain (García Barber 2014). As will be detailed later, García Ruiz and Laguna Roldán (1999) focus on the history of the Mahou brewery. Habbershaw (2009) explores the history of *El Águila* brewery (acquired by Heineken in 1984). While details of *El Águila* are not given here, the story portrayed by Habbershaw (2009) of *El Águila*, by García Ruiz and Laguna Roldán (1999) of Mahou, and others such as García Barber (2014) is quite similar – all identify specific periods in the development of the Spanish beer market. For example, slower growth was experienced up to 1936; the market was at best stagnant from 1936 to 1958; then grew from 1958 to 1977; and from 1978, with democracy restored, the market matured and became more concentrated. These periods are similar to those mentioned by Moreno and Cámara (2014), and support the analysis of Moreno (2013), which suggests the Spanish brewing industry developed slowly until 1939, became stagnant after this time, and improved again from 1960.

Context, sources, and methods

This section first gives some context for the present study from two aspects, that of Mahou itself, and the institutional context of Spain as relevant to accounting. The latter context is determined through an exploration of relevant literature and legislation. We then outline the archival sources and research methods.

Mahou

We begin with a brief history of Mahou, summarised from a very useful volume *Cervezas Mahou – un siglo de tradición e innovación* by García Ruiz and Laguna Roldán (1999). Today, the Mahou San Miguel company generates revenues in excess of €1 billion and annual profits of around €100 million.[3] Its origins were small, but it remains a family-owned business. According to García Ruiz and Laguna Roldán (1999), Casimiro Mahou Bierhans moved from his native Lorraine (France) to Madrid in 1850. At this time, capital was flowing from France to Spain, particularly in businesses which manufactured paint and decorations. Having partnered in a business which manufactured wallpaper, in 1859, Casimiro founded his own business manufacturing paint and varnish. The process used steam, which was in turn used to produce ice. Casimiro died in 1875, and the business was continued by his widow and sons. In October 1889, the business was formalised as a *Sociedad Regular Colectiva*[4] (SRC) by Casimiro's four children[5] under the name *Hijos de Casimiro Mahou*. García Ruiz and Laguna Roldán (1999, 22) note how the brewing of beer was not noted as an object of the SRC, but in May 1891 the first beer was brewed using mainly German equipment at a newly constructed brewery at Calle Amaniel in Madrid. The brewing process was managed by Konrad Stauffer Ruckert.

Over time, beer sales expanded beyond the initial market of Madrid and in 1904, a new brewery was opened at Gibraleón (Huelva). The brewery was close to the waters of the Odiel River, to a port, and to an iron and copper mining area. Output data before 1901 appear to be unavailable, but production volumes between 1901 and 1960 increased from about 146,000 hectolitres to 3.4 million hectolitres. García Ruiz and Laguna Roldán (1999, 74) attribute Mahou's successful growth in the interwar period to Casimiro Mahou García. He is credited with upholding good labour relations (García Ruiz and Laguna Roldán 1999, 78–83), replacing corks with metal bottle tops in 1922 (García Ruiz and Laguna Roldán 1999, 39) and building a malting facility in 1928. He was not only was a key figure manager within Mahou but also in Madrid's business circles. Mahou García was president of the *Cámara de Industria de Madrid* (Madrid Industrial Chamber) from 1931 to his death in 1943; founded a bank (*Banco Mercantil e Industrial*) with Rafael Salgado Cuesta in 1931; and was a director of a bank (*Banco Vitalicio de España*), an insurance firm, and of the Spanish-American Cinematography Society (García Ruiz and Laguna Roldán 1999, 75–76). The beer production facilities were seized, and production fell dramatically between 1936 and 1939 as a result of the Spanish Civil War, and it was not until 1954 that the production levels of 1936 (c. 800,000 hectolitres) were reinstated. In 1957, the business changed legal form to a *Sociedad Anónima (SA)* – a limited company. Mahou acquired San Miguel in 1993 to become the largest Spanish owned brewery at that time.

García Ruiz and Laguna Roldán (1999) provides information on income generated by Mahou, and profits for years earlier than the analysis period here – at this time, the business was not brewing beer. Profits in 1868 were 29,200 pesetas, rising to 253,982 pesetas by 1888 – the latter amount equates to about €750,000 in 2023 values. On incomes, García Ruiz and Laguna Roldán (1999, 253–254) estimate sales for the period

1892–1959 based on the price of beer multiplied by sales quantities. What is notable from their calculation is that from a base of 100 in 1892, the index rises to 39,675 in nominal terms by 1959 (100–3611 in real terms). The most notable period of growth in the income numbers is from 1952 to 1959, when the real values increased approximately threefold from 1245 to 3611. While not based on accounts, these numbers reflect growth over time.

The institutional context – normative

As indicated earlier, the Spanish institutional context likely differs from that of Anglo-Saxon breweries – see Carmona (2006) for a useful overview of accounting's development in Spain. The work of Moreno and Cámara (2014) provides a useful starting point, describing institutions in Spain from a political view (see literature section) and covering some of the period of this study. Unlike this study, Moreno and Cámara (2014) does not however examine legislation (regulative influences on institutions), nor the professional context of accounting – the profession being a normative influence on institutions (Scott 2014).

Extant literature provides some detail of the evolution of accounting in Spain, and the work of Fernández Peña (1991) is a useful summary. As noted by Fernández Peña (1991), the 1829 Código de Comercio suggested the use of double-entry bookkeeping (Arts. 33 and 34). Article 32 listed the minimum books to be maintained by any business, and these are elaborated on later. Fernández Peña (1991) also draws attention to Article 47, which allowed a business owner to appoint a person to maintain these books should the owner not have the necessary skills. The 1829 *Código* does not suggest any normal period for a financial year, nor that any year-end balances should be approved or audited. According to Fernández Peña (1991), from 1848 businesses were required to prepare a situation report annually, detailing the operations carried out during the year, the result for the year and the assets and liabilities at year end. This situation report was in substance a simple profit statement and balance sheet, but not so in form. The next business regulation, the 1885 Código de Comercio lists the same books of account as the 1829 *Código*. A companies act (law governing limited companies) was published in 1951, and both it and the 1885 regulation are explored in the next subsection.

Fernández Peña (1991) also notes the development of teaching of accounting and the evolution of auditing requirements, which provides insights into the development of the accounting profession in a Spanish context. We first explore the development of teaching of accounting. What constitutes a 'profession' has been widely debated in the research literature (e.g. Cogan 1955; Sciulli 2005; Torstendahl 2005) and is not debated further here as general agreement exists on the elements of a profession. A profession typically has specialised education, is self-governed and entry is controlled by means of examination or similar assessment (Sciulli 2005). Fernández Peña (1991) notes that in the eighteenth century, the *Reales Sociedades Económicas de Amigos del País*[6] (Royal Economic Society of Friends of the Country) promoted the teaching of accounting. In 1828, the *Escuela de Comercio* in Madrid, Commerce School, was created (Fernández Aguado 1996). The education in such a school should be across three areas: (1) business arithmetic and bookkeeping; (2) the French and English languages; and (3) business history, business geography and business law (see Fernández Aguado 1996, 11 for more detail). However, it was not until 1850 that the *Escuelas de Comercio* were endowed with official status

(Official Commerce Schools). By then, there were eight Official Commerce Schools in Madrid, Barcelona, Cádiz, Coruña, Málaga, Santander, Sevilla and Valencia. The subjects to be taught in such schools were formally regulated by a Royal Decree dated 8 September 1850. On accounting, it specifically mentions *partida doble, teneduría de libros y cálculos mercantiles* – double entry, bookkeeping and business mathematics. Graduates from these schools could be awarded a business expert diploma (*Perito Mercantil*, or by submitting a dissertation *Profesor Mercantil*) (see Fernández Aguado 1996).

These subjects were expanded successively with others including general accounting, general administration and basic accounting, company and public accounting, and advanced accounting. An understanding of the type of accounting courses offered can be found in *El Comercio Español* of 13 March 1886,[7] which refers to a *Reglamento Orgánico de las Escuelas de Contabilidad* (Regulations of Accounting Schools). The *Reglamento* document mentions entry requirements for accounting courses, stating required subjects (e.g. writing, grammar, arithmetic, geography, history). It also mentions career paths for students, including general administration, law, industry, agriculture or commerce. Searches of newspapers of the late 1800s reveal advertisements for both day and night '*clases de contabilidad, partida doble*' (accounting classes, double entry),[8] with more of them appearing post 1885 presumably due to the 1885 Código de Comercio (discussed in the next section). Other articles mention courses on *teneduría de libros* (bookkeeping).

Fernández Peña (1991) also mentioned the creation of the *Facultad de Ciencias Políticas y Económicas* (Faculty of Political Sciences and Economics) in 1943 within what is now the *Universidad Complutense de Madrid*. Basic accounting was included in some of their educational programmes but, according to Fernández Peña (1991), training was very limited. In 1953, the *Facultad* added courses including Accounting Theory, Business Accounting & Cost statistics, auditing and balance sheet analysis/consolidation. From 1970, the previous faculty was renamed *Ciencias Económicas y Empresariales* (Economic and Business Sciences). In summary, based on the developments in education noted thus far, it is reasonable to say that they do not seem to reflect a formalised accounting profession as in an Anglo-Saxon context. For example, as self-governance is not apparent. However, while the education described is included within general business study programmes and not offered by a formal profession, it does increase in complexity and availability over time.

On auditing, Fernández Peña (1991) notes how from 1891 to 1942, foreign investors typically sent experts from their home country to complete audits. In 1942, the *Instituto de Censores Jurados de Cuentas* (Institute of Auditors of Accounts) was created, although Fernández Peña (1991) suggests that it remained professionally ineffective, even after its recognition in the 1951 Law. A step forward was given in 1988, when a new law dictated that auditors must be members of the *Registro Oficial de Auditores*, managed by the *Instituto de Contabilidad y Auditoría de Cuentas* – the latter being a government body. Since the 1988 Law, auditors must have relevant education, practical experience and complete a State-organised examination (see also Carrera, Gutierrez, and Carmona 2001) Thus, again when compared to an Anglo-Saxon context, self-governance is not apparent given State control of the qualifying examination. The year 1988 is also beyond the period of the present study.

In summary, professionalisation as a normative institutional factor appears to be weaker in the historical Spanish context than in the Anglo-Saxon context.[9] The Spanish context appears not to have had a strong independent accounting profession until more recent times. In contrast, management accounting emerged in the UK as a separate profession in 1919 (Loft 1986); the first chartered accounting body – the present-day Institute of Chartered Accountants in Scotland – was established by Royal Charter in 1854; and, later similar chartered bodies emerged in England and Wales in 1880 and in Ireland in 1888 (Murphy and Quinn 2018).

The institutional context – regulative

To capture regulative influences, a relatively brief exploration of legislation as relevant to accounting is now given – see also the previous discussion. Legislation is the main focus as accounting standards were not in force during the period covered by this study. For information, the 1885 Código de Comercio was preceded by an 1829 Código de Comercio (hereafter 1829 Code) which is not covered in extensive detail here. This 1829 Code has its foundation in the *Ordenanzas de Comercio de los Consulados de España* (Divar Garteiz Aurrecoa 2011). These *Ordenanzas* were agreed sets of rules on the conduct of business by merchants. The 1829 Code (Art. 32) required all business to maintain a *libro diario*, a *libro mayor* and a *libro de inventarios*. The *libro diario* recorded daily transactions, the *libro mayor* recorded an account for each person (or object) of the business, according to the double-entry system. The *libro de inventarios* required a business to record all assets, liabilities and capital and annually prepare a list of balances from this book – in essence, a simple balance sheet – but does not give any detail as to format or content. No mention is made of any kind of profit-and-loss statement.

The 1885 Código de Comercio incorporated and extended the 1829 Code and included additional provisions on the type of accounting records to be maintained by all Spanish businesses. The 1885 Código de Comercio (hereafter 1885 Code) was signed into law by King Alfonso XII on 22 August 1885. Part III of the 1885 Code outlines the account books to be maintained by a business. Article 33 details essentially the same books as the 1829 Code, namely a *libro diario*, a *libro mayor* and a *libro de inventarios y balances* – note the '*y balances*' (literally 'and balances') addition in the latter book. The double-entry system was to be applied. Article 33 also required a business to keep a copy of letters and telegrams, and any other books required by other laws. Articles 37.1 and 37.2 define the components of '*activo*' and '*pasivo*' (assets and liabilities) for the *libro de inventarios y balances*, similar to the 1829 Code. It is worth noting that the 1885 Code (Art. 36) required books of account to be presented to judicial authorities (e.g. the *Juez municipal*; city court/hall) to be certified. It also required each page of the books to be certified as an original page – presumably to identify the 'true' books of account. The 1885 Code (Art. 43) also specified that books should be maintained in date order, be clear and have no blank spaces. However, despite such certification of the account books, Article 45 stated that no legal or other authority could inspect books within a business to confirm if they followed regulations, nor could there be any general examination of accounting systems within the business.

After the 1885 Code, the next major piece of legislation was the 1951 Ley de Régimen Jurídico de las Sociedades Anónimas (hereafter 1951 Law). A *Sociedad Anónima* is equivalent to a limited company in the English language. Limited liability of the founders/shareholders is core, and as per Article 9 of the 1951 Law, its capital may be contributed by

Table 2. Extracts from 1951 Law, with translation.

Article	Original text	Translation
102	Los administradores de la Sociedad están obligados a formular, en el plazo máximo de cinco meses, contados a partir del cierre del ejercicio social, el balance con la cuenta de pérdidas y ganancias, la propuesta de distribución de beneficios y la Memoria explicativa. A falta de disposición estatutaria, se entenderá que el ejercicio social termina el día treinta y uno de diciembre de cada año. La contabilidad cerrada en cada ejercicio reflejará con claridad y exactitud la situación patrimonial de la Sociedad y los beneficios obtenidos durante el ejercicio o las pérdidas sufridas. El balance, la cuenta de Pérdidas y Ganancias y la Memoria se redactarán de modo que con su lectura pueda obtenerse una representación exacta de la situación económica de 'la Compañía y del curso de sus negocios.	The directors of the company are obliged to draw up, within a maximum period of five months from the end of the financial year, the balance sheet with the profit and loss account, the proposed distribution of profits and the *Memoria*. In the absence of any provision in the articles of association, the financial year shall be deemed to end on the thirty-first day of December of each year. The final accounts for each financial year shall clearly and accurately reflect the assets and liabilities of the company and the profits made or losses incurred during the financial year. The balance sheet, profit and loss account and *Memoria* shall be drawn up in such a way as to give an accurate view of the financial position of the Company and of the course of its business.
103	El balance de las Sociedades Anónimas no sometidas en esta materia a una legislación especial deberá contener por separado, y en cuanto le sean aplicables, las partidas siguientes: En el activo: 1. Créditos contra accionistas por acciones suscritas y no desembolsadas. 2. Dinero efectivo en Caja y Bancos. 3. Inmuebles e Instalaciones Industriales. 4. Maquinarla y mobiliario. 5. Títulos cotizados en Bolsa. 6. Títulos sin cotización oficial y participaciones en otras empresas. 7. Bienes afectos a la reserva legal. 8. Acciones propias de la Sociedad adquiridas de acuerdo con lo dispuesto en el artículo cuarenta y siete. 9. Efectos de comercio. 10. Los demás créditos. 11. Materias primas y mercaderías. 12. Concesiones, licencias, derechos de propiedad industrial o intelectual y demás elementos del patrimonio de la Empresa, siempre que se hubiese pagado precio por su adquisición. 13. Los gastos de primer establecimiento y de constitución de la Sociedad. 14. El importe de las obligaciones amortizadas, si en el pasivo figurara el de las obligaciones emitidas. 15. El importe de las acciones no suscritas procedentes de los aumentos de capital. En el pasivo: 1. El capital social con expresión de las diversas clases de acciones. 2. La reserva legal. 3. Las demás reservas. 4. Las deudas con garantía hipotecaria o pignoraticia. 5. Las demás deudas de la Sociedad, distinguiendo las vencidas de las que no lo estén, y las fianzas, garantías y otras deudas subsidiarias, cuando sea patente la insolvencia del deudor principal. 6. Las obligaciones emitidas por la Sociedad o las que estén en circulación. 7. Los fondos de amortización del activo, si los bienes patrimoniales figuran en él por su valor de adquisición. En el activo o en el pasivo, según proceda, figurará el saldo de la cuenta de Pérdidas y Ganancias.	The balance sheet of limited liability companies not subject to special legislation shall contain separately, in so far as applicable, the following items: On the assets side: 1. Balances of subscribed but unpaid shares. 2. Cash on hand and at bank. 3. Property and buildings 4. Machinery and furniture. 5. Listed securities. 6. Unlisted securities and shares in other companies. 7. Assets assigned to legal reserves. 8. Own shares of the Company acquired in accordance with the provisions of Art. 47. 9. Bills of exchange. 10. Other claims. 11. Raw materials and merchandise. 12. Concessions, licences, industrial or intellectual property rights and other elements of the Company's assets, provided that a price has been paid for their acquisition. 13. Costs of establishment and incorporation of the Company. 14. The value of debentures redeemed, if the value of the debentures issued is included in liabilities. 15. The amount of any unsubscribed shares resulting from capital increases. On the liabilities side: 1. The share capital, showing the various classes of shares. 2. The legal reserve. 3. Other reserves. 4. Debt secured by mortgage or pledge. 5. Other debts of the Company, distinguishing between those due and those not due, and guarantees, sureties and other subsidiary debts, when the insolvency of the principal debtor is obvious. 6. Debt issued by the Company or outstanding. 7. Amortisation of assets, if the assets are shown on the assets side at their acquisition value. The balance of the profit and loss account shall appear on the assets side or on the liabilities side, as required.

Note: Translations provided by the authors.

private subscribers or by a public share issue. Section VI of the 1951 Law provides details of '*del Balance*', or year-end reporting for companies.[10] Two key articles (Arts. 102 and 103) from Section VI are translated and presented in Table 2. As can be seen, Article 103 provides a more detailed schema for the contents of a balance sheet, with Article 102 mentioning not only the balance sheet, but also a profit-and-loss account and a *Memoria* (literally 'memory'). The 1885 Code does not mention the *Memoria*.[11] Moreno and Cámara (2014) refer to the *Memoria* as a Management Report, and it was part of the annual reporting of their case brewery from 1928. Given that no legal basis seems to be prevalent for the content of the *Memoria*, it may be best considered as a report of business managers/owners on the activities of a business for the financial year. Such a report is likely more relevant when the business entity is a company with shareholders. The 1951 Law also introduced audit, by requiring two persons to be nominated among the shareholders to report about the balance sheet, the profit-and-loss account and the *Memoria*, making it more transparent than the 1885 Code.

Sources and methods

This study draws on primary and secondary sources. The primary sources are accounting records available at the *Archivo de la Comunidad de Madrid* (Madrid Regional Archive) of the Fábrica de Cervezas Mahou (Mahou Beer Factory) or Mahou as it has been referred to heretofore.[12] The available accounting records consist of accounting ledgers and day books and date from 1891 to 1973. The availability of records has to an extent determined the period of analysis, but it does coincide with similar periods in prior research on accounting in breweries. Table 3 presents the documents and how they are utilised. The key documents used are the *Libros Mayores de Cuentas* – equivalent to a general ledger – with some cross references to *libros diario* and a *libro de cajas* (cash book). A *Libro Mayor* was required by Spanish law as outlined earlier and is available for most years during the 1891–1973 period. The archive records do not contain any detailed information on staff to our best knowledge, and thus actors in the accounting area (e.g. bookkeepers or accountants) could not be determined. Annual financial statements are also not available. Such additional information would be useful for broader studies of accounting at Mahou. However, the materials available are sufficient for the research objective as we can reconstruct the institutional environment of accounting in Spain during the relevant period and explore how (or if) accounting practices were affected. The available records do limit our ability to identify any key actors within Mahou, and any influences that they may have had on accounting. Key secondary sources used includes the previously mentioned text by García Ruiz and Laguna Roldán (1999), various pieces of Spanish legislation and two online newspaper archives, namely Hemeroteca digital de la Biblioteca Nacional and Biblioteca virtual de prensa histórica. The newspaper sources were searched for features around Mahou, brewing and accounting, but also provided

Table 3. Documentary sources used.

Document/book	Years available	How utilised
Libro mayor	1891–1973	To access the nature of accounting transactions
Libro diario	1869–1875 1947–1948	To trace daily transactions to *libro mayor* where possible
Libro de caja	1907–1962	To trace daily transactions to *libro mayor* where possible

some insights on the nature of accounting education during the period. No brewing specific magazines were found for analysis. The primary sources were viewed on site at the *Archivo de la Comunidad de Madrid* and considered authentic, credible, representative and have clear meaning (see Scott 1990). Notes were taken on site, and representative samples of documents (mainly the *Libro Mayor*) were digitally photographed for later offsite use.

Given our institutionalist history approach, the primary sources are analysed with a neo-institutional lens in mind to tease out explanations towards what may have influenced accounting at Mahou. Table 1 has shown the three pillars of institutions per Scott (2014). The regulative and normative institutional contexts, as described earlier, are used in an abductive way to explain the accounting practices as revealed in the records of Mahou. The cultural-cognitive pillar is not utilised as comparing Mahou to other Spanish brewers is not an objective of this study and cognitive elements are difficult to extract from documents. Also, given the historical nature of this study, the 'affect' element of the regulative and normative pillars are not explored as they assess 'fear of guilt/innocence' and 'shame/honour' respectively. Change and or stability in the nature of the records is considered relevant to the institutional context – the regulative and normative pillars as described – and whether the accounting records reflect routinised accounting practices (i.e. are they repeated over time and reflective of the characteristics of routines per Pentland (2011)).

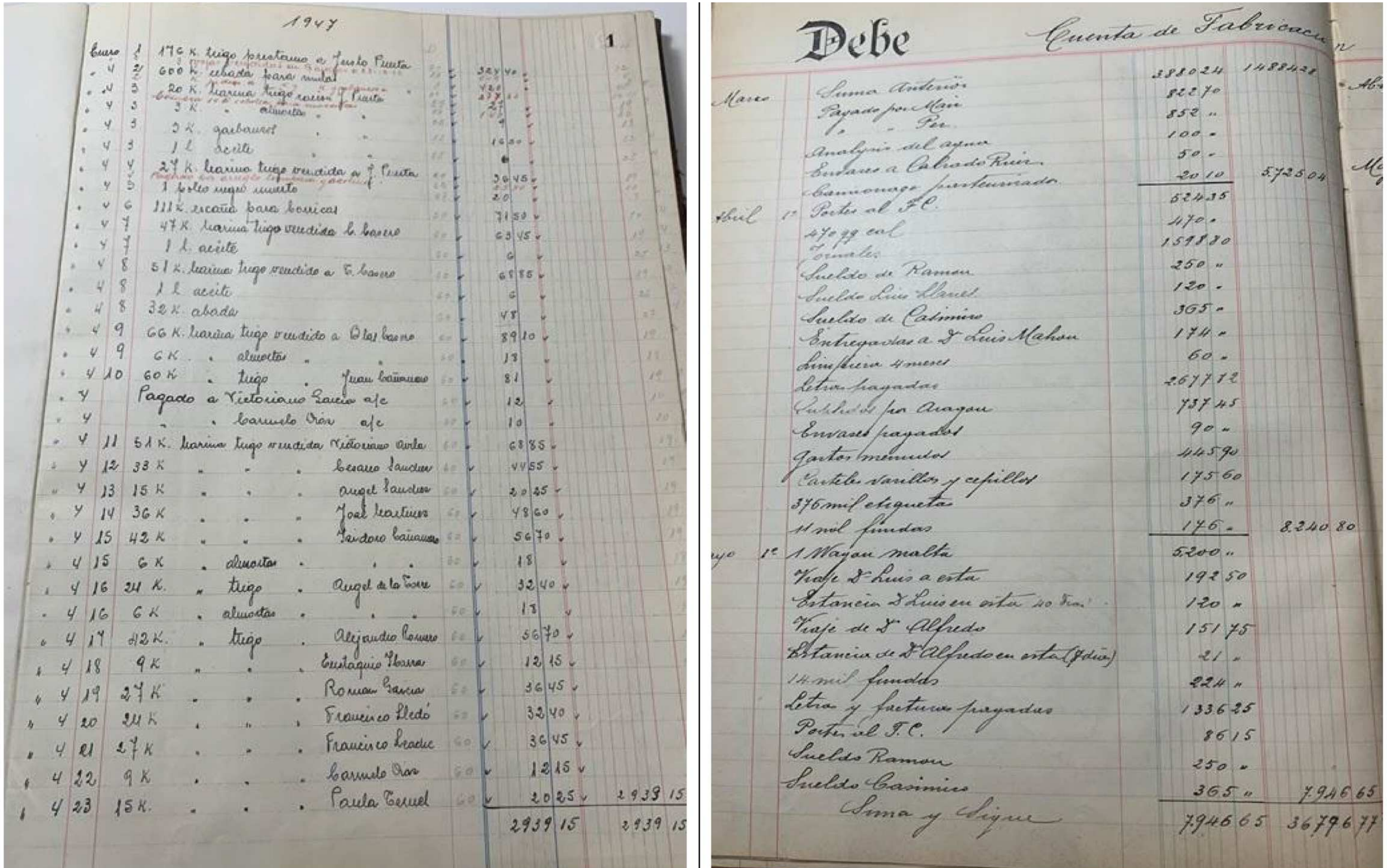
Accounting records at Mahou

This section describes and discusses the available accounting records of the Mahou brewery. While the accounting ledgers and day books from 1891 to 1973 were examined, not all are recounted here; rather, samples are used to illustrate their nature and content. The analysis is based on the available accounting records of Mahou brewery available at the *Archivo de la Comunidad de Madrid* as noted previously. It is possible that more detailed records exist but are not available in this archive.

Description of Mahou's accounting records

The analysis period (1891–1973) is primarily dictated by the availability of records. Having said that, the period spans multiple phases in the political and economic history of Spain. Based on the content, style, and format of the *libro mayor* examined, the accounting records – as reflected through this general ledger – are basic in that they summarise business transactions (sales, expenses, cash receipts and payments) from the relevant *libro diario.* These features of the two aforementioned books are remarkably stable for the entire period, including the period after Mahou became a *Sociedad Anónima* (SA) in 1957. A *libro de caja* (cash book) was also maintained, although it cannot be confirmed if such a book was kept each year. While it seems likely a cash book would be useful to maintain, such a separate book was not a mandated requirement of the 1885 Code and later laws, it can be understood as necessary to support the keeping of other books.

The various books appear basic in that analysis columns were not present, with pages having typically two columns. Figure 1 depicts examples from a *libro diario* of 1947 (left) and a *libro mayor* of 1909 (right).[13] Both examples are typical of the same books from



Libro diario, 1947. Source reference: box 12664/4	*Libro mayor*, 1909. Source reference: box 12660 & 12663

Figure 1. Sample extracts from the *libro diario* and *libro mayor*.

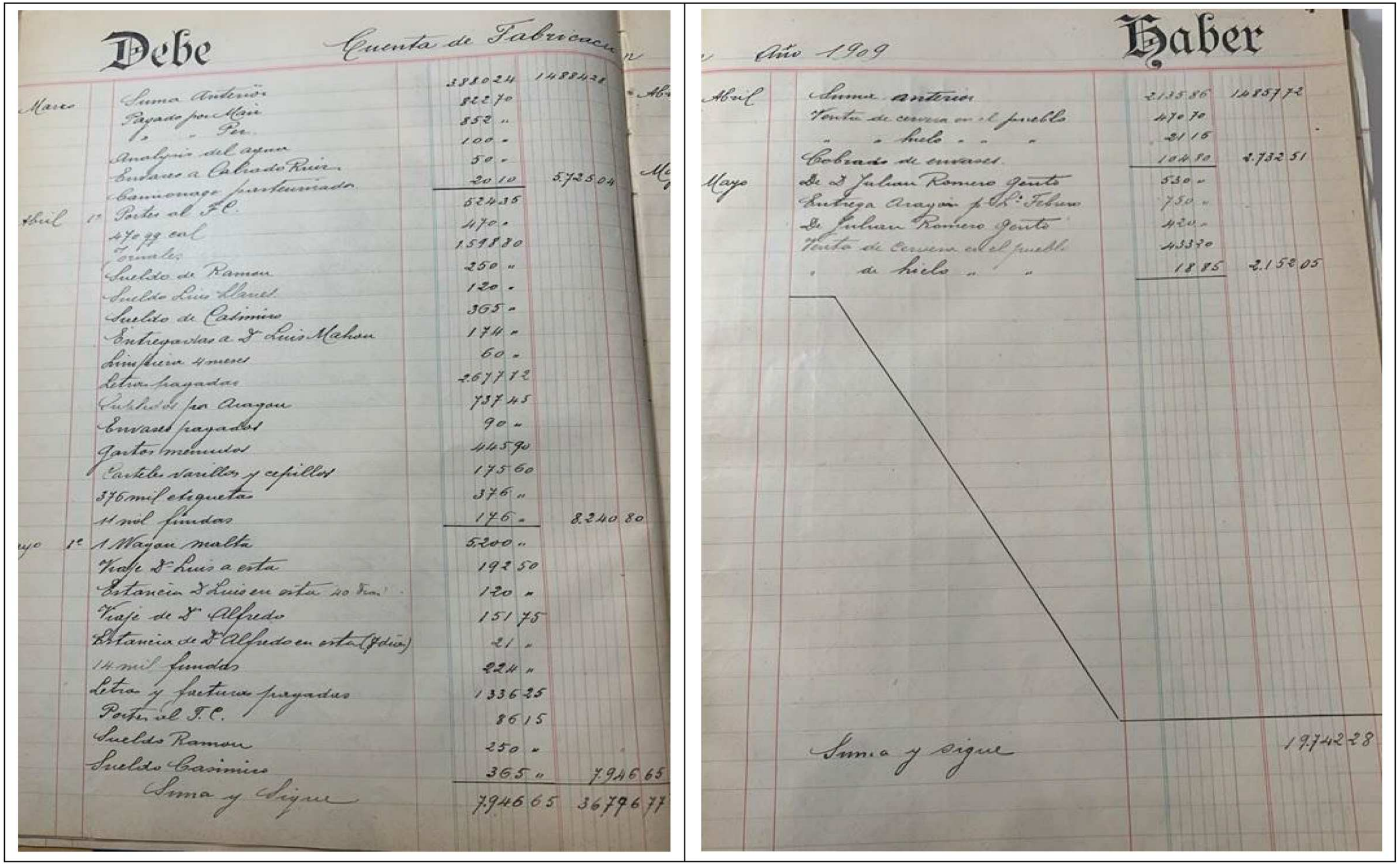
other years and the *libro mayor* is similar to that reported in prior literature such as Alemany Costa et al. (2023). The *libro diario* example shows expenses such as *trigo* (wheat), *cebada* (barley), *aceite* (oil) and *barrica* (barrel or cask) – items associated with beer production. The *libro mayor* example depicts a *cuenta de fabricación*, or cost of manufacture account – a similar account appears in many years but not consistently for the period of analysis. This account includes *sueldos* (salaries), *jornales* (wages, paid daily), *portes* (delivery/freight, presumably by rail – *al F.C* being *al ferrocarril*, or 'by rail'), and *letras y facturas pagadas* (bills and invoices paid). This example was found on a book labelled *libro mayor*, yet the book appears more like a summary of a cash book than totals from a daybook. Figure 2 depicts the corresponding left (*debe* or debit) and right (*haber* or credit) page from the 1909 *libro mayor*. The right-hand page lists, for example, *venta de cerveza, venta de hielo* (sales of beer, ice) or amounts from Don Julián Romero Gento – presumably a selling agent or merchant. Tracing this account back to January 1909, the first entry on the right-hand page is *nuestra cuenta […] Banco España*. This example suggests an account from a *libro mayor* that was prepared from a cash book using summaries of cash in and cash out; however, it is presented like a ledger account with incomes on the credit (*haber*) and expenses on the debit (*debe*) – the entries would be opposite in a bank/cash account. The various accounts in the *libro mayor* are balanced each year end, with the balance brought forward to the following year. In the absence of financial statements in the archival records, this process, together with the use of debit and credit sides within the *libro mayor* suggests accruals accounting was used despite appearances as previously mentioned. The *libro mayor* also contained a *resultados* (results) account each year – at least annually from the 1950s, both before and after becoming a *Sociedad Anónima (SA)*. For other earlier years, a form of the *resultados* (results) account was prepared most years, but it was not possible to confirm its existence in every year.

Thus far, the accounting books maintained by Mahou show evidence of books of account as required by law, but contain little or no analysis columns or other detail. Additionally, when Mahou changed its legal form to a *Sociedad Anónima*, there was no evidence of change to their form and substance, suggesting no changes in accounting practices. It is worth noting that the Mahou shareholders were family when the legal form changed to *Sociedad Anónima.* The *accionistas* (shareholders) account in the *libro mayor* showed no change from 1958 to 1972 – see also García Ruiz and Laguna Roldán (1999). Some shares were issued in 1973, with the *accionistas* account balance increasing from 250,000 pesetas to 1,190,000. To summarise, the accounting records appear rather stable in nature. Potential institutional influences on their nature are discussed next.

Institutional influences and the routinised nature of accounting records

We turn to the external or macro institutional forces at play, namely the normative and regulative pillars, and their potential influence on accounting in the Mahou context.

As outlined earlier, professionalisation (at least in a formal sense) as a normative institutional force appears weaker in a historical Spanish context – but see Alemany Costa et al. (2023). By contrast, in the UK chartered accounting professional bodies date from 1854 (The Institute of Chartered Accountants of Scotland) and a cost (or management) accounting professional body was formed in 1919 (namely the Institute of Cost and



Debe — Cuenta de Fabricación

Marzo		Suma anterior	3880 24	14884 28
		Pagado por Maiz	822 70	
		" " Per	852 "	
		Analysis del agua	100 "	
		Envases a Calzado Ruiz	50 "	
		Camionage partenuriado	20 10	5725 04
Abril	1º	Portes al F.C.	524 35	
		470 gg cal	470 "	
		Jornales	1598 80	
		Sueldo de Ramon	250 "	
		Sueldo Luis Llanes	120 "	
		Sueldo de Casimiro	365 "	
		Entregadas a D. Luis Mahon	174 "	
		Limpieza 4 meses	60 "	
		Letras pagadas	2677 12	
		Subsidios por Aragon	737 45	
		Envases pagados	90 "	
		Gastos menudos	445 90	
		Carteles varillas y cepillos	175 60	
		376 mil etiquetas	376 "	
		11 mil fundas	176 "	8240 80
Mayo	1º	1 Wagon malta	5200 "	
		Viaje D. Luis a esta	192 50	
		Estancia D. Luis en esta 40 días	120 "	
		Viaje de D. Alfredo	151 75	
		Estancia de D. Alfredo en esta (7 días)	21 "	
		14 mil fundas	224 "	
		Letras y facturas pagadas	1336 25	
		Portes al F.C.	86 15	
		Sueldo Ramon	250 "	
		Sueldo Casimiro	365 "	7946 65
		Suma y Sigue	7946 65	36796 77

Año 1909 — Haber

Abril	Suma anterior	2135 86	14857 72
	Venta de cerveza en el pueblo	470 70	
	" " hielo " " "	21 15	
	Cobrado de envases	104 80	2732 51
Mayo	De D. Julian Romero Gento	530 "	
	Entrega Aragón p. Febrero	750 "	
	De Julian Romero Gento	420 "	
	Venta de cerveza en el pueblo	433 20	
	" de hielo " "	18 85	2152 05
	Suma y sigue		19742 28

Figure 2. Facing page extracts from the *libro mayor*, 1909.

Works Accountant). The existence of an accounting profession, coupled with the flotation of many British breweries in the late 1880s, resulted in the offering of specific brewery accounting education courses (Walkden 1891). While Kristandl and Quinn (2018) could not ascertain if such education had been undertaken by staff at the Whitbread brewery, and Hiebl, Quinn, and Martínez Franco (2015) noted that Guinness did not employ a professionally qualified accountant until the 1960s, there was at least a body of professional knowledge about accounting in breweries. Such professional accounting bodies – and their associated body of knowledge – appear to have been much less prevalent in a Spanish context. Indeed, as noted by Fernández Peña (1991), accounting training appears to have been limited, although as mentioned, various *Escuelas de Comercio* were in existence from 1850 (even earlier in Madrid).

Based on newspaper archival data mentioned earlier, these *Escuelas* offered detailed accounting training, although the focus appears to have been on double-entry bookkeeping. To an extent, the development of a formal accounting profession may have been restricted during the Franco era, but even before this period, it was arguably weaker than in the UK. This relative lack of a formal accounting profession, and particularly a cost/management accounting professional body likely resulted in a dominance of 'legal' accounting – accounting required by law (see below) – and corresponding accounting courses being offered. Thus, in the case of Mahou, the available accounting records reflect the basic requirements of legislation of the time, and did not, for example, result in accounting records which captured costs or other transactions in a detailed or analytical way (e.g. the *libro mayor* has no analysis columns) to allow for further reporting. This contrasts with, for example, departmental accounts at Whitbread in 1923 and where, by the 1890s, the accounting books contained analysis columns for sales and expense by bottling store (i.e. location), allowing for the preparation of a trading account by location on the 1890s (Kristandl and Quinn 2018). Similarly at the Guinness brewery, detailed cost analysis reports could be prepared from the accounting records and allocated to cost centres (Quinn and Jackson 2014).[14]

Another normative force at play is the nature of financing of breweries. By the turn of the twentieth century, many UK breweries had floated on the stock exchange (see Gourvish and Wilson 2008), giving access to finance. Access to market finance implied breweries could grow and likely needed more 'management accounting' data to make decisions to ensure profits were derived for shareholders. García Barber (2014) indicates that Spanish breweries in the late 1800s and into the 1900s were financed by their founders and wealthy business partners, or through foreign capital (often from Germany). In the case of Mahou, finance during the analysis period was primarily through the family (as shareholders) and retained profits. This scenario may have implied basic accounting was sufficient, as the 'financiers' were family and/or close business associates. As noted earlier, the *accionistas* (shareholders) account showed no change from 1958 to 1972. This, in turn, leads to a related potential normative force in that Mahou was essentially a family business. The family (as an institution) exerts certain forces on a business, and to the present-day, family business literature suggests that (management) accounting at family businesses tends to be less complex – for example, Senftlechner and Hiebl (2015). Typically, family businesses are less concerned with accumulation of purely financial wealth and focus more on social-emotional wealth (SEW) – see Gómez-Mejía et al. (2007). A similar scenario may have been present at Mahou, and as suggested by

García Ruiz and Laguna Roldán (1999), Mahou was a successful family business – see the previous outline of the firm's achievements in the Spanish brewing sector.

Considering the noted normative pressures, the regulative pressures appear more dominant relative to Mahou and are reflected in the format and nature of the analysed accounts books. As noted earlier and shown in Figures 1 and 2, the accounts books reflect accounting required by the various legal codes. Mahou was a family business, and the family business literature suggests that such businesses are typically less concerned with accumulation of economic wealth (Gómez-Mejía et al. 2007) and may use less management accounting information (Senftlechner and Hiebl 2015). Thus, it can be posited that as a family business in a context with an apparent lack of an accounting profession, the main 'need' to maintain accounting records was to comply with legislative requirements. This gives the various legal codes status as a stronger institutional force on the nature of accounting at Mahou. While it cannot be stated with certainty that the normative pressures outlined previously were 'weaker' institutional forces, the analysed accounting records reveal no evidence of normative forces strongly influencing the nature of accounting at Mahou. The stability of the Mahou accounting practices is in contrast to those of Peroni which learned from practices of other breweries outside Italy (Antonelli, D'Alessio, and Cafaro 2016).

As mentioned, Pentland (2011, 280–281) defines routines as having four features: (1) repetition; (2) the occurrence of a recognisable pattern of action; (3) interdependent actions; and (4) the involvement of multiple actors. Taking each feature, accounting practices in general can be defined as routinised and this is so in the case of Mahou. First, the accounting books of Mahou reveal little change over the entire analysis period, suggesting that the practices captured in the account books were repeated regularly and consistently. This feature, in turn, suggests the second feature, a recognisable pattern of action occurring over time. The third feature, interdependent actions can be presumed and verified based on the available evidence. The various laws required either a list of balances or balance sheet/profit-and-loss account to be prepared at year end, and while none are available in the archives, their presumed production is dependent on an underlying set of account books, such as the *libro mayor*. Separately, the account books (*libro diario* and *libro mayor*) are verifiable evidence of business transactions, which are dependent on source documentation and/or each other. On the fourth, multiple actors being involved, while evidence of the use of summary accounting data/reports by managers is not apparent, it is highly likely that more than one person was involved in the collation of source documents and their subsequent recording in the account books.

Assuming the Mahou account books reflect routinised accounting practices, there is always potential for change to routines as previously mentioned – indeed Pentland (2011) suggests there is, theoretically, potential for change at each performance of a routine. In practice, changes to routines occur in a cumulative manner over time. Examples include the changes in accounting practices and accounting books at Guinness over time (Quinn 2014), and at Whitbread (Kristandl and Quinn 2018). At Mahou, based on the accounting books analysed, we have not found evidence of such change, which suggests the accounting practices (of which the books are artefacts) remained very stable (i.e. there was no significant change to routines over time). This argument is not to say there should have been change, however based on the prior literature, some change may have been expected. The reason for the apparent stability of accounting practices at Mahou cannot be determined with certainty; as a family business, it possibly had less need for detailed accounting information. The company's accounting records simply complied with the regulatory requirements of the time.

Leaving aside the institutional lens, comparatives may be made by organisational size, measured by turnover or profits. While comparisons have been made to Whitbread and Guinness, the latter is undoubtedly a larger firm than either Mahou or Whitbread. For example, Whitbread's gross profit for its 1894 year was £5000, whereas Guinness for the same year made a profit of £1.22 million. Based on Antonelli, D'Alessio, and Cafaro (2016), the profit of Peroni in 1911 was about £98,000.[15] Guinness, due to its size and complexity, also had a large accounting department as reported in prior literature (see earlier). While sales and gross profit figures for Mahou are not available (see earlier), it is reasonable to compare Whitbread and Mahou as they are similarly 'smaller' breweries in the late 1800s and into the twentieth century. As noted, Whitbread did maintain more detailed records and detailed profit reports emerged from them. Kristandl and Quinn (2018) note how Whitbread's auditors may have assisted in the preparation of such reports, which was common at the time (Boyns and Edwards 2013) – this contrasts to the comments of Fernández Peña (1991) which suggest audit remained professionally ineffective in Spain, even after the 1951 Law. Comparatively, Mahou's (available) accounting records could not easily support the production of such a report. Additionally, as mentioned earlier, the accounting profession in Spain in terms of education and the presence of professional/regulated bodies was comparatively less developed. Thus, a brewery like Mahou may have had more difficulty calling on external expertise in the same way Whitbread could. While size of a brewery could explain to some extent differences in accounting practices (Guinness having more advanced accounting due to its size), it seems apparent that institutional forces like the regulative and normative forces mentioned, and a lack of significant change from within, are more likely explanatory factors.

Final comments

The core objective of this study has been to explore how accounting at Mahou may have been affected by its historical institutional context. The study highlights some key factors in the institutional environment which may have contributed to an apparently stable set of routinised accounting practices at the brewery over a prolonged period of time (Pentland 2011). The study also highlights normative and regulative forces which offer plausible explanations for the observed accounting practices at Mahou. From a normative perspective, it is proposed that the weaker presence of a formalised accounting profession and the nature of accounting education are explanatory factors for the type of accounting observed in the records. How breweries were financed in the Spanish context, the firm size and its family nature may also be factors. From a regulative perspective, the available Mahou records reflect routinised practices and are reflective of the legal requirements of the period.

This study contributes to the prior accounting history literature in two ways. First, it offers historical insights on accounting in a brewery in a non-Anglo-Saxon context and from a company not previous discussed in the literature. Second, as this study follows an institutionalist history approach (Rowlinson and Hassard 2013), it offers theory-informed reasoning as to why accounting practices in the Mahou case focused on bookkeeping and legal requirements and remained stable. It has shown how institutional factors – regulative and normative – likely influenced the accounting practices and reflected stability rather than change. As mentioned in the introduction to this study, beer production methods have evolved similarly over time and space, and thus it might be expected that accounting practices are similar across various contexts. That is not the case as shown in this study, with various institutional factors offering potential explanations.

There are two main limitations of this study. First is the availability of archival material. While various ledgers are available for the entire period covered in this study, in contrast to prior research less information on actors is available at the Mahou archives – although the accounting books at Mahou are similar to those reported by Alemany Costa et al. (2023) and Benito Mundet (2005). This limitation leads to potential problems of comparability to prior studies. Our findings nevertheless add to extant accounting history knowledge of brewery accounting and further studies of previously unstudied breweries are to be welcomed. Second, this study reports on a single case, which raises issues of generalisation. A single Spanish brewery may not be fully representative of the sector – it is/was however one of the larger and more well-known breweries in Spain – see García Ruiz and Laguna Roldán (1999). While acknowledging these limitations, there is scope for future research. Our approach could be applied in other contexts, or indeed between similar cultures as in the work of Rodrigues and Craig (2022). Future research on accounting in breweries in unresearched contexts would expand our knowledge of this rather ubiquitous sector. Future studies could also adopt different theories to explain the accounting practices observed, although a similar theoretical lens would facilitate comparisons over space and time.

Notes

1. Antonelli, D'Alessio, and Cafaro (2016) draws specifically on the concept of institutional work, a more recent development in the IS literature.
2. Becoming a public company was not common at this time in a Spanish context. Flotation of Spanish breweries tended to happen during the second half of the twentieth century. See Talbot (2006) for an extensive overview of the English brewing sector and accounting.
3. For 2021 figures: https://www.mahou-sanmiguel.com/en-gb/newsroom/press-releases/mahou-san-miguel-closes-2021-with-a-net-profit-of-103-million-euros.
4. The SRC corporate form was governed by the 1885 Código de Comercio. Article 127 of this Code outlines how all partners 'shall be personally and jointly and severally liable, with all their assets, for the results of transactions carried out in the name and on behalf of the partnership, under the signature of the partnership and by the person/s authorised to use it' (authors' translation).
5. Casimiro Mahou García (son of Casimiro Mahou Bierhans) was a key figure in the founding of two brewery associations in the 1920s, namely the *Asociación de Fabricantes de Cerveza* and *Gremio de Fabricantes de Cerveza*. The former represented brewers' interests at a national level, the latter (constituted inside the former) particularly managed the collection of taxes on alcohol on behalf of brewers.
6. These Societies date from 1748. Their purpose was to disseminate the new scientific knowledge of the Enlightenment period. King Carlos III placed them under royal protection as an instrument of his reform agenda.
7. The article can be found here https://hemerotecadigital.bne.es/hd/es/viewer?id=e1bc4c81-0e95-4023-b626-98bd99685881&page=2.
8. For an example from 1880, see https://hemerotecadigital.bne.es/hd/es/viewer?id=5cfe242b-1579-4a6f-a2f2-13b632b01467&page=4.

9. Alemany Costa et al. (2023) has recently revealed the existence of the *Asociación de Contables de Catalunya* (Association of Accountants of Catalonia) between 1924 and 1940. This association engaged in educational activities with the Commercial College of Barcelona and had about 3000 members at its peak in 1939.
10. Fernández Peña (1991) notes how Section VI '*es decepcionante*', is deceiving. He outlines that it was in fact a bad translation of articles 2423 and 2435 of the Italian Civil Code of 1942 (with respect to the balance sheet) and of article 137 of the German Commercial Law of 1937 (with respect to profit and loss).
11. For the particular case of bankrupt companies, a *Memoria* was mentioned in the 1829 Code (Articles 1007, 1018, 1059 and 1067 – all articles outside the books of account sections), to report about the causes of the bankruptcy.
12. We are not aware of any other available archival sources on accounting at Mahou.
13. Alemany Costa et al. (2023) and Benito Mundet (2005) reveal similar examples of the Libro Mayor in the *Associació de Comptables de Catalunya* (a professional association) and the *Harinera La Montserrat* (a flour mill).
14. These mentioned studies could determine the presence of accounting staff. While not professionally qualified, they were ostensibly trained in accounting and capable of producing detailed cost analysis reports, and so forth.
15. These profit figures are not adjusted to present-day-equivalent values.

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