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TOWARDS AN INSTITUTIONAL ANALYSIS OF ACCOUNTING CHANGE IN THE ROYAL TOBACCO FACTORY OF SEVILLE

Abstract: This paper is initially informed by an institutional sociological framework to analyze changes in accounting practices that took place in the Royal Tobacco Factory (RTF) of Seville during the period 1760-1790. We argue that the significantly greater development and use of accounting practices during that period can be linked to the move to the much larger and more purposefully built new factories, the decline in total tobacco consumption, and the pressure to increase revenue for the Spanish Crown while reducing production cost and maintaining high product quality to deter entry. These new accounting practices were developed in part with the intent of improving factory efficiency, but importantly, they enhanced the external legitimacy of the RTF in the face of the events mentioned above and contributed to the long survival of the RTF as a monopolist.

Although all movements ebb and flow, the interest in institutions has, during the past two decades, swelled into a sizeable flood of work, both theoretical

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and empirical. And there is no sign of diminishing interest [Scott, 1995, p. 133].

The above quote, taken from a recent book written by a leading sociologist, neatly expresses the increasing interest shown by academics in utilizing institutional theory to gain an informed understanding of organizational practices. This increased interest in the institutional approach has spread across disciplines such as sociology, economics, political science, strategy, and international management [Scott, 1995, p. 134]. Accounting academics have been quick to adapt institutional frameworks to their research agendas. While some accounting researchers have focused on institutional economics [e.g., Scapens, 1994], many others have been keen to explore the relevance of institutional sociology to their analyses [for some recent examples, see Covaleski and Dirsmith, 1988; Covaleski et al., 1993; Hunt and Hogler, 1993; Carruthers, 1995; Edwards et al., 1996].

Several reasons account for this recent popularity of institutional sociology [see Fligstein, 1993 and Scott, 1995 for more detailed discussions]. First, institutional sociology focuses attention on knowledge and rule systems (such as accounting practices) constructed within organizations *in addition to* cultural and normative frameworks in organizational environments, rather than privileges the latter as earlier frameworks (such as resource dependence and contingency theory) have done. Second, institutional theory offers a bridge which links various disciplines that could benefit from focusing upon institutions; for example, economics, political science, and, indeed, accounting [see Fligstein and Freeland, 1995]. Third, institutional analysis permits an examination of interactions among the organizations belonging to a particular field (to be defined later), which is said to yield a better understanding of organizational action than previously [e.g., Fligstein, 1993]. These arguments led Scott [1995, p.136] to contend that:

> *All* organizations are institutionalized organizations. This is true both in the narrower sense that all organizations are subject to important regulative processes and operate under the control of both local and more general governance structures, as well as in the broader sense that all organizations are socially constituted and are the subject of institutional processes that define what forms they can assume and how they may operate legitimately.

Also, more critically for this paper, interest in institutional analysis has engendered a greater awareness among organization theorists of the importance of history. Zald [1990] has argued that in considering interest in history from the perspective of institutional analysis, time matters for two reasons. First, historical analysis contributes to an understanding of institutional context by focusing on changes in organizational context over time which affect what organizations do and how they behave. Second, historical analysis yields an informed understanding of how each organization in its own right develops over time and how such developments impact upon the organization's specific structural arrangements and scope for action.

This paper uses an institutional theory framework to contextualize and interpret the changes in financial and cost accounting practices that took place in the Royal Tobacco Factory (RTF) of Seville, Spain, during the period 1760 to 1790. The historical material used in this paper has been drawn from the original archives *(Archivo de Tabacalera, S.A.)* which are currently located in the more modern building of the tobacco factory in the city of Seville. As explained later, this period witnessed a number of events (variations) that were accompanied by the development of new accounting practices. The main aim of the paper is to gain an informed understanding of the context within which the emergence of these new accounting practices became possible. The nature of the archival material we draw upon makes it possible to contextualize the emergence of new accounting practices in the institutional and cultural settings specific to the RTF over three decades. We focus on changes in the institutional context within which the RTF operated and on developments within the RTF itself over that period that impacted its structure. Another aim of this paper is to assess the claims made by many writers concerning the analytical power of institutional sociology, particularly in the case of longitudinal, historical material. Our subsequent analysis suggests that institutional sociology has much to offer in explaining specific patterns of organizational actions and the emergence of new organizational practices such as accounting. We conclude, however, that the institutional sociology framework is in need of further revision if its analytical power is to be enhanced significantly.

The remainder of the paper is organized as follows. In the next section we provide a brief overview of the institutional sociology framework used in the paper. There follows a description of the tobacco industry in Spain and a chronology of tobacco production in the RTF during the late 17th century and the 18th century. In a separate section, we document and analyze the emergence of new accounting (financial and costing) practices in the RTF during the period 1760-1790 using the institutionalist framework. We then discuss the implications of the use of institutional sociological theory to analyze changes in accounting practice and summarize our main conclusions.

AN INSTITUTIONAL SOCIOLOGY FRAMEWORK

There are several strands of institutional theory emphasizing different aspects of institutions [see the comprehensive reviews by DiMaggio and Powell, 1983, 1991; Scott, 1987, 1995; Zucker, 1987]. Despite this diversity, there are a number of common themes that are fundamental to an institutional approach to the study of organizations. In particular, the concept of institution is not reducible to that of an organization. As DiMaggio and Powell [1991, p. 9] have noted, an institution refers to the conventions that assume a rule-like status as they operate within and between organizations. The formal structure of organizations is assumed to "dramatically reflect the myths of their institutional environments instead of the demands of their work activities" [Meyer and Rowan, 1977, p. 341]. These myths are "highly institutionalized, rationalized and impersonal prescriptions" that specify in a rule-like manner ways of pursuing social purposes which are then identified rationally as technical purposes [Meyer and Rowan, 1977, pp. 343-344].

Institutional theory emphasizes the role of cultural elements, such as symbols, cognitive systems, and normative beliefs, in the functioning of organizations. Managerial action is embedded in specific cultural and historical frameworks that impact the organization and, hence, choices are not exclusively framed as the outcome of the conventional axioms of rational analysis. Each organization is a member of an organizational field which may be defined in terms of such characteristics as product line, industry, or firm size [DiMaggio and Powell, 1983; Fligstein, 1993], and comprises a large group of organizations including competitors, suppliers, distributors, and owners. Through the concept of organizational field, central attention is drawn to the impact of social knowledge and cultural rule systems (i.e., the institutional environment) upon organizational practices over and above the impact of the technical environment (resources and technical know-how) that has already been identified by open systems theory [Fligstein, 1987; Scott, 1995]. Moreover, organizational action is constrained by rules set by the state that define the limits of what is deemed legitimate, legal behavior. Finally, organizational behavior is constrained further by strategies, structures, and technologies deployed by the organization in addition to the organization's own physical limits (assumed to constitute the organization's own internal environment). An organizational field is presumed to promote stability and survival (the status quo) for its members; organizational fields are "the basic mechanism of control of the external environment available to managers and entrepreneurs" [Fligstein, 1993, p. 6]. Managers are presumed to act on the basis of specific conceptions of control they form based on assumptions concerning how the world should be analyzed.

Institutional theory places less emphasis upon the process of institutionalization and instead focuses upon organizational conformity to institutionalized myths/beliefs. An organization that conforms to such myths is presumed to gain greater legitimacy in society and rewards through enhanced resources and chances for survival. The theory seeks to explain observed structural similarities between organizations (i.e., institutional isomorphism). DiMaggio and Powell [1983] identified three mechanisms of isomorphism — coercive, normative, and mimetic. Coercive isomorphism refers to changes in organizational practices brought about by formal and informal pressures by the organizational field, society, and the state. Much of coercive isomorphism is legally sanctioned through rules, regulations, and laws. Normative isomorphism is born out of social obligation, and its basis of legitimacy is morally grounded, as in the case of professionalization, through training, certification, and accreditation. Mimetic isomorphism refers to replicating the practices of other organizations which become taken for granted on the assumption that such practices are culturally supported and conceptually correct [Scott, 1995].

More recent literature in the field has attempted to highlight, and to some extent address, a number of limitations which have been raised against institutional sociology. One limitation concerns the presumption that practices aimed at attaining/enhancing external legitimacy are decoupled from internal operating systems [Mezias, 1990; Covaleski et al., 1993].

Institutional theory has also been criticized for its failure to accommodate issues of power and interest [Covaleski et al., 1993]. Few institutional sociologists, for example Fligstein, have stressed explicitly the role of power and taken note of those in whose interest power is being exercised. For Fligstein [1993, p. 6], organizational fields "are set up to benefit their most powerful members." Also, other institutional sociologists are increasingly conceptualizing organizational actors as being proactive rather than passive [e.g., Scott, 1991, 1995]. A third criticism of institutional sociology is that it provides little insight into the institutionalization/deinstitutionalization process [DiMaggio, 1988; Zucker, 1988; Oliver, 1992]. Understanding organizational change requires an appreciation of how new values develop and how they become accepted as the preferred norms of practice in a particular organizational setting. As Scott [1995, p. 79] has suggested, "the stability or persistence of social behaviors require explanation."

Accounting as an Institutionalized Practice: Accounting has long been viewed as a neutral technology that presents objective measures of economic reality. By contrast, researchers have more recently begun to view accounting in a different light by suggesting that the information it generates is susceptible to different interpretations and that in the construction of accounting numbers, reality is not mirrored but created [Carruthers, 1995]. In this sense, accounting is part and parcel of the organization's institutionalized practices and cultural elements. Accounting practices are myths that partially form and sustain societal beliefs concerning ideas such as rationality, efficiency, etc. As Meyer [1983, p. 235] has pointed out, "Accounting structures are myths . . . they describe the organization as bounded and unified, as rational in technology, as well controlled and as attaining clear purposes."

Accounting is a technology of calculation; its practices convert activities into quantities and partition the organization into centers of calculation. What is made calculable is also rendered visible [Ezzamel et al., 1997]. Hence, systems of control and accountability can operate by utilizing accounting measures of human performance. But equally, what accounting measures fail to quantify can remain less visible and may therefore escape accountability [Morgan and Willmott, 1993]. Adherence by an organization to accounting practices that reflect societal beliefs (e.g., rationality) helps enhance the organization's legitimacy in society which is associated with higher rewards. In the context of a longitudinal, historical study, such as the present paper, an institutional perspective would suggest shifts in accounting practices over time to reflect changes that may have occurred in societal-held beliefs. As we demonstrate later in our analysis, this seems to be born out by significant changes in accounting practices in the RTF as the state made insistent demands on the tobacco industry for greater efficiency and higher revenues. But we first provide a brief discussion of the tobacco industry in Spain.

THE TOBACCO INDUSTRY IN SPAIN

During the 16th and early 17th centuries, the tobacco industry in Spain was organized in small, family-run workshops until it became a state monopoly later in the 17th century. A royal decree granted Seville the privilege of producing tobacco. In 1684, cigar and snuff production was located in the *Fábrica de San Pedro* (Factory of San Pedro) in downtown Seville. Although a small factory producing only cigars was built in Cádiz, this factory was insignificant and fully dependent upon the Seville factory, effectively the sole tobacco producer in Spain.

All Spanish state monopolies (e.g., chocolate, salt, sugar, and tobacco) were managed by the *Direción General de las Rentas Estancadas*, a Department of the Finance Ministry located in Madrid. That department was organized into a number of agencies, each dealing with one or more of the state monopolies; consequently, tobacco was entrusted to the Tobacco Agency. From 1726 onwards, the Tobacco Agency had a *Junta del Tabaco* (Management Board) whose membership consisted of six representatives of the various Finance Councils, three managing directors from the tobacco industry (each dealing with a separate geographical area), one general attorney, and one secretary. The Board met three times a week in order for the three managing directors to deal with emerging problems in the tobacco monopoly.

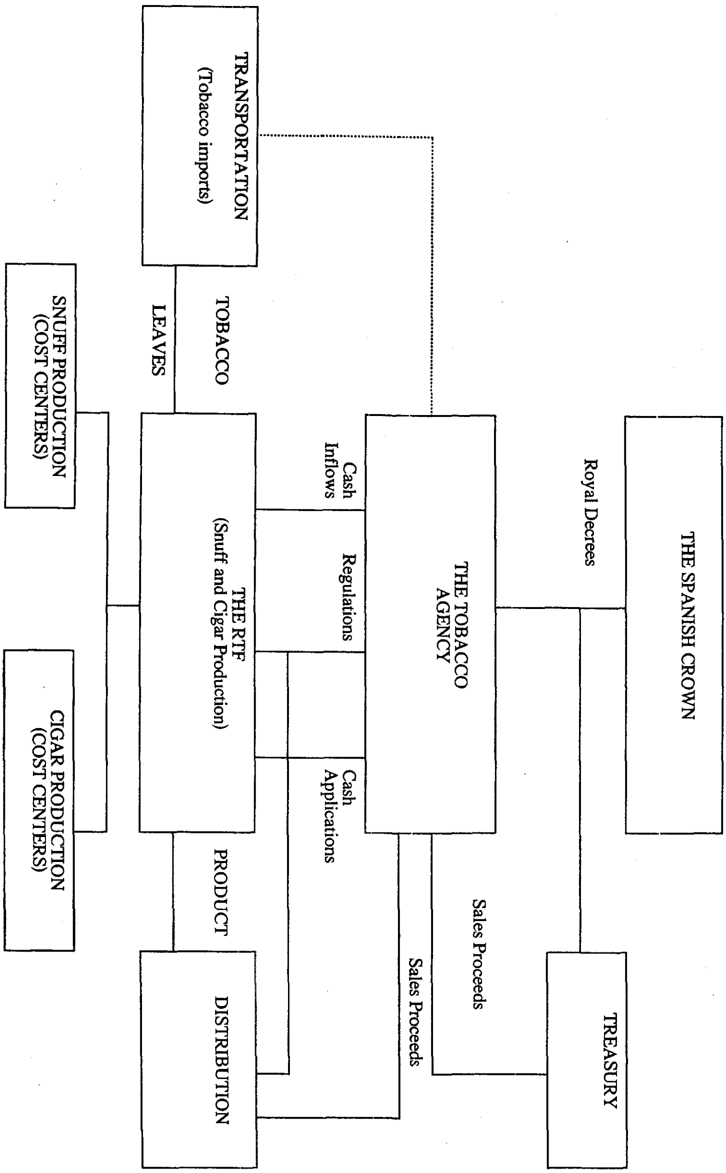
Over time, tobacco consumption in Spain became very popular as tobacco sales volume rose from 1.1 million pounds in 1701 to 3.2 million pounds in 1740. This increase was accompanied by a growth in the production capacity of the San Pedro Factory through the purchasing and renting of additional buildings close to the Factory. Factory space, however, remained at a premium given the sharp increase in tobacco sales. Aggregate tobacco consumption (both snuff and cigars) had been steadily on the rise from the late 17th century through the early decades of the 18th century, and the number of mills producing tobacco increased from 23 in 1687 to 46 in 1726. There was no obvious reason for either the Tobacco Agency or RTF management to presume that the demand for tobacco, and in particular snuff, would be close to its peak by the 1720s, as proved to be the case. Moreover, there was a strong desire on the part of RTF management and the Tobacco Agency to minimize the scope for tobacco theft that was widespread in the San Pedro Factory and to improve overall manufacturing discipline [Morales Sánchez, 1991; Rodríguez Gordillo, 1994; Carmona et al., 1997]. An October 1721 memo by Juan de Casafonda, an accountant in the RTF, detailed the reasons for the need to build new factory premises, including savings in transportation costs occasioned by the long journey between the river and the premises of the downtown San Pedro Factory, savings in the wages of operators and supervisors working night shifts to meet higher demand, and reduced risks of fire as night shifts were illuminated using candles *(Archivo General de Simancas, Direción General de las Rentas, 2ª Remesa)*. These factors culminated in the announcement in 1724 of the decision to build new factory premises outside the city walls. The *Nuevas Fábricas* (New Factories), with a capacity two and one-half times that of the old San Pedro Factory, started operations in 1758, with full production there well under way by the 1760s. It is worth noting that the 46 tobacco mills in operation in 1724, when the decision was made to build the New Factories, had increased in number to 104 mills by 1758.

Figure 1 shows how the tobacco industry was organized as a state monopoly and the role played by the RTF within that industry. Tobacco leaves were imported into Spain from the Americas by a Transportation Company, and the Havana Company (partially owned by the Spanish crown) was granted permission to transport tobacco leaves for some period during the second half of the 18th century, prior to their transfer to the RTF for manufacturing into snuff and cigars.[1] Once completed,

[1]Because of the lucrative business associated with tobacco transportation, the Tobacco Agency played a dominant role in controlling the activities of tobacco transportation.

FIGURE 1

Organization of the Tobacco Monopoly



snuff and cigar products were sent from the RTF for distribution by regional administrations which were coordinated by the *Junta del Tabaco*. Tobacco revenue was then transferred by the Tobacco Agency to the Crown Treasury. Hence, within the overall organization of the Spanish tobacco monopoly, the RTF was the manufacturing link, internally organized into two sets of more detailed cost centers, one for snuff production and the other for cigar production (see the next section), with each set of cost centers referred to internally as a separate factory.

As the manner in which production was organized in the New Factories has, we argue, important implications for our analysis, we provide a brief description of it below [see Townsend, 1792; Rodríguez Gordillo, 1975, 1993]. In the jargon of the tobacco monopoly, the different phases of the production process were known as *beneficios* (profits, benefits). The term *beneficio* seems to designate those phases of the production process which added value to the tobacco production. The first *beneficio* was known as *Azotea*. This term refers to the factory terrace where the tobacco leaves were dried. Before being dried, the tobacco leaves had to be properly prepared. Bundles of tobacco leaves were separated into individual pieces which were then classified into piles according to tobacco class and season of year. The second *beneficio* was known as *Monte*. According to *Archivo Histórico de la Fábrica de Tobacos de Sevilla, Legajos generales, 1734*, Number 1, "the second *beneficio* consisted of grinding and sifting the tobacco leaves in *Monte*." It required the milling of leaves in horse-driven mills until the leaves were turned into snuff. This snuff was then sifted through different kinds of cloth depending on the particular class of tobacco (fine and exquisite). The third *beneficio* was called *Moja*. It consisted of toilet-watering the snuff and mixing it with other ingredients (e.g., fruit) to obtain different flavors. Its aim was both to make smooth the use of snuff in subsequent stages and to differentiate each class of snuff according to its color and smell. The fourth *beneficio* was called *Entresuelos*. Tobacco was dried again after the *Moja* and then placed on the *Entresuelos'* floor in order to be plowed and turned until it became fully dried.[2] The fifth *beneficio* was known as *Repaso*. The tobacco was milled and sifted again using special jasper stones to make the snuff finer. There were two more phases, *Fermentación and Distribución*. These phases were not considered as *beneficios* since the *Repaso* phase concluded with the

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[2]The *Moja* and *Entresuelo beneficios* were managed by a single supervisor. From the point of view of the management of the RTF, these two production phases were grouped under a single department. The same applied in the case of *Monte* and *Repaso* due to the similarities of their production processes (in short, milling and sifting).

transformation of tobacco leaves into finished goods. The *Fermentación* phase was performed in large warehouses with wooden parquet flooring. Tobacco sacks were half-opened and kept in the warehouses from one to three days (higher quality tobacco was kept for longer periods). The warehouses had tall windows in order to allow ventilation while preventing the exposure of tobacco to direct sunlight. Once the sacks were closed, higher quality tobacco was kept for 25 days in the warehouses while lower quality tobacco was kept for only 15-20 days. Before entering into the *Distribución* (finished goods) warehouses, tobacco was rolled.

Invoking institutional analysis, we can now identify the organizational field within which the RTF operated and which impacted the scope for action by its management. First, as we discuss in more detail below, the Spanish Crown had a major impact upon the activities and actions available to the RTF; state intervention in the main took the form of numerous royal decrees that determined legitimacy and legal behavior. The Tobacco Agency was entrusted by the Crown to oversee the strict implementation by the RTF of these royal decrees. Second, the vertical integration of the tobacco monopoly created dependency relationships within the monopoly. In the case of the RTF, its activities were partly dependent upon the timely delivery of the right quantity and quality of tobacco leaves from the transportation agents, be it the Havana Company or another transportation company. Equally, the success of the regional administrations (dealing with tobacco distribution) in marketing tobacco products had an important impact on the ability of the management of the RTF to utilize the larger capacity of the New Factories. The institutional environment of the RTF was complicated further by two additional factors. On the one hand, there was the thriving illegal smuggling and production of tobacco; on the other hand, the Tobacco Agency had the power to open new factories elsewhere in Spain should that be deemed necessary. Third, the actions available to the management of the RTF were constrained further by its organizational structure (a clear example of coercive isomorphism by the state), its strategy, its production capacity, and its technology. As we argue later in the paper, these institutional elements had a major impact on the functioning of the RTF. However, we will first discuss briefly some of the historical shifts that occurred both in the institutional context of the RTF and in the way the RTF itself developed over time.

The earliest year for which we have an individual breakdown of statistics on the consumption of snuff and cigars is 1740. Table 1 show some interesting variations both in terms of the relative consumption of the two products and the consumption of both products combined over time.

TABLE 1
Annual Tobacco Consumption (1740-1798)
(In Pounds of Tobacco Weight)

Year	Snuff		Cigars		Total (A + B)	Difference (A-B)
	Volume (A)	%	Volume (B)	%		
1740	2158241	67.4	1042048	32.6	3200289	1116193
1750	171-736	63.9	963586	36.1	2674322	847150
1760	1850754	59.1	1276182	40.9	3126936	574572
1770	1849045	53.0	1637093	47.0	3486138	211952
1780	1478057	48.6	1563943	51.4	3042000	-85885
1790	1450337	46.6	1656106	53.4	3106443	-205769
1798	1015392	37.8	1661706	62.2	2667098	-646314

Source: Rodríguez Gordillo, 1975, p. 74

Table 1 reveals a number of changes in the pattern of tobacco consumption. First, annual snuff consumption as a proportion of total tobacco consumption declined over the period from 67.4% in 1740 to only 37.8% in 1798 in comparison to a corresponding rise in cigar consumption. Given that the design of the New Factories was premised on providing a much larger production capacity for snuff compared to cigars (which was the pattern of consumption in the decades preceding the building of the New Factories), the management of the New Factories had to adapt the snuff production facilities to produce more cigars. A second and more serious problem was the steady decline in total tobacco consumption (measured in pounds of tobacco weight) during the period 1770-1780. Taking 1770 as a base year, this decline amounted to nearly 15% in 1780 and reached 24% by 1798. To make matters worse for RTF management, these lower levels of demand on tobacco products could have been easily met by the old San Pedro Factory; hence, the New Factories were left with large idle capacity. These developments paradoxically rendered the new, much larger, and more expensive factories almost obsolete. The management of the

RTF was under strong pressure to demonstrate its competence by taking the necessary steps to engineer ways of improving the overall utilization of factory production capacity.

Two additional arguments added to the complexity of the situation faced by the management of the New Factories. First, in order to protect and strengthen further the monopolistic power of the RTF, management needed to reduce production costs in order to effect price reductions while maintaining high product quality and market-entry barriers. Strong barriers to entry were deemed necessary given the real scope for producing tobacco illegally outside the monopoly and the high profit margins that could be achieved by smugglers. Also, as indicated earlier, the Tobacco Agency had the power to launch new tobacco factories elsewhere in Spain if it believed that the RTF was a high-cost producer. Second, RTF management had to maximize the Crown's intake of tobacco revenue. Over the years the Crown became increasingly more dependent upon tobacco revenue. During the 1730-1775 period, tobacco income as a proportion of total peninsular (i.e., excluding Latin America) Crown income from its monopolies increased from 13% to 28% [Artola, 1982]. The dependence of the Spanish Crown on tobacco income can be illustrated further by reference to a royal decree issued on July 11, 1741 stating, "two *Reales* from [the sales revenue of] each pound [of tobacco] sold will be used to finance the construction of the [Royal] Palace" [Tobacco Archives]. These arguments suggest that the RTF management had to pursue various means to improve production efficiency and minimize production cost in order to be able to reduce tobacco prices while securing at least a minimum level of income for the Crown. Taken together, these developments amount to significant dynamics both in the institutional context of the RTF and in the RTF itself as an organization.

This brief chronology of the development of tobacco production in the RTF makes it possible to identify three main events (or discontinuities) which we seek to link to the emergence of new financial and cost accounting practices: (i) the move to the New Factories in the 1760s; (ii) the decline in the overall consumption of total tobacco which became particularly pronounced after the 1770s; and (iii) the pressure to keep tobacco prices down as a deterrent against entry while at the same time increasing tobacco revenue for the Crown (to be achieved through reducing production cost but without sacrificing quality).

THE EMERGENCE OF NEW ACCOUNTING PROCEDURES IN THE RTF

It will be recalled (see Figure 1) that within the overall organization of the tobacco monopoly, the RTF was essentially an aggregation of cost centers responsible for the conversion of raw materials into finished products of snuff and cigars. As a production facility, the RTF received cash inflows from the Tobacco Agency in order to undertake its activities. In return, the RTF was required to report to the Tobacco Agency on its manufacturing activities through the *cargo* and *data* (charge and discharge) method of bookkeeping which made possible the strict monitoring of the application of cash inflows within the RTF. [3] The RTF therefore enjoyed little autonomy in its relationship with the Tobacco Agency. Our aim in this section is to examine the extent to which the emergence of new financial and cost accounting practices in the RTF can be linked to the shifts in its institutional context and organization-specific factors, namely: (i) the move to the New Factories; (ii) the pressure to switch production facilities to reflect changes in product mix; and (iii) the desire to increase the overall utilization of factory capacity, coupled with the incentive to maximize tobacco revenue for the Crown.

The design of the *cargo* and *data* (charge and discharge) bookkeeping system made it possible to split cash inflows, as a general accounting series, into a number of applications (or detailed accounting series), with each particular application in turn comprising a number of sub-applications.[4] In addition to this financial reporting series, there were accounting series con-

[3]During the 18th century, the *cargo* and *data* system was used by the Spanish public administration as well as by private companies. The public administration implemented the so-called *libro del pliego horadado* (holed-page book) which consisted of two separate sections, one for the charge and the other for the discharge. The main purpose of the system was to ensure the accountability of those entrusted with funds. In contrast, private companies and individual entrepreneurs used the *libro común* (common book) system, which was not always divided into two sections [Hernández-Esteve, 1985, pp. 209-210].

[4]An accounting series is a "set of documents issued by a particular individual in relation to the development of a particular task. The series will refer to a homogeneous task, and a specific procedure will determine the reporting activities of each particular series" [Conde Villaverde, 1992]. Hence, if the job of a given person entails several tasks, several accounting series would have been required to cover that job.

cerning raw materials, work-in-progress, and finished goods (i.e., accounting procedures for controlling inventory), as well as other factory-based activities, such as the accounting series dealing with payrolls, consumption of horse fodder, etc. Below we trace the emergence of these new accounting series (summarized in Table 2), identifying new accounting procedures (practices) that may be linked to the events identified above.

TABLE 2
Accounting Series Used in the RTF
(Pre-1760-1790)

Number of Accounting Series Operating Before 1760	Number of Accounting Series Eliminated During the Period 1760-1768	Number of New Accounting Series Launched During the Period 1760-1769	Number of Accounting Series Eliminated During the Period 1770-1790	Number of New Accounting Series Launched During the Period 1770-1790	Total of Accounting Series Operating After 1790
33	4	31	2	13	71

Source: The Tobacco Archives

Accounting Practices Before 1760: As the first major discontinuity we are concerned with here starts with the move to the New Factories in the 1760s, we contrast the development of new accounting practices from that period onwards to the accounting procedures used in the RTF prior to the 1760s. As Table 2 shows, there were 33 accounting series in operation in the old San Pedro Factory until 1760. A detailed breakdown of these series in the archives shows that they were classified into two main groups; the first (27) related to those prepared in the *Contaduría*, or Accounting Office, intended for use in various parts of the factories, and the second (6) related to those prepared in the Factories.

The series prepared in the *Contaduría* contained accounting practices that dealt with general tobacco matters, including some aggregate accounting information which reported on the performance of the Factories. Thus, eight series dealt with inflows and outflows from and to the warehouse and reports submitted to the Tobacco Agency, including consolidated inflows and outflows from tobacco reports for the snuff and cigar factories. There were also nine series detailing the accounting practices concerning the inflow and outflow of cash for rents collected, salary and wage payments, etc. Three more series dealt with *cargo* and *data* entries for the snuff and cigar factories; two series dealt with factory bills paid; one series dealt with snuff tobacco delivered from the factory; one series covered practices documenting tobacco leaves imported from Havana and awaiting processing; and three series dealt with sundry items. The series for use in the factories covered items such as bills, payrolls, and sundry materials (e.g., horse fodder, oil, tins, etc.) which were detailed for the snuff and cigar factories individually.

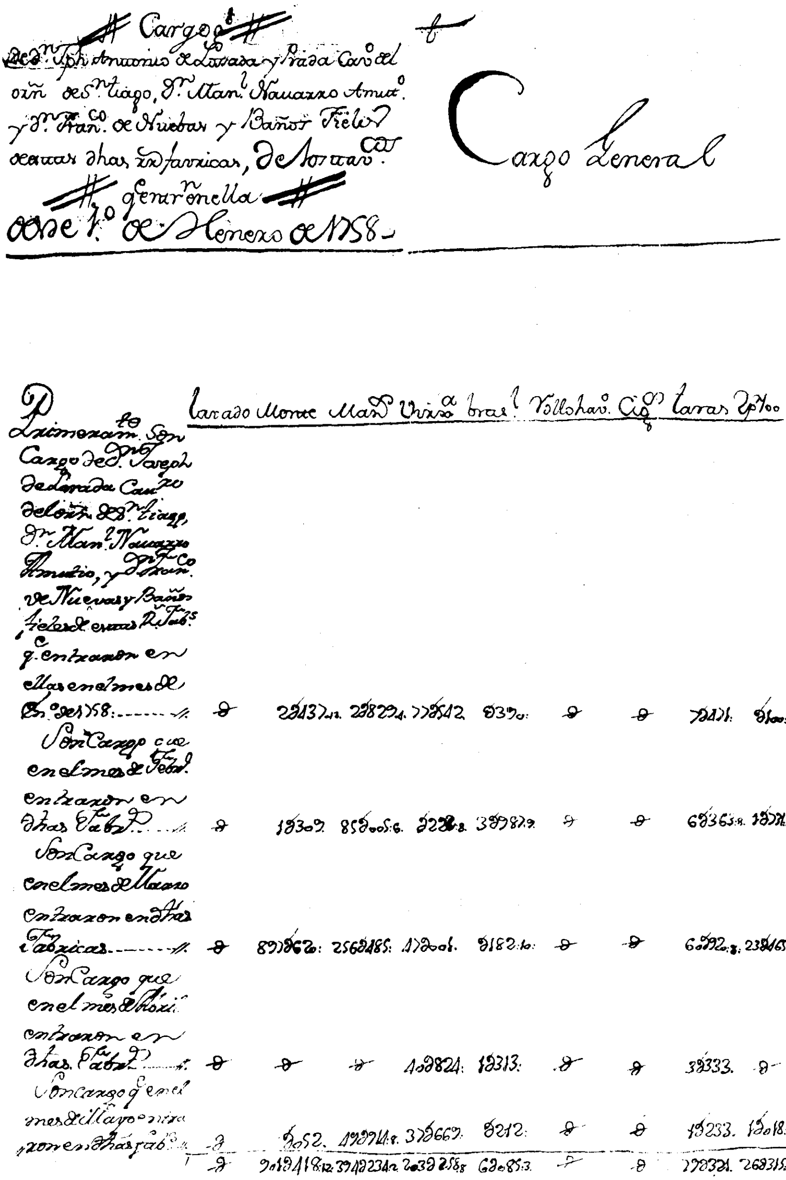
An example is Series 3.1.1 *Legajo* 2786 (Figure 2). The series refers to the *cargo* of raw materials and the *data* of finished products from and to the Superintendent of the San Pedro Factory, José Losada. Figure 2, dealing with a *cargo* of 2,437 pounds of tobacco, states: "Firstly it is a cargo from Mr. José Losada; this being the inflow of tobacco (in the factories) during January 1758." It is evident from this figure that *cargo* and *data* reports were produced on a monthly basis and were fairly simple. Moreover, the General Manager was primarily responsible for the tobacco leaves delivered to the RTF as he was personally charged for these deliveries. The flow of tobacco through the different productions stages did not have a strong accounting emphasis.

These accounting series, which were developed over several years, continued to operate in their totality as the accounting system for the RTF while production was located in the old San Pedro Factory. The emphasis of control during that period was manufacturing-based, and the accounting practices contained in these 33 series were the only ones used for the measurement and reporting of snuff and cigar activities. Once introduced, these practices became embedded and institutionalized in the activities of the San Pedro Factory.

Changes in Accounting Practices (1760-1769): As Table 2 demonstrates, the move to the New Factories, the dynamics of demand for tobacco, and the changes in product mix mark a significant change in accounting practices as reflected in the number of new accounting series issued and those discontinued. During the decade immediately following the move to the New Factories (1760-1769), 31 new series were launched and four old ones were discarded. The sheer *number* of changes is impressive in its own right since the total number of series used during that decade was nearly twice that used in the old

FIGURE 2

Report of *Cargo* in the San Pedro Factory (1758)



Factory, but a detailed analysis of these dynamics reveals even more interesting insights. Of the four discontinued series, one relating to tobacco leaves imported from Havana had become redundant because of the reorganization of tobacco imports, while the three others were related to general accounting practices that were revised and updated. A further new series was developed for use in the *Contaduría* (Accounting Office) specifically to provide monthly and weekly cash statements. Five more new series were concerned with cash, the aim of which was to provide more detailed cash inflows. More detailed accounting for payrolls included items such as daily payments to operators in the snuff factory, loans advanced to white-collar personnel, and deductions from their salaries to account for interest on loans and social security benefits. Two series dealt with personnel and were kept in the office of the General Manager.

In contrast to the above, the remaining 21 series related indirectly or directly to the snuff and cigar factories, a staggering increase in factory-based accounting given that only 12 of the 33 series used in the old San Pedro Factory were directly devoted to manufacturing. This statistic suggests that the increase in factory accounting series during the 1760s was linked to the increased emphasis on manufacturing, particularly the change in factory premises; the shift in product mix; and the focus on low-cost, high-quality products and improved utilization of manufacturing capacity. Thus, the accounting series for the snuff factory used before 1760, which simply focused on receipts and distribution, were augmented to deal with *beneficios* (general tobacco processing) and *fermentación* (sweating). Eight new series, launched to improve accounting for that factory, were classified under General Accounting (two each for receipts, general tobacco processing, packaging, and distribution). These series also dealt with *cargo* and *data* of tobacco materials, weekly production, monthly payments, etc. The bookkeeping related to these series was performed by the foremen of the newly organized production stages described earlier; indeed, some of these posts were created after the move to the New Factories. Three more series, dealing with factory accounts but also classified for use in the *Contaduría,* were concerned with improving warehouse management and monitoring and controlling the number of cigars made by each operator in the cigar factory.

Ten new series intended for use in the factories were directly related to manufacturing, dealing further with receipts, tobacco processing, packaging, and distribution, particularly in the snuff factory. They emphasized *cargo* and *data* of tobacco materials and the control of tobacco processed in every production stage not only on a monthly basis, as in the San Pedro Factory, but also on a daily basis.

A Breakdown of Accounting Series by Factory: A further breakdown of the new accounting series by factory reveals another interesting dimension of the 31 new series issued during the 1760s — six related to warehouses and only one to the cigar factory, in contrast to 24 dealing with the snuff factory. We can offer two explanations for this major concentration on snuff manufacturing.

First, the manufacturing technology of cigars was based on handiwork; production was highly individualized with very skilled operators each carrying out the entire job of rolling the tobacco leaves into finished cigars. Each cigar operator was paid on the basis of a strict piece-rate system. A given quantity of tobacco leaves was delivered to each operator on a weekly basis, and the operator was required to make a certain number of cigars of a pre-specified quality. An operator earned a bonus if he was able to make more cigars than the target set as long as he matched the pre-specified quality. In contrast, an operator who failed to meet the targets set for either quantity or quality received no payment; thus, for the operator to earn base pay both quantity *and* quality targets had to be met. Operators who failed persistently in meeting either quantity or quality targets were fired. Control was therefore internalized into the production process itself and in the operation of the reward system. As cigar production could not be easily routinized (due to the high individual skills required) and segmented into a series of sequential production processes, minimal accounting practices were used to monitor production. The reward system of piece rate, in addition to the physical inspection of cigars produced, were deemed sufficient to monitor cigar production.

In sharp contrast, snuff operators were paid a fixed daily wage as snuff was produced through the distinct stages described earlier. Moreover, the skill levels required in snuff production were far more modest than those required in cigar production. Because the premises of the old San Pedro Factory were developed in a rather haphazard way, these production stages were not finely tuned and clarified sufficiently. Once production moved to the purpose-built New Factories, the now clearer production stages lent themselves readily to greater accounting monitoring as tasks in each production stage became gradually more routinized. This improvement in monitoring was made possible by the larger, better-organized space in the New Factories. It was difficult to monitor the flow of materials within different production stages because of the lack of sufficient space in the San Pedro Factory and the previously noted increase in the number of tobacco mills (from 46 to 104), scattered in different locations. Also, with the payment of fixed wages daily, the absence of a payment incentive for snuff operators was compensated for through increased accounting-based monitoring.

Second, annual consumption of snuff declined constantly over the 1740-1798 period so that by 1798, snuff consumption was less than half its level in 1740 (see Table 1). Given this downward trend and the decline in total tobacco consumption during the 1770-1798 period, there was much greater pressure on the RTF to cut the cost of snuff production in order to reduce snuff prices, boost demand, and increase the profit margin per pound of snuff. This pressure was much less obvious in the case of cigar production given the significant increase in cigar consumption over the same period.

Changes in Accounting Practices (1770-1790): It is of interest to note that in 1773 a costing system, as distinct from the financial accounting system that had been in operation for some time, was designed for the RTF by the then Assistant Accountant, Manuel Vallarín. Under this costing system, the cost of snuff production was traced to eight *Casillas* (cost centers) which covered the cost of personnel in various production stages (six centers) and the cost of indirect materials (two centers). Similarly, the cost of cigar production was traced to four *Casillas*, three covering the cost of personnel of different functions and one dealing with the cost of indirect materials.[5] During the period 1770-1790, two accounting series used in the 1760s were discontinued; one relating to general processing in the snuff factory and one relating to the *Contaduría* (Account-

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[5]The product-costing practices developed in the RTF at that time which did not include the cost of direct raw materials (tobacco leaves) were more akin to what is now known in modern terminology as "value-added" [see Carmona et al., 1997].

ing Office). However, 13 new series were launched; four for use in the Accounting Office and nine for use in the factories. The new series developed for the Accounting Office dealt with the inflow and outflow (movement) of tobacco, payrolls, social security benefits for white-collar employees, and matters relating to the General Manager's Office. The new series developed for use at the factory level dealt with *cargo* and *data* for warehouses (yielding more detailed calculations than previously), wages of operators in charge of horses, and the inflow and outflow of tobacco in the snuff factory. A new snuff product *rapé* was introduced in 1786 to achieve faster production diversification and to utilize the larger capacity of the New Factory.

The new accounting practices also placed greater emphasis upon manufacturing activities. Figure (3) shows entries relating to deliveries of *Polvomonte de Indias* from the *Monte* production phase to the *Moja y entresuelos* phase (1364 *Legajo*), which also shows a production volume of 34,733 pounds. Here, the accounting practices are aimed at tracing and monitoring the flow of work-in-progress between different production phases.

DISCUSSION

The main purpose of this section is to explore the extent to which our archival evidence can be interpreted from the perspective of institutional sociological theory as an example of accounting change, and then to reflect on the contribution of that theory to studies of accounting change in general.

An Institutionalist Explanation of Accounting Change in RTF: In terms of institutional sociology, we can locate the three institutional contexts of the RTF that constrained its actions — the organizational field, the state rules, and organization-specific constraints. The organizational field of the RTF comprised the *Compañía de la Habana* which monopolized the transportation of raw materials from America between 1740 to 1760; the various regional administrations of the tobacco monopoly which received and distributed snuff and cigars to *estancos* (tobacco shops); the Tobacco Agency; and also a large number of external producers and distributors of tobacco operating illegally outside the monopoly [Goodman, 1994]. The actions of these members of the organizational field had immediate implications for the scope for action available to the RTF in terms of the supply of raw materials, the quantity and quality of tobacco

FIGURE 3

Deliveries of Milled Tobacco from *Monte* to *Moja* and *Entresuelos*

Data delas Guadras para los Entresuelos	Polvo monte de Andinas	Rama p.a Conquista	Rama p.a Fino	Palillo	Total de libras
Primeramente son Data 1260172 lb de Tabaco las 349733 de monte de Andinas, 442289 dela clase de Conquista de ellas las 39622 de R. y G.s mezclado, 438972 de G.o 4298.5 de B.i y las 7089o restantes, de B C.o M.L.o P.P.s 452587 delas de Fino, de ellas las 514 de Rollo de Brasil, 4431 de Rollo de Barinas 3048 de Tab.co de Apuros, y Barreduras de Otras guadras, y las 4.9894 de Caueras de Manojos, y Rama mistada 1570 lb de tabaco las 639 del Grovo regular, y 931 de Palillo, las mismas, que en todo este mes se han beneficiado enlas Guadras de Monte, y las subieron a los Almazenes dela Moxa y Entresuelos en su primer molido, y Cernido	349733	442289	452587	12570	1260172
Debuelto alas Arotcas Itten son mas Data 33760 libras de tabaco las 19944 aplicadas ala clase de Fino, de ellas; las 633 de Despolvaduras dela Rama de Fino, para la labor de Grovo, y Palillo, 92 de Granzas de Rollo de Brasil, 666 de Barreduras delas Guadras de Monte de Fino, y las 487 restantes recogido delo bolado en la de Rama de Fino de Monte, 1627 libras aplicadas ala clase de Conquista, de ellas las 680 de Barreduras de Conquista de Monte, 944 de Granzas dela misma labor de Monte, 192 resto dela labor dela labor de Grovo, y Palillos restan 137 de Granzas debuelta dela Guadra dela labor de esta Clase, las mismas que en todo este mes, las subieron alas ~~Arrobas, al Cargo de esta Tal~~	349733	442289	452587	12570	1260172

production, and the distribution of finished products. State rules, detailing the constraints desired by the Spanish Crown, were formally issued in the form of royal decrees which were subsequently entrusted to the Tobacco Agency for strict implementation (see Figure 1). These decrees impacted directly on the range of product lines (e.g., snuff, *rapé*) that the RTF could produce and also on the way the RTF organized its administrative structure and its production technology. Finally, the RTF had its own production plans, organization structure, production technologies, and physical space which imposed important limitations on the RTF's ability to pursue specific courses of action.

While, with minor exceptions, the RTF was the only legitimate producer of snuff and cigars in Spain by virtue of its monopolistic privileges, the actions of RTF's management were strongly influenced by its relationships with the transportation companies (as suppliers of tobacco leaves); the distribution administrations (as the units within the monopoly responsible for the sale of finished snuff, cigars, and *rapé* for a short period); and illegal tobacco smugglers and manufacturers in the black market. Although long-term production plans and levels of capacity utilization in the factories depended to a large extent upon tobacco demand, the RTF had to deal with the transportation companies through the Tobacco Agency to secure regular supplies of high-quality tobacco leaves and with the regional administrations of the Tobacco Agency to distribute snuff and cigars to the tobacco shops. Such dependency relationships were managed through membership of the *Junta del Tabaco* (the Management Board) during its meetings three times a week. Moreover, the presence of a substantial illegal trade in tobacco outside the monopoly despite severe state sanctions meant that the RTF management had to pursue alternative strategies to contain and, hopefully, marginalize such illegal activities. This strategy involved an increased focus on improving product quality and, at the same time, driving down the cost of production in order to differentiate the products of the RTF from those traded illegally. Hence, the strategy was aimed at creating a perception of high efficiency in the RTF in order to minimize the chances of new entry, legally through the creation of additional production factories by the Tobacco Agency and/or illegally through smuggling and production in the black market.

Royal decrees and regulations defined the scope for action by stipulating the rules according to which the RTF was to function as the sole legitimate producer of snuff and cigars and by promoting expectations of high levels of production efficiency from the RTF. The Spanish Crown maintained a regular interest in important developments, including the receipt of reports on the findings of significant experiments aimed at improving production efficiency and the appointment and rewarding of key personnel [Carmona et al., 1997]. Moreover, many of the accounting series discussed earlier, particularly those concerned with financial reporting, were developed and imposed by the Tobacco Agency acting on behalf of the Spanish Crown.

Over the period of investigation (1760-1790), the organization-specific constraints shifted very noticeably. While operating in the old San Pedro Factory, the RTF had its production activities spread over several buildings, rendering ambiguous the production stages, particularly for snuff, and thereby posing serious problems for coordination and control. Also, the Old Factory imposed severe limits on production levels given the difficulty of expanding physical facilities. The move to the New Factories marked a relaxation of these restrictions. Production capacity was enlarged significantly, and all production stages for snuff were located in one large and compact space. The organization of production space in the New Factories made the production stages much clearer and also rendered them readily susceptible to direct monitoring. But as the constraints associated with the San Pedro Factory were relaxed, new ones emerged; e.g., the pressure to utilize fully the now much larger production capacity, the difficulty posed by the decline in total tobacco consumption after 1770, and the desire to reorganize production facilities given the significant change in consumption patterns away from snuff and towards cigars.

Throughout the period 1760-1790, there was much concern with manufacturing activities. Designed by the state as a monopoly, tobacco activities were all concentrated within the Tobacco Agency and organized through both horizontal and vertical integration. The various small, family-based workshops that operated before the monopoly was established were now horizontally integrated within the RTF. Further, the supply of raw materials (mainly tobacco leaves) and the distribution channels became vertically integrated with the manufacturing of snuff and cigars within the broader umbrella of the Tobacco Agency (see Figure 1). Quite simply, the strategy of the RTF within this overall structure was production-dominated. The monopolistic privilege enjoyed by the RTF was sustained through a manufacturing strategy that aimed to establish unambiguously the superiority of tobacco production within the RTF, both in terms of quality and cost, compared with alternative possibilities, whether illegal such as the black market or legitimate through the establishment of new factories. As long as the RTF could demonstrate to the Tobacco Agency the superior quality of its products and their favorable cost attributes, the possibility of new entry was preempted. This observation is born out by the survival of the RTF as a monopolist for a long time, for it was not until the first decade of the 19th century that its virtual monopoly on cigar production was broken through the establishment of new factories in Alicante, Madrid, and La Coruña, in addition to the significant expansion in the production capacity and autonomy of the Cádiz factory.

The above discussion suggests that an institutional theory framework can illuminate our understanding of the contexts within which specific organizational actions are constituted, become institutionalized, and are given meaning. This framework can also shed interesting light upon the role of accounting as a form of organizational practice, myth, or belief system in change situations in organizations. One can link the emergence of new accounting series and the elimination of old series in the RTF to the changes in factory location, design, capacity, and structure. For example, one can point to the emergence of accounting practices seeking to improve the monitoring of production activities in the snuff factory by capitalizing on the clearer and more logical sequential production stages made possible by the design of production facilities in the New Factories. Similarly, it is possible to explain the development of new accounting practices, emphasizing the measurement of quality and the containment of production cost as a means of stimulating greater demand for tobacco products and increasing the flow of tobacco revenue to the Spanish Treasury. Such physical and structural constraints in the factory could have had an impact on the type of accounting practices that emerged in the RTF.

Moreover, under institutional sociology we can extend further our understanding of the emergence and functioning of accounting practices. Thus, taking the position that organizations strive to sustain their legitimacy in society and to demonstrate their strict adherence to widely held norms and beliefs, it is possible to argue that the Tobacco Agency as well as the RTF had a vested interest in creating an external visibility that reflected the superior performance and high levels of efficiency in the RTF. As new discontinuities emerged, such as the move to the New Factories, new accounting series were developed to demonstrate unequivocally to outside parties (the Crown) that new measures had been taken by the Tobacco Agency and the RTF to improve quality and enhance efficiency.

But the invention of new accounting practices in themselves is insufficient to create/sustain the myth of high levels of efficiency over time. These new practices (accounting series) had to be shown to be put to use; hence, the creation of new accounting books both in the *Contaduría* (Accounting Office) and the factories. For those inside and outside the RTF, the use of these new accounting practices was evidence for the quest (whether apparent or real) for greater legitimacy by demonstrating better-quality products and higher production efficiency. Viewing accounting as a means of organizational legitimation opens up the possibility for accounting practices to be viewed not only as imported rationalized myths, but also to recognize them as developed, shaped, and promoted by the very organizations that use them to demonstrate their own legitimacy in society. The above interpretation implies that many of the new accounting series used by the RTF to signal externally its concern for quality and efficiency were developed in the first instance by the RTF itself. Hence, in this particular case, the medium (the new accounting practices) becomes the message (concern for quality and efficiency).

Evaluation: The preceding discussion suggests that institutional sociological theory is capable of offering interesting explanations of accounting as a set of institutionalized practices. Moreover, when deployed to trace accounting practices over time, institutional theory promotes an examination of the emergence and functioning of accounting practices in situations where both the institutional context of an organization and the organization itself undergo change. This contributes significantly to understanding the role of accounting in organizations in different contexts and over time. As Scott [1995, p. 146] has observed: "It is difficult if not impossible to discern the effects of institutions on social structures and behavior if all our cases are embedded in the same or very similar contexts." In the case of the RTF, we witness more intensified focus upon manufacturing activities which sought to enhance the legitimacy of the

RTF as a cost-effective, high-quality manufacturer of tobacco products. Several steps were taken to promote this myth/belief, including the move to larger, better-organized premises supported by better machinery and more transparent and logically organized production activities. Such physical and structural developments were also underpinned by more elaborate and more timely accounting calculations, including the emergence of a costing system to add to the financial accounting system that was already in operation in the old San Pedro Factory. In contrast to accounting practices in the San Pedro Factory, the accounting series developed for the New Factories were far more focused on manufacturing. They also tracked the flow of tobacco across the various stages of production on a daily basis, with aggregate figures accumulated every month. Hence, physical *and* accounting developments were jointly mobilized to promote the image of the RTF as the only legitimate tobacco producer in Spain.

In summary, the above analysis reveals that in a situation characterized by significant shifts in its institutional context as well as in its own structure, location, and production technology, the RTF engaged in multiple scenarios of control in which there was increased focus on manufacturing and also more extensive use of accounting calculations. The observation of the multiplicity and complexity of control scenarios is, we contend, a crucial one, for it destabilizes those attempts made by researchers to generate typologies that postulate clear-cut, transitional stages of control that organizations are presumed to follow over time. One such example is the typology developed by the institutional theorist Fligstein [1985, 1987, 1993].

Although Fligstein's typology was developed for a different context (the largest U.S. firms) and over a different period (1880-1979) than the RTF, the archival evidence drawn upon here can still be used to raise concern over the adequacy of organizational typologies. Fligstein's analysis leads him to identify four conceptions of control in the U.S. — direct control of competitors, manufacturing control, sales and marketing control, and finance control. At any point in time, an organization is presumed to focus on that one conception of control most appropriate for the problems encountered by its management. According to Fligstein [1993, p. 16], the use of accounting practices becomes pronounced only during the finance control phase, "the basic insight of the finance conception was that such a firm could be more tightly controlled by strict accounting." This, he argued, would be manifest in a focus on quantifying short-term performance and assessing the profitability rates of bundles of assets.

But as we have just demonstrated, such statements may be an oversimplification for they appear to be at odds with the archival evidence we have consulted. As we have argued earlier, the conception of control that emerged during the 1760s-1790s was primarily manufacturing-based. As far as we can discern from the evidence, the intensified use of accounting-based controls after the 1760s seemed to be linked to the occurrence of a new set of events relating to the move to the New Factories, the decline in the consumption patterns of aggregate tobacco products, and the significant change in product mix from snuff to cigars. During these three decades, emphasis remained focused, as previously, on manufacturing. Whether a shift in control conception towards finance would have resulted in an even greater reliance on the use of accounting controls is an issue that is beyond our evidence. Nevertheless, there was a *significant* increase in the number of accounting practices during the 1760-1790 period, the majority of which were directly concerned with monitoring human performance. Fligstein's framework offers no compelling explicit explanation of such developments.

This argument differentiates our position from that of other scholars. Rather than viewing the emergence of accounting practices purely as the natural response to specific shifts in the conception of organizational control, we see accounting as an important mode of monitoring performance in a variety of organizational settings [Carmona et al., 1997]. In this respect, our views are significantly different not only from those of Fligstein but also from the views of the academic orthodoxy concerned with accounting history. Thus, Pollard [1965] found little evidence on the use of cost accounting to guide decision making in British firms during the Industrial Revolution and has surmised that this was due to the prevalence of high profit margins and the absence of competition. Following in his footsteps, Edwards and Newell [1991] and Fleischman and Parker [1991] have suggested that intensive competition provides the stimulus for the use of cost calculations in order to improve firm efficiency and to strengthen its competitive position. The arguments of these authors are parallel to the view advanced by Fligstein; specific competitive settings give rise to a significantly greater use of cost accounting calculations.

The evidence we have drawn from the archives of the RTF clearly departs from the above contention. First, we have clear evidence of the regular use of accounting calculations in a monopolistic setting, thereby suggesting that the extensive use of accounting in organizations is not necessarily restricted to competitive settings. Second, we observe much greater intensification in the use of cost accounting in the RTF post-1760 which we can link to the occurrence of specific events, such as the move to the New Factories, etc. While it is plausible to argue that these events gave rise to the emergence and use of new accounting practices to improve overall factory performance (and this may have indeed been the case in many instances), we propose that an explanation of these new accounting practices needs to extend beyond this restrictive view. Institutional sociological theory has offered one such possible extension; new accounting practices may emerge purely as a means of enhancing the external legitimacy of the organization. Our discussion above suggests that such need for external legitimacy is not necessarily restricted to organizations operating in highly competitive settings but could be extended to monopolistic situations. Indeed, it is more likely that monopolistic organizations, such as the RTF, are under much greater pressure to demonstrate to powerful external constituencies (such as the state) the legitimacy *and* rationality of their actions given the potent privileges such monopolies normally enjoy.

CONCLUSIONS

This paper traced the emergence of a significant number of new accounting practices over the period 1760-1790 in the Royal Tobacco Factory (RTF), Seville, which was set up as the sole legitimate tobacco producer in Spain from the late 17th century. During the period under study, three sets of events occurred. First, tobacco production was moved from the old San Pedro Factory to the New Factories, which were purpose-built and had much larger production capacity than the San Pedro Factory. Second, there was a decline in the total consumption of tobacco, which became particularly sharp after the 1770s, occasioned by a significant decrease in snuff consumption. Third, there was pressure to increase tobacco revenue to please the Crown while keeping prices down and product quality high to deter entry. This paper uses institutional sociological theory to examine the extent to which the emergence of new accounting practices can be linked to these events.

While acknowledging the possibility that the new accounting practices were developed with the intent of improving the efficiency and effectiveness of the RTF, the paper suggests that they may have been aimed equally at enhancing the external legitimacy of the RTF and protecting its monopolistic hold over tobacco production in Spain. Moreover, during the period examined in this paper, there was much emphasis placed upon manufacturing but also simultaneously upon the proliferation of newly developed, more intensified, and far more elaborate accounting calculations. In Fligstein's framework, such increase in the use of detailed accounting calculations is premised to occur only beyond the sales and marketing conception of control which, according to him, emerges *after* the manufacturing conception of control. Hence, at the very least, the archival evidence cited in this paper would suggest that Fligstein's framework does not have direct import for the particular organization (the RTF) and period we studied. More radically, this paper argues that there is a serious danger that lurks in typologies such as the one proposed by Fligstein, in conceptualizing organizational practices, including accounting. Such typologies tend to be restrictive by imposing specific matchings between a particular typology and *expected* organizational action (e.g., accounting practices) which may be difficult to sustain in practice. It may be that, contrary to Fligstein's argument, the intensity with which accounting practices are used and/or the magnitude of new and emerging accounting practices have less to do with the dominance of specific conceptions of control.

In common with research informed by institutional sociological theory, the present paper has limitations that could be addressed by future researchers [see Scott, 1995]. First, the period examined here is relatively short compared to the life span of many organizations. Future researchers may be able in certain instances to examine the life span of organizations in order to gain a better understanding of the extent to which specific practices, such as accounting, persist over much longer periods of time. Second, the archival evidence examined here does not capture fully the relation between institutional and organizational processes, an area that future researchers may be more capable of illuminating. Finally, this study is concerned with a specific institutional setting where the RTF operated as a monopoly in contrast to the competitive settings which typically characterize Anglo-Saxon historical evidence. There is need for comparative studies dealing with differing institutional contexts to enhance our understanding of the extent to which certain accounting practices are embedded in, but also strongly shape, the institutional settings of organizations.

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