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## **The Historical Evolution of the Portuguese Management Accounting Literature**

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# **THE HISTORICAL EVOLUTION OF THE PORTUGUESE MANAGEMENT ACCOUNTING LITERATURE**

## **Abstract**

This paper analyses the evolution of the Portuguese management accounting literature, throughout the accounting books published in Portugal, in order to identify historical phases of that evolution. The methodology of this study consists in the analysis of some relevant Portuguese accounting books. We study and compare the evolution of the issues like the name of the discipline, terminology, concepts, deepness of treatment of the matters, number of pages of the books, accounting techniques used (e. g. budgeting, standard costs, overhead allocation). This paper proposes five phases: (1) industrial bookkeeping included in commercial bookkeeping books, until early twentieth-century, (2) industrial bookkeeping autonomy, until 1930's decade, (3) industrial accounting, until mid 1970's decade, (4) analytical / cost accounting, until mid 1990's decade, and (5) management accounting, the current phase. This paper aims to contribute to a better understanding of the evolution of the management accounting literature in Portugal, to evaluate the current state of the discipline in this perspective and to facilitate comparative studies with other countries. The structure of the paper is the following: introduction, selection of the books analysed, proposal of the management accounting literature phases, characterization of the phases by issues and conclusions.

## 1. Introduction

This paper analyses the evolution of the Portuguese management accounting literature, throughout the accounting books published in Portugal,<sup>1</sup> in order to identify historical phases and periods of that evolution. The methodology of this study consists in the analysis of some relevant Portuguese accounting books. We study and compare the evolution of the issues like the name of the discipline, terminology, concepts and deepness of treatment of the matters, number of the pages of the books, accounting techniques used (e. g. budgeting, standard cost, overhead allocation).

The outcome of this paper consists in the development of a table which highlights the phases and periods and also, authors of each period. Five phases are proposed: (1) industrial bookkeeping included in commercial bookkeeping books, until the early twentieth-century, (2) industrial bookkeeping autonomy, until the 1930's, (3) industrial accounting, until the 1970's, (4) analytical / cost accounting, until the 1990's, and (5) management accounting, the current phase. The first and third phases are divided into two periods each. This paper may be helpful to understand better the evolution of management accounting in Portugal and so foresee its future.

This paper is a subsequent research from Carvalho and Conde (2002)<sup>2</sup>, where the Portuguese context from the eighteenth century to the present and a proposal of accounting phases and periods were presented. For this reason in the next point is only presented a brief description of the political and economical context. It is also presented an improved proposal of phases and periods to the Portuguese accounting which is helpful for the present paper.

Although, we have not done a review of articles published in Portuguese journals, we are of the opinion that the conclusions are relevant, because the authors who wrote articles in journals generally also wrote books, thus revealing their opinions. However, the analysis of journal articles, particularly those articles of the most noted Portuguese authors, is research for another paper.

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<sup>1</sup> The first accounting book, "Exact Merchant in its Books of Accounts" (*Mercador Exacto nos seus Livros de Contas*) was written, in Portugal, by João Baptista Bonavie in 1758.

<sup>2</sup> An English version of this paper, "A First Attempt to Identify Phases and Periods of Accounting History" in Portugal, was presented in the 9<sup>th</sup> World Congress of Accounting Historians (Melbourne, 2002).

This paper is divided into four sections. After this brief introduction, selection of the books analysed, including and a review of political and economical situation, proposal of the Portuguese management accounting literature phases, characterization of the phases by issues and conclusions.

## **2 Analysis of the published books in Portugal**

At this point we analyse the most relevant books published. However, before this, it is important to have a very brief idea of the political and economical evolution from eighteenth century to the present, to know a later proposal of accounting phases and periods based on Carvalho and Conde (2002) and selection criteria used to choose the relevant books.

### ***2.1 Prior Research and Selection Criteria of Books***

#### ***2.1.1 Political and Economical Situation in Portugal***

In the first half of the nineteenth-century, Portugal lived a period of war and political instability. The liberalists triumphed, in Portugal, in 1834. The following forty years (1851 – 1891) was a period of strong economic development, with the creation of new schools and codes. Due to a severe financial crisis Portugal declared, in 1891, the suspension of payments. This began a period of political instability and economical stagnation that went on until the arrival to power of Salazar and the Constitution of 1933. This period involved Monarchy (1891-1910), the first Republic (1910 – 1926) and National Dictatorship (1926-1933). In the New State (1933 - 1974), under Salazar's dominance, Portugal continued to live in a dictatorship, with a single party, but witnessing a strong economic development, mainly after the beginning of the fifties. As a result of the Carnations Revolution, Portugal entered into a democratic regime and a first period of political instability (1974 – 1985), with social and economical problems. The arrival of Cavaco Silva to power leads to a period of political stability and economic development (1985 – 1995). In the end of the century the government under

Guterres adopted easy measures and guided the country to economical and financial problems in the early part of the twenty first-century.

### ***2.1.2 A New Proposal of Portuguese Accounting Phases and Periods***

Four accounting phases and eleven periods can be considered

1. Pre History of Accounting Literature (Until 1758)
  - a. Pre Indic (Until 1498)
  - b. Indian Maritime Trade (From 1498 to mid of the sixteenth century)
  - c. Darkness (From mid of the sixteenth century to 1758)
2. Register (From 1758 to 1929)
  - a. Incipient (From 1758 to 1863)
  - b. Development (From 1863 to 1910)
  - c. Hope (From 1910 to 1929)
3. Study of Patrimony (From 1929 to 1977)
  - a. Quality (From 1929 to 1947)
  - b. University Crisis (From 1947 to 1961)
  - c. Openness to Abroad and Tax Reform (From 1961 to 1977)
4. Accounting Standardization (From 1977 to the present)
  - a. Loss of Quality (From 1977 to 1985)
  - b. Stability and Gradual Improvement (From 1985 to the present)

This proposal relatively to the previous considers now a first phase until the publication the first Portuguese accounting book (1758). The first period considered (Pre Indian) is defined by the discovery of the maritime sea to India by Vasco da Gama (1498). In this period, accounting was very rudimentary and it was used in monasteries and by the King, where there was confusion with the kingdom accounting. In the second period, Venetians lost their influence in the trade with the East, but they and other foreign traders came to Lisbon. The Portuguese do not dominate the secrets of accounting. The

Inquisition (The Holy Office) was introduced in Portugal in 1531 (extinct in 1821)<sup>3</sup> persecuted the Portuguese Jews and contributed to the loose of commercial activity in Portugal. After the mid of the sixteenth century the role of the Inquisition contributed to a period of darkness in the Portuguese accounting.

### **2.1.3 A First Proposal for Portuguese Management Accounting Periods**

Based on the denomination of management accounting, Carvalho (2002) proposed four periods for this discipline:

1. Industrial Bookkeeping (until the end of the 1920's)
2. Industrial Accounting (until the beginning of the 1970's)
3. Cost / Analytical Accounting (until the mid of 1990's)
4. Management Accounting (current period).

In this paper the author questions whether the current denomination is dying and what will be the next. The third period corresponds to a simultaneous of two tendencies: the French and the American / English. In the current phase, the dominant is the last one.

### **2.1.4 Selection Criteria of Books**

The above classifications are useful for selection of the most representative books to be analyzed with a certain detail. For the first period (Incipient, until 1863) we consider Mendonça (1816) as a representative book. We do not consider as relevant in the management accounting area the seven books of the eighteenth century as well the Edmond Degrange's eight editions of the "Easy Method" (*Método fácil*) translate in Portuguese and published between 1837 and 1894. For the next period we have analyzed Monteiro (1879) and Santos (1893). It was not possible to find the books of Rodrigo Pequito<sup>4</sup> "Course of Commercial Accounting" (Curso de Contabilidade Comercial, 1875), Carlos Santos Afonso "Wallet of the merchant, industrial and farmer.

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<sup>3</sup> In its 290 years of activity its courts condemn to be burned in the fire 1500 persons and 25000 to diverse penalties. Only the Marquis of Pombal (third quarter of the eighteenth century) had reduced considerable the power of the Inquisition (Koogan Larousse Selecções, 1980:1303).

<sup>4</sup> First Portuguese professor of Accounting in Higher Education.

Practical Treatise of Accounting“ (Carteira do comerciante, do industrial e do agricultor. Tratado prático de Contabilidade, 1888) and Elias Pereira “Notions of commercial, industrial and agricultural accounting“ (Noções de escrituração commercial, industrial e agrícola, 1904). It was interesting to analyse mainly the last two. There was a current of industrial development in Portugal in the late of nineteenth century and early of the twentieth century. After 1904 the denomination Industrial Bookkeeping (*Escrituração Industrial*) is often used, although it was created in 1913 the discipline Industrial Accounting and State Accounting in the Higher Course of Commerce (*Curso Superior de Comércio*) at the Higher Institute of Commerce of Lisbon (Instituto Superior de Comércio de Lisboa). We have analyzed the Dória (1914). From the 1930's the quality grew and the denomination “Industrial Accounting“ was generally accepted. We have analysed the books, Apontamentos (1932), Dias (1939) and Silva (1954) which was a landmark in the discipline. It is also analyzed subsequent editions of his book. From the 1970's the book of Silva continues to be very influential but translation of American and French books are used and the discipline denomination is changed in the school where accounting is taught. It is considered in this analysis Pereira (1976) and Pereira e Franco (1986). In the current phase it is analyzed Caiado (1997). The books analyzed in the twentieth century belong to Portuguese prestigious professors. The sample of the books chosen seems representative of the evolution of management accounting literature. In twentieth century the books were chosen the published books of industrial accounting and before from the accounting books.

Periods	No. of accounting books	No. of industrial accounting books	No. of selected books
Until 1863	21		1
From 1863 to 1904	55		2
From 1904 to 1932		7	1
From 1932 to 1975		9	4+1
From 1975 to 1985		4	1
From 1985		8	2

## 2.2 *Analysis of the relevant books*

In this section we will analyse the structure and the matters studied in the above referred books, that are the following (we include translation):

- *Guarda-livros Moderno*, (Cabral Mendonça, 1816) – Modern bookkeeper
- *Curso prático di escrituração Mercantil por partidas dobradas* (Francisco Monteiro, 1879) – Practical course of mercantile double entry bookkeeping
- *Tratado de Contabilidade Comercial*, (Luís Santos, 1893) – Treatise of Commercial Accounting
- *Escrituração Industrial e Mineira* (Raul Dória, 1914) – Manufacturing and Mining Bookkeeping
- *Apontamentos da 26<sup>a</sup> Cadeira do Instituto Superior de Comércio do Porto* (1932) – Notebook of the 26th Discipline of the Oporto Higher Institute of Commerce
- *Contabilidade Industrial e Agrícola* (F. Caetano Dias, 1938) – Manufacturing and Agricultural Accounting
- *Contabilidade Industrial* (Gonçalves da Silva, 1954) – Manufacturing Accounting
- *Contabilidade Industrial* (Gonçalves da Silva, subsequent editions) – Manufacturing Accounting
- *Contabilidade Analítica* (Esteves Pereira, 1976) – Analytical Accounting
- *Contabilidade Analítica* (Caiano Pereira e Seabra Franco, 1986) – Analytical Accounting
- *Contabilidade de Gestão* (Pires Caiado, 1997) – Management Accounting

In the case of recent books we analysed the latest editions because we needed to have an idea of the current situation of the subject in Portugal.

### 2.2.1 *Guarda-livros Moderno (1816)*



This book covers the commercial operations, covering the following concept “... land productions, ... the manufactured products ... of the mechanical liberal arts, fishing and those that we took to the Overseas countries, which were our Colonies, or the Brazilian Kingdom by sea” (p.103). The subjects are presented essentially in double entry bookkeeping format.

The subject in analysis is superficially treated, and just to the calculation of some costs, namely the calculation of the cost of the goods (*fazendas*) and the computation of the cost of ships, mercantile houses or farms.

The cost of goods is calculated in “the book of the prices to which the goods comes out” (*Livro dos preços a que sahem as Fazendas*) by the following method: “to register on the left page (*lauda*) that which contains the invoice in the Entry Book (*Livro de Entradas*), and underneath the abbreviated amount, and the cost of each type quality; for whom and where came the goods ... the duties and more expenses paid, the commission of sales, the delcredere, ... and finally the profit that it is intended to made on the that goods, all items (*adições*) constitute the total value of the goods“. On the right page the particular price that comes out each quality, for weight, measure, or number, according to the proportional calculation that has been made (p.56-7, 1816) is registered. The author says that it is still important to know what to order and which are the best suppliers, because this is “... one of the major secrets of a Business House” (*hum dos principaes segredos de huma Casa de Negócios*) (p.57). This was used in the Aula do Comércio (*Commerce class*).

### **2.2.2 *Curso prático di escrituração Mercantil por partidas dobradas (1879)***

This manual is a practical book, written by an experienced trader from Oporto, Francisco Jose Monteiro. This book presents basic examples accompanied by summary theories, namely the costing of ships.

The author suggests the creation of a book to register the expenditure of the ships, instead of the current practice of opening an account in the Ledger each time a ship would make a voyage. He suggests also the use of only two accounts for all the ships: Costing of ships and Freights to receive.

The first one would register the expenditures, paid or not, in the debit and the second registered the freights in the credit. In the time of rendering the accounts, the account of Freights to Receive is debited and the account of Costing of Ships is credited by the total of the expenditures of agency commissions. The balance is transferred to the account of Ship's Owner.

In that time, Portugal was beginning to construct its first roads. To go from Lisbon to Porto (200 miles) it was used the boat. So we understand the importance of the costing of the ships.

### **2.2.3 *Tratado de Contabilidade Comercial (1893)***

It is the first books that we analysed that presents an autonomous chapter dedicated to Manufacturing Accounting. The author, Luiz M. dos Santos, is of the opinion that management accounting must be in perfect harmony with financial accounting (p.527).

The concept of the cost of a good includes, in that time, the administrative expenditures (full costing). Management accounting has origin in the financial accounting.

The calculation of costs has two forms: indirect and direct method. The first is an average price, where the specific costs are accumulated in the accounts of General Manufactures or specific costs. The second calculates the costs in the accounts of Special Manufactures, when it was possible to establish the price of each part in the different workshops (*oficinas*).

### **2.2.4 *Escrituração Industrial e Mineira (1914)***

This book, whose author is Raúl Dória, is unfolded in two parts: Manufacturing bookkeeping and mining bookkeeping. The first is presented in about 30 pages. He distinguishes manufacturing bookkeeping from commercial bookkeeping. This last one focus on the profit or loss on the sale of a good, while the first has to calculate the cost of the manufactured products, the stock of those products, the production expenditures (*despesas de fabrico*) and the consumption of raw materials used in its production (p.3)

Raúl Dória suggests the use of the following accounts: Raw materials (*matérias primas*), products in process (*produtos em curso*), manufacturing expenses (*gastos de fabricação*), manufactured products (*produtos manufacturados*), machines and parts (*máquinas e utensílios*), labour (*mão de obra*), fuel (*combustíveis*), lubrication (*lubrificação*), repairs of the material (*concertos do material*), warehouse (*armazém*) and general expenses (*gastos gerais*).

The accounts of raw material, labour and manufacturing expenditures are posted to the manufactured products account and “the exit is done from the exit balance (*balanço de saída*) to the existing manufactured products, and the balance (*saldo*) will later pass to losses and profits (*perdas e ganhos*) as a representative value of the profit or loss” (p.7)

The author considers three components of the price of cost: raw materials, labour and general expenditures (*gastos gerais*). To the raw material he suggests the use of average cost. The calculation of labour is made through the fulfilling of wages sheets (*folhas de férias*), where are registered the hours spent by the workers in a certain product. The author referring to the third component, general expenditures, says that “there are those who only calculates over the raw materials or over labour, or then over the sum of both, using a percentage, determined by the comparison of each one of these amounts with the totality of the expenses during the exercise” (p.10).

The book considers two sorts of manufacturing bookkeeping: general manufactures (when it is possible to calculate an average price for great amounts) and special manufactures (that constitute special accounts with the price of the execution in the workshops).

#### **2.2.5 *Apontamentos da 26ª Cadeira do Instituto Superior de Comércio do Porto* (1932)**

A notebook (*apontamentos*), with 123 pages, was made about the lessons of Industrial Accounting, the 26<sup>th</sup> discipline of the Instituto Superior de Comércio do Porto (Oporto Higher Institute of Commerce). Hernâni Carqueja argues that there is a high probability that Lopes Amorim was the professor. The paper would be elaborated by students, because it was detected some mistakes that are not of typewritten origin. This work is divided in seven chapters: (1) accounting of the manufacturing price, (2) elements of the

manufacturing price, (3) raw materials, (4) labour, (5) general expenditures, (6) how to focus, represent and compute the manufacturing price and (7) importance of the accounting of the manufacturing price.

The author reinforces the interest in the accounting of the manufacturing prices, defining them as: "prices of manufacture or prices of cost of manufactures must be understood as the sum of the expenditures incurred with the confection of the product" (p.3).

For the overhead allocation, the paper suggests the use of departments: purchase, production, sales and administrative. Each department is divided in sections, which can be main and auxiliaries (chapter II). Terms as the manufacturing expenses (despesas de fabricação) and the cost for sale price (preço de custo para venda). This last term is similar to the French "prix de revient". About labour, the paper refers to methods such as: Halsey, Rowan, Taylor, Gantt, Gilbreth and Priestman.

The paper refers to several allocation criteria (e. g. materials, labour, prime cost, machine-hours), in chapter V. The author suggests the elaboration of a "...very conscientious..." budget... of overhead, in order to compare later with actual expenditures. In case that differences happen. "... became necessary to proceed the revisions...." (p.97). In this chapter variable and fixed expenditures are still explained.

The paper ends with a slight explanation of the importance of the accounting of the manufacturing price for the company success.

### **2.2.6 *Contabilidade Industrial e Agrícola (1938)***

F. Caetano Dias published the book "Industrial and Agricultural Accounting", which is divided into two volumes. The first one dealt with aspects of industrial organization and manufacturing cost. Later was published the second volume treating applied industrial and agricultural accounting.

The first volume has four chapters: Accounting and industry, industrial actuation, theory of manufacturing cost and, finally, introduction to manufacturing accounting.

The third chapter, theory of manufacturing cost, the book analyses the classification of the manufacture processes by its nature (simple or complex), units produced (for parts,

in series or continuum) and the demand for products (perfect and imperfect - dependent of orders). In the following pages the factors of the manufacturing cost appear (volume of production, period of manufacture, expenditures of production) and the methods of the manufacturing cost (job order and process). This author suggests that production cost can be calculated in three ways: technical, accounting and technical-accounting.

The second volume presents it in the accounting way. This volume of the book presents four chapters (fifth to eighth): General mechanism of accounting, applied accounting to warehouses, applied accounting to wages and applied accounting to manufacturing overheads (*Contabilidade aplicada à Encorporação de Despesas Indirectas de Fabricação*).

The sixth chapter distinguishes the differences between commercial and industrial warehouses and teaches the preparation of the accounting records. The permanent inventory is an issue studied in this chapter. The next chapter, about labour, analyses social problem of wages, types of wages, time tickets and the preparation of the accounting of the wages.

The eighth chapter, manufacturing overheads, classifies expenditures in: general expenditures (*gastos gerais*), i. e., inherent to general actuation of the company), general manufacturing expenditures (*gastos fabris gerais*), i. e., maintenance, conservation...,) and manufacturing expenditures (*gastos fabris*), i. e. expenditures incurred in each section. Each of these accounts is normally divided into others.

In relation to overhead allocation, the author distinguishes the distribution to sections and imputation to products. This last one considers several bases as: value of direct labour, value of materials, primary cost, direct labour hours, produced units and machine-hours.

### **2.2.7 *Contabilidade Industrial* (G. Silva, 1954)**

In our opinion, this book by Gonçalves da Silva, with 462 pages, is the best book on management accounting and clearly a landmark in the Portuguese literature on this issue. This book “Industrial Accounting” has thirteen chapters: (1) introduction, (2) main features of manufacturing accounting, (3) fundamental about manufacturing cost, (4) materials, (5) labour (*mão de obra*), (6) manufacturing overheads (*gastos gerais de*

*fabrico*), (7) work in process (*produção em fabrico – laboração*), (8) joint production (*produtos, subprodutos e resíduos*), (9) allocation of overheads (*distribuição e imputação de gastos gerais de fabrico*), (10) budgets (*orçamentos*), (11) standard costs (*custos básicos*), (12) commercial and figurative expenses (*despesas comerciais e despesas figurativas*), (13) accounting organization of manufacturing enterprises.

Gonçalves da Silva refers that names such as analytical accounting of exploration or cost accounting are also valid to designate this discipline (p.31). He says also "the greatest obstacles to correct calculate of the cost prices are found in the internal evaluations and the imputation of the overheads of production" (p.72), emphasizing even "the exact cost price is an utopian" (p.75).

The book presents the notions of complete cost (*custo completo*), i.e., the sum of the manufacturing costs and non-manufacturing cost, and economic-technical cost (*custo económico-técnico*), i.e., the sum of the complete cost and figurative cost (e. g. interest of own capitals). Break-even point is also presented in this third chapter.

The book covers the matters with theoretical depth (e. g. materials, labour and overheads). The classification of certain issue is analysed carefully. It also refers that "...it is difficult to impute the overheads to the products or to the services, it is relatively easier to distribute them to the departments", and therefore it is necessary to use the intermediary distributions. In the choice of these centres three criteria can be followed: topographical, functional or administrative.

The book explains some methods of work in process evaluation. Standard costs are also covered (chapter XI). Commercial expenditures include sales expenditures, financial expenditures (e. g. interest) and administration expenditures. Figurative expenditures include interests of own capital, wage of the owner and a risk premium. The last chapter presents several accounting plans with different solutions to treat internal accounting and external accounting.

### **2.2.8 Contabilidade Industrial (Gonçalves da Silva, subsequent editions)**

Gonçalves da Silva's book had nine editions, the last after his death. The 2<sup>nd</sup> edition appeared in 1960 with some alterations and amendments; the 3<sup>rd</sup> edition (1966) has introduced, among others things "....some brief notions of stock management..." and a

deepened study of "direct costing"; the 4<sup>th</sup> edition (1970) has little improvements; the 5<sup>th</sup> edition (1973) includes the Project of the General Accounting Plan; the 6<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> editions always keeps the same style and the same structure. The 9<sup>th</sup> edition (1989) was reviewed by Rogério Ferreira and structure is the same.

### **2.2.9 Contabilidade Analítica (1976)**

This is the first book that uses the term Analytical Accounting, whose author is João Esteves Pereira. The term Analytical Accounting of Exploitation was used, in the early of the seventies, in a translation of a book of the French authors Rapin and Poly. Pereira's book was used in high school. It has nine chapters: (1) introduction (2) costs (3) costing systems (4) differentiation of financial accounting (5) relations with financial accounting (6) basic information (materials, labour and other expenses) (7) actual costs and (8) standard costs (*custos predeterminados*). This book has 328 pages. This book covers matters normally presented in Portugal. It compares full cost and partial costs. It dedicates some attention to the accounting organization and the link between financial accounting and management and also to the method of sections (departments). The author finishes the book with standard cost and the analysis of deviations.

### **2.2.10 Contabilidade Analítica (Caiano Pereira and Seabra Franco)**

The latest edition of Pereira and Franco's book was published in 2001. It has 708 pages and twelve chapters: (1) Introduction, (2) main concepts, (3) manufacturing cost and major accounts of analytical accounting, (4) manufacturing cost and regimes of manufacture, (5) cost centres (*centros de custos*), (6) CVP relationship, (7) annual budget, (8) basic costs, (9) standard costs, (10) budgeting control, (11) accounting systems and (12) conception of a system of analytical accounting. Each chapter ends by pointing out problems and providing exercises.

First author died some years ago. This book has been clearly influenced by one of Gonçalves da Silva's books, which was professor in ISEG (Instituto Superior de Economia e Gestão) of Lisbon. The first author was a student and later professor of the School. The French method of homogeneous sections continues to have strong

influence in Portugal. The book has some concern with the aspects of decision-making and control. Budgetary control and the organization and link between financial accounting and management accounting deserve much attention. Normalization and the use of accounting plans are studied deeply. The book refers that information must allow "... to measure the performance of the responsible ones to the diverse hierarchic levels of the organization" (p 807).

### **2.2.11 Contabilidade de Gestão (Pires Caiado)**

The latest edition of Caiado's book "Management Accounting" was published in 2002. The book has 966 pages and twenty chapters: (1) fundamentals of management accounting, (2) main concepts, (3) components of manufacturing cost, (4) calculation of manufacturing cost, (5) joint production and work in progress, (6) cost centres, (7) systems of calculations of costs (8) variable costing a decision making, (9) standard costs, (10) costing systems, (11) normalization of sector accounting, (12) information system of internal accounting, (13) quantitative methods and management accounting, (14) planning and budgets, (15) budgets of exploration, (16) investment and financial budgets, (17) control of exploitation budgets, (18) control of investment and financial budgets, (19) budget system facing motivations and styles of command and (20) performance (*análise de desempenho*) and budget management. Each chapter ends with a point of problems and applied cases and also with a bibliography of the chapter. This book has also been influenced by Gonçalves da Silva's book. Caiado was a student and professor in ISEG. Like Pereira and Franco's book, it dedicates much attention to the aspects of preparing entries in the ledger and standardization. This book presents budget items in a detailed way. The author presents three chapters that usually are not presented in Portugal: standardization of sector accounting, information systems and quantitative methods linked to management accounting.

It defines management accounting as "... a system of measure of different magnitudes of the company, facilitating decision-making and management control". The book provides a brief reference to ABC.

The evolution of the concepts and the contents of the books analysed are following provided in synthesis in table 2.1 and table 2.2.



**Table 2.1 - Contents of the books analysed**

<b>AUTOR</b>	<b>TITLE</b>	<b>PRESENTATION</b>	<b>SPECIFY PART</b>	<b>CONTENT</b>	<b>DEVELOPMENT SUBJECTS OF MANAGEMENT ACCOUNTING</b>	<b>TOTAL PAGES</b>
<b>Manoel Mendonça (1816)</b>	Modern Bookkeeper	Double entry bookkeeping format	-	Commercial Operations	Much superficially	264
<b>Francisco Monteiro (1879)</b>	Practical course of mercantile double entry bookkeeping	Double entry bookkeeping format, accompanied by condensed theories	-	Commercial Operations	Superficially	377
<b>Luiz Santos (1893)</b>	Treatment of Commercial Accounting	Double entry bookkeeping format, accompanied by condensed theories	Ch. XXIII Industrial Accounting	Commercial Bookkeeping And Commercial Calculation	Superficially	911 (2 Vol.)
<b>Raúl Dória (1914)</b>	Manufacturing Bookkeeping and Mining Bookkeeping	Double entry bookkeeping format, accompanied by summary theories	All book	Manufacturing Bookkeeping and Mining Bookkeeping	Medium synthetic	36
<b>Author Unknown (1932)</b>	Lessons of Industrial Accounting	Theory and examples	All book	Administration and cost calculation	Medium development	123
<b>F. Caetano Dias (1938)</b>	Industrial and Agricultural Accounting	Theory and many examples and few bookkeeping	Big Part	Organisation enterprise and cost calculation	Medium Development	523 (2 Vol.)
<b>Lourenço (1954)</b>	Industrial Accounting	Few theory , few examples and few bookkeeping	All book	Explain of cost calculating	Medium synthetic	149
<b>G. da Silva (1954)</b>	Industrial Accounting	Theory, good development, examples and few bookkeeping	All book	Explication of product cost elements and calculate cost	Great Development	458
<b>Esteves Pereira (1979)</b>	Analytical Accounting	Theory , examples and few bookkeeping	All book	Organisation enterprise and calculate cost	Medium Development	317
<b>Caiano e Franco (2001)</b>	Analytical Accounting	Theory, good Development , examples and few bookkeeping	All book	Explication of product cost elements, calculate cost and Management	Good Development	841
<b>Pires Caiado (2002)</b>	Management Accounting	Theory, good development, examples and few bookkeeping	All book	Explication of product cost elements, calculate cost, Management and Normalization	Good Development	981

**Table 2.2 - Evolution of concepts**

<b>M. C. Mendonça (1816)</b>	<b>Francisco J. Monteiro (1879)</b>	<b>Luiz M. Santos (1893)</b>	<b>Raúl Dória (1914)</b>	<b>Prof. 26ª cad (1932)</b>	<b>F. Caetano Dias (1938)</b>	<b>Lourenço (1954)</b>	<b>Gonçalves da Silva (1954)</b>	<b>Esteves Pereira (1979)</b>	<b>Caiano e Franco (2001)</b>	<b>Pires Caiado (2002)</b>
Bookkeeping	Bookkeeping	Industrial Accounting	Industrial Bookkeeping	Industrial Accounting	Industrial Accounting	Industrial Accounting	Industrial / Analytical / Exploration / Cost Accounting	Analytical Accounting	Analytical Accounting	Management Accounting
Expenditure Cost	Costing expenditure	Manufacturing expenses	Cost price	Manufacturing price / industrial cost price	Product cost	Cost price Product Cost	Cost price Product Cost Industrial cost	Product Cost	Product Cost Industrial cost	Industrial cost
							Complete or Full Cost	Commercial Cost	Commercial Cost	Complete or Full Cost
							Economic-Technical Cost	Economic Cost	Economic-Technical Cost	Economic-Technical Cost
				Direct and indirect elements of Manufacturing price	Prime Cost and complementary Cost	Prime Cost e over costs	Prime Cost and Industrial cost / Manufacturing cost	Direct and Indirect cost	Direct and Indirect cost	Direct and Indirect cost
				Actual price and Ideal price			Basic cost	Actual and budgeted cost	Actual and standard cost	Actual and Standard cost
		Fixed and furniture and utensil		Fixed and variable expenditures	Fixed and variable expenditures	Fixed and proportional expenditures	Fixed and variable expenditures	Fixed and variable costs	Fixed and variable cost	Fixed and variable cost
		By order	By order	By order or Stages	Simple or complex Continuous, unit or series perfect or imperfect	One stage and several stages and multiple By order	Uniform and continuous Mass production Stages By order Series	By order and Series With and without stages Single and multiple	Simple or complex Cont. or discontinue Uniform or multiple By order	Simple or complex Continuous or stages Uniform or multiple By order Series
		Raw materials	Raw materials	Raw materials	Raw materials	Raw materials	Raw materials	Raw materials	Raw materials	Raw materials
		Direct labour	Direct labour	Direct labour	Direct labour	Direct labour	Direct labour	Direct labour	Direct labour	Direct labour
		Overhead	Manufacturing expenditures	General expenditures	Indirect or complementary expenditures	Overhead	Overhead	Overhead	Overhead	Overhead

**Table 2.2 - Evolution of concepts (cont.)**

<b>M. C. Mendonça (1816)</b>	<b>Francisco J. Monteiro (1879)</b>	<b>Luiz M. Santos (1893)</b>	<b>Raúl Dória (1914)</b>	<b>Prof. 26ª cad (1932)</b>	<b>F. Caetano Dias (1938)</b>	<b>Lourenço (1954)</b>	<b>Gonç. da Silva (1954)</b>	<b>Esteves Pereira (1979)</b>	<b>Caiano e Franco (2001)</b>	<b>Pires Caiado (2002)</b>
					General expenses		Commercial expenses	Marketing cost	Marketing cost	No manufacturing cost
		Administrative expenditures					Figurative expenditures	Figurative costs	Figurative costs	Figurative costs
		Special Manufacturing	Special manufacturing				Job costing		Job costing	Job costing
		General Manufacturing	General manufacturing				Process costing		Process costing	Process costing
							Mix method		Mix method	Mix method
						By - products	Joint costing	Joint costing	Joint costing	Joint costing
						Spoilage	Spoilage	Spoilage	Spoilage	Spoilage
							Work in process	Work in process	Work in process	Work in process
				Department/section		Department/section	Cost centers	Cost centers	Cost centers	Cost centers
				Ideal price		Standards cost	Standards cost	Standards cost	Standards cost	Standards cost
							Break-even point	Break-even point	Break-even point	Break-even point
							Period cost			Period Cost
		Average costing						Absorption costing Variable costing Normal costing	Absorption costing Variable costing Normal costing	Absorption costing Variable costing Normal costing
							Variance	Variance	Variance	Variance
					Systems of accounts		Systems of accounts	Systems of accounts	Systems of accounts	Systems of accounts

### **3 Phases and periods of the management accounting in Portugal**

The previous analysis permits to suggest some phases and periods in the evolution of Management Accounting in Portugal:

1. Included Industrial bookkeeping in the Commercial Bookkeeping (until the beginning of the twentieth century)
  - Until 1863
  - Until early of the twentieth century (1904)
2. Autonomy of Industrial Bookkeeping (until 1930's decade)
3. Industrial Accounting (until 1970's decade)
  - Before 1954
  - After 1954
4. Analytical Accounting/Costs (between 1970's and 1990's)
5. Management Accounting (from 1990's)

In the first phase, the books published in the nineteenth-century did not dedicate a specific chapter to management accounting issues, probably because (a) the size of the companies did not justify it, (b) financial information was directed only towards the owners and, (c) agriculture was the most important sector at the time.

During this period, Portugal was involved in wars which left profound negative marks such as the disappearance of some plants, the loss of the Brazilian market, namely the profitable re-exports of respective raw materials and the appearance of diverse problems of monetary and financial order.

Despite these problems, the books at the beginning of the nineteenth-century, mention the calculation of the cost of goods related with the shipping industry which was due to the importance of the existing commercial relations between Portugal and its colonies.

In the second half of nineteenth century, Portugal found political stability that contributed to the beginning of a period of economic recovery. In industry, some innovations were registered (e.g. steam machines, new technology in the milling

industry). Also, the installation of new cement, ceramics and the glass industries, or improvement of the existing ones deserve mentioning. These contributed to the start of a new period of evolution in Management Accounting, characterized by the appearance of books that included in their titles the designation of industrial book-keeping and the creation of a dedicated chapter on this issue. There was an attempt to deepen the study of this issue, as can be seen in Luiz Santos' book (1893), where there already exists a slight concern in grouping some components of the cost in raw materials, labour, overhead, as well as distinguishing the two methods to calculate costs: general manufacturing (indirect method) and special manufacturing (direct method).

In the early twentieth-century this subject started to be treated separately as commercial accounting, moving from being a chapter in a book to being treated as that which constitutes a book in its own right. This was the beginning of a new accounting phase.

Early in the second decade of the twentieth-century, new curricular plans of industrial accounting subjects were approved in the ISCL, which provided evidence of the growing interest surrounding these issues, culminating with the appearance of books covering only Industrial Bookkeeping (Raúl Dória, 1914), albeit in an incipient way.

In the third phase, initiated in the 1930's, the term Industrial Accounting was generalized and replaced Industrial Bookkeeping. This shift was accompanied by some development of the conceptual framework, so as to obtain better accounting information, taking into account (a) the economic growth, (b) the great increase in the use of the electricity and (c) the reforms in education, for example, *Instituto Superior de Ciências Económicas e Financeiras*<sup>5</sup>, 1931)

In this phase we consider two periods:

- The first one up to 1954, characterized by little theoretical deepening of the issues covered,
- The second, after 1954, was strongly influenced by Gonçalves da Silva's book.

Gonçalves da Silva's book "Industrial Accounting" is a Portuguese landmark in the development of Management Accounting subjects, in Portugal. The book has 463 pages, divided into thirteen chapters and is all about industrial accounting. It covered issues such as cost of production and its components, work in process, by-products,

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<sup>5</sup> A close translation would be "Higher Institute of Economic and Finance Sciences"

budgeting, standard costs and commercial and figurative expenditures. The budget begins to be seen as a management tool. It also introduced new concepts and explained them in a certain depth (e.g. technical-economy cost, period cost and break-even point). This book continues to influence current Management Accounting manuals, although the titles of the books have suffered alterations.

In the 1970's, the translations to Portuguese of French books, which introduce the denomination "Analytical Accounting" were introduced while on the other hand translations of American books introduce the denomination "Cost Accounting". A new phase started with the two designations coexisting. The dominance of each term depends on the influence that it has on Portuguese authors and accounting schools. For example, at the school in Coimbra, "Analytical Accounting" was used while in Lisbon the term "Cost Accounting" was used.

However, there was no great development in the level of concepts and the structure of issues. The main concern continued to be the valuation of stock and greater focus of attention was beginning to be given to decision-making.

The designation of Management Accounting appeared in the 1990's and this was the beginning of the last evolutionary phase of. It appeared due to several factors, namely: (a) economic development which was a consequence of Portugal's entrance into the European Union, (b) generalization, in diverse countries, of the term Management Accounting and (c) educational development of accounting, formalised by the appearance of masters and doctorates in Accounting.

We summarize the phases and the periods in the following table 3.1.

Table 3.1 - Phases and periods of the Portuguese management accounting literature

Phases	Periods	Description
Commercial Bookkeeping	Until 1863	The books published in the nineteenth century did not dedicate a specific chapter to management accounting issues; the small size of the companies; financial information was directed only towards the owners and agriculture was the most important sector at the time.
	Until early twentieth century	Portugal found political stability that contributed to the beginning of a period of economic recovery; In industry, some innovations were registered (e.g. steam machines, new technology in the milling industry; the appearance of books that included in their titles the designation of industrial bookkeeping and the creation of a dedicated chapter on this issue.
Autonomy of Industrial Bookkeeping	Until Decade 1930's	New curricular plans of industrial accounting subjects were approved in the ISC (1913); appearance of books covering only Industrial Bookkeeping.
Industrial Accounting	Before 1954	Development of the conceptual framework; the economic growth; the great increase in the use of the electricity; the reforms in education, little theoretical deepening of the issues covered in the books
	After 1954	Strongly influenced by Gonçalves da Silva's book.
Analytical /Cost Accounting	From mid 1970's	The translations of French books to Portuguese, which introduce the denomination "Analytical Accounting" were introduced while on the other hand translations of American books introduce the denomination "Cost Accounting, there was no great development at the level of concepts and the structure of the issues. The main concern with stock valuation continued and decision-making focusing grew.
Management Accounting	From mid 1990's	Economic development which was a consequence of Portugal's entrance into the European Union; generalization, in diverse countries, of Management Accounting term and educational development of accounting, formalised by the appearance of masters and doctorates in Accounting.

## 4. Conclusions

This paper has analyzed the evolution of Management Accounting in Portugal. This study allows us to propose accounting phases and periods.

This analysis underlines the importance of Gonçalves da Silva's book (Manufacturing Accounting, 1954), which was a landmark publication in Portugal in the mid-twentieth century and continues to influence present-day Portuguese books on management accounting.

Although several periods were identified, the quality of the evolution is not very substantial, except for that of Gonçalves da Silva's book. Many concepts appeared with Gonçalves da Silva. The last fifty years has shown no significant evolution in the subjects treated but on the other hand there has been an evolution in the title of the discipline which, has evolved from manufacturing bookkeeping (*escrituração industrial*) to management accounting (*contabilidade de gestão*).

The evolution of the accounting literature was accompanied with the extension of the matters visible by the number of the pages of the books, although we consider that the quality of the current Portuguese books are far from the quality of the American books (e. g. issues covered, pedagogical quality).

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