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Many people think that accounting started with the industrial revolution. However, in recent times, a new specialisation has emerged: that of accounting historians. These people have been digging up the past, side by side with archaeologists. This circular tries to give an overview of their work.

## A bit of History

The backbone of modern accounting is the double-entry system of book-keeping. The present form of double-entry system has been around for an estimated 700 years. The story of double-entry book-keeping takes us back to an Italian monk during Renaissance.

### 1494 CE: Luca Pacioli

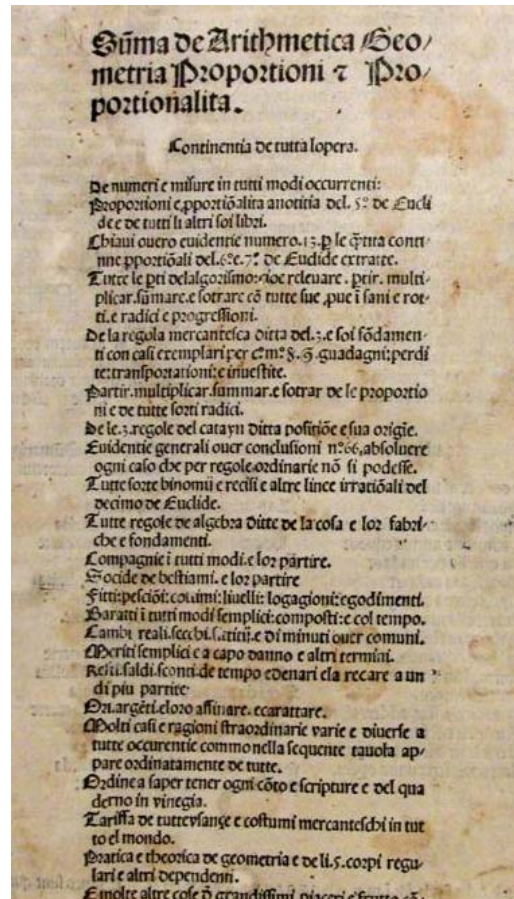
Double entry book-keeping was first publicised by a Franciscan monk, Br. Luca Pacioli in 1494 CE<sup>1</sup>. Luca Pacioli<sup>2</sup> described the system in his book called “The Collected



<sup>1</sup> Common Era. We are now in 2005 CE.

<sup>2</sup> Pronounced pot-CHEE-oh-lee

Knowledge of Arithmetic, Geometry, Proportion and Proportionality<sup>3</sup>”.



The book dealt mainly with arithmetic and geometry. A small chapter, added almost like a bonus or free gift, described double-entry accounting<sup>4</sup>. This book was printed on the new Gutenberg press<sup>5</sup> and became an instant hit. Pa-

<sup>3</sup> Original title: ‘*Summa de Arithmetica, Geometria, Proportioni et Proportionalita*’

<sup>4</sup> Academic mathematicians would have had very little interest in book-keeping. At the same time, traders and merchants of the time would have been most unlikely to spend time studying geometry!

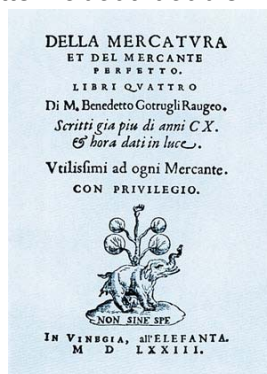
<sup>5</sup> Before the Germans invented printing presses, books were copied laboriously by

cioli's book caused this system to be widely adapted all over the world, over the next 500 years. Most of the system remains unchanged even today.

Br. Pacioli did not claim<sup>6</sup> to be the inventor of double entry book-keeping. He gave credit for this to one Mr. Benedetto Cotrugli (Benedikt Kotruljevic of Dubrovnik, Croatia).

## 1458 CE: Benedetto Cotrugli

Mr. Cotrugli had written about double-entry system in his book called "Of Trading and the Perfect Trader"<sup>7</sup>. This book was written around 1458 but not published for more than a hundred years.



## Modern Numerals and Accounting

ACAUS<sup>8</sup> makes an interesting observation regarding development of double-entry accounting. It suggests that double-entry accounting became possible due to introduction of Arabic numerals to Europe, which were a big improve-

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ment<sup>9</sup> over Roman numerals (I, II, V, IX...L, C).

hand. This automatically made books very expensive and limited their availability severely.

<sup>6</sup> Source: 'Accounting: A Virtual History', [www.acaus.org](http://www.acaus.org)

<sup>7</sup> Original title: '*Delia Mercatura et del Mercante Perfetto*'

<sup>8</sup> Association of Chartered Accountants in the US

What are Arabic numerals? The numerals (1,2,3, ...0) used throughout the world today are often called Arabic numerals. This is because Arabs introduced these numerals to Europe towards the end of first millennium CE<sup>10</sup>. However, the Arabs themselves call these as Hindu figures (*Al-Arquan-Al-Hindu*). There are visual similarities between the current *Devanagari*<sup>11</sup> numerals and the modern numerals used internationally<sup>12</sup>.

Mr. Ginsburg<sup>13</sup> pointed this out nearly 85 years ago. But it remained for Mr. Georges Ifrah, a mathematics teacher, to wander around the world for ten years, compiling a history of numbers. Finally, in 1994, he published his monumental work in French, demon-

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<sup>9</sup> Book-keeping using Roman numerals can be a little complicated. For instance, the number 2000 can be written simply as MM, whereas 1888 would be written as MDCCCLXXXVIII.

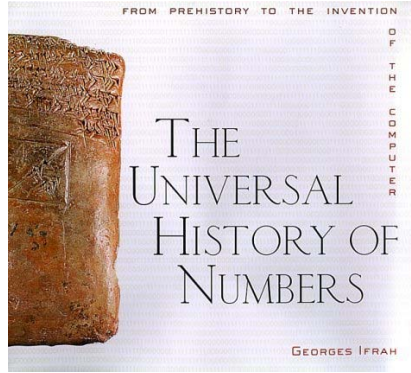
<sup>10</sup> 800-1000 AD

<sup>11</sup> Script used for some of the Indian languages such as Sanskrit, Hindi, Marathi, etc.

<sup>12</sup> Article 343 of *The Constitution of India* refers to these as 'the international form of Indian numerals'. Not knowing this, many people in former British colonies call these 'English numerals'.

<sup>13</sup> Ginsburg, 'New Light on Our Numericals', *Bulletin of the American Mathematical Society*, Vol.25, 1919, pp.366-9. Quoted in *The Dawn of Indian Civilization*, ed. G.C. Pande, pp.672-3, ISBN 81-87586-00-1

strating conclusively that the modern number system originated in India<sup>14</sup>.



### Some more history

It is also believed that traders and bankers in Venice were using some concepts of double entry book-keeping a hundred years before Mr. Cotrugli wrote his book. Both Mr. Cotrugli and Br. Pacioli have *described* an existing system rather than having suggested or invented a new one. How did double entry concepts develop in Venice so quickly, though the modern number system had just reached Europe<sup>15</sup>?

Some scholars believe that Indian merchants may have taken this knowledge across. For instance, Mr. Alexander Hamilton F. R. S. wrote 200 years ago:

“We would remark that the *Banias*<sup>16</sup> of India have been, from time immemorial, in possession of the method of book-keeping by double-entry, and that Venice was the em-

<sup>14</sup> Chapters 24-26, *The Universal History of Numbers: From Prehistory to the Invention of Computers*, Georges Ifrah, John Wiley & Sons. 2000. The book has been translated into 14 languages around the world.

<sup>15</sup> The modern number system came in general use in Europe only in mid-1400's when the digit symbols were standardized.

<sup>16</sup> Traders of *Vaishya varn* (caste).

porium of Indian commerce at the time at which Friar Lucas's [Pacioli's] treatise appeared.<sup>17</sup>”

This line of argument has been further developed by Shri B. M. Lall Nigam recently<sup>18</sup>, when he called the *bahi-khata* system a precursor to Pacioli's double entry accounting. What is the *bahi-khata* system?

### The *Bahi-Khata* System

The *Bahi-Khata* system is commonly referred as single-entry system in most standard text-books<sup>19</sup>. These books stop at that, without bothering to explain the system at all. As a result, modern accountants know very little about traditional Indian accounting.

However, in some states, such as Rajasthan<sup>20</sup> and Gujarat<sup>21</sup>, the system is

<sup>17</sup> *Monthly Review* 26 (1798) page 129, quoted by Shri G. P. Kapadia in 'History of Accountancy Profession in India – Volume I', ICAI, 1973, page 27.

<sup>18</sup> Lall Nigam, B.M. (1986) '*Bahi-Khata: the pre-Pacioli Indian double-entry system of book-keeping*', *Abacus*, 22(2): 148-62

<sup>19</sup> This error appears to be a carry-over from the colonial times when Indian students were using British text books. Single entry systems were widely used by traders in England till as late as 20<sup>th</sup> century. On the other hand, these are unknown to Indian traders.

<sup>20</sup> See, for instance, chapter 8 of class XI textbook (*Lekhashastra* - part 2, published by Rajasthan Patrika P. Ltd. Jaipur, 2002) prescribed by Secondary Education Board, Rajasthan

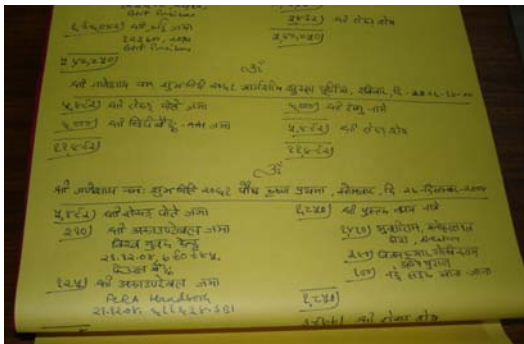
<sup>21</sup> See chapter 10 of *Elements of Book-keeping and Accountancy*, part 2 (standard XII), published by Gujarat State Board of

taught in schools. It is referred variously as *mahajani* system or *deshi-nama* system.



**Rokad Bahi, Khata Bahi and Nakal Bahi in use**

Actually, the *Bahi-Khata* system is a full-fledged double entry system. It makes a double-entry for all transactions affecting real, nominal or personal accounts. These transactions are first entered in the *rokad-bahi* (cash book), and then posted into the *khata-bahi* (ledger). A *nakal-bahi* serves as the journal. Finally a trial balance (*kaccha ankada*) is also prepared.



**Extract from Rokad Bahi**

The system also uses the concept of *naam* (debit) and *jamaa* (credit) for maintaining the books. Thus, there appears to be little conceptual difference between the modern English system and the traditional Indian system.

School Textbooks, Gandhi Nagar, Gujarat, 1995.

No definite date has been established for development of the system, but it is commonly believed to have been in use by Indian traders for thousands of years.

The *Bahi-khata* system is still used in many parts of South Asia by traditional traders. It is widely used in the Indian states of Gujarat and Rajasthan, as also in Sindh province of Pakistan. There are reports of its use in some pockets of Andhra Pradesh, West Bengal, Jharkhand, Bihar, Uttar Pradesh and Tamilnadu. However, as it is no longer being taught in modern schools, the system is gradually giving way to modern double-entry book-keeping. This is a pity, as the system is simple, flexible and costs very little. Therefore, it could easily be adapted to the needs of NGO accounting.

*Continued in Issue 7...*

**About AccountAid:** AccountAid is a private consulting firm based in New Delhi. It works on accounting and regulatory issues concerning NGOs. For this purpose, it conducts research, workshops, and publishes reference material relevant for NGOs and grant-makers. It also provides advice to donor agencies on grant management systems.

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Printed at Chanakya Mudrak Pvt. Ltd., New Delhi. Ph.: 4142 0316, 2592 7951  
For private circulation only.