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Accounting and *Arthashastra*



About 2,400 years ago, the Prime Minister of the Maurya Empire composed *Arthashastra*, literally, the 'Manual of Means'¹. Among other things concerned with administering the state, a section of the manual discusses state accounting also. Surprisingly, some of the concepts are very close to modern notions of accounting.

This has been discussed in some detail by Shri Choudhury² and Shri Bhattacharyya³. Reviewing Shri Bhattacharyya's book, Mr. Mattessich⁴ comments: "...the *Arthashastra* is the very first treatise on accounting, as far as present historical documentation goes... *Arthashastra* [is] a treatise dealing with

theoretical accounting aspects and [fore-shadows] concepts that were systematically dealt with [only in] the twentieth century. [There is] reason enough to put [Acharya] Kautilya's *Arthashastra* beside [Br.] Pacioli's *Summa*, and revere both of them as the most crucial landmarks in the early history of [accounting] discipline."

While agreeing with Shri Bhattacharyya's overall thesis, Mr. Mattessich has also pointed out important shortcomings in the analysis. He has also lamented the fact that neither Shri Shamasastri nor Shri Kangle⁵ had any accounting training, and thus their translations may not be very reliable for accounting research.

A new translation of Acharya Kautilya's *Arthashastra* by Shri Rangarajan, provides more systematic treatment and has devoted a separate chapter to 'Budget, Accounts and Audit'⁶. Rangarajan has also attempted a reconstruction⁷ of the form of accounts⁸ specified by Acharya Kautilya. These appear to be very similar to some of the modern ac-

¹ resources

² Choudhury, N. (1982) 'Aspects of accounting and internal control, – India 4th century B C.,' *Accounting and Business Research*, 46 (spring): 105-10

³ Bhattacharyya, A. K. (1988) *Modern Accounting Concepts in Kautilya's Arthashastra*, Calcutta: Firma KLM Private

⁴ Richard Mattessich, "Review and extension of Bhattacharyya's Modern Accounting Concepts in Kautilya's Arthashastra", *The Beginnings of Accounting and Accounting Thought*, 2000, p.144-145, ISBN 0-8153-3445-1. Also published in *Accounting, Business and Financial History*, Volume 8, Number 2, 1998. Routledge

⁵ Shri R. Shamasastri discovered the text and translated it first in 1915. However, Shri R. P. Kangle's 1965 translation forms the basis for most of the later commentaries.

⁶ Rangarajan, L. N. ed. 'Kautilya – The Arthashastra', 1992, Penguin Books India (P) Ltd.

⁷ In all probability, accounting records in Chanakya's times did not look like this. But then you can be also sure that real dinosaurs did not look like any thing shown in Jurassic Park!

⁸ Ibid, p.277. References are to paragraph numbers in Shri R. P. Kangle's three-volume translation of *Arthashastra*. ISBN 81-208-0040-0

counting records.

FORM OF ACCOUNTS

Income Side: {2.7.31}⁹

Place	Period of accounting	Date and time of receipt	Head of Account	Classification current year or outstanding dues	Quantity received	Name of payer	By whose order	Received by	Recorded by
1	2	3	4	5	6	7	8	8	10

Expenditure Side: {2.7.32}¹⁰

Place	Period of accounting	Date and time of payment	Head of Expenditure	Counter value received	Occasion	What was paid	Amount paid	For what use	Authority ordering payment	Withdrawn from store	Delivered by	Received by
1	2	3	4	5	6	7	8	9	10	11	12	13

Balances Columns: {2.7.33}¹¹

Place	Date and time	Head of account	Dues left outstanding	Form in which balance received into the Treasury	Quality	Amount received	Details of container	Delivered to (name of Treasury official)
1	2	3	4	5	6	7	8	9

⁹व्युष्टदेशकालमुखोत्पत्त्यनुवृत्तिप्रमाणदायकदापकनिबन्धकप्रतियाहकैश्चायं समानयेत्

¹⁰व्युष्टदेशकालमुखलाभकारणदेययोगप्रमाणाज्ञापकोद्धारक-विधातृकप्रतियाहकैश्च व्ययं समानयेत्

¹¹व्युष्टदेशकालमुखानुवर्तनरूपलक्षणप्रमाणनिक्षेपभाजनगोपायकैश्च नीवी समानयेत्

Accounting concepts in *Mahabharat*

The accounting trail does not stop with *Arthashastra*. We see references to it in Indian history as contained in *Ramayan*¹² and *Mahabharat*.

The *Adi Parv*¹³ of *Mahabharat* is particularly interesting and contains a clear illustration of the concept of 'nominal pricing'¹⁴.

This is found in a dialogue¹⁵ between King

Vasuman
and King
Yayati.

Yayati re-
fuses to
accept a
donation
of good
deeds
from Ash-
tak and
then again
from King



¹² See, for instance, Shri Ram's reference to the State's income and expenditure during a discussion with Shri Bharat (आयस्ते विपुलः कञ्चित् कञ्चिदल्पतरो व्ययः ।). *Ayodhya Kand – Ch. 100* (III.100.54), p.431, *Shrimad Valmikeeya Ramayan – Part 1*, Geeta Press, Gorakhpur. 23rd edition, Vikram Samvat 2058 (2001 CE)

¹³ *Mahabharat* war is currently estimated to have occurred around 1400 BCE. *Adi Parv* relates to period much before that.

¹⁴ Concluding a transaction for a nominal book price. For example, land occupied by *Pragati Maidan* was sold to Trade Fair Authority of India for one Rupee, when its market value was in crores.

¹⁵ 'वसुमानुवाचः . . . क्रीणीष्वैतांस्तृणकेनापि राजन् प्रतिग्रहस्ते यदि धीमन् प्रदुष्टः ॥ ययातिरूवाचः न मिथ्याहं विक्रयं वै स्मरामि वृथा गृहीतं शिशुकाच्छडकमानः । . . .' (I.VII.93.3-4) Page 280. *Ibid*

Pratardan.

At this King Vasuman says: 'O King. I give all my worlds to you. If you are hesitating to take these as a donation, then you can buy these for a handful of grass.'

King Yayati responds: 'This sale-purchase is a complete fiction. I have never entered into such transactions. Why should I do this, when no true person does it?'

Mahabharat also contains the entertaining story¹⁶ of the sage Agastya who needs to buy some furniture and ornaments to fulfill his wife's (Lopamudra) wishes.

He goes to three kings to ask for money. All three place before him the details of the kingdom's Income and Expenditure. As the accounts show no surplus, the sage decides not to take any money from them. He is then taken to Ilwal, a *daitya*¹⁷ who tries to kill him by deceit, but does not succeed. He then gives 20,000 cows and the same number of gold coins to the sage, along with a golden chariot.

The story appears to support the view that state accounting was a highly developed craft in ancient India, and kings commonly prepared Income and Expenditure Accounts to guide their spending.

¹⁶ *Van Parv - Teerthyatra Parv* (III.VII.97-99), pp.1231-1236, *Mahabharat*, Geeta Press, Gorakhpur. 11th edition, Vikram Samvat 2058 (2001 CE)

¹⁷ *Daityas* are popularly viewed as a form of demons. Actually, they are first cousins of *devas*.

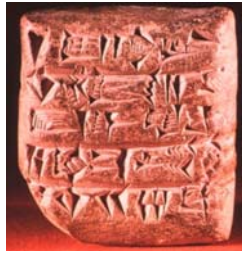
Token accounting in Arabia

Can we stop with *Mahabharat*? No.

Accounting

historians take us back further to Mesopotamia (present day Iraq¹⁸). In

Mesopotamia, archaeologists have discovered proto-cuneiform tablets containing distribution records of barley. On these tablets, debit entries appear on one side and the credit totals appear on the other side.



This type of accounting appears to be a successor to something called token accounting, which evolved in the Middle-East from 8000 BCE to 3000 BCE. Token accounting used clay pouches (called *bullas*) to seal tokens, such as pebbles. Each token represented actual objects. For example, a pebble may mean ten goats or sheep. To record 50 goats, five tokens were placed inside the pouch, which was then closed and baked. To find out the number of goats in stock, you had to break open the

¹⁸ Arabian Nights (~1000 CE) contain stories supporting the view that Baghdad had a highly developed trading and exchange system, which would have required meticulous accounting. See for instance, 'The Tale of the Christian Broker', p. 184, vol. 1, *The Book of the Thousand Nights and One Night*, Routledge, New York, 1986.

pouch¹⁹.

Later on, the accountants started making impressions of the pebbles (tokens) outside the pouch as well, before baking it. The main benefit of this was that you did not have to break the pouch to check the accounts! This double representation (a pebble inside, and an impression outside) is currently believed to be the earliest known attempt at double-entry book-keeping!

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.

¹⁹ Richard Mattessich, "Prehistoric Accounting and the Problem of Representation: On Recent Archeological Evidence of the Middle-East from 8000 B.C. to 3000 B.C." *The Beginnings of Accounting and Accounting Thought*, 2000, p.71-91, ISBN 0-8153-3445-1. Also published in *The Accounting Historians Journal*, Volume 14, Number 2, Fall 1987