



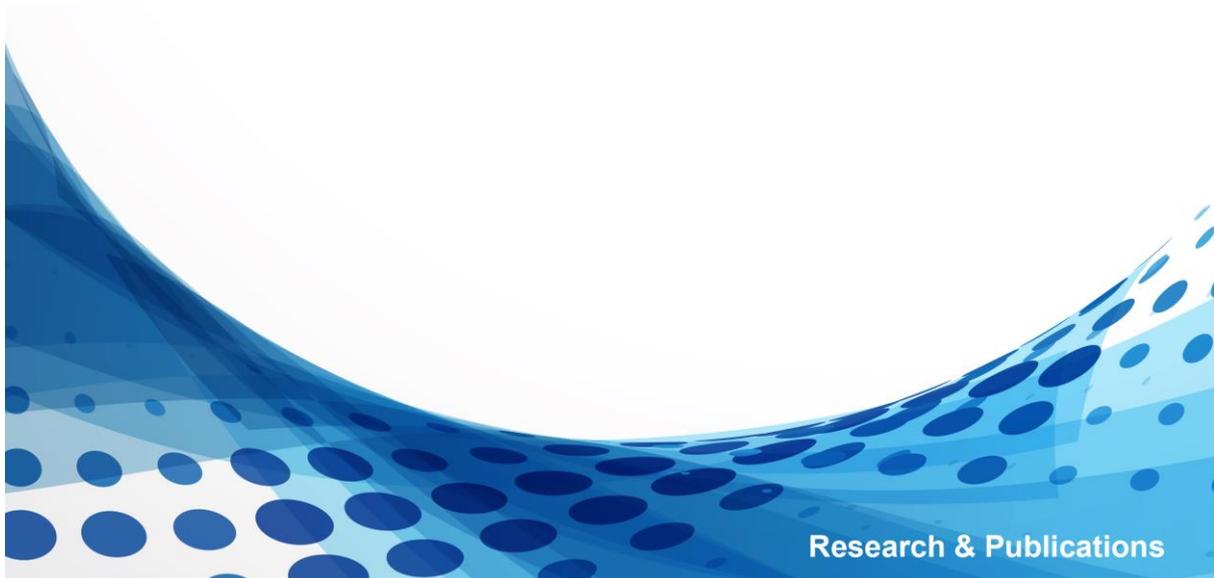
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SHUKRANITISARA: A POLITICAL ECONOMY TEXT AT THE CUSP OF INDIAN KINGDOMS AND COLONIAL RULE

(Updated as on 15/03/2021)

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Research & Publications

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**SHUKRANITISARA: A POLITICAL ECONOMY TEXT
AT THE CUSP OF INDIAN KINGDOMS AND COLONIAL RULE**

Satish Y. Deodhar¹

ABSTRACT

Shukracharya's treatise on political economy has been referred to in many ancient Indian texts such as Arthashastra, Buddhacharitam and Mahabharata. However, that treatise has been lost. A text titled Shukranitisara was brought to light in the nineteenth century. Written no later than the early part of the nineteenth century, the text has been written at the cusp of decline of the Indian kingdoms and entry of the colonial powers. The text is unique in that it seems to synthesize ancient Sanskrit writings as well as early regulations of East India Company. While a Sanskrit to English translation of the document exists and a few have also written about this text from the perspective of political science, nothing has been written from the perspective of economic policies. This is an effort to capture the economic aspects of the treatise. Among the four purusharthas or the life objectives, while Arthashastra had given primacy to artha or material wealth, Shukranitisara considers dharmic or ethical conduct as foremost for the economic decisions of the state and the householder. Among other things, the treatise addresses issues of governance, breadth of vocations and sciences, public finance, prices, markets, contracts, labour relations, and advice to a householder. If some of the policies mentioned in Shukranitisara are detailed and unique as compared to Arthashastra, some other are similar to the early regulations of the East India Company. Some of the policy advices from the text remain relevant even for today.

Key Words: Ancient Indian Treatises, Shukranitisara, Shukracharya, Shukra, Ushanas, Kavi, Bhargava, Arthashastra, Mahabharata, Buddhacharitam, Economic History, History of Economic Thought, India, Political Economy, East India Company, Sanskrit.

JEL Classification: B11, B15

¹ Professor, Economics Area, Indian Institute of Management Ahmedabad (IIMA), Ahmedabad, India

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I. INTRODUCTION

Advances in behavioural economics have begun to re-examine the nuances of self-interest and the singular objective of utility or profit maximization. The literature seems to imply that human wellbeing is a multi-goal construct. In a Gallup study conducted in 150 countries representing diverse cultures and ethnicities, five elements emerged that were associated with overall human wellbeing. These elements were related to social relations, community wellbeing, health, career, and, of course, the financials (Ghisellini and Chang, 2018, pp. 45-46). Beyond self-interest, there are moral values that an individual possesses which Sen had called ‘commitments’ in his article *Rational Fools* (1977, p. 326-27). It is not just economic incentives but moral nudges that decide our behaviour. Justice M.G. Ranade, called the Father of Indian Economics (Spengler, 1971, p. 148), had argued in his collected *Essays on Indian Economics* written at the turn of the twentieth century that self-interest was not the only nor the principal objective of man. As an institutionalist during the British colonial period who emphasized on rapid industrialization of Indian economy, he also believed in the wholeness of man as a socio-political-economic personality (Adams, 1971. P. 82). To him, pursuit of wealth was only one among other objectives an individual aimed at (Ranade, 1898, p. 9).

The origins of the multidimensional life objectives of man are found in ancient Indian writings. They are found in the political economy treatise *Arthashastra* by Kautilya written circa 300 BCE. A number of studies have been conducted in the recent past which throw light on Kautilya’s contribution. While Boesche (2003) has studied the *Arthashastra* from the

perspective of a political scientist, Trautman (2012) has covered the same as an expert historian and anthropologist. Importantly, Waldauer *et al.* (1996), Skare (2013), Spengler (1971, 1980), Dasgupta (1993) and Sihag (2009, 2014) have studied Arthashastra from the perspective of an economist. Kautilya had set out describing the economic aspects of a society keeping in mind the four-fold objectives of life (purusharthas) – dharma (righteous conduct), artha (material prosperity), kama (pleasure & love), and moksha (liberation). These objectives are to be achieved in the context of the four-fold stages of life (ashramas) – brahmacharya (student life), gruhastha (householder), vanaprastha (retired life), and sanyasa (renunciation).

Another Indian treatise on polity that was written after Arthashastra was the Kamandakiya Nitisara. Its author, Kamandaka has dedicated the treatise to Kautilya and the emperor Chandragupta Maurya. Thus, this treatise must have been written sometime after the reign of Chandragupta Maurya. Interestingly, this treatise on polity has been popular among the Balinese in Indonesia. In the first few centuries of the common era, some Indian seafarers had migrated to the island of Java. However, when they were forced to retire to the island of Bali circa fourth century CE, they had carried this preserved treatise with them. The treatise, therefore, belongs to a period no later than the early Gupta empire of the fourth century CE. The work, however, focuses only on political science aspects of a sovereign state and not on economic policy (Gautam, 2019, pp. 37-39; Dutta, 1896, pp. ii, 2-3). Was there any significant contribution after Kamandaka's work and the Essays on Indian Economics by Ranade at the turn of the twentieth century?

It turns out, that a treatise titled Shukranitisara exists which has not received much attention, and certainly not from the perspective of economic ideas. The words Shukra, niti, and sara in

the title of the treatise have specific meanings. Shukra is the shortened name of the sage Shukracharya who is originally thought to have written an ancient treatise on political economy. Niti refers to the ethical socio-economic policies and sara refers to essence or abridgement. What this means is that Shukranitisara is a revised and abridged version of an original work of Shukracharya. As will be discussed later, this treatise also sets out with the four purusharthas as the objectives of every individual including the king, and seems to give primacy to dharma.

In this context, I have organized this paper in the following manner. Section II focuses on ascertaining the period during which Shukranitisara was written and its relevance to polity in general and elements of economic thought in particular. Section III briefly discusses the dharmic role of the king and his ministers for the proper governance of the economy. Section IV addresses the enumeration of vocations and sciences, giving a glimpse of the spread of industrial and educational complex of the economy then. Section V covers discussion on expenditure budgeting and public goods, Section VI delves in revenue generation, Section VII addresses issues related to prices, markets, and contracts; and Section VIII focuses on suggestions to householders on economic matters. Finally, summary and concluding observations are made in Section IX.

II. Origin at the Turn of the Nineteenth Century

Ashvaghosha, the second century CE Buddhist philosopher makes a reference to Shukracharya and his treatise. In Sarga (chapter) 1, Shloka (verse) 47 of his work titled Buddhacharitam (Buddha's Biography), he identifies Shukracharya as the author who wrote a treatise on the science of political economy (Rashivadekar, 1911). Kautilya too considers his work Arthashastra as a received knowledge and makes reference to Shukracharya at quite a

few places in his treatise (Kangle, 1965, Part III, pp. 8, 42). Thus Shukracharya's work predates Arthashastra which was written circa 300 BCE. Further going back in time, one also finds reference to Shukracharya's treatise in the epic Mahabharata (Ganguli, 1896)². In Parva (Book) 12, Adhyaya (Chapter) 122, Shlokas 11-12 of Mahabharata we are told that King Vasuhoma had studied Shukracharya's treatise. He is referred to in Mahabharata and in Vishnu Purana as the preceptor of the devas and the asuras, though eventually he had allied himself with the asuras (Dalal, 2010, p. 388)³. With passage of time, however, this ancient treatise on the science of political economy has been lost, or at least not re-discovered yet. Olivelle (2011, p. 174) confirms that most of the pre-Kautilyan political economy treatises have been lost.

Clearly, the available treatise Shukranitisara is a revised and abridged version of the original text which captures Shukracharya's thoughts on the ethical socio-economic policy. Manuscripts of Shukranitisara were found in the nineteenth century at various places in the present day Indian states of Maharashtra, Bengal, Tamilnadu, and Karnataka⁴. A critical Sanskrit edition in Devanagari script was published by Oppert (1882) which was later translated into English by Sarkar (1914). While the author of Shukranitisara has chosen to remain anonymous, the text itself gives us clues on the period when the treatise must have been written. While discussing social institutions in Adhyaya 4, the author makes references to construction of temples to deities such as Shankara, Shakti/Parvati, and Ganesha (4.4.132-

² Mahabharata was composed and passed-on orally well before it was written down circa 500 BCE (Brockington, 1998, pp. 2, 26, 379).

³ Shukracharya is also known by the name Ushanas. In the treatises quoted in the text above, he is sometimes referred to as Kavi Ushanas, Kavi (poet) or Bhargava (son of sage Brigu). His original work is referred to as Aushanasa Shastra.

⁴ While the language of the manuscripts was Sanskrit, copies from different parts of India were written in different scripts such as Devanagari, Telugu, and Grantha.

133) and the specific colours of their images (4.4.315-316)⁵. References to these deities and temples do not appear in vedic times or in Arthashastra but is a development of the late Gupta period. Hence, the abridged text could not have been written prior to circa fifth century CE. Moreover, while describing the then prevailing arts, sciences, and meta-sciences, the author makes reference to the Vedanta philosophy whose followers believe that Brahma exists alone and rest of the manifestations are ignorance and illusion (4.3.98-99). This advaita philosophy was expounded by Adi Shankaracharya circa 800 CE. Hence, the abridged treatise Shukranitisara could not have been written prior to the ninth century CE.

Further, in describing the weaponry at the disposal of the army, the author gives detailed explanation of nalikas or cannons of different sizes, preparation of agnichurna or gunpowder, and of gola/goli or cannon balls/bullets (4.7.388-421). Oppert (1882, p. xi-xii) shows that firearms were known to Indians much before the early medieval period. While Vijayanagara empire was already established in 1336 CE in Southern India, there are records of its army using firearms (Khan, 2004, p. 9-10). Therefore, one can claim that the revised and abridged treatise under consideration, Shukranitisara could not have been written prior to the fourteenth century for sure. The earliest copy of Shukranitisara was found in 1851 in the Oriental Institute situated in the Maratha Princely State of Baroda. Some of the learned administrators of the Indian princely states were well acquainted both with their ancient treatises as well as the introduction of early British colonial regulations at the turn of the nineteenth century. Gopal (1962, p. 551) states that it is not unlikely that the author of Shukranitisara had in his possession a copy of the original Sukraniti. Bombay was transferred to British King in 1661 as dowry by the King of Portugal and from 1668 onwards

⁵ This treatise is divided into Adhyayas (Chapters) and Shlokas (Verses). For ease of reference, however, verses are further discretized into lines by Oppert (1882) and Sarkar (1914). From here onwards, reference to a particular shloka will be presented in parenthesis as (Chapter #, Line #). Chapter 4 is divided into 7 Prakaranas (Sections). Hence reference to a shloka in this chapter will be presented as (Chapter #, Section #, Line #).

judicial administration of islands of Bombay had been taken up by the East India Company (Patra, 1962; p. 374). Shukranitisara reveals similarity towards Bombay Regulations of East India Company from the early part of the nineteenth century on quite a few matters (Gopal, 1962; pp.528-554). Therefore, Shukranitisara is a unique treatise written at the cusp of time when Indian kingdoms were on the decline and the British colonial period was about to begin.

Shukranitisara is divided into five Adhyayas to covers topics related to ethical aspects of political science and economics. The topics pertaining to political science include king's grooming, his duties, foreign relations, ambassadorial duties, internal security, and the armed forces. Moreover, the author allocates sufficient space to topics dealing with moral conduct, economic administration, public finance, trade and commerce, agriculture, labour relations, contracts, and guidance on economic decisions to a representative householder. While some studies have focused on Shukranitisara from the perspective of political science (Varma, 1962; Sharma and Singh, 2010), there is no contribution that addresses the treatise from the perspective of political economy in general and economic policy in particular. Therefore, the focus of this paper is exclusively on economic activities and policy as brought out in Shukranitisara.

III. GOVERNING STRUCTURE OF THE ECONOMY

At the beginning of Adhyaya 1, the author underscores the importance of three aspects of the administrative set up for an economy. These are the science of polity, the king, and the council of ministers. The author asserts that the study of moral conduct is important for the king and the people for their common material progress and socio-economic interests. Following the science of polity, the role of the king is that of protection of the subjects and

punishment of the offenders. And, without understanding the moral compass, to paraphrase the author, a king is like a leaking vessel which is unable to hold water in it. He is like a person eating un-prescribed food expediting onset of a disease (1.23-30). It is the king's duty to make householders follow their dharma while he follows his own (1.50-51). To householders too, his advice is that while artha and kama are important, one should be devoted to morality, for there can be no happiness in the absence of it (3.2-5). It is interesting to note that among the four purusharthas, while Kautilya had given primacy to material acquisitions (Kangle, 1965, Part III, p. 131), Shukranitisara has given emphasis on dharma. Admittedly, the Sanskrit word 'niti' in Shukranitisara does mean righteous policy and artha in Arthashastra means material acquisition. And, like Kautilya, author of Shukranitisara also expects the king to study anvikshiki or the philosophical sciences, the Vedas or the spiritual sciences, Varta or the science of commercial activities, and dandaniti or the science of jurisprudence (1.303-304).

Although king is expected to be well versed in polity, author mentions in Adhyaya 2 that the king is not omniscient. To paraphrase the author, a monarch who follows his own will without good advice brings misery to the nation. Therefore, he is expected to appoint able ministers and take their counsel on all matters of the state before arriving at any decision (2.1-13). About eight to ten ministers are to be appointed by the king. These include purodha, pratinidhi, pradhan, sachiv, mantri, pragvika, pandit, sumantra, amatya, and duta⁶. In modern terminology, these are preceptor, viceroy, chief secretary, war secretary, foreign secretary, chief justice, learned advisor, minister of finance, minister of land-revenue, and ambassador; respectively. He further mentions that any ministry should not be given to a

⁶ When the Maratha emperor Chhatrapati Shivaji carved out an empire from scratch fighting the Mughals and coronated himself in 1674 CE, he instituted a council of eight ministers called Ashta-Pradhan Mandal. The titles such as (pant) pradhan, sumant, sachiv, amatya, and panditrao (Mehta, 2005, pp. 473-47) have close resemblance to the titles mentioned in Shukranitisara.

person forever but king should rotate the responsibilities (2.217-225). This feature is indicative of presence of moral hazard issues which are addressed by the modern day governments through departmental transfers. The author also gives qualifications required for the appointment of these ministers (2.168-214). The detailed specifications of the executive into various ministries including two for finance and land revenue are indicative of a highly organized political economy set up thought through by the author. Kautilya also refers to appointment of three to four ministers and a council of ministers, but he does not seem to give detailed descriptions of their titles, responsibilities, or indication of their rotation. The modern approach to classification of ministries and appointments is reflective of the nuances introduced by the East India Company in its early days in India.

In Adhyaya 2 author mentions that the king should not command without written orders, else there is always a chance for errors and corruption. He further states that king as a person is not the king but it is the authority of his office and the document carrying his seal that are paramount (2.584-588). King is the maker of the age, and lacunas of the state cannot be ascribed to the age or the subjects as the buck finally stops at the king (4.1.116-117). A wise king notices faults, both his own and those of the subjects, but corrects himself first (4.1.134-135). The author asserts that the king is honoured because of his qualities. It is not the birth or the ancestry that makes a king, but his intelligence, prowess, and ability to protect land and people (1.349-364). The ruler has been made by Brahma a servant of the people and the revenue attributed to him is remuneration for his services (1.375). The author warns that a king who uses government treasury for his personal and family enjoyment goes to hell, and, his wealth can be taken away by any means, even by an enemy, if he gets addicted to immoral ways and suppression of the subjects (4.2.7-14). He warns that quite often, a king ruling in immoral ways would get punished by other virtuous kings (4.7.845-846).

The above discussion shows that while the author believes in monarchy as a form of government, the king is not considered infallible and hence needs guidance. The limitations of a king are fully recognised, and moral restraints are put in place. The governance seems to represent the social contract theory. This seems quite different from the medieval belief that the ‘king can do no wrong’. This belief had emanated from the principle of eminent domain or the divine right enjoyed by the king. Shukranitisara seems to follow the spirit of vedic tradition where the king is a representative of the people chosen to govern themselves. This aspect has been elaborated by Ambedkar (1946, I.VI.IV), Griffith (1895), and Dasgupta (1993, p. 20). Though Kautilya’s exhortations had been very similar to that of the author’s, they diverge in one way – While the author categorically states that it is not the birth or the ancestry that makes a king (1.363-364), Kautilya makes it clear that the monarchy is hereditary (Kangle, 1965, Part II, pp. 48, 360-361).

IV. INDUSTRIAL AND SCIENTIFIC COMPLEX OF THE ECONOMY

If the author has given detailed attention to the role and responsibilities of the king, his ministers, and science of polity as a guide to rule, it was imperative that this must be in the context of a vibrant economy that needs to be administered. In Adhyaya 4 of the treatise, the author mentions that vocational skills and sciences are infinite and cannot be completely enumerated. However, applying his mind to the major professional, economic and academic activities, he comes up with a tractable number of vocational skills and sciences prevailing then. He describes sixty-four vocational skills and thirty-two sciences which constituted the broad canvas of the economy (4.3.41-202). It is important to enumerate the long list he has identified, for it gives a perspective on the breadth of techno-economic and academic complex that had evolved in the society then. The urge to formally record these activities

indicates author's innate view that the more the socio-economic opportunities, the more will be peoples' level of wellbeing. The vocational skills and the sciences are listed below:

Manufacturing related vocational skills

(1) Processes related to making earthen vessels, (2) Processes related to making wooden vessels, (3) Processes related to making stone vessels, (4) Processes related to making metal vessels, (5) Making of musical instruments and time pieces, (6) Construction of boats, chariots and other conveyances, (7) Thread spinning and rope making, (8) Weaving of textiles and fabrics, (9) Manufacturing of artificial gems and metals, (10) Softening/tanning of leather, (11) Flaying of animal skins and hides, (12) Glass and glass-vessel making, (13) Making of iron implements, and (14) Horse, elephant, bull, and camel upholstery making.

Agribusiness and food related vocational skills

(15) Rearing and milching of animals, (16) milk processing to get ghee or clarified butter, (17) Oil extraction from seeds and fats, (18) Ploughing the fields, (19) Climbing plantation trees, (20) Processing betel leaves and nut, and (21) Cane/fibre based bowl/basket making.

Arts and service oriented vocations

(22) Drawing pictures and painting, (23) Swimming, (24) Riding horses and elephants, (25) Training horses and elephants, (26) Constructing tanks, canals, and buildings, (27) Dyeing in various combinations of colours (28) Mitigation of fires, floods, and storms, (29) Testing of precious stones or gemology, (30) Testing of gold and other metals, (31) Making of gold jewellery and ornaments (32) Enamelling on metals, (33) Tailoring, (34) Domestic utensils and dish washing, (35) laundry services, (36) Barbers' services, (37) Art of convincing or negotiation, (38) Pumping and channelling water, (39) Writing in language scripts of

different regions, (40) Whipping the offenders as punishment, and (41) Nursing and raising of children.

Apart from these 41 vocational skills, the author lists 24 other which find their source in the literature on physical and social sciences. They are:

Origins in Gandhava-Veda

Seven of the following vocations have evolved from the treatise on performing arts titled Gandharva-Veda (4.3.75-76). These include, (42) Dancing with facial gestures and body movements, (43) Playing various musical instruments, (44) Drapery, costume designing and ornamentation, (45) Acting and dramatics, (46) Weaving garlands and laying beds, (47) Enjoyment by way of tricks, gambling, and magic, and (48) Art of enjoying sexual pleasures.

Origins in Ayur-Veda

Ten of the following vocations have evolved from the treatise on health and medicines titled Ayur-Veda (4.3.71-72). These include, (49) Distillation of wines and spirituous liquors, (50) Surgical operations, (51) Cooking and food craft, (52) Horticultural operations, (53) Foundry operations on metals and stones, (54) Processing of sugarcane for various products, (55) Knowledge of mixtures of micronutrient metals and medicinal plants, (56) Analysis and synthesis of properties of micronutrient metals, (57) Preparation of alloys out of metals, and (58) Preparation of various minerals and salts.

Origins in Dhanur-Veda

Five of the following vocations have evolved from the treatise on military science titled Dhanur-Veda (4.3.73-74). These include, (59) Use of arms and weapons with proper limb

posturing, (60) Duelling with hand-to-hand or with weapons, (61) Throwing of hand-missiles at a target, (62) Making formations as per the battle-signals given by clarions, and (63) Battle-field arrangements of horses, elephants and chariots.

Origin in Tantra

Finally, (64) the knowledge of asanas of positions, postures and meditation originating from the treatise titled Tantra, which is part (upa-veda) of Atharva-Veda (4.3.77-79).

Enumeration of Sciences

So far, only four sciences have been referred to in regard to the vocational skills above. However, the author of Shukranitisara lists a total of thirty-two sciences as known to the society then (4.3.60-128). These include treatises on physical sciences, social sciences, liberal arts, philosophical expositions, and spiritual sciences. Among these, the physical sciences include (1) Shilpashastra which describes science of constructing houses, images, canals etc.; (2) Ayur-Veda which deals with health, nutrition, and medicine; (3) Jyotish, which is the science of mathematics and astronomy; and (4) Dhanur-Veda which deal with military weapons.

The treatises on liberal arts and social sciences include (5) Gandharva-Veda (Performing Arts); linguistic treatises on (6) Shiksha (Pronunciation), (7) Vyakarana (Grammar), (8) Kalpa (Rituals), (9) Nirukta (Etymology), (10) Chhandas (Prosody), (11) Alankara (Art of Rhetoric), (12) Kavya (Art of Poetry), (13) Daishiki (Vernaculars); (14) Avasarokti (Oratory); (15) Arthashastra, the science of political economy; (16) Kamashastra, the science of sexual intercourse; (17) Itihasa, the historical epics Ramayana and Mahabharata; (18)

Puranas, the compilation of cyclical epoch of creation, destruction, and dynasties; and (19) Smritis, the books on societal laws and moral codes.

Moreover, the philosophical treatises include the six Darshanas which include (20) Mimamsa (Philosophical Realism), (21) Tarka (Logic), (22) Vaisheshika (Atomism), (23) Samkhya (Enumerationist Philosophy), (24) Vedanta (Monism), (25) Yoga (Contemplation), and also the atheistic philosophy called as (26) Lokayat. Furthermore, the treatises on the sacred and spiritual sciences include (27) Rig-Veda, (28) Yajur-Veda, (29) Sama-Veda, (30) Atharva-Veda, (31) Tantra (Spiritual Rituals & Postures); and (32) Yavanamata theology, or the non-Vedic, non-Indic religious traditions.

The above description of the vocational skills and sciences enumerated by the author gives a graphic account of the cumulative socio-techno-economic life experiences of citizens of the Indian subcontinent from ancient times. It shows that the people were expected to seek highest truths of the universe, and, at the same time, they could effectively use the various branches of learning to sustain their socio-economic standard of living. Kautilya too has described industrial activities such as textile factories, chariot making, mining, metal making (Kangle, 1965, Part III, p. 182-185) and a few others; however, the descriptions of vocational skills are not as detailed and complete as in Shukranitisara. Moreover, the elaborate description of all kind of academic pursuits is also missing in Arthashastra.

V. FISCAL BUDGET AND PUBLIC GOODS

The author of Shukranitisara, who has delved sufficiently into the system of governance and the industrial and academic complex of the economy, did not leave the financial aspects of the economy unattended. Of the eight to ten ministers under the king, Sumantra is the

finance minister looking after income and disbursements, and, Amatya is the minister who looks after land records, settlements and land revenue (2.168-173). While Amatya and other officers are entrusted by the king to submit written reports every day and every month, they are also expected to submit a report once in a year or once in a few years (2.591-594). The king on his part, is expected to spend two muhurthas (96 minutes) every day to ascertain the actual and the expected flow of income and expenditure from the treasury (1.551-556). He is also expected to go on a yearly inspection of gramas (villages), puras (cities), and desas (regions). In the yearly review, he must ascertain which subjects are happy and which are disgruntled with the state officials, and attend to the matters by first listening to the subjects rather than the officers (1.751-754).

While Sumantra, the finance minister must appraise the king of the production of commodities, debts incurred, revenue surplus generated, and changes in the movable and immovable properties (2.204-206); Amatya was expected to provide information on number of villages, cities and forests in the economy, how much land is (un) cultivated, who are the landlords, how much income is made by cultivators after paying rent, and how much is realized by way of forest produce, mines, jewels, tax revenue and fines (2.207-214). A typical budget of the state was reflected at the micro level through the income and expenditure of a representative village. The appropriation of income under various expenditure heads is described in Table 1 below. This budget was under the oversight by overlords such as Samantas (1.636) who were governors of 100 gramas (villages) or the higher ups (1.636, 681). The practical details of keeping accounts and system of budgeting envisaged in the text is quite unparalleled in the ancient writings, and it appears that the early Bombay Regulations of the East India Company may have had influence on the text.

To give a sense of the budget in money terms, the annual revenue of a Samanta from the 100 villages was expected to be between one lakh to three lakh karshas⁷. The hierarchy of the overlords or the rulers above Samanta in terms of revenue in karshas was as follows: Mandalika, upto 10 lakh; Raja, upto 20 lakh; Maharaja, upto 50th lakh; Swarat, upto a crore; Samrat, upto 10 crore; Virat, upto 50 crore, and, finally Sarvabhauma, whose income is above 50 crore karshas. Sarvabhauma was the sovereign of all the lands (1.365-374). Table 1 gives the proportional appropriation of income among six major revenue expenditure items and the treasury surplus (1.631-635). The purport of Table 1 is reflective of the modern idea that state should not have revenue deficit⁸.

Of course, the substantive surplus accruing to the treasury was not an end in itself. It was to be used for incurring capital expenditures for developmental work and potential national

Table 1: Village Level Budget

Heads of Expenditure	Share
1. Salary of the gramak (village head)	1/12
2. Army and law and order expenses	3/12
3. Wages to be paid to officers	1/24
4. Personal Expenditure (for king)	1/24
5. Entertainment of citizens	1/24
6. Spending on charitable work	1/24
Surplus to the treasury	1/2

Source: Sarkar (1914, p. 43)

security. The author discusses state taking care of public works, merit goods, and defence preparedness. He advises the king that a wise man should always give away lands for parks

⁷ Oppert (1882, p. 24, fn. 2-3) estimated that a karsha was equivalent to 5/6th of a nineteenth century rupee. One lakh is equal to 100,000. A 100 lakh is 1 crore which equals 10 million.

⁸ The idea of keeping administrative expenses significantly lower than the revenue has been expressed in Arthashastra and it also appears in the Sabha Parva of Mahabharata (Deodhar, 2019, p. 49, 113). Since reference to Shukracharya's treatise appears in Arthashastra, Mahabharata, and the abridged text Shukranitisara, this prudent principle can perhaps be traced back to ancient sage Shukracharya.

and public grounds, dwelling houses to the (poor) peasants, and for temples (1.423-24). He gives a highly detailed plan of cities, towns, and villages for the construction of boulevards, streets, roads, pedestrian walks, houses, and drainage system along the roads and houses (1.426-550). For example, mahamargas (boulevards) had be 45 feet, 30 feet and 22.5 feet wide in cities, towns, and villages; respectively, and the pedestrian walks 4.5 feet wide.

Similarly, it was the state responsibility to plant wild and garden varieties of large trees, shrubs, and creepers in forests and villages. Moreover, water supply should be made accessible to citizens through wells, ponds, canals, and tanks. A rule of thumb for their construction was that the width should be twice or thrice the depth of such reservoirs and they should have footpaths around them. Furthermore, bridges should be constructed over rivers and boats and water conveyances should be made available for river crossing (4.4. 125-129). The above descriptions are reminiscent of the well-planned cities of Sarasvati-Sindhu Civilization of ancient times. The attention to details does not stop at construction of such infrastructure. Author maintains that state also had the responsibility of regular cleaning of the roads, their repairs with gravels, and that security of travellers and users had to be ensured as well (1.535-539, 1.629).

Apart from such public infrastructure the author also mandates the state to maintain buffer stocks of food crops. The food grain stocks were expected to be sufficient enough to meet demand for three years. Attention was to be paid to selection of durable quality grains that should be stored. Moreover, king was to carefully replace the stocks every year by the amount of grains that were consumed during the year (4.2.50-59). Provision of buffer stock infrastructure and its inventory management is clearly a public good service offered by the state. This policy mandate from Shukranitisara reminds one of modern times where the

government owned Food Corporation of India (FCI) maintains buffer stocks for the purposes of strategic reserves and price stabilization.

Importantly, the king was expected to arrange for scholarships to students and training programmes for knowledge upgradation of government officers. On completion of the training, officers were to be sent to assume their new duties in the government (1.737-739). He recommends king giving awards to those who have made significant accomplishments in arts and sciences (1.740). Further, he advocates that king should give encouragement to advancement of arts and sciences (1.741). These pronouncements do not sound just an empty rhetoric, for he has taken pains to describe in details, as referred to in the earlier section, various professional arts, vocations and sciences known to the society at that time. The attention paid to development of infrastructure, training of officials, and encouragement to academics is indicative of the innate understanding of the modern concepts of provision of public goods and merit goods. The matter related to officer training resembles greatly to the government of Bombay regulations of 1828, where civil servants of the East India Company had to pass examinations for promotions and transfers (Gopal, 1962; pp. 32-533). Nonetheless, the attention paid to buffer stocks and for the development of human resources is unique to Shukranitisara as compared to Arthashastra.

The surplus treasure also serves the purpose of national security. While the regular expenses of the army are apportioned as mentioned in Table 1 above, the author mandates that the accumulated treasure should be such that during emergencies (foreign aggression and its aftermath), the accumulated treasure of the state should be able to support the subjects and the army for 20 years without recourse to fines, duties, and land revenue (4.2.25-27). The accumulated treasure is considered low if it is sufficient only for twelve years and excellent if

it is sufficient for 30 years (4.2.42-44). The king can always deposit this wealth with the rich persons during normal times. And, during emergencies if the rich people deposit their own wealth with the king, he should return it with interest after the end of the emergency situations (4.2.21-22, 2.2.45).

VI. ON REVENUE GENERATION

While we have discussed the categories of both the revenue expenditures and capital expenditures of the state, the author has also spent sufficient attention on the sources of revenue for the state budget. Nine sources of revenue have been listed (2.209-214). They are – bhaga (rent from land), shulka (duties), danda (fines), aakat (mineral wealth), aranyasambhav (forest produce), aswamic (unclaimed property), nidhiprapta (donations), akushtapachya (harvests from untilled farms), and taskarahut (confiscations from thieves). The author recognizes the cardinal principle of taxation that revenue has to be collected sustainably without hampering the core incentives required for commercial prosperity. He gives a simile for tax collection – The tax system should be like weaving of garlands, where gardeners and florists take good care of the flowering plants (2.345-346) picking only the blossomed flowers, and not damaging flower-buds and plants. He further emphasises that tax collectors should not be like the merchant-producers of coal who set fire to the woods to make charcoal but end up burning the entire property (4.2.222-223)⁹. This proto-economic idea seems to be a precursors of the concept of Laffer curve suggesting optimal tax rate and tax revenue.

⁹ Kautilya has expressed similar view by saying that taxes should be collected sustainably just like ripened fruits are picked-up from the orchards and the un-ripened ones given time to mature. In Mahabharata, king Yudhishtira is told by Bhishma that tax should be collected like a honeybee gathering honey from flowers. The purport is that the bloom of the flowers is untouched but honey is collected and bees cause pollination for the next flowering (Deodhar, 2019, p. 43, 109). As referenced in the earlier footnote, ancient sage Shukracharya can be credited for espousing this principle originally.

There seems to be an understanding of the cascading effect of taxes as well, for the author mentions that the duty should be levied on goods only once and king should not use any crafty ways to impose additional duties (4.2.214-215). The king is not expected to increase tax rates during normal years but may do so only under extraordinary circumstances requiring finance to vanquish external enemy (4.2.17-20). Author gives a range of three tax rates that could be charged to different commodities sold in the market. These rates are $1/32^{\text{th}}$, $1/20^{\text{th}}$, and $1/16^{\text{th}}$ of the price of the commodity. If the price falls below the cost of production, he suggests that the tax should be collected from the buyer who benefits from this transaction (4.2.216-219)¹⁰. Land rents are to be charged according to the productivity and accessibility of water. For rain-fed dry lands, tank and canal irrigated lands, and lands irrigated by rivers, the rent is one-fourth, one-third, and one-half of the produce; respectively. Moreover, for barren and rocky soils, the rent is only one-sixth of the produce (4.2.227-230).

Similarly, on profits from mining operations, tax rates varied with preciousness of the metals. Tax rates for gold, silver, copper, and zinc and iron were one-half, one-third, one-fourth, and one-sixth of the profits, respectively. Precious stones, glass, and lead also carried a tax rate of one-half of the profits (4.2.233-235). On animal husbandry, the taxes were to be collected in kind. For example, one-eighth of the increase in the stock of goats, sheep, cows, buffaloes, and horses was to be handed over to the king. Moreover, one-sixteenth of the milk production was to be parted with as tax (4.2.239-240). Not just goods but services were taxed as well. For example, performing artists and artisans had to contribute one day's work to the king and money lender was expected to pay $1/32^{\text{th}}$ of the interest earned (4.2.241, 255). It will be pertinent to note that for many decades since independence, India did not

¹⁰ Of course, while the tax may be imposed on the buyer, what will be the proportion of its incidence on the buyer and seller will depend upon the price elasticity of demand for the commodity. In modern terminology, the author's recommendation can perhaps be viewed as a policy of behavioural nudge when market prices go below cost.

have a service tax. It was only from 1995 onwards, as a policy of revenue-led fiscal consolidation, that services came under indirect tax regime.

Finally, incentive was given for improving wastelands, digging wells, tanks, or canals for private use, and starting new enterprises. For such activities, tax exemption was given until the new economic activity would generate revenue twice that of their expenditure. On issues of repairs of roads, however, the author mentions that tax could be collected from those who use the roads (4.2.258). The above discussion on taxation and land revenue suggests that the author had thought through innate ideas of optimal level of taxation, taxation of intangibles, young industry argument for tax exemptions, as also the benefit principle of taxation.

VII. MARKETS, PRICES, AND CONTRACTS

At different places in the treatise, the author refers to quality of human resource in labour market, wage contracts, pricing in commodity markets, and about contract conditions in the loanable funds market. In the context of king hiring people at various levels he invokes general principles regarding human skills. He alludes to meritocracy where age should not be a consideration for giving jobs requiring intelligence. He writes that whether a child, young man, or an old person, responsibility has to be given to anyone who can complete a work successfully (5.149-150). The author also asserts another general principle that no person is absolutely worthless but rare is an entrepreneur with the discriminating ability to allot specific tasks to specific persons (2.253-255)¹¹. This principle seems to evoke an innate understanding of the theory of comparative advantage espoused by David Ricardo who

¹¹ This is based on a famous quote from Shukranitisara. The Sanskrit shloka goes: अमन्त्रमक्षरं नास्ति, नास्ति मूलमनौषधम्। अयोग्यः पुरुषो नास्ति, योजकस्तत्र दुर्लभः॥ The translation is: There is no letter which doesn't have the power of counsel, there is no plant-root that cannot be used as a medicine, there is no person who is unqualified, but rare is the one who makes a judicious use of all of them.

postulated that a person/country may not have absolute advantage in any of the tasks but she can be made to specialize in one in which she will have comparative (relative) advantage.

The wages to the workers could be contracted in three ways. It could be a piece rate, daily wage, or a combination of the two which must be specified in the contract document (2.791-798). Three kinds of wages are specified for a worker, which are to be decided on the basis of worker qualifications. Low wages are such which barely maintain the worker, moderate ones are such which provide both basic food and clothing to the worker, and good wages are those which provide food and clothing adequately (2.800-804). In any case, the wages were to cover maintenance of worker and his immediate dependents, for very low wages lead to shirking by the people and they may even leave (2.805-808). This discussion points to a proto-economic idea of the modern-day efficiency wage arguments seeking either sufficient nutrition to the worker and/or minimizing shirking and high turnover.

Further, the author gives details about worker's rights and norms of employment conditions. A casual labourer hired for one full day must receive a break of half a yama (1 yama = 3 hours). Similarly, domestic servants should be given a yama (three hours) off during daytime and three yama off during the night. They should not be expected to work during festivals unless they form part of an indispensable work during some festivities. For regular workers, king was to give an annual leave of fifteen days and give three month's pay for someone who has worked for five years. While a diseased worker may be employed and he will be given only three-fourth of the wages, a maximum of six month's wages were to be paid to a worker who may have become chronically ill. Every year, a worker may get one-eighth of the wages by way of reward. Moreover, after completion of forty years of service a worker was to be

given half the salary without work (i.e. retirement benefit). Similar benefit was to be awarded to wife or minor children.

If a worker dies on the job, his minor son would get the same wages until he becomes a major, and, thereafter, wage would be as per the son's work qualifications. Employer could keep as deposit, one-sixth or one-fourth of the wages of the worker and return them in future. This could be described what is called as provident fund contribution by the employees in modern times. Finally, employer was expected to honour workers for their distinction in work and was advised not to insult or use harsh words against them (2.815-839). While Kautilya has talked about worker-hiring and their unions (sangha), one does not find so much attention paid to the occupational safety, sickness, leave, and retirement benefits. The features mentioned above compare very favourably with modern-day labour relations practiced by a welfare state. Gopal (1962, p. 545) asserts that these regulations of Shukranitisara are reflective of similar provisions of the East India Company or the Civil Service of the British period.

In regard commodity valuation, the author mentions that the value attached to a commodity is reflected in its market price. Whether prices are high or low is decided by the ease with which they are procured and the presence or the lack of various attributes associated with that product (2.717-719). While explaining the prices of precious stones and metals, author mentions that it is influenced by availability, attributes, and customers' fancy (4.2.164). He also refers to commodity traders engaging in price arbitrage over time by saying that traders procure and store goods when prices are low and sell when the prices are high (4.2.46-48). There always will be high prices, low prices and middling prices in the valuation of all commodities and that prices also get fixed depending upon time and space (4.2.208-211).

This seems to capture what is termed in modern economics as the time and place utility of products¹².

He also gives a list of prices for jewels, metals, and livestock and associates them with the quality attributes of each one of them. For example, pearls coming from shells are better than the ones coming from conches and fish; and the quality of pearls is better in the ascending order of their colour-tinge – black, white, yellow, and red. Further, he gives a test for checking purity of the pearls, for pearls coming from Sinhala Dwipa (Sri Lanka) would be of two kinds – artificial and natural¹³. Similarly, among price description of many animals, a bullock commands a price of sixty palas (480 rupees) which has a height of 24 mushti (fist-length), has good horns, walks fast, has sufficient strength to carry burden, and has fair colour (4.2.194-195). The above observations about the availability, quality attributes, and price formation of commodities suggests an innate understanding of the forces of demand and supply and the concept of hedonic pricing.

For the smooth functioning of businesses, the author lays down various rules that are instituted to maintain property rights and legally binding contracts. Here are a few examples – A samayika patra is a corporate deed among individual shareholders who have pooled their capital together for business purpose (2.627-628). Kraya patra is a contract of sale and purchase of property mentioning value and the witnesses (3.617-618), a rina lekhyia is a loan document which gives account of the money borrowed at interest and the witness thereof

¹² It is important to note that while describing this price behavior, the author does not castigate traders for hoarding of commodities.

¹³ Except for this reference to Sri Lanka, the author has not talked about foreign trade as such. Among the various taxes the state collects, there was no separate reference to customs duties. Kautilya, however, does talk about duties on domestic and foreign goods and market facilitation for traders from abroad. In his treatment, in a city state, customs duty is collected at the city gates. Perhaps the author of Shukranitisara had considered the greater Indian subcontinent as one economic unit, and, therefore, does not make distinction between domestic and import duties. Of course, trade with rest of the world was in vogue since pre-Kautilyan times, but the author is silent on the issue.

(2.623-624). When a loan contract is to be executed, it is expected that business qualification of the borrower is to be studied, and, the document should also mention any property pawned and the names of persons who become guarantors (3.384-386). Author stipulates that if a loan is given without interest, then the lender may share in the profits of the commercial enterprise of the borrower. Moreover, if a borrower has already paid interest twice the amount of the principal borrowed, then only the principal be paid (4.5.630-632). Furthermore, if the interest paid has reached four times the principal, nothing more be paid (5.192-193). While the author stipulates this rule in absolute terms, he does not, however, specify interest rate or the time period involved. The author also talks about appointment of pleaders in case the matter goes to the court and the fee that are prescribed for them (4.5.224-231). These descriptions are very similar to the Bombay Regulation XIV of 1802 of the East India Company (Gopal, 1962; p. 535).

This idea of qualified loan forgiveness from Shukranitisara seems to strike a balance in the lender-borrower relation. The idea was present in the medieval law books (dharmashastras) as well. Later, in the eighteenth century Peshwa period and the British colonial period, this arrangement was referred to by the term *damduppat* (interest twice as large as principal). As argued by Kane (1941, p. 423), such arrangement protected the borrowers from the rapacity of the lenders. Oak and Swami (2010) argue that *damduppat* took care of the moral hazard problem – In the Indian tradition, principle of pious obligation used to work where sons were expected to pay for the father's debt (*pitru rina*). Therefore, there would have been no incentive for lenders to put efforts to choose good borrowers, for even if father failed, son would have to keep on paying. By capping the repayable amount, lender is incentivised to make efforts to look for creditworthy borrowers and monitor their business efforts. Similarly, while taking loan, good borrowers would not be worried, for they would be confident about

efficient use of the funds and not requiring the repayment cap. In fact, good borrowers could view repayment cap as an insurance against vicissitudes of business prospects¹⁴.

And then, there is reference to quite a few other documents including a prasada patra, which is a document conferring land and other property by the king in recognition of special services or valour (2.609-610); a dana patra, a document which legalizes a private irrevocable gift (2.615-616); a jaya patra or the court judgement (2.601-602); and shasan patra or the public notice issued by a government (2.607-608).

VIII. ECONOMIC ADVICE TO HOUSEHOLDS

While the author of Shukranitisara gives extensive attention to the economic policy at a macro level, he also has words of economic advice to a householder at the micro level. For him, at the micro level, household is considered as the unit of analysis, for the head of the household is expected to take care of the interests of parents, wife, children, and the siblings in normal times as well as under adverse circumstances (3.243-248). In times of prosperity, one is expected to extend support to wife's family, friends, attendants, servants, maid-servants, and even the poor and the needy (3.249-251). In fact, one who does not take care of his kith and kin is not considered living a dharmic life and is as good as a dead person (3.251-253). What comes across in these prescriptions is the principle of welfare based on joint family system rather than it being individualistic in nature. The author then goes on to share practical truths that make a householder wiser. He advises a person to travel, meet people of different races and faiths, attend assemblies of citizens, and acquire knowledge whenever

¹⁴ In the Semitic religious tradition debt jubilee were announced where loans would be forgiven every fiftieth year marking it as a year of the Lord or the jubilee year. Kings would also announce such debt jubilees on an ad hoc basis. Germany used this concept in 1948 when loans taken from the old Nazis were subjected to debt jubilee to save Germany out of recession. US economist Michael Hudson (2020) proposed the same idea to save economies out of recession. The injunction in Shukranitisara is not a religious one but seems to balance the lender-borrower relationship through a systemic rule.

possible. He points out that the institution of marriage is based on competing attributes sought by the family members and the society. In a witty shloka he observes that while a bride seeks a life-partner to be handsome, a mother cares for financial stability, a father looks for scholarship, friends are inquisitive about clan and class; and the rest are only interested in food and festivities¹⁵.

He advises a householder to acquire wealth grain by grain and learning moment by moment. Such acquisition is good for the family and for doing charity. However, he warns that all this is infructuous if one does not maintain good family relations in the first place (3.352-355). Given the ashrama system of life, a person was expected to spend early years of life in brahmacharya stage, hoping to earn thereafter as a gruhastha, live on the savings thereafter in vanaprastha stage, and finally renounce everything in sanyasa stage. Therefore, the author asserts that assuming one has to maintain oneself for hundred years, one should earn for about forty-four years (3.356-359)¹⁶. This scheme of things is perhaps an early proto-economic idea of the life cycle hypothesis propounded by Modigliani in the 1950s. Consumption smoothing will occur over time, where one earns nothing during the stage of learning, keep earning enough during his productive age, and draw-down savings during the retirement and thereafter (Deaton, 2005). Author advises a householder that wealth is a pre-requisite for all pursuits but it has to be acquired through good ways and means. From among the sixty-four vocational arts and thirty-two sciences enumerated in an earlier section that cover the broad canvas of the economy, the author classifies them under eight livelihood categories. They are – academics, security establishment, agriculture, money lending, merchandizing, artistry and manufacturing, services, and living on alms (3.364-367).

¹⁵ The Sanskrit shloka is: कन्या वरयते रूपं, माता वित्तं, पिता श्रुतम् | बान्धवाः कुलमिच्छन्ति, मिष्टान्ने इतरे जनाः ॥

¹⁶ The shloka mentions that one should earn for 25 years, and a half, and a half of it. This would mean $25 + 12.50 + 6.25 = 43.75$ or a round number of 44 years. If we assume that one learns in brahmacharya for 21 years and works for 44 years, then the retirement will be at the age of 65. Later, sanyasa stage would be sought by a person depending upon physical health and transcendental urge.

He advises that a householder must maintain written accounts of both domestic and business budgets (3.378-379). Household savings may be deposited with the non-greedy rich persons, the king, the trustworthy, or in charitable ventures but one must get written statement about the deposit. (3.382-383). Money should not be lent with a singular aim of charging a high interest rate, for one may lose the principal in the process. In fact, if a friend wants to borrow, one may not even charge interest. However, every loan made should be documented covering collateral, guarantors, witnesses, and signatures (3.382-387). And, there are two more important suggestions to the householder – All other things can return but not oneself; therefore, staying healthy is important to acquire good things in life for the family. Second, it is also important that the head of the household and the well-settled children will the distribution of their wealth among themselves, else the family relations get ruined in the events of deaths (3.384-408). Kautilya states laws for marriage, divorce, and inheritance; however, the kind of dharmic and practical economic advice summarized above has not be addressed by him in Arthashastra.

IX. CONCLUDING OBSERVATIONS

This paper has highlighted Shukranitisara as an important contribution to the science of political economy written at the cusp of time when Indian kingdoms were on the decline and British colonial period was about to begin. Written at about the turn of the nineteenth century, the treatise gets juxtaposed against texts written in three different times – Arthashastra written by Kautilya circa 300 BCE, Kamandakiya Nitisara circa fourth century CE, and Essays on Indian Economics written by Ranade at the turn of the twentieth century. Importantly, the treatise also incorporates some of the emerging modern ideas that were being adopted in the early regulations of the East India Company.

The treatise maintains the principle idea expressed in the other works that objectives of life are multidimensional. While there has to be a balance among the four purusharthas, if Arthashastra has given primacy to artha, we find that in Shukranitisara emphasis is on dharma. This emphasis runs throughout the text, justifying the niti or ethical policy aspect in the governance of the economy and conduct of an individual. It must be remembered that both Mahabharata and Arthashastra refer to Shukracharya's original contribution. Therefore, while relative importance of ideas may have changed, the source of economic principles and practices mentioned in Arthashastra are to be found in the revised and abridged treatise Shukranitisara.

The treatise suggests behavioural nudges both to ruler and the households. King is told that he does not become king simply because of birth but because of office-qualifications. He is a servant of the citizens and the revenue allocated to him is a remuneration for the services he offers to the society. He is not omniscient and must listen to the wise counsel of the ministers who are chosen through a pragmatic criterion. While ministers were expected to give daily, monthly, yearly, and once in few years reports, the king himself was to make yearly rounds in the country to listen to the citizen's concerns. If he does not affirm to these dharmic ideals, then his wealth could be taken away by any means and he could be replaced by others. Thus monarchy was disciplined through republican ideals. Similarly, author's advice to a householder is not in the context of a mere individual but a responsible head of the house who has dharmic responsibilities towards the family. He is expected to take care of his blood relatives both during good and bad times, and, help others including servants during distress. To him, a marriage is not just about two individuals coming together, for marriage as a socio-economic institution involves different expectation from different family members. He

underscores the importance of householder keeping good health and healthy relations with family, for in the absence both, accumulating wealth has no meaning.

Shukranitisara seems more detailed in quite a few aspects compared to Arthashastra. For example, author describes the hierarchy of overlords or the rulers that varied from samanta generating a revenue of upto 3 lakh karshas from 100 villages, through mandalika, raja, maharaja, swarat, samrat, virat, and finally to a sarvabhauma (sovereign) who would have a revenue of more than 50 crore karshas. This elaborate hierarchy signifies that the author had not written the treatise in the context of a city state but a kingdom. That he was describing policy for a large state is also corroborated by the detailed enumeration of sixty-four vocations and thirty-two branches of learning that would have sustained the socio-economic life of the citizens of the empire then. Kautilya too had described industrial activities and classification of sciences, however, his enumerations are not as detailed and complete as in Shukranitisara.

The innate idea that state should not incur revenue deficit and that surplus be used for public goods is evident in the treatise. While state spending on usual public goods such as roads and tanks are mentioned both in Arthashastra and Shukranitisara, Shukranitisara is unique in that it considers duty of the state to train employees, award scholarships to students, reward academicians, and promote advancement of academics in general. Buffer stock holding of grains as a food security measure has also been thought through in the treatise. While taxation is an obvious source of financing state expenditures, author suggests avoiding cascading of taxes on the same goods. To broad-base taxation, he has also advised taxing services, an idea which the modern Indian state implemented not very long ago. Levying of taxes on firms and households is compared to gardeners and florist picking only the

blossomed flowers, leaving buds and growing flowers untouched. Similar idea has been picked-up in Mahabharata and Arthashastra as well.

While the author had an idea about prices being dependent upon demand and supply, traders' propensity for commodity storage was viewed as price arbitrage across time. Moreover, author's detailed examples relating price and quality attributes of goods shows an innate understanding of hedonic pricing of goods. Like in Arthashastra, while charging interest is not considered a sin, Shukranitisara suggests absolute limits on payment of total interest and principal to address the moral hazard issue between the borrowers and the lenders. Author suggests that one may help a friend with an interest-free loan as a moral commitment, however, he also gives the practical advice alongside that like any other contract, householder should have a proper documentation of that loan contract. Finally, the treatise is also unique in that the ethical norms of employee welfare in terms of leaves, bonuses, retirement benefits, and occupational safety are codified. By saying that no person is unworthy and what matters is giving a right kind of job to the right person, the author shows an innate understanding of absolute and comparative advantage in assigning tasks to people.

To sum up, Shukranitisara can be described as a unique treatise written at the turn of the nineteenth century that attempted to synthesize the ancient and the evolving colonial aspects of the science of political economy. It underscores that the ruler and the ruled have to conduct their economic decisions keeping the dharmic compass in mind. The intention of this paper was not to thrust complete understanding of the economic principles onto the proto-economic ideas. Rather, this is an exercise in unravelling the innate economic thinking embedded in Shukranitisara. If some of the policies mentioned in Shukranitisara are detailed and unique as compared to Arthashastra, some other are similar to the early regulations of the

East India Company. Some of the policy advices from the text remain relevant even for today.

References

- Adams, J. (1971). "The Institutional Economics of Mahadev Govind Ranade," *Journal of Economic Issues*, Vol. 5, No. 2 (Jun), pp. 80-92.
- Ambedkar, B. (1946). *Shudras and Dasas*, Part I, Chapter VI, Section IV and V, in *Who Were the Shudras?*, accessed from <http://www.ambedkar.org/ambcd/38B2.%20Who%20were%20the%20Shudras%20PART%20I.htm#a06>
- Boesche, R. (2003). *The First Great Political Realist: Kautilya and His Arthashastra*. Lanham, MD: Lexington Books.
- Brockington, J. (1998). *The Sanskrit Epics*. Boston, MA: Brill Academic.
- Dalal, R. (2010). *Hinduism: An Alphabetical Guide*, Delhi: Penguin Books India.
- Dasgupta, A. (1993). *A History of Indian Economic Thought*. London: Routledge.
- Deaton, A. (2005). "Franco Modigliani and the life-cycle theory of consumption", *BNL Quarterly Review* 58 (233-234): pp. 91-93.
- Deodhar, S. (2019). *Economic Sutra: Ancient Indian Antecedents to Economic Thought*. Gurgaon: Penguin Random House.
- Dutta, M. (1896). *Kamandakiya Nitisara or the Elements of Polity*. Kolkata: Keshab Academy.
- Ganguli, K. (1896). *Mahabharata, Shanti Parva* (Book 12). Accessed from Sacred-texts.com, <http://www.sacred-texts.com/hin/m12/m12b015.htm>, on 23/7/2020.
- Gautam, P. (2019) *The Nitisara by Kamandaka: Continuity and Change from Kautilya's Arthashastra*. New Delhi: Institute for Defence Studies and Analyses.
- Ghisellini, F. and Chang, B. (2018). *Behavioral Economics: Moving Forward*. Cham, Switzerland: Palgrave Macmillan.
- Gopal, L. (1962). The "Śukranīti"--A Nineteenth-Century Text. *Bulletin of the School of Oriental and African Studies, University of London*, 25(1/3), 524-556. Retrieved March 9, 2021, from <http://www.jstor.org/stable/610919>

- Hudson, M. (2020). *A debt jubilee is the only way to avoid a depression*. The Washington Post, March 22, accessed from <https://www.washingtonpost.com/opinions/2020/03/21/debt-jubilee-is-only-way-avoid-depression/>, on 10/7/2020.
- Kane, P. (1941). *History of Dharmashastra*. Vol III, Part I. Poona: Bhandarkar Oriental Research Institute.
- Kangle, R. (1965). *The Kautilya Arthashastra*, 1st edition, Part I (Sanskrit), Part II (Translation), and Part III (Commentary). Delhi: Motilal Banarsidass.
- Khan, I. (2004). *Gunpowder and Firearms: Warfare in Medieval India*, New Delhi: Oxford University Press.
- Mehta, J. (2005). *Advanced Study in the History of Modern India*, Delhi: New Dawn Press.
- Oak, M. and Swami, A. (2010). *Economic Development and Cultural Change*. Vol. 58, No. 4 (July), pp. 775-803.
- Olivelle, P. (2011). *Language, Texts, and Society: Explorations in Ancient Indian Culture and Religion*. London: Anthem Press, p. 174.
- Oppert, G. (1882). *Sukranitisara*, edited Sanskrit text, Madras: The Government Press.
- Patra, A. (1962). Historical Background of the Indian Contract Act, 1872, *Journal of the Indian Law Institute*, Vol. 4, No. 3 (July-Sept).
- Ranade, M. (1898). *Essays on Indian Economics: A Collection of Essays and Speeches*. Bombay: Thacker & Company
- Rashivadekar, A. (1911). *Buddhcharitam* by Shri Ashvaghosha, Sarga (Cantos) 1 to 5, English translation by Sohoni, V., Poona City: A.C. Bhat & Co.
- Sarkar, (1914). *The Sukraniti*, English translation, *The Sacred Books of the Hindus*, Vol. 13, Allahabad: Panini Office.
- Sen, A. 1977. 'Rational Fools'. *Philosophy and Public Affairs* 6, no. 4: 322–29.
- Sharma, S. and Singh V. 2010. Indian Idea of Kingship, *The Indian Journal of Political Science*, Vol. 71, No. 2 (Apr-June), pp. 383-398.
- Sihag, B. 2009. "Kautilya on Administration of Justice during the Fourth Century B.C." *Journal of the History of Economic Thought* 29 (3): pp. 359–77.
- Sihag, B. 2014. *Kautilya: The True Founder of Economics*. New Delhi: Vitasta Publishing, 2014.
- Skare, M. 2013. "The Missing Link: From Kautilya's The Arthashastra to Modern Economics." *The Journal of Philosophical Economics* 6 (2).
- Spengler, J. 1971. *Indian Economic Thought*. Durham, NC: Duke University Press.

- Spengler, J. 1980. *Origins of Economic Thought and Justice*. Carbondale, IL: Southern Illinois University Press.
- Trautman, T. 2012. *Arthashastra: The Science of Wealth*. New Delhi: Allen Lane.
- Varma, V. (1962). Some Aspects of Public Administration in the Sukraniti, *The Indian Journal of Political Science*, Vol. 23, No. 1/4 (Jan-Dec, pp. 302-308.
- Waldauer, C., W. Zahka and S. Pal. 1996. "Kautilya's Arthashastra: A Neglected Precursor to Classical Economics." *Indian Economic Review* 31(1): pp. 101-08.