STRUCTURE AND FUNCTIONING OF THE SUMERIAN ECONOMY

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Abstract. This study discusses the main components of the Sumerian economy: agriculture, temple and palace economies, trade, labour organization, accounting systems, and redistribution mechanisms. The Sumerian economy, which flourished in southern Mesopotamia during the 4th–3rd millennia BC, represented one of the earliest organized economic systems. Agriculture, developed on the fertile soils created by the Tigris and Euphrates rivers, supported the cultivation of staple crops such as barley, wheat, and dates. Temples and palaces, as economic centres, managed land ownership, taxation, and resource redistribution. Sumer engaged in trade with regions such as Anatolia (modern-day Turkey), Elam (southwestern Iran), the Indus Valley (modern-day Pakistan/India), and the Arabian Peninsula (Dilmun, modern-day Bahrain). Strict labour organization and accounting records inscribed in cuneiform ensured efficient management. Institutional frameworks reduced transaction costs, fostering trust and stability in relevant institutions. Despite significant economic achievements, the Sumerian economy remained vulnerable due to soil salinization and external threats. Sumerian bureaucracy, irrigation systems, and writing profoundly influenced the economic and social development of ancient civilizations.

Keywords: *Sumerian economy, agriculture, temple and palace economy, institutions, trade, irrigation systems, accounting, writing system.*

Introduction. Approximately between 4500 and 1900 BCE, the land of Sumer was located in the historical region of southern Mesopotamia, in what is now the south-central part of Iraq, and is considered one of the earliest urban civilizations. In the Sumerian language, it

was called *Ki-en-gi* or *Ki-en-gir*, meaning "the land of noble rulers," while the Sumerian language itself was known as *Eme-gir*, "the language of the nobles."

The term *Sumer* was first introduced on January 17, 1869, by the French-German Assyriologist of Jewish origin, Julius Oppert (1825–1905). The Sumerian language was non-Semitic and non-Indo-European, an agglutinative language isolate. According to certain linguistic studies, Sumerian is linked to the Proto-Kartvelian language, and the South Caucasus is regarded as the prehistoric homeland of the Sumerians [3–6; 11–13].

Sumer made a significant contribution to the formation of an organized economic system. The Sumerian economy was based on agriculture, temple and palace institutions, technology, trade, and a complex administrative management structure.

1. Agriculture. The foundation of the Sumerian economy was agriculture, which developed through the reclamation and cultivation of fertile soils created by the rivers Tigris (Idigna) and Euphrates (Buranun). Archaeological evidence indicates that around 3500 BCE the Sumerians developed complex irrigation systems covering more than 3,000 hectares, which ensured stable crop yields (e.g., grain production) and increased productivity despite the arid local climate [1]. The main cultivated crops included barley, wheat, sesame, millet, beans, and peas. The date palm was also of great importance, providing both food and construction materials [17].

From a technological standpoint, the Sumerians were the first to use the seeder plough, which allowed sowing and ploughing to be performed simultaneously. This innovation, described on clay tablets, attests to a major technological advance that enabled the Sumerians to improve sowing efficiency and expand irrigated farmland [2]. Additionally, the specialization of agricultural labor (e.g., field workers, irrigation system managers) improved the division of labor and contributed to the overall sustainability of the Sumerian economy [1; 13]. This process made it possible for Sumerian city-states to achieve agricultural surpluses, laying the foundation for urbanization and the growth of trade [9].

In terms of land ownership, most of the land belonged to temples and palaces, although examples of private ownership are also attested, as recorded on cuneiform tablets [22]. The maintenance of irrigation canals and reservoirs was considered a matter of state importance, requiring centralized management and organized labor [17].

Agricultural products in Sumer were multifunctional, serving vital economic and social purposes:

• **Barley** was used as the primary food source (for making bread, porridge, and beer) and as a means of payment in labor compensation, taxation, and trade transactions, effectively serving as a universal "currency" [22].

• **Wheat** was a major cereal used to produce high-quality food, bread, and pastries. It was sometimes offered in temples for religious rituals. Although less common than barley, wheat was more valuable, as its cultivation required more fertile soil and better irrigation – challenging conditions in Sumer's dry climate.

• **Date palms** provided a highly nutritious food source consumed widely by the population. Dates were used to make dried fruit, syrup, and beverages. The palm tree also supplied construction materials (wood and leaves). As a durable and easily transportable product, dates became a key export commodity, particularly traded with the Persian Gulf region (Dilmun, modern Bahrain). High yields and ease of storage made them economically profitable. Inscriptions on clay tablets mention date plantations often owned by temples or wealthy landholders [2].

• **Beans and peas** were important legumes primarily consumed by lower social classes and also used as animal fodder.

• **Sesame oil** served multiple purposes – as food, in lighting, cosmetics, religious rituals, and medicine. Like dates, sesame oil was a major export product due to its ease of transport. Clay tablets record sesame fields mainly under temple or elite (bomond) control.

• **Wool** was used to produce high-quality textiles intended for temples and the elite. These fabrics, often dyed and ornamented, became significant export goods traded with regions such as Elam (modern southwestern Iran) and Anatolia (modern Turkey). Clay tablets record that textile production was often organized by temples or royal palaces, employing mainly female artisans [18].

Thus, these agricultural products not only satisfied local consumption but also facilitated the formation of extensive long-distance trade networks, which in turn stimulated the economic, social, and cultural development of the Sumerian city-states. The evidence from clay tablets and archaeological findings clearly demonstrates that the Sumerians established a highly organized system for managing agriculture and harnessing its economic potential.

2. Temple and Palace Economy. In Sumerian society, temples served as centers of socio-economic and religious life, as evidenced by numerous archaeological materials, including clay tablet inscriptions that document their administrative functions [22]. Temples owned large tracts of land, managed irrigation systems, stored grain and other produce, and exercised control over the redistribution of harvests [1]. They were also major employers, providing work for priests, craftsmen, laborers, and scribes [17].

The temple economy functioned as a centralized redistributive system: peasants delivered their produce to the temples [15], which then distributed it among workers and the poor – a

process partially reflected in the written archives of Ur and Lagash [8]. Temples also contributed to strengthening social cohesion. For example, they organized religious festivals that attracted pilgrims, stimulating local economies, particularly in crafts and trade [9].

From the second half of the 3rd millennium BCE, palaces, belonging to the ruling elite, began to assume similar economic functions. Kings and governors controlled landholdings, collected taxes primarily in kind (e.g., grain, livestock), and organized military campaigns and construction projects [2].

The temple and palace economies were often interlinked, forming an institutional system of centralized management, where the redistribution and control of resources were implemented through sophisticated accounting systems recorded on clay tablets [13]. Moreover, the interdependence between temple and palace institutions can be interpreted as an example of power balance, wherein rulers frequently employed religious authority to legitimize their rule, as evidenced in records from the latter half of the 3rd millennium BCE [15].

Thus, these institutions ensured economic stability and efficient resource distribution, while also playing a vital role in reducing transaction costs and enhancing social trust [16; 23].

3. Trade and External Relations. The Sumerian economy largely relied on trade and commercial networks. Due to the scarcity of natural resources such as timber and metals, trade was essential and played a crucial role [2]. Sumer could not produce sufficient quantities of metals or other raw materials on its own. In exchange, it supplied other regions with agricultural products and handicrafts, which led to the establishment of trade routes, as evidenced by clay tablet inscriptions and archaeological findings.

Archaeological excavations indicate that the Sumerians traded with regions including Anatolia, the Iranian plateau, Dilmun, the Indus Valley, and the Arabian Peninsula [18; 22]. Inscriptions on clay tablets show that Dilmun served as an intermediary between Sumer and the civilizations of the Indus Valley, facilitating the transport of raw materials and goods [7].

Trade was mainly organized by state institutions or temples, though private merchants also existed. A notable example is the institution of the dam-gar (merchant). Professional traders traveled on behalf of Sumerian city-states (e.g., Ur, Larsa) and conducted international commerce [22]. Surviving commercial records on clay tablets, such as those from 2350–2200 BCE, detail the quantities of goods, prices (mostly measured in shekels), and transaction terms, demonstrating the accuracy of the Sumerians' accounting system [8].

The main export goods included grains, dates, sesame oil, wool, and handicrafts. Imported goods consisted of timber (from the region of modern Lebanon), gold, copper (from the South Caucasus), silver (from Anatolia), and precious stones such as lapis lazuli ("blue sapphire," from the Badakhshan region of modern Afghanistan) [2]. These trade networks

facilitated not only economic, technological, and cultural exchange but also the dissemination of writing systems, highlighting the role of trade in early proto-globalization processes [13].

Based on written sources, the main trade routes were:

- **Overland route to Anatolia and the South Caucasus** (approx. 1,000–2,000 km), primarily used for importing metals (gold, copper, tin), timber, and other essential raw materials [22; 2; 13].
- **Overland route from Ur or Uruk to Susa, the capital of Elam** (approx. 300–400 km), mainly for exporting grain, textiles, and other goods [18].
- **Maritime route via the Persian Gulf and Dilmun to the Indus Valley** (Mohenjo-Daro and Harappa, modern Pakistan, approx. 2,000 km), used for importing precious stones and spices [18].

These trade networks required sophisticated logistics, including transportation, security, armed protection, and administrative coordination [22]. Such exchanges contributed significantly to the economic and cultural development of Sumerian city-states and had a substantial impact on strengthening Mesopotamia and neighboring regions [13].

4. Labor Organization and Social Structure. Labor in Sumer was primarily organized and supervised by temples. For example, records from the Third Dynasty of Ur (2112–2004 BCE) document the number of workers, working days, and rations, reflecting the central role of labor in shaping the economic, social, and political development of Sumer [1].

The Sumerian economy exhibited a highly structured labor system. The majority of the population, approximately 80–90%, was engaged in agriculture, primarily cultivating barley and wheat. The remaining population, including priests, scribes, and craftsmen, mainly worked in temples and palaces. These institutions not only oversaw production but also coordinated the management of economic resources and organized activities [22].

Sumerian society was socially stratified. The upper class comprised the ruling elite, including kings and priests, who combined political and religious authority. The middle class consisted of free citizens such as merchants, artisans, and small landowners. The lower class included laborers, among them slaves, who were often prisoners of war or individuals enslaved due to debt. Slaves were primarily employed in agriculture or temple construction. However, slavery in Sumer was not institutionalized in the way it later became in the Roman Empire, and in some cases, the status of slaves could improve over time.

Labor compensation was frequently provided in kind, such as grain, textiles, or oil. Surviving clay tablet records indicate that decisions regarding payment were often centralized within institutional frameworks, highlighting the importance of institutional governance in labor management [13].

Particular attention is warranted regarding women's roles. The *naditu* – often unmarried women from high social strata who served in the temples of the sun god Shamash and his consort Aya – exercised considerable autonomy and property rights. They were engaged in textile production, processing of leather and grain, and commercial activities, reflecting a degree of gendered economic participation in Sumerian society [21]. The economic activities of the naditu were closely linked to the temple's broader economic network [22].

Overall, the structured labor system, centralized institutions, and defined social hierarchy were fundamental to sustaining economic productivity, managing resources efficiently, and integrating Sumerian society into both local and long-distance trade networks.

5. Writing, Accounting, and Payment Systems. Between c. 8500–3500 BCE, in Mesopotamia, small clay tokens of various shapes – spheres, cones, cylinders, and other forms – were used to represent specific goods (e.g., grain, livestock) and to record their quantities. These tokens were stored in clay envelopes (bullae), often with impressions of the tokens on the exterior. This constituted the earliest known accounting system, facilitating trade and economic management, forming the basis of Sumerian logistics, and ensuring transaction security.

By c. 3500–3000 BCE, Sumerians began to inscribe these tokens' shapes onto clay tablets, which gradually evolved into more abstract symbols, eventually forming the cuneiform writing system – a clear example of technological evolution [10–13].

Written economic and administrative documents include records of: worker employment, workforce allocation, plowing and threshing activities, worker illness reports, labor compensation and grain distribution, revenue and expenditure documents, receipts for goods delivered by couriers, fodder distribution, production, allocation, exchange and consumption of goods, trade and major transactions (including private property transfers), loan contracts, judicial decisions, irrigation taxes, dispute settlements, balance sheets, redemption amounts, interest-bearing loans and debts, agricultural product inventories, food rations, urban and rural agreements, property transactions (houses, gardens, land, livestock), marriage, inheritance and divorce records, medical texts (prescriptions), calendars, and more [13].

"The writing system is a crucial instrument for managing economic, political, institutional, and religious organizations; it serves as an informational and communicational technology, establishing relationships during the production of material wealth and enabling the transmission of knowledge and ideas. As a socio-cultural phenomenon, writing emerged at early stages of social development out of the necessity to refine economic activity and account for goods – a major achievement in human civilization" [13].

Sumerians used the “silver shekel” [20] as a unit of payment and value measurement, though physical coins did not yet exist. Payments were often barter-based, using silver, barley, or other products as mediums of exchange.

This process established the framework for institutional and socio-economic organization, including trade guilds and other professional networks. Division of labor created specialized professions, and the development of urban economic activities required improvements in institutional systems and central organizations. This included control over task execution, planning, trade and taxation, management of resources, production, collection and distribution of goods, revenue and expenditures, tithes and offerings, construction of architectural centers, temples, palaces, and public buildings, as well as land registration, measurement, and valuation [13].

The accounting system allowed temple and palace administrators to monitor inventories, taxes, and trade, representing a critical step in the development of bureaucracy and economic management [22]. In the Sumerian economy, temples, palaces, the accounting system, and the institution of the tamkaru (merchant/administrator) functioned as institutional mechanisms that reduced transaction costs and ensured the stability of the economic system. According to D. North’s institutional theory, these institutions can be regarded as formal institutions that reduced transaction costs in multiple ways [15; 16]:

• **Information Costs.** In the Sumerian economy, managing information costs played a crucial role in ensuring effective economic activity. Representatives of temples and palaces were responsible for collecting taxes, which were mainly paid in kind, such as barley or other agricultural products. At the same time, they oversaw the allocation of resources, forming an essential part of the centralized economic system. The accounting system, recorded on clay tablets, was used to precisely document trade and taxes. These tablets recorded details such as the quantity of goods, their price, and the conditions of transactions. This practice demonstrates that scribes actively used accounting records to reduce informational uncertainty and enhance transparency between merchants, temples, and palace representatives. The accounting system significantly reduced information asymmetry that could exist among peasants, priests, and rulers [8].

Thus, the data preserved on clay tablets contributed to the accuracy and reliability of economic interactions, enabling efficient resource management and distribution.

• **Enforcement Costs.** Managing enforcement costs was one of the primary functions of temples and palaces in the Sumerian economy. These institutions were responsible for ensuring the collection of taxes and fulfillment of labor obligations, which maintained the stability and functioning of the economic system. Inscriptions on clay tablets provide information about

taxes, e.g., "60 gur of barley." Accounting allowed tax collectors to monitor compliance and reduce the risk of contract violations or moral hazard. This indicates that these institutions had a well-organized structure for monitoring and enforcing tax collection.

Consequently, this practice increased the efficiency of the economic system by ensuring proper allocation and management of resources, contributing to the stability of economic relations in society.

• **Contract Costs.** Managing contract costs was another function of temples as resource allocation centers. They facilitated agreements between private individuals or organizations; for example, providing food or other necessities in exchange for a supply of crops such as barley or wheat. This process reduced negotiation and contracting costs, as temples acted as intermediaries ensuring transparency and fairness in transactions. Such a centralized system lowered transaction costs, making economic relations more efficient and organized. The institutional structure established by temples ensured the stability and efficiency of the Sumerian economic system, which was vital for the society's overall functioning.

• **Property Rights.** Defining and protecting property rights was a key function of centralized institutions, particularly temples and palaces. These institutions controlled significant portions of land and other key resources, allowing them to regulate and enforce property rights. They monitored land use and its associated revenues, ensuring centralized management of economic resources. In addition, the tamkaru institution, acting as merchants and intermediaries, managed export and import transactions. This structure helped define and protect ownership rights, which was crucial for trade development and stability. Clearly defined property rights reduced the risk of disputes and conflicts, thereby increasing the efficiency and reliability of the economic system.

Thus, these institutions created a stable framework that supported the orderly functioning of economic relations.

• **Social Trust.** Strengthening social trust played a vital role in maintaining the stability of the society's economic system, and the accounting system served as a key institutional mechanism for this process. Records on clay tablets, documenting taxes, trade details, and other transactions, ensured transparency in economic exchanges. These records allowed peasants, priests, and rulers to access accurate information about transactions, reducing the risk of disagreements or disputes [22].

In this way, the accounting system not only increased the efficiency of economic activity but also contributed to the reinforcement of social trust within Sumerian society.

6. Redistribution System as an Institutional Mechanism. In Sumer, the redistribution system functioned as a centralized institutional mechanism, primarily organized by temples,

aimed at allocating resources – such as crops, food, and textiles – among workers and socially disadvantaged groups, including the poor [22].

To analyze this system, we apply D. North's institutional economic theory, which posits that institutions – formal and informal rules – help ensure economic and social stability [16]. Within this framework, the redistribution system can be seen as an institutional mechanism performing several key functions:

- **Reduction of Social Conflict.** Resource redistribution by temples – through the collection of taxes, e.g., 10% of the harvest, as documented on clay tablets [8] – reduced social inequality. Resources were allocated not only to the elite (bomond) but also to workers and impoverished groups, thereby promoting social stability and preventing conflicts [19].

- **Ensuring Economic Efficiency.** The accounting and redistribution system, grounded in tax collection and recorded on clay tablets, allowed temples and palaces to allocate resources – such as grain – to workers and dependent groups [17]. This process increased labor productivity by providing workers with food and material resources, which in turn supported agricultural production and other economic activities.

- **Limited Social Mobility.** Redistribution by temples contributed to the improvement of the economic status of some citizens, particularly artisans [21]. However, this mobility was limited because the allocation of resources largely depended on temple structures rather than individual initiative. Nevertheless, this mechanism helped maintain economic stability, as evidenced by the construction of temples and irrigation canals funded through the redistribution system [22].

7. Challenges and Constraints. Despite its significant achievements, the Sumerian economy was a fragile system, vulnerable to both environmental and socio-economic pressures.

One major issue was the maintenance of irrigation systems, which required continuous care and coordination. Over time, intensive irrigation led to soil salinization, significantly reducing soil fertility and crop yields. R. Adams notes that the development of irrigation-based agriculture in southern Mesopotamia created environmental constraints that negatively affected economic productivity [1]. J. Postgate emphasizes that salinization was a long-term process that threatened the sustainability of Sumerian agriculture [17].

In addition, socio-political challenges posed risks to economic stability. Wars and external invasions – particularly from Elam – frequently disrupted Sumerian city-states such as Ur and Uruk. M. Liverani highlights that such conflicts often led to disruptions in trade networks and resource redistribution, complicating the functioning of centralized institutions like temples and palaces [9].

Despite these constraints, by the end of the 4th millennium BCE, the Sumerians established urban settlements that significantly influenced the economic systems of neighboring civilizations, including Akkad, Babylon, and Assyria. The innovations in agriculture, trade, and accounting systems contributed to the dissemination of economic knowledge and the development of institutional models across the region [13].

Key Findings. The Sumerian economy, flourishing in southern Mesopotamia during the 4th–3rd millennia BCE, was one of the earliest organized economic systems and had a significant impact on the development of civilization. It was based on agriculture, temple and palace institutions, trade, strict labor organization, and accounting systems.

- **Agriculture.** The development of irrigation systems on the fertile soils of the Tigris and Euphrates, along with innovations such as the seed drill, ensured surplus production (barley, wheat), which facilitated urbanization and the growth of trade. Most of the land was owned by temples and palaces, ensuring centralized management.
- **Temple and Palace Economy.** Temples and palaces served as economic and social centers, managing land ownership, taxes, and the distribution of resources. They functioned as redistribution systems, reducing social inequality and promoting stability.
- **Trade.** The Sumerians actively traded with regions such as Anatolia, Elam, the Indus Valley, and the Arabian Peninsula, compensating for the shortage of natural resources (timber, metals, precious stones). The institution of the *dam-gár* (merchant-administrator) and records on clay tablets ensured the efficient management of trade.
- **Accounting System.** Cuneiform writing and the records preserved on clay tablets (e.g., taxes, income and expenditure, trade) created one of the earliest accounting systems, reducing transaction costs and increasing the transparency of economic exchanges.
- **Institutional Analysis.** Using D. North's institutional theory, Sumerian institutions (temples, palaces, *dam-gár*) reduced informational, enforcement, and contract-related costs, enhancing economic efficiency and trust. From the perspective of modern theories (Williamson, game theory, behavioral economics), these institutions represented advanced mechanisms for social and economic stability.
- **Challenges.** Despite its high level of organization, the Sumerian economy faced significant challenges. Soil salinization, resulting from prolonged irrigation and inadequate agricultural practices, and frequent droughts reduced agricultural productivity. Furthermore, Sumerian city-states (Ur, Uruk, Lagash) often competed with one another, leading to internal conflicts. They lacked a unified military force, leaving them vulnerable to external invasions. Ineffective defense organization and wars with neighboring peoples destabilized the economy

by disrupting trade, resource supply, and labor organization. These challenges highlighted the importance of sustainable development, including rational management of environmental resources, strengthening defensive mechanisms, and developing military technologies. Maintaining soil fertility and ensuring military security were crucial for the stability of the Sumerian economy.

These factors, combined with the gradual loss of fertility, led to the weakening of Sumerian economic and political structures, allowing non-Sumerian peoples, such as the Akkadians and later the Babylonians, to dominate the Mesopotamian region. Historical and archaeological evidence indicates that the reign of the Akkadian ruler Sargon (c. 2334–2279 BCE) marked the beginning of the end of Sumerian autonomy. Later, during the rise of Babylon under Hammurabi (c. 1792–1750 BCE), Sumerian society ultimately failed to overcome these challenges, was absorbed by incoming peoples, and lost its political identity. However, its cultural legacy – including agricultural knowledge, writing, and religious traditions – persisted for a considerable period.

Conclusion. The Sumerian economy, with its centralized institutions, agriculture, trade, and accounting systems, represents one of the most significant stages in the economic development of civilization. Its institutions – particularly temples, palaces, and scribal schools – laid the foundation for pre-economic practices, including accounting, trade, and taxation systems. Applying modern economic theories (North's institutionalism, Williamson's transaction cost economics, behavioral economics) demonstrates that Sumerian institutions effectively ensured social stability and economic efficiency. However, soil salinization and external threats revealed the fragility of the Sumerian economic system, offering an important lesson for contemporary societies regarding sustainable development and environmental management. The legacy of the Sumerian economy, especially in accounting, trade, and institutional governance, underscores its enduring significance in the history of civilizations.

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შუმერული ეკონომიკის სტრუქტურა და ფუნქციონირება

გია კვაშილავა მათემატიკისა და ეკონომიკის დოქტორი, ფაზისის აკადემიის პრეზიდენტი, ცხუმ-აფხაზეთის მეცნიერებათა აკადემიის აკადემიკოსი, კავკასიის საერთაშორისო უნივერსიტეტი, პროფესორი
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წარმოადგინა ცხუმ-აფხაზეთის მეცნიერებათა აკადემიის ეკონომიკისა და ბიზნესის ინსტიტუტმა

აბსტრაქტი. ამ შრომაში განიხილულია შუმერის ეკონომიკის ძირითადი კომპონენტები: სოფლის მეურნეობა, ტაძრებისა და სასახლეების ეკონომიკა, ვაჭრობა, შრომის ორგანიზაცია, აღრიცხვის სისტემა და გადანაწილების მექანიზმები. შუმერის ეკონომიკა, რომელიც ძვ.წ. IV-III ათასწლეულებში სამხრეთ შუამდინარეთში ყვაოდა, ერთ-ერთ ყველაზე ადრეული ორგანიზებული სისტემა იყო. სოფლის მეურნეობა, რომელიც განვითარებული იყო მდინარეების, ტიგროსისა და ევფრატის მიერ შექმნილ ნაყოფიერ ნიადაგებზე, უზრუნველყოფდა ძირითადი პროდუქტების, მაგ., ქერის, ხორბლისა და ფინიკის მოყვანას. ტაძრები და სასახლეები, როგორც ეკონომიკური ცენტრები, მართავდნენ მიწის საკუთრებას, გადასახადებსა და რესურსების გადანაწილებას. შუმერი ვაჭრობდა ისეთ რეგიონებთან, როგორებიცაა სამხრეთ კავკასია, ანატოლია (თანამედროვე თურქეთის მხარე), ელამი (თანამედროვე ირანის სამხრეთ-დასავლეთ რეგიონი), ინდის ხეობა (თანამედროვე პაკისტანის მხარე) და არაბეთის ნახევარკუნძული (დილმუნი, თანამედროვე ბაჰრეინი). შრომის მკაცრი ორგანიზაცია და ლურსმული დამწერლობით ჩაწერილი აღრიცხვითი ფორმები უზრუნველყოფდა ეფექტურ მართვას. გარკვეულმა ინსტიტუციურმა ჩარჩოებმა შეამცირა ტრანზაქციული ხარჯები, რაც ზრდიდა სათანადო ინსტიტუტების ნდობასა და სტაბილურობას. შუმერში მნიშვნელოვანი ეკონომიკური მიღწევების მიუხედავად, მისი ეკონომიკა მყიფე რჩებოდა, რაც განპირობებული იყო მიწის დამლაშებითა და გარე

საფრთხეებით. შუმერულმა ბიუროკრატიამ, სარწყავმა სისტემებმა და დამწერლობამ დიდი გავლენა მოახდინა უძველესი ცივილიზაციების ეკონომიკურ და სოციალურ განვითარებაზე.

საკვანძო სიტყვები: *შუმერის ეკონომიკა, სოფლის მეურნეობა, ტაძრებისა და სასახლეების ეკონომიკა, ინსტიტუტები, ვაჭრობა, სარწყავი სისტემები, აღრიცხვა, დამწერლობა.*