



Mechanisms and Pathways of Management Accounting Driving the Value Reconstruction of the Silver Economy Industrial Chain

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Abstract. This paper explores the mechanism and practical path of management accounting in driving the value reconstruction of the silver economy industry chain. By analyzing data-driven value identification, collaborative governance, and digital transformation, the study demonstrates how management accounting improves resource allocation efficiency and promotes industrial coordination. The findings indicate that integrating management accounting with digital technologies can accelerate the intelligent, sustainable, and high-quality development of the silver economy industry chain.

Keywords: Management Accounting; Silver Economy; Value Reconstruction

1 Introduction

At the end of 2025, China's elderly population surpassed 323 million, making the silver economy a national strategic priority. In January 2024, the General Office of the State Council issued the Opinions on Developing the Silver Economy to Enhance the Well-being of the Elderly, emphasizing large-scale, standardized, and high-quality development. As the silver economy shifts from "scale expansion" to "value creation," traditional industrial chain models can no longer meet diversified elderly demands. In this context, management accounting is evolving from an internal control tool into a key mechanism for industrial value synergy. Through budgeting, cost management, and value chain analysis, it promotes resource integration, service optimization, and digital transformation, thereby driving the silver economy toward collaborative, intelligent, and sustainable development.

2 Development Status of the Silver Economy Industry and the Demand for Value Reconstruction

2.1 Gradual Expansion of Market Development Space

The number of enterprise registrations continues to climb. Over the past decade, the annual registration volume of enterprises related to China's silver economy has in-

creased steadily. In 2024, a total of 82,400 silver economy-related enterprises were newly registered, marking the highest level in the past ten years (see Figure 1). As of February 13, 2025, over 6,000 related enterprises had been registered in China. Regarding the existing stock of enterprises, there are currently 502,000 silver economy-related enterprises nationwide. Among these, companies established between 5 and 10 years ago constitute the largest proportion, exceeding 27.5%. In terms of industry distribution, the health and social work sectors account for more than 20%.

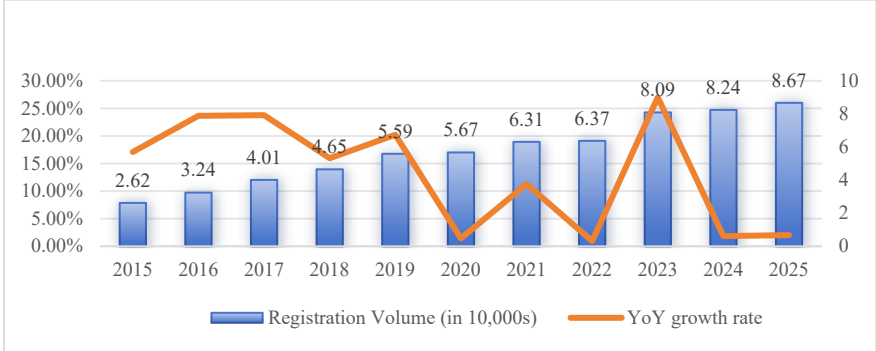


Fig. 1. Annual Registration Volume of Silver Economy-Related Enterprises in China (2015–2024). Data source: Qichacha. Statistics cutoff date: February 13, 2025.

Statistical scope: Only enterprises with keywords such as "elderly care" or "senior" in their names, business scope, or product names are included. Data from the Hong Kong Special Administrative Region, the Macao Special Administrative Region, and Taiwan Province are excluded.



Fig. 2. Market Size and Forecast Trend of China's Silver Economy. Data source: China Commercial Industry Research Institute, 2025–2030 Research Report on the Development Trends and Investment Risks of China's Silver Economy.

The market size continues to expand. From 2019 to 2023, the market size of China's silver economy grew at a Compound Annual Growth Rate (CAGR) of approximately 13.2%, reaching 7.1 trillion yuan in 2023 and accounting for about 6% of GDP. In 2024, the market size hit 8.3 trillion yuan (see Figure 2), and it is projected to grow to 9

trillion yuan by 2025. Looking further ahead, the market is expected to reach 19.1 trillion yuan by 2035, representing approximately 9.6% of GDP, and will further increase to 49.9 trillion yuan by 2050, accounting for roughly 12.5% of GDP.

2.2 Enhanced Synergy within the Industrial Chain

Strengthened linkages between upstream and downstream segments. With the continuous expansion of the silver economy, an initial industrial chain framework has taken shape. By integrating industrial resources, seamless alignment has been achieved from product manufacturing to service delivery, thereby enhancing the overall synergy of the industrial chain. The various links—ranging from product design and R&D in the upstream^[1], through manufacturing in the midstream, to marketing and service provision in the downstream—are increasingly interconnected and integrated, forming a clearer and more efficient industrial closed-loop system. Deepening integration across diverse business formats. Within the silver economy, sectors such as healthcare, elderly care, rehabilitation, finance, cultural tourism, and smart manufacturing are transitioning from loosely connected entities to a state of tight collaboration, resource sharing, and functional complementarity. This evolution is gradually constructing an industrial ecosystem centered on the diversified needs of the elderly.

2.3 An Urgent Need for Value Reconstruction

The accelerating aging process is a key driver behind the imperative to reconstruct the industrial chain. It is projected that by 2035, the population aged 60 and above will account for over 30% of China's total population, marking China's entry into a stage of severe aging. By 2050, the number of people aged 65 and above is expected to exceed 380 million, constituting approximately 31% of the total population and about 24% of the global elderly population. This implies that one in every three Chinese individuals will be 65 years old or older. As illustrated in Figure 3, the old-age dependency ratio for those aged 65 and above is projected to rise sharply between 2019 and 2028. This demographic shift places higher demands on industrial chains related to elderly care, healthcare, rehabilitation, and nursing. Consequently, there is an urgent need to reconstruct the value of existing industrial chains to satisfy the increasingly sophisticated service demands of the aging population.

3 Internal Logic and Mechanisms of Management Accounting in Driving Value Reconstruction

3.1 Demand-Oriented Value Reconstruction

The rapid expansion of the aging population has transformed the silver economy from a traditional elderly-care model into a diversified consumption ecosystem. Elderly consumers increasingly demand personalized healthcare, rehabilitation, smart services, and cultural products, requiring the industry chain to shift from supply-driven growth

to demand-oriented value creation. In this process, management accounting provides important support through customer value analysis, cost management, and strategic resource allocation. By integrating financial and operational data, management accounting helps enterprises identify high-value market segments and optimize service delivery efficiency. Tools such as value chain analysis and activity-based costing further enable firms to identify inefficient links and enhance value-added activities within the industry chain. As a result, management accounting improves the responsiveness and adaptability of silver economy enterprises, laying the foundation for value reconstruction across the industry chain.

3.2 Resource Coordination and Value Co-Creation

The silver economy involves multiple sectors, including healthcare, elderly care, finance, tourism, and intelligent manufacturing. However, fragmented management and weak coordination often reduce the efficiency of resource utilization across the industry chain^[2]. Management accounting helps solve this problem by promoting strategic coordination and collaborative governance among different stakeholders. Through budgeting systems, performance evaluation, and cost-sharing mechanisms, management accounting aligns the goals of enterprises within the industrial ecosystem and strengthens cooperation among upstream and downstream participants. In addition, digital management accounting systems improve information sharing and dynamic decision-making, enabling firms to respond more effectively to changes in elderly consumer demand. Therefore, management accounting not only enhances operational efficiency but also promotes value co-creation and integrated development throughout the silver economy industry chain.

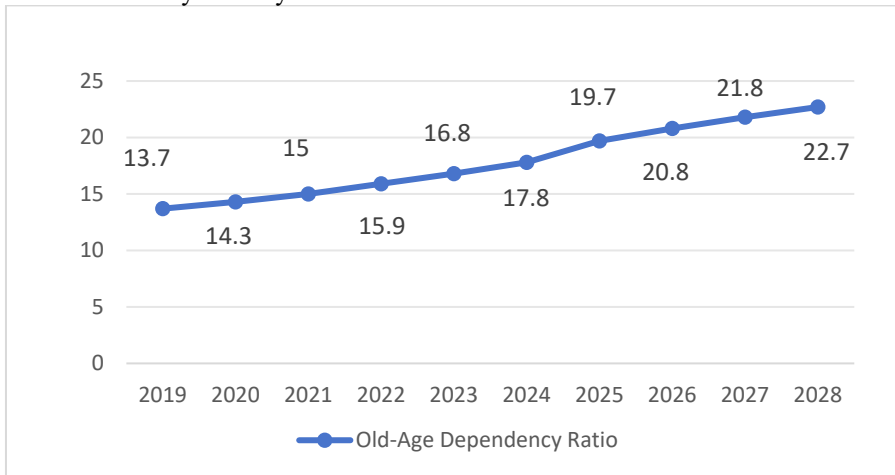


Fig. 3. Old-Age Dependency Ratio (Population Aged 65+), China, 2019–2028. Note: Ratio = Elderly population / Working-age population. Data for 2026–2028 are projections. Sources: National Bureau of Statistics of China; Frost & Sullivan.

3.3 Digital and Intelligent Transformation

Digital technologies such as big data, artificial intelligence, and cloud computing are accelerating the transformation of the silver economy toward intelligent development. In this context, management accounting plays a key role in connecting digital technology with strategic management^[3]. Traditional accounting functions are evolving into intelligent forecasting, dynamic control, and real-time performance management. Through predictive analysis, data visualization, and real-time cost monitoring, management accounting improves decision-making efficiency and resource allocation accuracy in areas such as smart elderly care, digital healthcare, and community services. At the same time, management accounting supports long-term investment evaluation and risk management for silver economy projects with long return cycles. By integrating digital technology into value management processes, management accounting drives the silver economy industry chain toward a more efficient, intelligent, and sustainable development model.

4 Mechanisms and Paths of Management Accounting in Restructuring the Silver Economy Value Chain

4.1 Data-Driven Value Identification and Resource Allocation Mechanism

Management accounting plays a critical role in reconstructing the value of the silver economy industry chain by strengthening data-driven value identification and resource allocation capabilities. As the elderly population becomes increasingly diverse in terms of health conditions, consumption preferences, and service expectations, traditional supply-oriented industrial models can no longer effectively meet market demands^[4]. Management accounting integrates financial data with operational and customer information, enabling enterprises to identify high-value elderly consumer groups and accurately evaluate market demand. Through tools such as activity-based costing, customer profitability analysis, and value chain analysis, firms can distinguish between high-efficiency and low-efficiency business activities, thereby optimizing the allocation of healthcare, rehabilitation, elderly-care, and smart service resources.

Enterprises within the silver economy should establish integrated management accounting information systems supported by big data and digital platforms. By collecting and analyzing multidimensional elderly consumption data, enterprises can dynamically adjust product structures and service strategies. At the same time, management accounting can help local governments and industrial alliances improve investment efficiency and avoid redundant construction within the silver economy sector. Furthermore, enterprises should strengthen the application of predictive analysis and strategic budgeting to improve long-term resource planning capabilities. Through data-driven decision-making and refined resource management, management accounting promotes the transformation of the silver economy industry chain from extensive expansion toward precise value creation and sustainable development.

4.2 Collaborative Governance and Industrial Chain Coordination Mechanism

The silver economy is characterized by strong industrial integration and cross-sector collaboration, involving healthcare institutions, elderly-care organizations, financial services, insurance companies, smart technology enterprises, and community service providers^[5]. However, fragmented governance structures and inconsistent strategic objectives often reduce industrial chain efficiency and weaken value creation capacity. Management accounting provides an important mechanism for improving collaborative governance and strengthening industrial chain coordination. Through strategic budgeting, balanced scorecards, and performance evaluation systems, management accounting enables different stakeholders to establish unified development objectives and coordinated operational standards.

Enterprises and institutions within the silver economy should build collaborative management accounting platforms that facilitate information sharing and performance coordination across the industry chain. For example, healthcare institutions and elderly-care service providers can establish joint cost-control systems and service evaluation standards to improve resource utilization efficiency and service quality. At the same time, management accounting can support the establishment of benefit-sharing and risk-sharing mechanisms among industrial chain participants, thereby enhancing long-term cooperation incentives. Digital technologies such as cloud computing and artificial intelligence further improve the real-time transmission of accounting information and dynamic decision-making capabilities. Through collaborative governance and coordinated management, management accounting promotes the integration of capital flow, information flow, and service flow within the silver economy industry chain, ultimately enhancing overall industrial competitiveness and value co-creation capacity.

4.3 Digital Transformation and Sustainable Value Creation Mechanism

The rapid development of digital technologies is reshaping the operational logic of the silver economy industry chain. Intelligent healthcare, smart elderly-care platforms, wearable devices, and digital community services are becoming important drivers of industrial upgrading. In this context, management accounting functions are evolving from traditional financial supervision toward digital value management and strategic decision support. By integrating big data analytics, artificial intelligence, and real-time monitoring technologies, management accounting enhances the efficiency and accuracy of enterprise decision-making and promotes the intelligent transformation of the silver economy industry chain.

Enterprises should establish intelligent management accounting systems capable of real-time cost tracking, performance analysis, and risk monitoring. Predictive analysis models can help enterprises forecast elderly consumer demand and optimize long-term investment decisions in areas such as healthcare infrastructure, smart elderly-care products, and digital service platforms. In addition, management accounting can strengthen sustainability evaluation by incorporating environmental, social, and governance indicators into enterprise performance management systems. This approach

not only improves economic efficiency but also enhances social value creation and public welfare outcomes within the silver economy sector. Furthermore, governments should encourage the digital transformation of small and medium-sized enterprises through policy support and data-sharing platforms, thereby accelerating the formation of a technology-driven and sustainable silver economy ecosystem. Through digital empowerment and strategic value management, management accounting becomes a key force driving high-quality development and long-term value reconstruction within the silver economy industry chain.

5 Conclusions

In the context of rapid population aging and digital transformation, management accounting has become an important driving force for the value reconstruction of the silver economy industry chain. Through data-driven decision-making, collaborative governance, and digital value management, management accounting improves resource allocation efficiency, strengthens industrial coordination, and promotes sustainable value creation. Therefore, integrating management accounting with digital technologies and industrial collaboration will provide significant support for the high-quality and intelligent development of the silver economy.

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