

# Financial Performance Analysis and Optimization of lululemon under the Asset-Light Operating Model

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**Abstract:** *With the ever-increasing competition in the sports and leisure industry, the asset-light operating model is becoming the popular route for sports apparel companies to improve competitiveness. lululemon is the gold standard brand in the premium sportswear market, and can continue to grow by focusing primarily on core activities and minimizing resources. In this paper, we take lululemon as the subject and investigate the reasons and strategies of its asset-light operation and explore its financial performance in four aspects, i.e., profitability, solvency, operational capacity, and growth capacity, based on financial statements, problems and optimization strategies, providing practical insights for enterprise transformation in the industry.*

**Keywords:** *Asset-light operating model; Financial performance; lululemon*

## 1. Introduction

Over the last few years, sports apparel manufacturers—e.g., with a more controlled division of workers in the industry chain and more customers to pay—have seen gains from the asset-heavy operating model. The asset-heavy operation, which has many drawbacks such as high capital tie-up and slow market response, has been gradually dropped. The asset-light operating model was introduced by McKinsey & Company. It has been implemented by companies like Nike. Present-day scholars refer to the asset-light operating model as a business operation approach based on intellectual capital management that more efficiently takes advantage of a firm's limited resources to eventually extract high value with a relatively low capital investment<sup>[1]</sup>. The optimal model is flexible and efficient and is often used by top enterprises in the market. Since its birth in 1998, lululemon has focused on yoga apparel, which captured the athleisure consumer trend well. Through asset-light operation, it became a global leader among the leading companies, reaching more than 10 billion USD in revenue in 2024. The connection between the operating model and financial performance is of significant research value. This paper explores lululemon's asset-light practices, analyzes its performance using financial indicators and proposes specific optimization strategies for asset-light enterprises.

## 2. Lululemon Overview of Asset-light Operation

### 2.1 Introduction to lululemon

Lululemon was founded by Chip Wilson in 1998 in Vancouver, Canada. It is the first dedicated sports brand for yoga apparel, which is positioned at the premium sportswear market. Its major customers are middle to high-income customers, who pay attention to quality and experience. Its main products include yoga pants, sports bras, and sports jackets. The name is athleisure, athlete plus leisure, which makes the brand exactly what people want for clothes today. This market is mainly driven by millennials and growing rapidly. Since its start, lululemon has been an asset-light business because it has no production factory. It opened its first direct-operated store in 2000, its worldwide growth accelerated since its IPO on NASDAQ, its broad expansion accelerated after 2010 and its channels became broader since the beginning of 2024. lululemon has more than 600 direct-operated stores in more than 30 countries and regions around the world, and Asia-Pacific is the second largest market. It reached operating revenue in 2024 of USD 10.23 billion and net profit of USD 1.87 billion, and has its key competencies as functional fabric research and development, brand community culture and direct-operated channel experience.

## 2.2 The Driving Forces Behind lululemon's Asset-Light Operation

Lululemon's asset-light operating model is based on a combination of industry trends, corporate resources and market demand. Based on the value chain theory, many companies abandon heavy assets and adopt asset-light operation to stay flexible while seeking to maximize the value distribution and leadership of the value chain [2]. The sports apparel industry has a key property that "production stages have low gross margins and brand channels are highly premium", and this creates an industrial motivation to divest noncritical links. On the company level, at the startup time, the asset-light model does not have heavy fixed asset investment tying up working capital, allowing the company to focus resources on building core competency in order to support differentiated competition. From the market perspective, the demand of consumers for product functionality and brand tone remains high under sports and leisure trends, which provides demand support for the asset-light model of research and development, brand, and channel.

## 2.3 Lululemon's Implementation Measures of Asset-Light Operation

Lululemon's asset-light operation system is constructed around key links to support the core logic of the asset-light model. This model focuses on high value-added segments (i.e., research and development, design, brand marketing) and outsourcing or cooperating with low value-added segments. This model assists enterprises in reducing operating costs, enhancing resource utilization efficiency, and improving market responsiveness [3]. These include: on the supply chain front end, outsourcing the entire production process to OEMs in Southeast Asia (Vietnam, Cambodia, China, etc.), providing long-term cooperation contracts to achieve core production capacity; building a quality control system; "small-batch, quick-response" production (Big Data analysis) to reduce inventory backlog risk. On the research and design front end, including functional fabrics (Luon, Luxtreme, Nulu) and ergonomic designs; keeping R&D at 2%-3% of operating revenue to capture accurate core product competitiveness. On top of that, on the brand front end, the asset-light model uses community operation plus content marketing to increase the user brand recognition and loyalty through brand ambassador programs, in-store yoga public classes, social media topic announcements, etc. On the sales side, the direct-operated stores have been the core with official online malls and third-party e-commerce sites offering shared online and offline inventory and connected membership; in 2024, online revenue accounted for 45% of total revenue, providing key customer information. On the other hand, companies operating with light assets exhibit favorable financial features like relatively high cash reserves, interest-free assets, operating cash flow, low inventory, fixed assets, interest-bearing liabilities [4], all of which are reflected in lululemon's financial data.

## 3. Lululemon Financial Performance Analysis under Asset-Light Operation

This paper selects the period from 2021 to 2024 for analysis, examining lululemon's financial performance from four dimensions: profitability, solvency, operational capacity, and growth capability, with data sourced from lululemon's annual reports.

### 3.1 Profitability Analysis

Profitability reflects a company's operational efficiency. Enterprises must continuously improve profitability to secure sufficient funding and ensure stable operation [5].

Table 1 Lululemon 2021—2024 Key Profitability Indicators

Indicators	Year 2021	Year 2022	Year 2023	Year 2024
Return on Equity (ROE)	36.82%	29.03%	41.99%	42.42%
Operating Profit Margin	21.31%	16.38%	22.17%	23.67%
Gross Profit Margin	57.68%	55.39%	58.31%	59.22%
Earnings per share (USD)	7.49	6.68	12.20	14.64

As shown in Table 1, the ROE starts to decline gradually and then recover, reaching 36.82% in 2021, 29.03% in 2022 and 42.42% in 2024. With the asset-light model, firms do not require large fixed asset depreciation and capacity investments, which allow more flexibility of asset structure tuning and focus on high turnover, high-return core businesses, which is the basis of long-term success of ROE. This is due to the channel synergy and cost control of the asset-light model — direct-to-consumer (DTC)-based sales reduce intermediary commissions, lightweight operations do not need fixed cost amortization, and

the shared online and offline inventory improves the stability of converting revenue into profit. Gross profit margin performance is particularly good, but there was a slight decline to 55.39% in 2022, and rebounded to 59.22% in 2024. With the asset-light model, companies outsource low-value-added processes such as manufacturing, focusing resources on functional fabric research and development, core product design, and brand value cultivation, which enables the brand to create a competitive advantage, and ensure a high gross margin in the high-end segment in the long term. Earnings per share decreased to \$6.68 in 2022 but increased to \$14.64 in 2024, which shows that asset-light operation can provide superior profit quality in terms of profitability. The flexibility of requiring no large-scale capital occupation, and steady cash flow generated by the DTC channel allow the enterprise to convert assets into shareholder returns more efficiently, resulting in high margins and high quality of profitability simultaneously. Overall, the asset-light operating model provides a stable basis of resource focus, cost tuning, and channel efficiency. The positive changes of the core metrics demonstrate that the model is suitable for the high-end sports apparel market.

### 3.2 Solvency Analysis

Solvency is a standard measure of the financial stability of an enterprise as it measures the ability to satisfy debts (short-term and long-term). Poor solvency may lead to insufficient funding and unstable operations.

*Table 2 Lululemon 2021—2024 Key Solvency Indicators over the Years*

Indicators	Year 2021	Year 2022	Year 2023	Year 2024
Current Ratio	1.86	2.12	2.49	2.16
Quick Ratio	1.17	1.15	1.68	1.38
Cash Flow Ratio	0.99	0.65	1.41	1.24
Debt to Asset Ratio	44.56%	43.84%	40.32%	43.13%
Equity to Asset Ratio	0.80	0.78	0.68	0.76
Equity Multiplier	1.80	1.78	1.68	1.76

As shown in Table 2, short-term solvency is still stable. The current ratio is typically between 1.86 and 2.49. It peaked at 2.49 in 2023 before a slight drop to 2.16 in 2024. This is likely because the company maintains current assets through its asset structure (i.e. no fixed assets to invest), a reasonable portion of high-quality assets (cash and accounts receivable in current assets) and low capital occupation costs. The quick ratio has been held between 1 and 1.68, and is always higher than 1, which is due to accurate inventory management under the asset-light model. The company keeps iteratively developing its core categories to avoid inventory accumulation, and even with inventory on hand, the company has sufficient quick assets to cover short-term liabilities. The cash flow was 0.65 in 2022, but quickly increased to 1.41 and 1.24 for 2023 and 2024 respectively. This is related to direct cash collection with the DTC channel under the asset-light operating model, which tends to decrease the capital occupation in intermediate processes, providing ample operating cash flow. Long-term solvency is also stable. Long-term debt to asset ratio consistently remains around 40.32% to 44.56%, indicating low debt levels compared to industry averages. Under the asset-light operating model, enterprises are not investing in large fixed assets; their debt demand can be handled in a very flexible way, eliminating the need for high interest costs. The equity-to-asset ratio and the equity multiplier have generally varied over time. They drop to four-year lows of 0.68 and 1.68 for 2023 and turn up slightly in 2024. This may indicate that long-term debt is quite sensitive to shareholders' equity, i.e., the company uses appropriate financial leverage to meet its asset-light operational objective of low debt, high flexibility. Overall, the asset-light operation model featuring asset lightness, efficient cash flow and rational debt control has been a significant support for lululemon's solvency. Its strong solvency not only decreases the risk of debt default but also increases the flexibility of the company's financing, demonstrating this model is compatible with the asset-light model.

### 3.3 Operational Capacity Analysis

Operational capacity is the turnover efficiency of company assets or resource allocation (the ability of the company to convert assets into economic returns). Greater capacity generally implies more effective asset usage and greater efficiency to produce economic value for the enterprise.

*Table 3 Lululemon 2021—2024 Key Operational Capacity Indicators*

Indicators	Year 2021	Year 2022	Year 2023	Year 2024
Accounts Receivable Turnover (times)	90.0	77.2	74.6	86.4
Days Sales Outstanding (days)	4.1	4.7	4.9	4.2
Inventory Turnover (times)	3.28	3.00	2.89	3.12
Inventory Turnover Days (days)	111	122	126	117
Total Asset Turnover (times)	1.37	1.54	1.51	1.44

As shown in Table 3, the accounts receivable turnover is highly efficient: turnover rates consistently hover between 74.6 and 90.0 times (of 4.1–4.9 days turnover days), reaching 86.4 times with industry-leading collection efficiency in 2024. This performance is closely related to the sales structure dominated by DTC in asset-light. The brand directly engages buyers in direct stores, e-commerce sites and other direct markets by eliminating the amount of capital invested by the intermediaries, thereby enabling more controllability and efficiency of accounts receivable collection. The inventory turnover rate appears to slow down, with the inventory turnover slightly falling from 3.28 times in 2021 to 2.89 times in 2023 and then gradually rising to 3.12 times in 2024, with turnover days fluctuating between 111 and 126 days. Under the asset-light operating model, enterprises are relieved of the heavy asset burden of large production and warehousing, but focus on core categories and bestseller versions instead. With the lean inventory management scheme of “small-batch, quick-response”, inventory scale can be controlled, allowing rapid inventory adjustment to adapt to short-term market fluctuations, while still maintaining high inventory turnover efficiency. The total asset turnover rate remains within a reasonable range of 1.37 to 1.54 times, which peaked in 2022. This is similar to asset lightweighting, where the brand reduces high asset investments such as production facilities and warehouses, concentrating most core assets in lightweight areas such as brand value, channel resources and research and development, without generating significant fixed asset depreciation and idle costs. Overall, this allows total assets to be converted into operating income faster and the company to continuously improve resource allocation efficiency. Overall, the asset-light operating model can support lululemon’s capacity with channel structure optimization, lean inventory control and lightweight asset allocation, and its solid asset turnover performance demonstrates its suitability to high-end sports apparel and highlights the value of resource concentration.

### 3.4 Growth Capability Analysis

Growth capability reflects an enterprise’s development potential in revenue growth, profit improvement, market share expansion, and business boundary extension, serving as a key dimension to assess the firm's future sustainable expansion and value enhancement.

*Table 4 Lululemon 2021 —2024 Main Growth Capability Indicators*

Indicators	Year 2021	Year 2022	Year 2023	Year 2024
Operating Revenue Growth Rate	42.1%	29.6%	18.6%	10.1%
Operating Profit Growth Rate	62.6%	-0.4%	60.5%	17.5%
Net Profit Growth Rate	65.6%	-12.4%	81.3%	17.1%
Total Asset Growth Rate	18.1%	13.5%	26.5%	7.2%
Net Asset Growth Rate	7.1%	14.9%	34.4%	2.2%

As shown in Table 4, for revenue growth, the operating revenue growth rate initially fell from 42.1% in 2021 to 10.1%. It has maintained a positive growth rate. Under the asset-light operating model, enterprises do not need to accumulate heavy assets on a large scale, and can optimize the layout of the DTC channel while increasing revenue size by lightweighting categories such as menswear and children’s wear, which avoids the growth volatility risk of heavy asset growth. The slower growth rate reflects the brand’s shift from fast growth to high-quality development, and the flexibility of the asset operating model still remains a fundamental source of stable revenue growth. Profit growth recovers after fluctuation. In 2022, operating profit growth rate and net profit growth rate were -0.4% and -12.4%, respectively. They quickly recovered to 60.5% and 81.3% in 2023, and recovered to 17.5% and 17.1% in 2024, which is due to the cost benefits of asset-light model, with no expensive fixed asset depreciation burden. DTC channels reduce losses during short-term processes, making the company quickly adjust product practices and costs during short-term market fluctuations to rapidly gain profits. The stable growth reflects the low risk and sustainable profit growth logic. The growth rates of total assets and net assets gradually change, with the total asset growth rate between 7.2% and 26.5%, and the net asset growth rate between 2.2% and 34.4%. Under the asset-light operating model, enterprises do not require heavy assets to accumulate on a large scale; total asset gain is mainly the result of channel optimization,

brand value gain and other lightweight investments, so it is relatively stable. The phased high growth of net assets is related to the efficiency of profit accumulation, since profitability does not need extra heavy asset maintenance and can be more efficiently converted to net asset appreciation, and thus provides support for long-term value gain. In general, the asset-light operating model provides the brand with a flexible expansion rhythm. The DTC system and the brand premium are both supporting robust revenue and profit growth. Light asset investments yield efficient returns on total assets and net assets, which reduces the risk of large asset expansion while reserving sufficient space for long-term value growth, hence confirming the model.

#### **4. Optimization Strategies for lululemon's Financial Performance under the Asset-Light Operating Model**

##### ***4.1 Supply Chain Front End: Strengthening Control Capabilities and Enhancing Stability***

Ecosystem companies can continuously improve supply chain management, increase the position of the supply chain, and improve bargaining power, which will reduce costs, improve operational efficiency and profitability, and lower risks [6]. For lululemon, supply chain outsourcing is the cornerstone of the asset-light operation, yet it poses risks for original equipment manufacturer (OEM) factory quality loss, capacity fluctuations, and regional dependence. These needs enhanced management in order to maintain stability and efficiency. It is recommended to create a digital supply chain management platform which takes production information from global OEM factories, inventory information from fabric suppliers, and sales information from customers' direct stores and online markets, as well as external information including social media consumption and seasonal climate change. By adopting algorithmic models, accurate demand forecasting is achieved to change the "small-batch, quick-response" model from "made-to-order production" to "predictive production". For instance, it is desirable to develop more moderate cooperation with OEM factories in China and Mexico — China has a full textile industry chain and rapid response, while Mexico is close to the North American core market, which can lower transportation costs. The tripartite structure of Southeast Asia + China + Americas will further diversify regional risks. At the same time, it can sign long-term capacity guarantee agreements with core OEM factories that specify minimum supply volumes, emergency capacity reserves and other terms to ensure production resources for key fabrics and core products. It is also desirable to establish a multidimensional OEM factory grading system with core metrics such as product quality pass rate, on-time delivery rate, environmental compliance, and cost control. On-site audits are performed; Grade A OEM factories receive incentives such as order preference and longer cooperation terms and noncompliant OEM factories can be corrected/removed. This combination of positive incentives and negative sanctions will strongly stabilize quality control, and ultimately be the core of brand premium.

##### ***4.2 Market Dimension: Deepening the Presence in Emerging Markets to Unlock Growth Potential***

Since emerging markets currently contribute a limited portion of revenue, lululemon should focus on local sales and enhance its growing ability. On the brand localization level, the global unified pattern should be removed to fully adapt to the culture and behaviors of market participants. In China's market, seasonal limited-edition products may be launched consistent with the national trend, incorporating classic patterns and collaborating with local yoga institutes and fitness apps to conduct offline community activities. On platforms like Xiaohongshu and Douyin, local topics such as #ChinaYogaLife can be developed to engage younger consumers. On European markets, to strengthen the eco-social attitude of the brand, product lines made from recyclable fabrics can be launched and collaboration with local environmental agencies to host public welfare sports events, reflecting the interest of European consumers in social responsibility. On Southeast Asian markets, the brand should leverage characteristics of tropical climates to develop cleaner and quick-drying products. It can also lower brand recognition barriers using local influencers for live streaming sales and offline pop-up store experiences. On channel growth, maintain a lightweight model of "direct operation + franchising": operate direct stores in core cities (like Shanghai, China, Mumbai, India, Berlin, Germany) – develop brand spaces that integrate product display, sports experience, community interaction and provide value-added services like personalized styling consultation and complimentary yoga classes; in second- and third-level cities, select high quality franchisees with local resources and operation capability; provide standardized operational training, brand authorization support and digital management tools; also formalize a trusted franchisee management system to strictly control product prices, service quality, and store image in order to minimize brand value decline. On online and offline channels, establish a presence on local mainstream

e-commerce platforms (e.g. China's Tmall and JD.com, Southeast Asia's Shopee and Europe's Zalando), introduce platform-exclusive coupons, pre-sale events, and membership benefits to promote seamless connectivity between offline experience and online purchase. In addition, integrate online and offline consumption data, and provide personalized product recommendations and event information for consumer interests, increasing user interest and repurchase rates, gradually making emerging markets a major driver of revenue.

#### **4.3 Product Side: Expand the Category Matrix and Strengthen Core Advantages**

To avoid staying limited to women's yoga apparel as lululemon matures, the brand should balance its brand positioning and market scale through category expansion and technological innovation. In terms of category expansion, the focus should shift from a single yoga track to comprehensive high-end sportswear: the men's line is expected to invest more in Research and Development and marketing to create product lines for fitness, running, business casual, and so on, optimizing pattern design and fabric selection to create products that combine functionality and fashion with respect to the male customer style; children's line is likely to introduce parent-child sportswear with respect to core product functionality and family experience with a focus on increasing user growth. Outdoor sportswear should target upcoming trendy settings such as hiking, camping, cycling; creating products with windproof, waterproof and wear-resistant properties to capture white space in the market. In core technological enhancement, more investments should be put into the research and development of functional fabrics; expand the R&D team; establish long-term collaborations with top global fabric suppliers and research institutions, and achieve more breakthroughs in environmentally friendly and intelligent fabric technologies — for example, creating degradable plant-based fabrics to meet global sustainable demand; designing high-quality fabrics with temperature control, antibacterial and deodorizing functions to weaken technological barriers; applying intelligent sensing technology for apparel to introduce smart sports equipment to track heart rate and calorie consumption, satisfying the consumers' demand for technologically better sports gear. In terms of price optimization, we propose a product matrix of main brand + sub-brand: the main brand keeps high standards by focusing on professional sports scenarios and maintaining a high premium; The sub-brand is priced 20%-30% lower than the main brand, targeting younger customers and daily casual ones. It is light and flexible and utilizes differentiated marketing channels and visual identity instead of trying to compete with the main brand alone, increasing market coverage without compromising the high-tier brand positioning; It can also be equipped with personalized customization services such as allowing users to choose fabrics, colors and designs based on their body shapes and personal preferences, enhancing both product value and user participation, and strengthening competitive advantages at the business level.

## **5. Conclusions**

We consider lululemon as an example to analyze the motivations and implementation of its asset-light operation model. From financial indicators in four aspects, we have shown that the asset-light operating model provides lululemon with high profitability, low risk, high efficiency, rapid growth, and a larger margin than the industry average. The key to lululemon's success lies in the awareness of the core logic of asset-light operations, using high value-added areas such as research and development, brand, and channels, and mitigating the potential risks of outsourced production through efficient supply chain management and channel operation. lululemon still faces a number of challenges such as lack of accurate supply chain management and control, and slow expansion in emerging markets. By further enhancing its digital supply chain management, increasing local operational layout in emerging markets, and extending its product category matrix, it can further improve its performance. The performance of lululemon demonstrates that asset-light is not a hands-off approach, and the model must be controlled in critical links to achieve complementary development between the operating model and corporate performance. It provides a reference for asset-light operations in global sports apparel companies. In the future development of the industry, core competitiveness, resource utilization efficiency, and the flexibility to adapt to market changes will all be key requirements for companies to achieve sustainable growth.

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