

LEEDARSON's Choice: The Transformation Path from Traditional Lighting to Smart IoT

——2025 IMA Management Accounting Case Competition——

Team:

Go Straight Forward (HN20254755)

Team Members:

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LEEDARSON
立达信



IMA National Case
Competition Analysis

Part 01

LEEDARSON
Light Smart. Future Smart.

•Strategic Judgement

- Preliminary Strategic Judgement
- Strategic Competitiveness
- Corporate Sustainability
- How to execute

Strategic Judgment

Financial
Analysis

Business Model
& Investment

Risk
& Execution

Preliminary
Strategic Judgment

Should we slow down the development of IoT business model?

*Excessive
Slow Down*

Loss ecosystem positioning

1

Cash-flow pressure

Missed AI opportunity

2

Low short-term profitability

Weak future competitiveness

3

Execution complexity

*Aggressive
Expansion*

Business Status

Industry Trends

Irreversible
Value Shift

Lighting ODM

1

Smart Hardware

2

Ecosystem
Services

3

*Keep
Developing
IoT Business*

Slow down
blind large-scale expansion
with
clear boundaries,
financial measurement ,
and risk control.

Strategic Judgment

Financial
Analysis

Business Model
& Investment

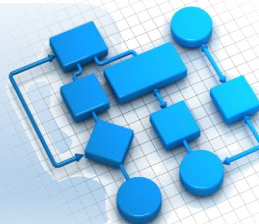
Risk
& Execution

Strategic
Competitiveness

External
Pressure



Internal
Strengths



“
*Strategic
Competitiveness*”

Policy

- Education Informatization 2.0
- 14th Five-Year IoT infrastructure
- Smart campus policy tailwind

Market

- EU-US destocking & tariffs
- China smart home penetration only 5.6%

Competition

- Signify, Osram shifted to IoT platforms
- OEM margins squeezed

*R&D
capability*

- 1,270 R&D staff (15%)
- 4,668 patents
- Three-tier R&D system

*Full-chain
technology*

- Full-stack IoT
Matter/Zigbee core member
- Proprietary AI

*First-mover
advantage
in smart
campus*

- Covers 30 provinces
- 71M+ users
- Fujian AI typical application

*Dual-business
cash flow*

- Overseas device shipments
>100M/month stable cash
- Domestic projects cultivate
future growth

Corporate Sustainability

Cash flow imbalance

- *Lighting profits fund IoT's heavy investment.*
- The overseas device side cannot bleed indefinitely.

Input-output imbalance

- *Smart campus R&D exceeds 100 million RMB but low revenue.*
- R&D consumes 55% of the budget.

Pace mismatch

- *Lighting demands short-term returns while the IoT requires long-term cultivation.*

Traditional lighting is a
“*cash cow*”;
IoT is a
“*future engine*”.

“Current Model”

★ is not sustainable
enough

*Slow down
blind large-scale
expansion*

How to execute ?

No Clear monetization path

- In 2023, the smart campus relied mainly on hardware sales

No cash flow constraints

- lighting's cash paying IoT's cost

No risk boundaries

- 55% of the R&D budget was concentrated in IoT

Slow Down blind large-scale expansion

Address **"Three deficiencies"**



Enhance **"Four strengths"**

	Four strengths	Implementation measures
Strategic perseverance	Firm ecosystem strategy	Use smart campus as breakthrough, stick to IoT direction
Clear financial boundaries	Focus on payback period, cash flow	100-school projection: 70M R&D → >100M net cash inflow
Solid cost safeguards	Maintain phased investment + algorithm reuse	Marginal cost ≈ 0, algorithms reusable
Model-based execution	Stick to three-tier revenue model	One-time hardware + SaaS subscription + data value-added

Part 02

LEEDARSON
Light Smart. Future Smart.

• Financial Analysis

- Financial Core Conflict
- Profitability Breakdown
- DuPont Analysis
- Horizontal Comparison
- Cash Flow Panorama
- Financial Conclusion

Strategic Judgment

Financial
Analysis

Business Model
& Investment

Risk
& Execution

Financial Core Conflict



In 2023, smart campuses R&D spending exceeded 100 million RMB, while collections were only several million, resulting in negative net cash flow. A further 80 million investment in 2024 would widen the gap.



Traditional Lighting Business

Revenue Characteristic
Gross Margin
Cash Flow Contribution
Core Conflict



Cash Cow



Stable but under pressure
~27% (hardware OEM)
Continuously positive
Destocking + tariff pressure



Growth Engine



IoT Business

Revenue Characteristic
Gross Margin
Cash Flow Contribution
Core Conflict



Cash Cow



Small base, rapid growth
Hardware 27% / SaaS 65%
/ data value-added 80%
Currently negative
High R&D investment

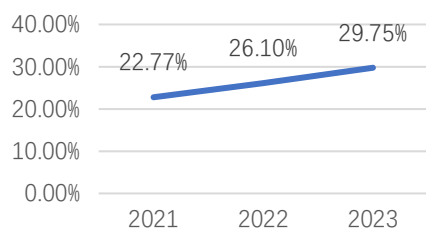


Growth Engine

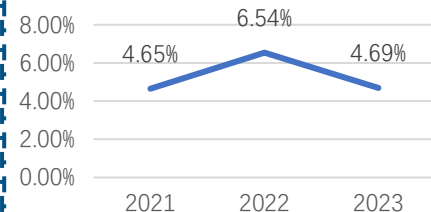
Core Issue:
Without a business
model upgrade, the
lighting business
cannot keep
financing IoT
expansion forever.

Profitability Analysis

Gross Margin



Net Profit Margin



Gross margin improved

→ better product mix & cost control

Net margin under pressure

→ overseas destocking, longer domestic collection cycles, rising expenses

upfront investment, delayed returns



Revenue Pressure

US/EU destocking post
-2022 tariff-driven inventory build → order decline in 2023

- ❑ ODM profit squeezed
- ❑ mismatch between revenue recognition and cash collection

Rigid
Expenses

R&D Expenses

RMB 416M (6.7% of revenue)
– AI / modules / platforms

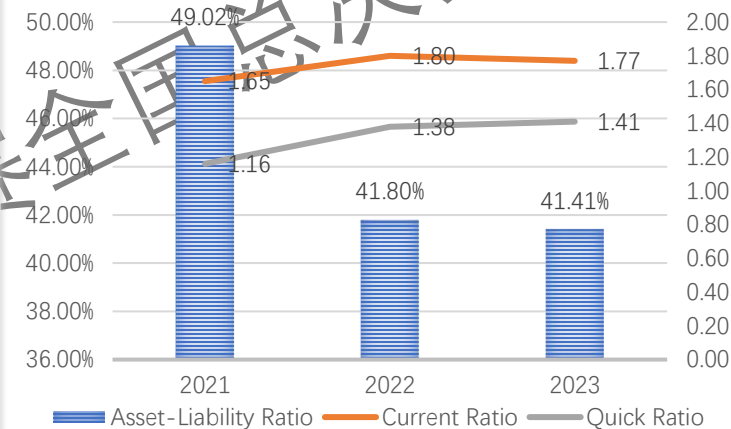
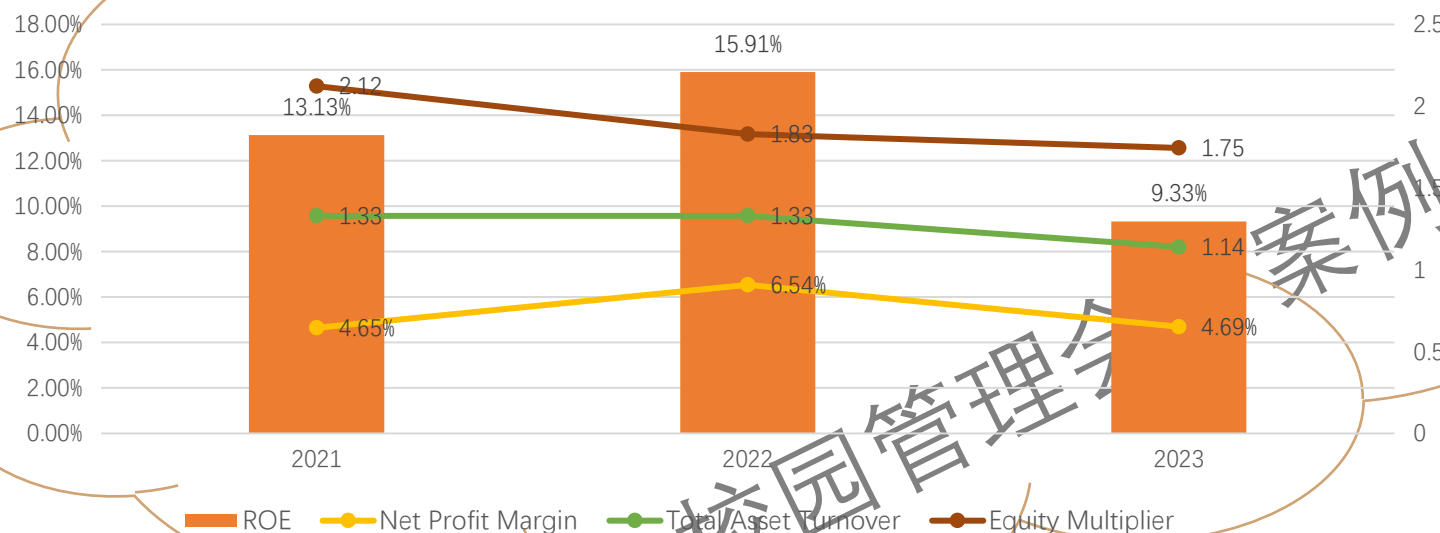
Selling Expenses

OBM brand promotion,
channel expansion
Expanded domestic sales team

Administrative Expenses

New business teams,
organizational complexity

Key Data of DuPont Analysis



No significant short-term liquidity risk
Debt structure remains generally conservative.

Lower Net Margin
 Rising transition costs

Slower Asset Turnover
 IPO-funded capacity, revenue lagging

Reduced Equity Multiplier
 Deleveraging to preserve financing capacity

The decline in ROE only reflects **transformation pains**, not **operational failure**
 Lighting still provides positive cash flow, but IoT needs faster cash conversion .

LED IN CHINA

Market size(RMB
10 billion)

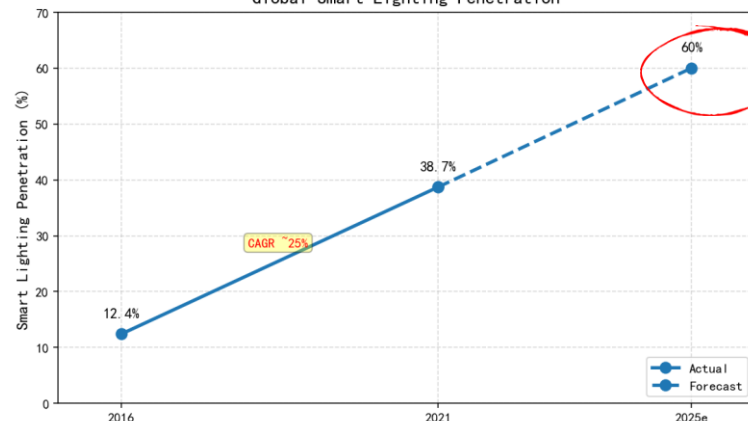
68.23

Penetration rate(%)

76

60 65 70 75 80

Global Smart Lighting Penetration



**LED ceiling reached –
smart lighting is the way out**

LED penetration hit 76% — traditional lighting ceiling reached. Smart lighting penetration: 12.4% (2016) → 38.7% (2021) → >60% (2025e), the only growth path.



Solid financial foundation

ROE 9.22% (above FSL 5.51%). Gross margin up 7pp to 29.76%.



**Industry consensus –
transform or be marginalized**

Global peers (Signify, Osram) & domestic peers (Opple, Yankon) all accelerating IoT. Follow or be marginalized.

Signify

OSRAM

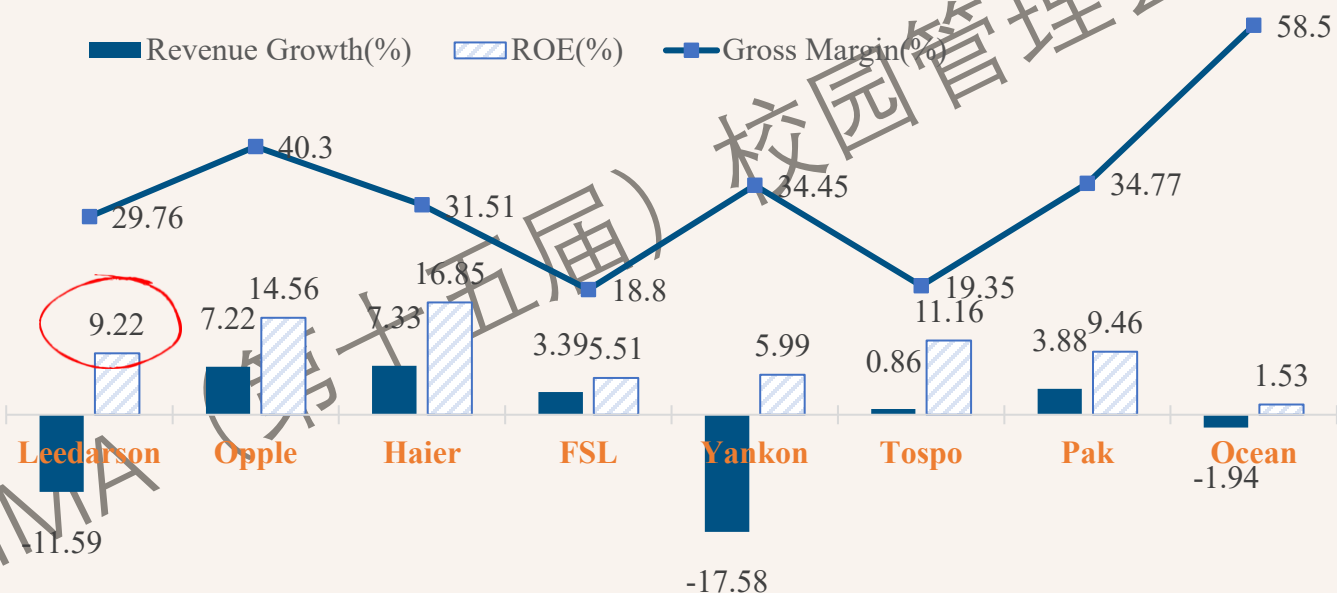
OPPLE

YANKON

Revenue Growth(%)

ROE(%)

Gross Margin(%)



Strategic Judgment

Financial
Analysis

Business Model
& Investment

Risk
& Execution

Cash Flow Panorama

Cash Flow Analysis

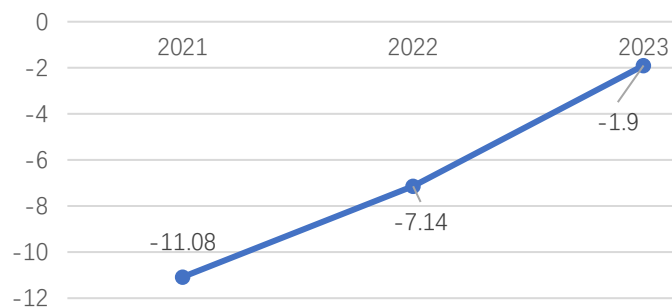
Investing Net Cash Flow

VS

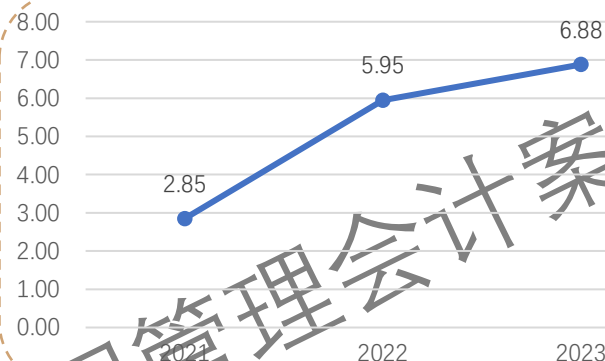
Operating Net Cash Flow

VS

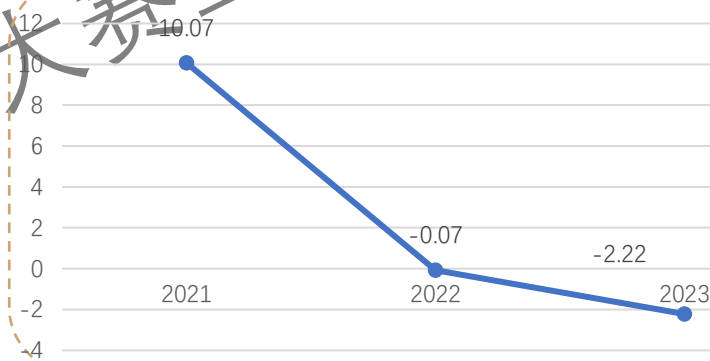
Financing Net Cash Flow



Investment pressure easing
Net investment outflow narrowing.
Capacity build-up pressure easing.



Lighting as the Main Cash Donor
Operating cash flow positive.
Lighting steadily covers IoT investment.



From External Funding to Self-Sustaining
No more financing reliance.
Self-sustaining cycle emerging.



Lighting cash flow : Solid + IoT needs faster turnover.

Profitability

Net margin under short-term transformation cost pressure.

Positive Cash Flow

Operating cash flow positive; lighting business funds IoT.

Substantial Growth Potential

Validated SaaS model with improving cash flow.

Competitive Moat

CSI+V & AI technology build entry barriers.

Should We
Continue Investing
in IoT Business?

The company should maintain long-term investment in IoT, but slow down blind large-scale expansion and improve capital efficiency.

Worth continuing, but
the model must be
transformed.

How to Optimize
Input-Output?

Focused Reusable R&D

Share algorithms to cut R&D cost and lift ROI.

Switch revenue model

Expand SaaS to raise recurring revenue & improve cash flow.

Control expansion & trial cost

Scale after verified; limit trial cost to secure project profit.

Short term: Lighting funds IoT.

Long term: Current investment for future high-value growth.

Part 03

LEEDARSON
Light Smart. Future Smart.

•Business Model & Investment

- Problems of the original business model
- Business Model Innovation
- NPV Analysis
- CVP Analysis

Strategic Judgment

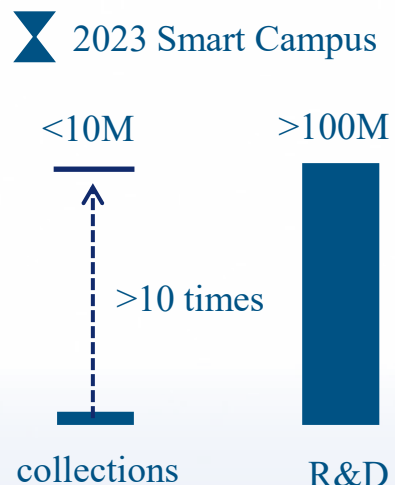
Financial
Analysis

Business Model
& Investment

Risk
& Execution

Problems of the original
business model

Long payback cycle



Low customer stickiness

- ✕ OEM model
- ✕ Customers lost after sale
- ✕ Customers can easily switch to other suppliers

Overseas pressure

- ✕ Tariffs
- ✕ Price war
- ✕ while still funding IoT

One-time revenue

- ✕ Hardware sold once
- ⊗ no recurring cash flow

PROSPECT

1

The original model is unsustainable and needs restructuring

2

shift IoT from cash-burning to self-sustaining

Strategic Judgment

Financial
Analysis

Business Model
& Investment

Risk
& Execution

Business Model
Innovation

Q2: How can business model innovation strengthen the value of the IoT business ?

One-time
Hardware



SaaS
Subscription



Data
Value-added



Unit R&D
Cost Declines

with **cross-scenario algorithm
reuse strategy.**

One-time
Hardware

① Data Entry+Customer Access



② SaaS Subscription

Data Accumulation+Stickiness

Data
Value-added

③ High-margin profit+
competitive barrier

- Three-tier progression.
- Diversified revenue.
- Margin uplift.

Education Scenario
100Schools Replication

reuse

Smart Home Scenario
Algorithm Reuse



R&D cost dilution
reuse rate ↑ ↑ ↑

Strategic Judgment

Financial
AnalysisBusiness Model
& InvestmentRisk
& Execution

NPV Analysis

Data
& Conservative
Assumptions

Item	Symbol	Value
Initial investment	I	RMB 80 million
Project life	n	5 years
Annual net cash inflow	CF	RMB 100 million
Discount rate	r	10%
Residual value	SV	0

Gross profit RMB 200M;
cash flow 100M --
conservatively 100M

2023 ROE 9.33% →
10% as required return

NPV
Formula

Metric	Formula	Value	0?
NPV	$-I + CF * (P/A, 10\%, 5)$	RMB 299 million	>0

NPV > 0 → Project
creates value

Conclusion

“Under the new business model, **long-term financial risk is manageable.**”



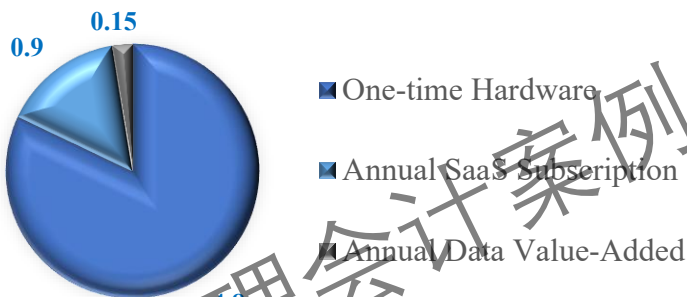
“ If the additional RMB 80M R&D investment in 2024 is fully expensed **in the first year** , will IoT become a profit burden? ”

Source Data

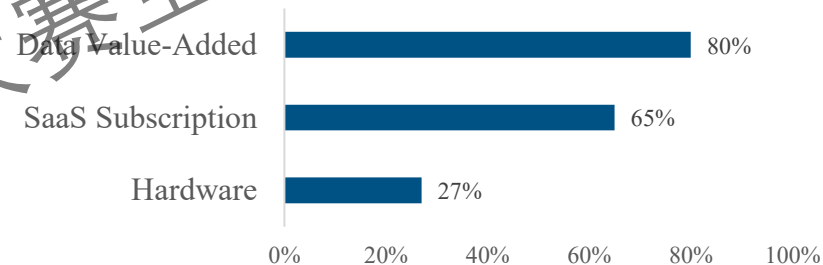
Initial Investment (RMB MILLION)



REVENUE(RMB BILLION)



Gross Margin (%)



Calculated Results

Metric	Value
Total var. cost	RMB 384.9 million
Total CM	RMB 200.1 million
CM ratio	34.2%
BE revenue	RMB 234 million
Avg. rev./school	RMB 5.85 million
BE schools	40 schools

Conclusion

“ Under the new business model, the **break-even point** is only **40 schools** – far below the 100-school target – making **short-term financial risk manageable**. With 40 as the **baseline** and 50 as the **target**, the IoT business can achieve rapid self-sustaining cash generation. ”



Part 04

LEEDARSON
Light Smart. Future Smart.

•Risk & Execution

- Answer Question3
- IMA Competency Framework
- KPI Dashboard for Value Creation
- Sensitivity Analysis & Governance Action
- Stage-gate Investment Mechanism

Strategic Judgment

Financial
Analysis

Business Model
& Investment

Risk
& Execution

Answer Question3

Q3 : How can management accounting support long-term value creation within an ecosystem strategy?

Strategy Decoding

Translate ecosystem strategy into executable business priorities.

Tool:
Strategic planning /
rolling forecast

Allocate IoT investment in stages based on lighting cash-flow capacity.

Tool:
NPV / CVP / Stage-gate budgeting

Resource Allocation

Performance Evaluation

Monitor collection cycle, SaaS renewal rate, and algorithm reuse efficiency.

Tool:
KPI dashboard /
Balanced scorecard

Dynamic Adjustment

Adjust expansion pacing based on sensitivity analysis and operational feedback.

Tool:
Scenario planning /
sensitivity analysis

Risk Management

Control cash-burn, compliance risk, and ecosystem coordination risk.

Tool:
Risk matrix / early-warning indicators

Long-term Value = Cash Flow + Replicability + Sustainability

Management accounting converts ecosystem strategy into sustainable and controllable value creation.

Strategic Judgment

Financial
Analysis

Business Model
& Investment

Risk
& Execution

IMA Competency
Framework

Selected IMA competencies applied to IoT governance

Support ecosystem transformation and staged expansion.

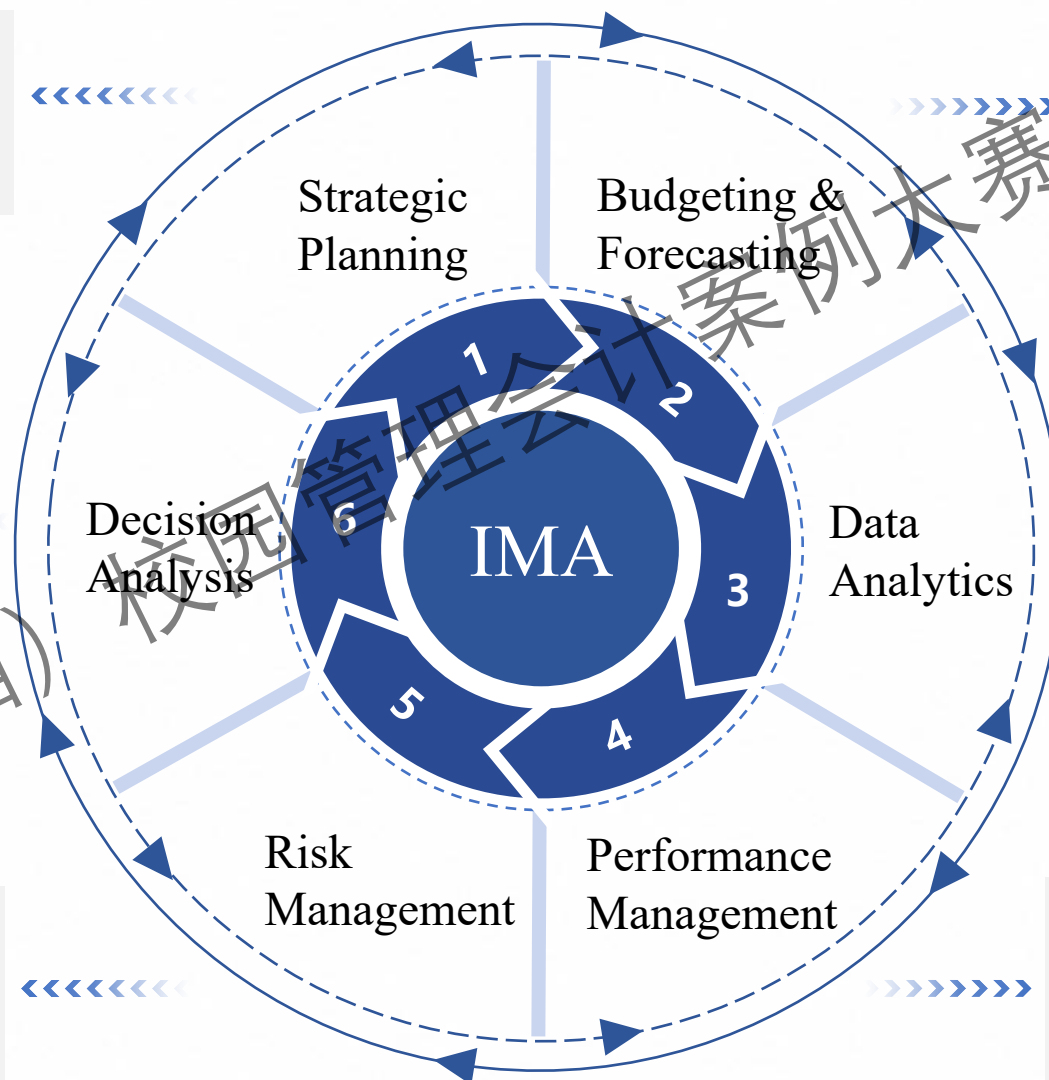
Allocate IoT investment based on lighting cash-flow capacity.

Evaluate the feasibility of IoT projects and expansion plans.

Conduct sensitivity analysis and scenario simulation.

Control liquidity, compliance, and ecosystem risks.

Monitor SaaS renewal, collection cycle, and profitability.



Strategic Judgment

Financial
Analysis

Business Model
& Investment

Risk
& Execution

KPI Dashboard for
Value Creation

KPI is a test of whether technological investment is really transformed into long-term value.

Financial Value

¥

- Operating Cash Flow
- Payback Period
- Recurring Revenue %

Customer Value

C

- Renewal Rate
- Customer Retention
- School-level Savings

O

- Deployment Cycle
- Model Reuse Rate
- Delivery Quality

Operational Value

G

- Collection Rate
- Compliance Incidents
- Budget Variance

Governance Value

KPI

IoT Cash Burn $\leq 40\%$
of Lighting OCF

SaaS revenue
 $\geq \text{¥} 21\text{M}$

collection
 $\geq 80\%$

payback
 ≤ 24 months

4 key sensitive variables

---• **SaaS Conversion**

Low conversion delays monetization.

---• **Collection Efficiency**

Long cycles increase liquidity pressure.

---• **Renewal rate**

Low renewal weakens recurring revenue.

---• **Algorithm Reuse**

Low reuse increases marginal cost.

High Impact
Cash-flow risk
SaaS conversion risk

Medium Impact
Data privacy risk
Replication risk

Governance Actions

✓ **Stage-gate Budgeting**

✓ Release investment by collection milestones.

✓ **Conversion & Renewal Tracking**

✓ Monitor SaaS activation and renewal performance.

✓ **Compliance Governance**

✓ Strengthen lifecycle data auditing.

✓ **Reuse Assessment**

✓ Evaluate replication efficiency before expansion.

Long-term value depends on whether technology can be monetized, recovered, retained, and replicated.

Strategic Judgment

Financial
Analysis

Business Model
& Investment

Risk
& Execution

Stage-gate Investment
Mechanism

Set an IoT cash-burn ceiling linked to lighting cash flow, and track it as a monthly red-line indicator.

The budget should **not be invested at once**, but should be linked to the **value verification results**.

The third stage: 1000 Schools

Replication、Long-term Growth

- Recurring revenue rises
- Cash flow contribution grows
- Data value-added expands

The first stage: 50 Schools

Validate Model、Verify Cash Flow

- SaaS revenue $\geq$ ¥21M
- Collection $\geq$ 80%
- Cash flow turns positive

The Second stage: 200 Schools

Scale-up、Cover Investment

- Payback $\leq$ 24 months
- Reuse rate $\geq$ 70%
- Renewal rate $\geq$ 70%

Stage-gate Investment Mechanism



Final Conclusion: The Core Logic of LEEDARSON's IoT Transformation

Sum 1

Strategic Conclusion

- Continue IoT transformation, but avoid blind expansion.
- Shift from hardware sales to three-tier revenue model value-added.
- Expansion must follow cash-flow verification.

$$\textbf{\textit{Sustainable Ecosystem Value}} = \textbf{\textit{Monetization + Cash Flow + Replicability + Governance}}$$



Sum 2

Management Accounting Conclusion

- Use red lines to control liquidity risk.
- Use sensitivity analysis to guide adjustment.
- Use stage-gates to decide when to expand.

IoT transformation is ultimately not only a technological upgrade, but also a sustainable value governance process.

Thank you !

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Key Financial Ratios Formulas

ROE (Return on Equity)

The product of three core drivers of profitability: Net Profit Margin, Total Asset Turnover, and the Equity Multiplier.

Formula: Net Profit Margin × Asset Turnover × Equity Multiplier

Total Asset Turnover

Evaluates how efficiently a company uses its assets to generate sales revenue.

Formula: Revenue / Average Total Assets

Avg Assets = (Beginning Assets + Ending Assets) / 2

Current Ratio

Assesses a company's ability to pay short-term obligations (due within one year) with its short-term assets.

Formula: Current Assets / Current Liabilities

Net Profit Margin

Measures how much profit is generated per dollar of revenue, indicating operational efficiency and pricing power.

Formula: (Net Profit / Revenue) × 100%

Equity Multiplier

A measure of financial leverage, showing the proportion of assets financed by shareholders' equity.

Formula: Total Assets / Total Equity

Quick Ratio (Acid-Test)

A more stringent measure of liquidity that excludes inventory, as it is considered the least liquid current asset.

Formula: Quick Assets / Current Liabilities

Quick Assets = Current Assets - Inventory