

LEEDARSON's Choice

——IMA(15th) Campus Management Accounting Case Competition



Group Name: Pioneer

Group Number: DB20254944

Group Member: Kelsie, Zephyr,
Meria, Charlotte, Felix

立达信
LEEDARSON

校园管理会计案例大赛全国总决赛作品

IMA (第十五届)



Group member

Pioneer

LEEDARSON

1

Project Leader



Kelsie

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Strategy
Consultant



Zephyr

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Business
Consultant



Meria

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Management
Accountant



Charlotte

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Management
Accountant



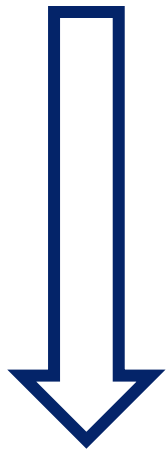
Felix

	Business	2021	2022	2023
Revenue (%)	Traditional Lighting	71.95	66.86	61.70
	IoT Business	23.46	27.81	27.86
Gross Margin (%)	Traditional Lighting	23.55	26.93	32.71
	IoT Business	21.71	25.62	27.09



Leedarson's growth engine is gradually shifting from traditional manufacturing to IoT business.

	Indicator	2022	2023
Profitability	Overall Net Profit Margin (%)	6.54	4.69
	Weighted Return on Equity (ROE) (%)	15.91	9.33
Operational Efficiency	Accounts Receivable Turnover (times)	6.79	6.25
	Net Operating Cash Flow (100 million yuan)	9.3	4.7
Growth Capacity	Operating Revenue Growth Rate (%)	16.68	-11.59
	Net Profit Growth Rate (%)	64.04	-36.55



(All data are derived from cases)



Should Leedarson slow down the
development of its IoT business?

NO!



01

Financial Analysis

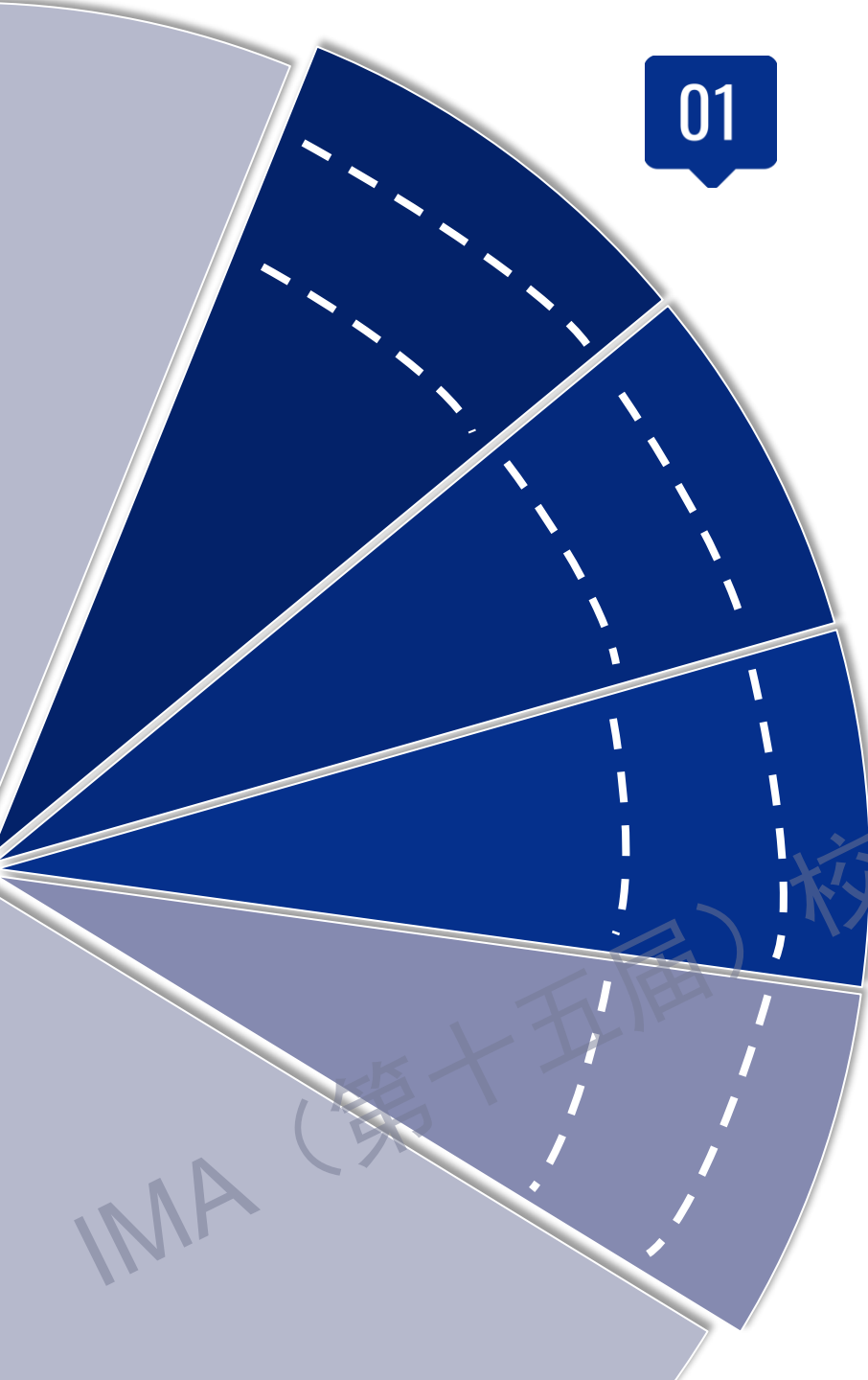
02

Sustainability & Competitiveness

03

Business Model Innovation

04

**Management Accounting System**

Financial Analysis



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Current
Position

R&D Investment in AIoT

¥ 416M



Total Investment

55%



High fixed cost investment:

Algorithm development

Data accumulation

Cloud platform construction



Its operating
leverage (DOL)
has significantly
increased.

Degree of Operating Leverage
(DOL)

$$= 1 + \frac{\text{Fixed Costs (FC)}}{\text{Operating Cash Flow(OCF)}}$$

Not reach scale:

Profits are suppressed



Reach scale:

Profits are released rapidly

**If Leedarson slow down
the investment in IoT business...**

- *Profitability remains weak*
- *Fixed costs cannot be diluted*
- *Cash flow pressure stays high*

But when the company continues making structured investment...

Current smart-campus model



50 schools

Already deployed



¥ 21M

Subscription revenue



Expansion assumption



100 schools

Already deployed



¥ 90M

Subscription revenue

Over ¥ 100M

Net cash inflow

(All data are derived from cases)



Index Analysis

Indicator	A ROI	B Payback	C IRR
Analysis	R&D investment ≈ ¥ 80M Incremental annual cash inflow > ¥ 100M	Static payback period < 1 year	Replicable smart — campus model Recurring subscription revenue Stable and continuous cash inflow
Formula	ROI = 100 M / 80 M = 125%	Payback Period = $\frac{\text{Initial Investment}}{\text{Annual Net Cash Benefit}}$	$IRR = NPV(r) = \sum \left(\frac{C_t}{(1+r)^t} \right) = 0$
Conclusion	This level is already significantly higher than the average level of traditional manufacturing industries.	Much lower than traditional manufacturing standard	✓ IRR > WACC (Weighted Average Cost of Capital) Fully meets the conditions for value investment

Sustainability &



Competitiveness

2



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Sustainable Income

Organizational Ambidexterity + Full-Life Cycle Value (LTV)

LTV

Traditional

=

One-time lamp sales revenue

-

Customer acquisition cost

IoT

=

Hardware revenue

+

Subscription fees

+

Value-added service revenue

Growth

Traditional

=

Continuous acquisition of new customers

IoT

=

Sustained value tapping of existing customers

ESG Sustainability

National Strategies

+

Long-Term Policy Dividends

- Slash energy use
- Support: Dual-carbon goals
Global low-carbon trends

30%

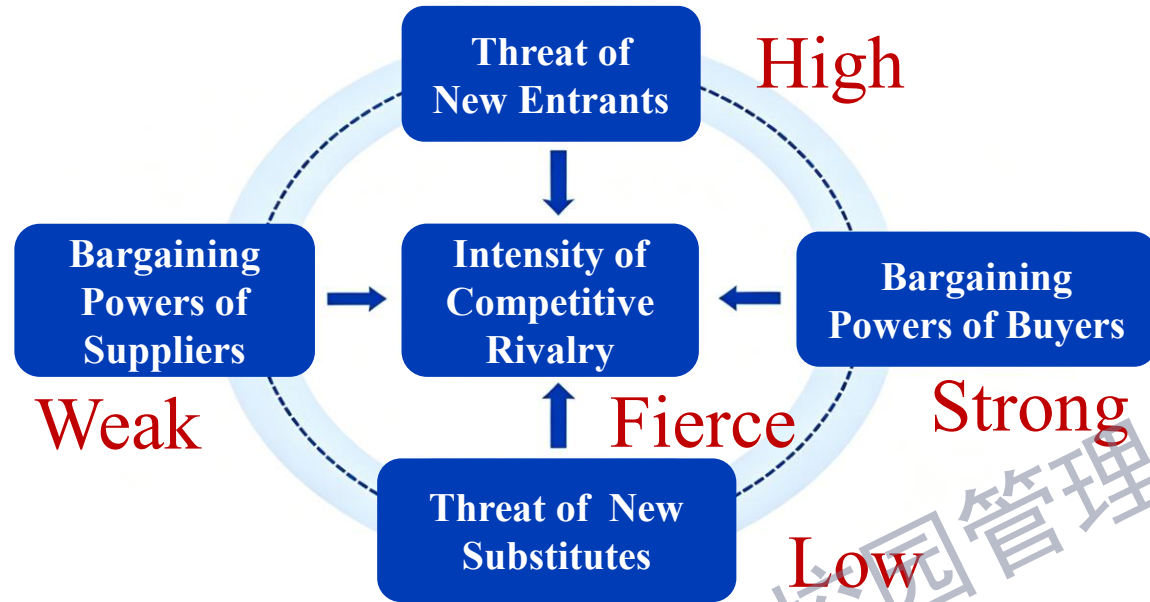


- Serve **71M** teachers and students
- Boost educational equity and learning environment quality
- Deliver profound social value

- IoT advances digital, platform-based and data-driven governance
- Improve internal control and decision efficiency to sustain steady corporate governance

Strategic Competitiveness

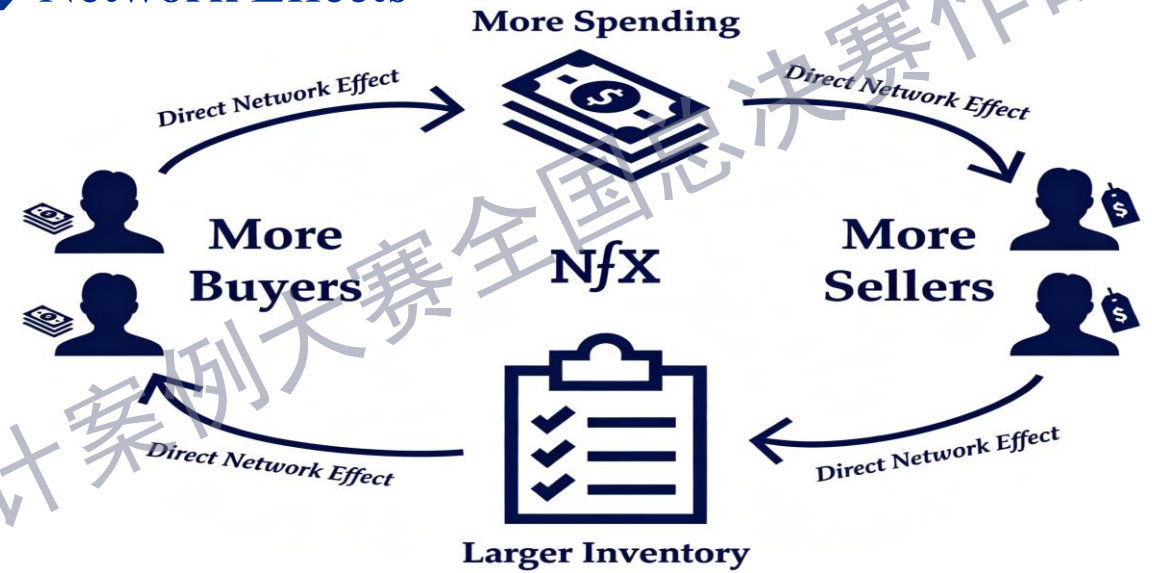
Porter's Five Forces Modles



New Entrants	Low-end lighting fixtures, High-end smart ODM
Substitutes	LED lighting, Laser lighting
Suppliers	LED chips, Smart sensors
Buyers	Overseas clients, Education clients
Rivalry	Traditional lighting OEM, Cross-border players

(Porter, M. E., 1979)

Network Effects



VRIO

Value	 End-network-cloud-application full-chain technology
Rarity	 Smart campus cases covering 30 provinces
Imitability	 Synergy capability of hardware supply chain and IoT solutions
Organization	 Organizational system from R&D to delivery to fully leverage these strengths

(Barney, J. B, 1995)

Business Model Innovation



3



IMA

(第十五届)

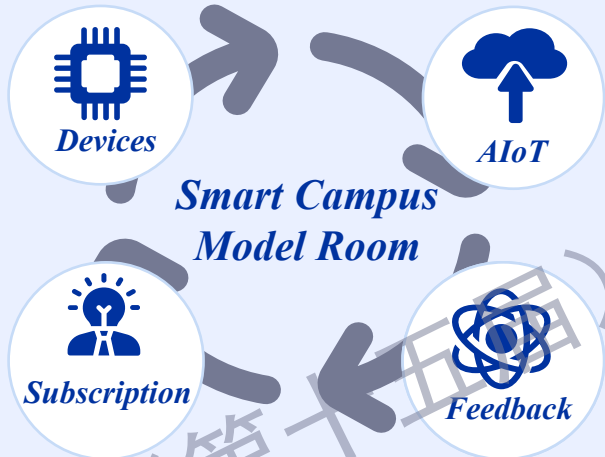
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Strategic Reframing

Smart Campus POC



Verified Value Logic



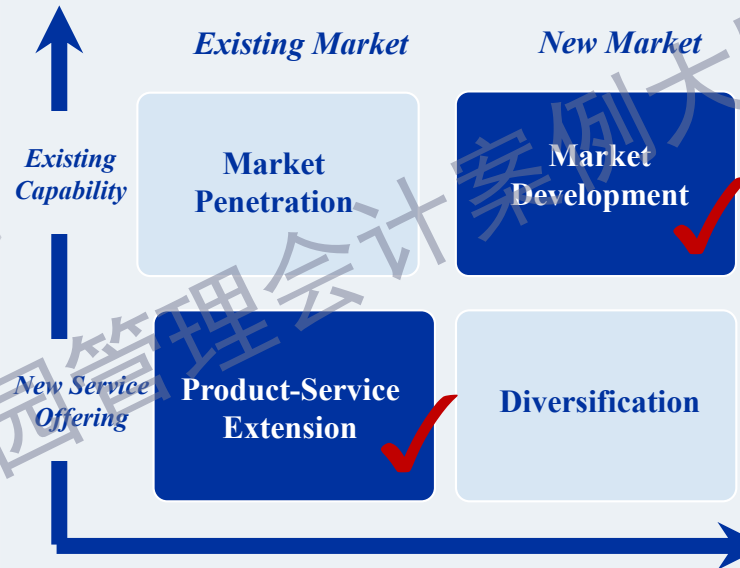
Smart Campus
Model Room

Hardware + Platform + Service + Data

From Smart Campus POC to Multi-scenario AIoT Platform

AIoT Capability Engine

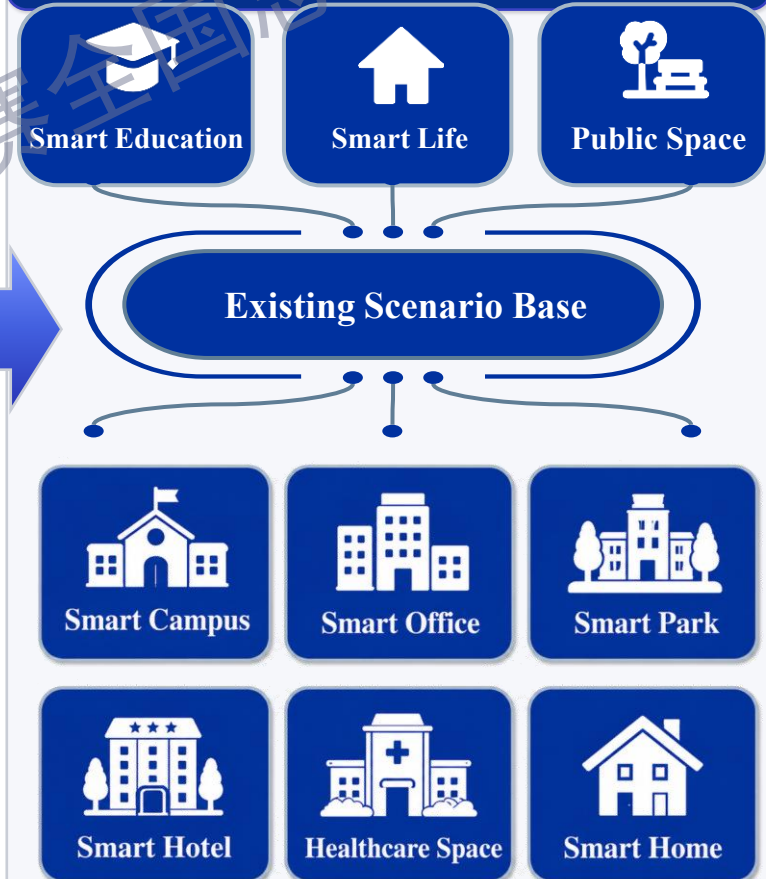
Ansoff Logic



Related extension based on
existing AIoT capabilities

(Ansoff, 1957)

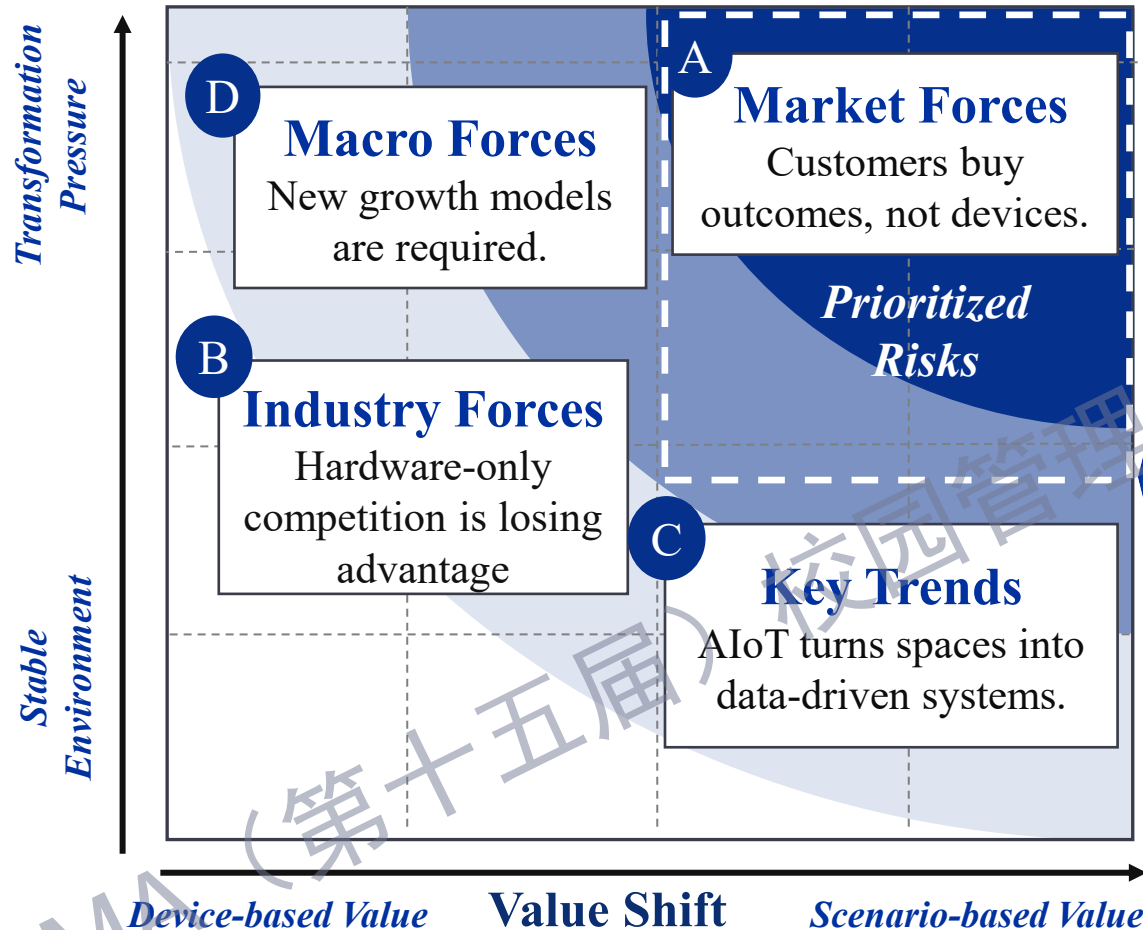
Multi-scenario Smart Spaces



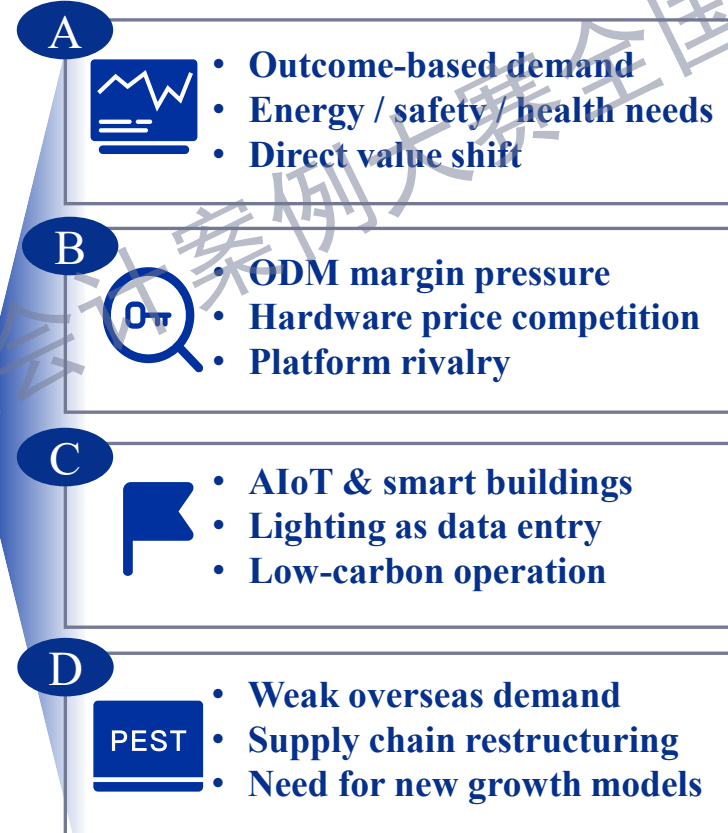
Smart campus validates the model, while disciplined replication scales its value.

External Pressure × Value Shift Matrix

Why Leedarson must move from product sales to scenario operation



Strategic Implications | From external drivers to business model shift



Device Entry

Platform Connection

Service Monetization

Ecosystem Scale

(Johnson, Christensen and Kagermann, 2008)

External forces are pushing Leedarson from device delivery to scenario-based value creation.

Platform Modularization Mechanism

How AIoT capabilities become reusable service modules

To B Smart Management

Reusable Module HubPlatform

To C Smart Life



Campus | Office | Park | Hotel | Healthcare

Energy Efficiency

Operational Safety

O&M Efficiency

Space Utilization

Lighting Control



Sensing
& Data Collection



Home | Family | Personal Living

Healthy Lighting

Home Security

Elderly Care

App Services

AIoT Platform
Core

AI Analytics



Energy
Management



Safety & Alert



Operation & Maintenance

Scenario Inputs → Platform Modules → Service Outputs

Reusable modules turn diverse needs into scalable platform value.

Competitive Benchmarking

Smart-space leaders are shifting from devices to platforms and services

1 AIoT Scenario Platform

HIKVISION

What it improves

Devices as entry points
Scenario-based management

Devices → Scenario → Services

AIoT service extension

*Smart devices become entry points
for campus, park and office services*

2 Products to Solutions Platform

OPPLE LIGHTING

What it improves

From products to solutions
Design + delivery services

Products → Solutions → Value

Health & space value

*Lighting becomes health,
comfort and space-value solutions*

3 AIoT and Ecosystem

tuya

What it improves

Device connection

Devices → Platform → Ecosystem

Cloud
Ecosystem

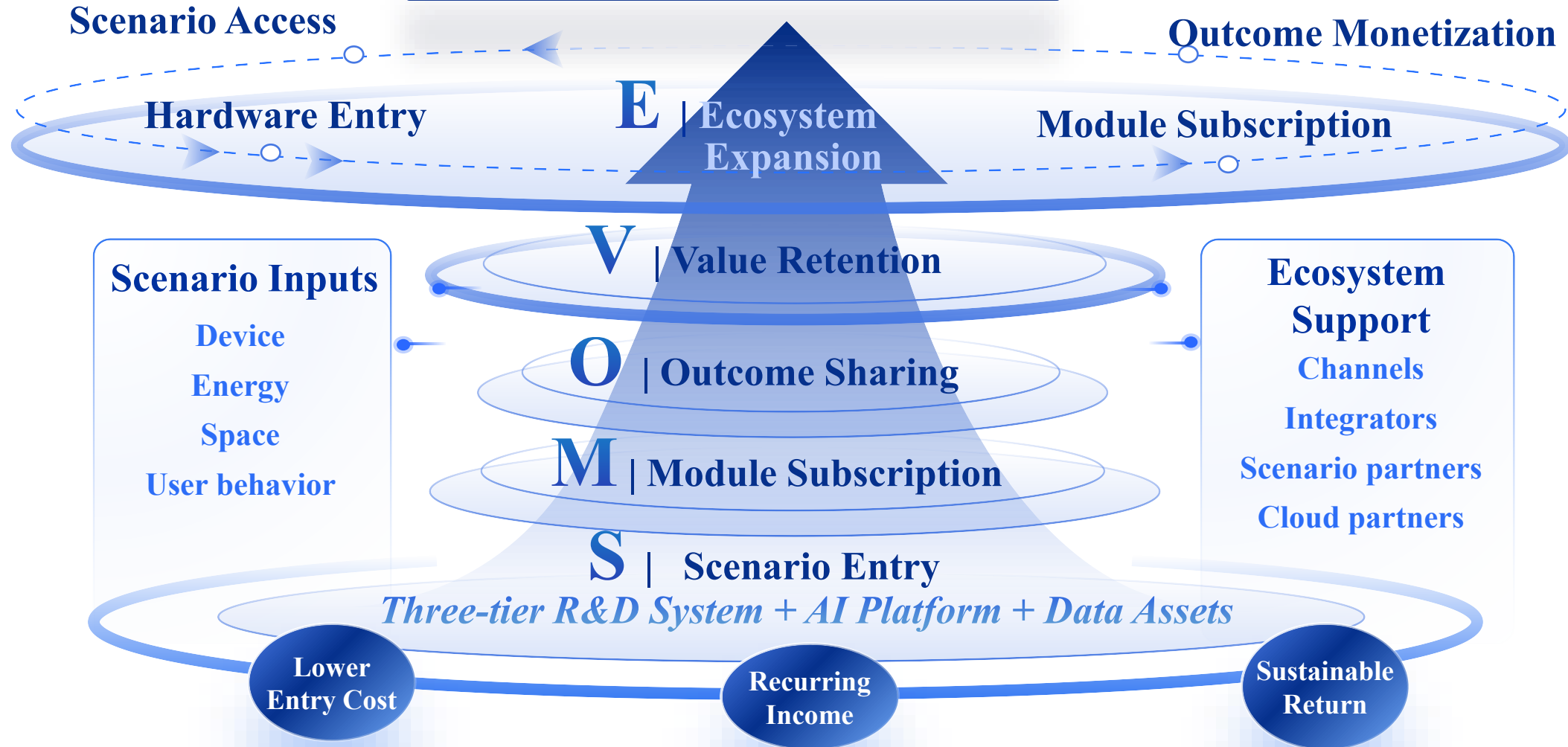
*Ecosystem partners
smart home and scene*

(Hikvision, 2023; OPPLE Lighting, 2026; Tuya Smart, 2025)

IoT competition is moving beyond device volume toward scenario access, data accumulation and service ecosystem.

S-MOVE Business Architecture

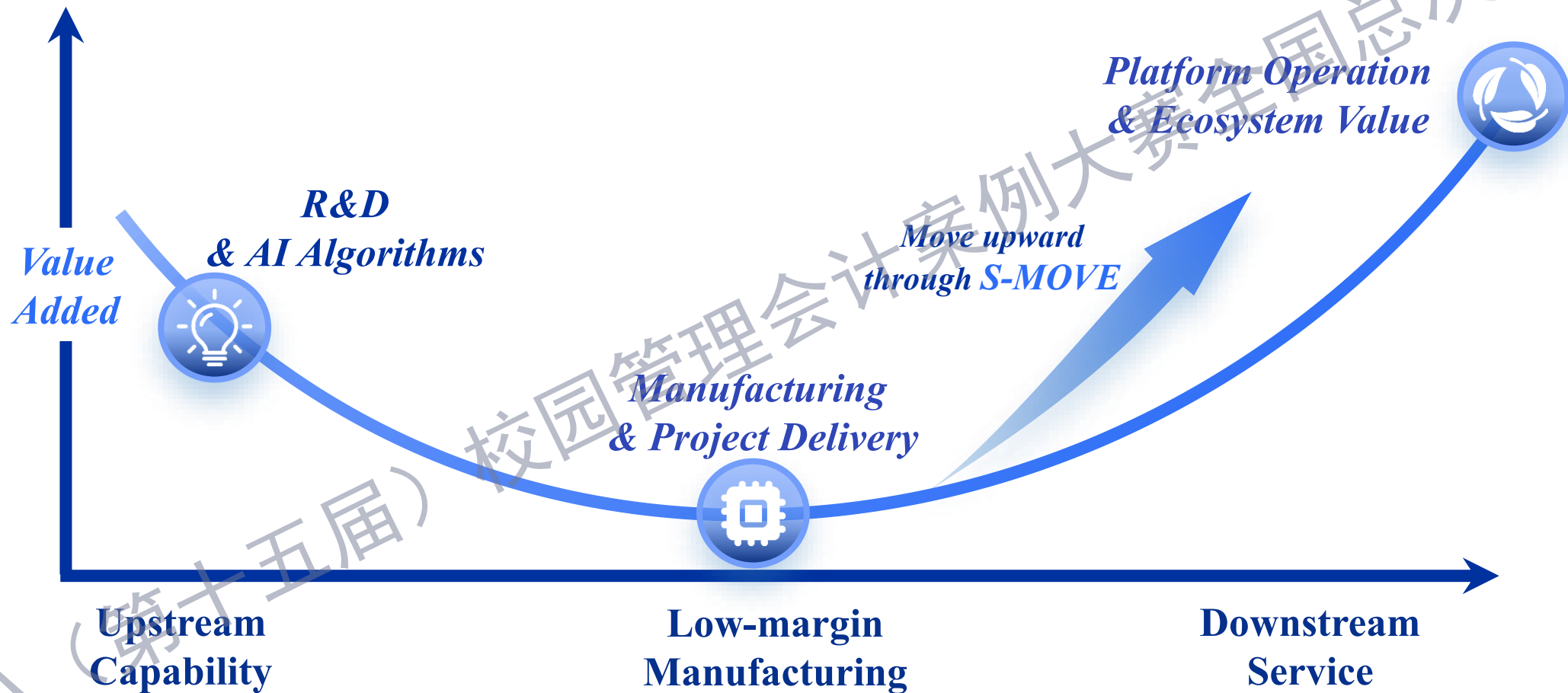
From scenario access to recurring AIoT value



Device Sales → *Recurring Income* + *Sustainable Returns*

Smile Curve: Value Migration Path

Moving from hardware delivery to platform operation and ecosystem value



(Shih, 1996; Mudambi, 2008)

Value shifts from hardware margin to platform, data and ecosystem value.

Scenario Portfolio Operating System

Managing AIoT scenarios by role, value and execution certainty

Three Horizons Scenario Portfolio

Strategic Experiment

Future Option



Healthcare

High-value but high-compliance learning field

Growth Option

Emerging Growth



Hotel

Home

Channel-led Expansion + Experience-driven Services

Cash Engine

Core Business



Campus

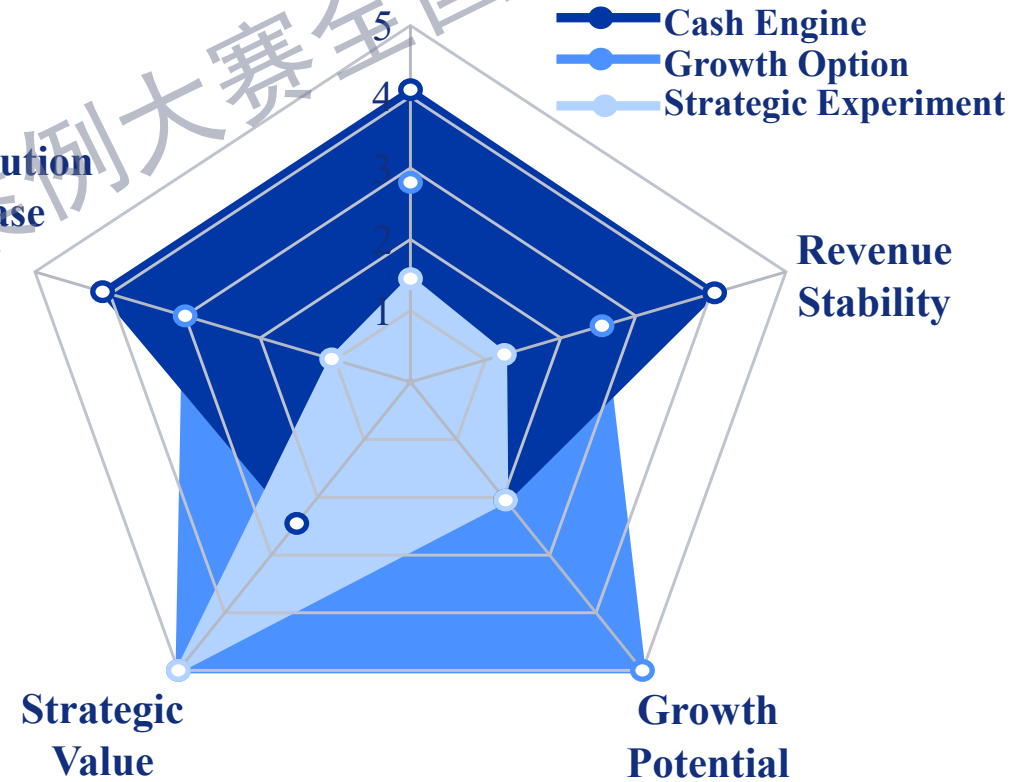
Park

Office

Standardized modules + recurring B2B revenue

Capability Fit

Execution
Ease



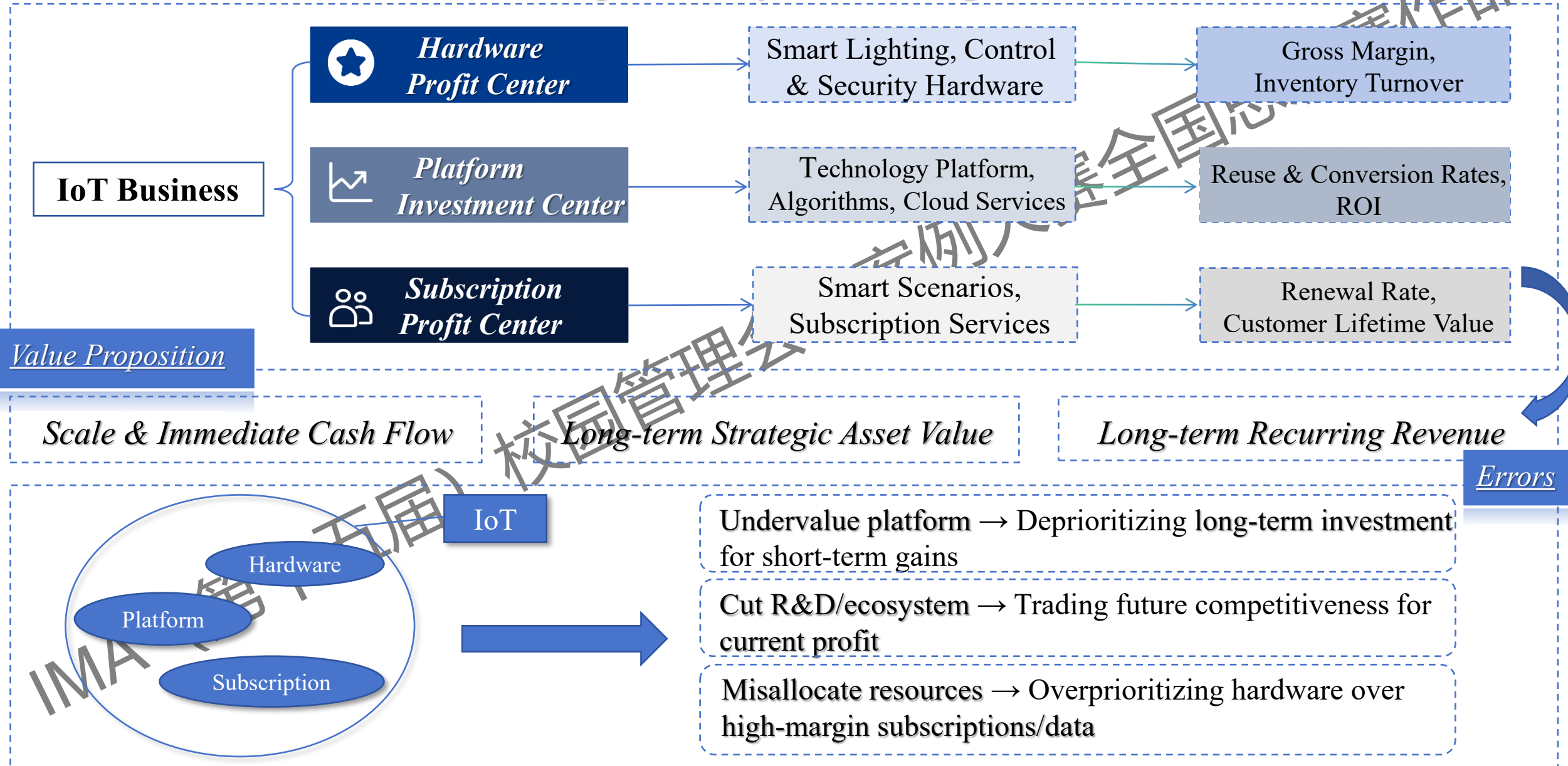
(McGrath, 1997; Markowitz, 1952)

Different scenarios need different roles, rhythms and controls.

Management Accounting System



SBU Responsibility Accounting Framework



Tiered Cash Flow Model

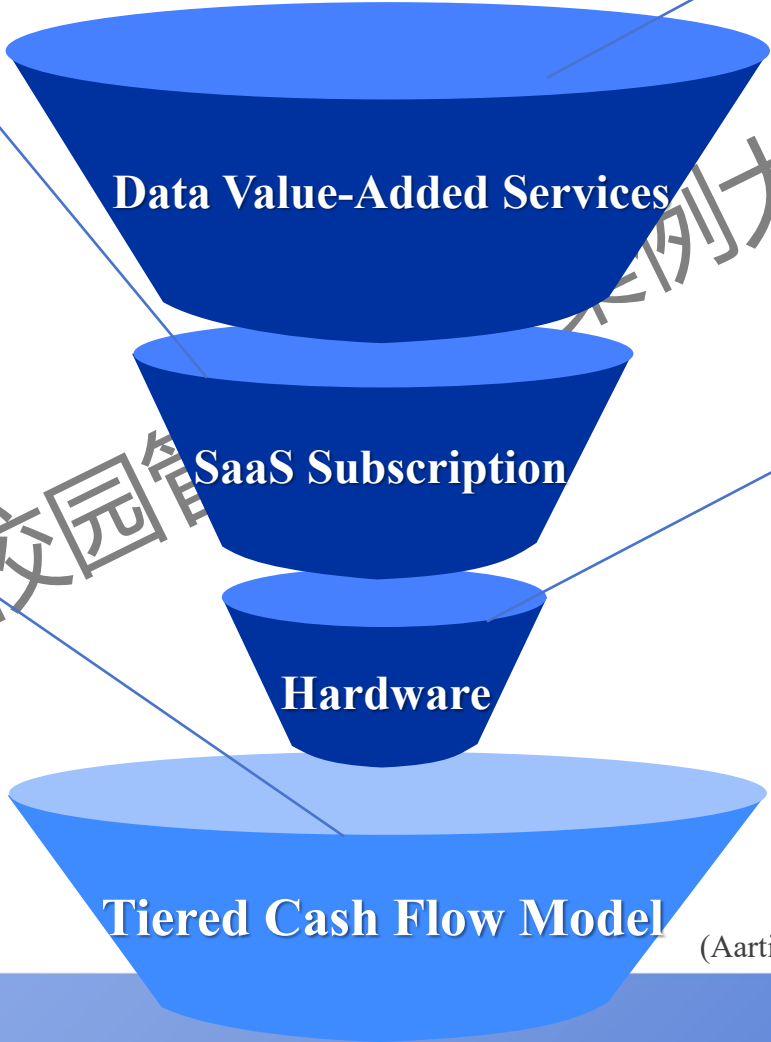
100-School Scenario			
Layer	Revenue	GM	Role
Hardware	¥480M	27%	Entry cash
SaaS	¥90M	65%	Recurring revenue
Data services	¥15M	80%	High-margin option

- 

Hardware: Cash flow support & R&D risk hedge
- 

Supports dual-core strategy & ecosystem expansion
- 

Profits fuel tech upgrade & innovation cycle



Three Core Accounting Topics

Cash Collection Timing

Risks Allocation

Low Cost Scaling

- Layered gross margin accounting & accurate ROI tracking
- Risk-return alignment & operational resilience
- Cross-scenario algorithm reuse & falling marginal cost

(Aarti Dhapte, 2025)

R&D Reuse Accounting Model

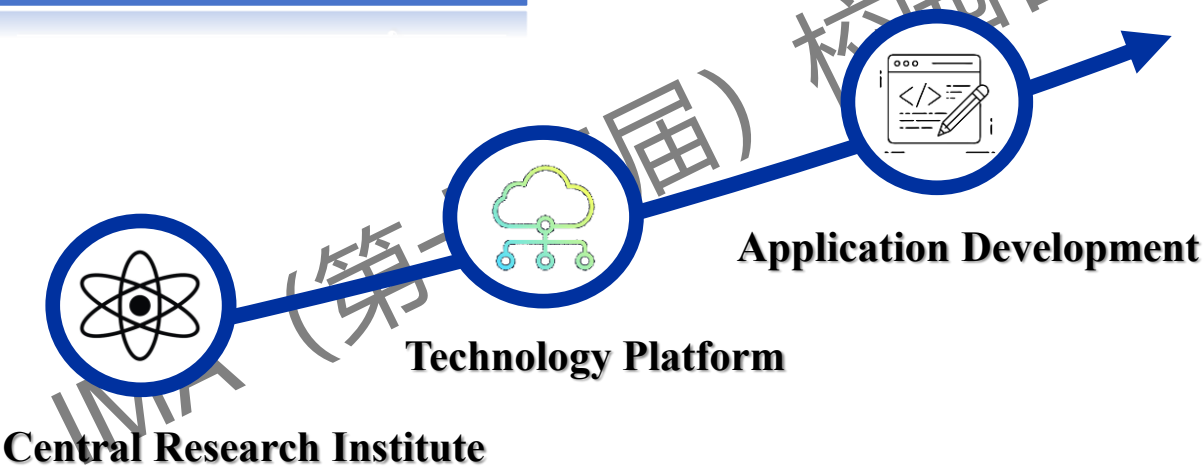


Algorithm Reuse Ratio = $\frac{\text{Reused Algorithm Modules/Lines}}{\text{Total Algorithm Modules/Lines}} \times 100\%$

R&D Commercialization Rate = $\frac{\text{Revenue from R&D Achievements}}{\text{Total Operating Revenue}} \times 100\%$

R&D Payback Period = $\frac{\text{Total Initial R&D Investment}}{\text{Average Annual Net Benefit}}$

Three-tier R&D System



Forward-looking Basic R&D (Platform AlgorithmLayer)

Capitalized into tech asset pool, amortized across projects to fit long payback cycles.

Customized Application Development (Scenario Layer)

Recorded as current costs, tight single-project ROI control, cut low-value R&D waste.

General Technology Development (Shared Modules)

Capitalized assets under unified management, deployed for high-reuse scenarios, generating compound tech gains.

Dynamic Ecosystem KPI Network

4 KPI groups linked by a cause-effect chain — measuring the full value creation process, not just the final number

FINANCIAL KPIs

Whether value is finally converted?



- Hardware GM%
- SaaS GM%
- Data Value-added GM%
- Project Net Cash Flow
- R&D ROI
- Customer Lifetime Value

OPERATIONAL KPIs

Whether the platform is being used?



- Device Online Rate
- System Usage Frequency
- Service Activation Rate
- Project Delivery Cycle
- Unit Service Cost
- After-sales Response Cost

CUSTOMER KPIs

Whether customers are willing to renew?



- Renewal Rate
- Customer Retention Rate
- Annual Subscription Revenue
- Customer Cost Savings
- Satisfaction Score

ECOSYSTEM KPIs

Do partners expand our capability?



- Partner Revenue Contribution
- Dealer Conversion Rate
- 3rd-party Service Integration Count
- Platform Connected Devices
- Partner Delivery Quality

Device Operation ↑



Service Usage ↑



Renewal Rate ↑



Customer Lifetime Value ↑



Long-term Cash Flow ↑

Stage-gate Rolling Budget & Control Mechanism

"Invest → Verify → Expand or Exit" — strategic spending becomes capital allocation discipline

Pilot

50 Schools pilot →
Market acceptance

Replication

100-school replication
→ **Scalability**

Expansion

Office, Healthcare or Home
→ **Across scenarios**

- **System Usage Rate**
Core metric
- **Subscription Conversion Rate**
Core metric
- **Cash Collection Speed**
Financial gate
- **Cash Flow Break-even**
Financial gate

Stage
1

PASS: All gates met → Proceed

- **Delivery Cost ↓**
Efficiency metric
- **Algorithm Reuse Rate**
Platform metric

Stage
2

- **Service Gross Margin**
Financial gate
- **R&D Amortized CF +**
Financial gate

PASS: Margin stable &
Cash flow positive → Scale

Stage
3

- **Cross-scenario Revenue**
Growth metric
- **Technology Reuse Ratio**
Platform metric
- **Partner Contribution**
Ecosystem metric
- **Long-term CLV**
Value metric

PASS: High reuse & strong
partner delivery → Expand

Each stage has distinct financial and operational gates, and budget is released only when milestones are fulfilled.

Market Feedback & Value Verification Mechanism

Ecosystem strategy must be validated by market data — not just internal planning

01 Scenario Profitability Ranking

Calculate per scenario

- Gross Margin %
- Payback Cycle (months)
- Subscription Conversion Rate
- CLV
- Unit Delivery Cost



A scenario with high margin, fast payback and strong renewal should receive priority.

02

Customer Segment Unit Economics

Calculate per customer type

- CLV / CAC Ratio
- Renewal Rate by Segment
- Service Cost per Customer
- DSO
- Segment Profit Contribution



Segment with high service cost and slow cash collection should be treated carefully.

03 Partner Performance Scorecard

Quantify each partner

- Project Conversion Rate
- Delivery Quality Score
- Cash Contribution Ratio
- After-sales Cost
- Satisfaction Rating



It's valuable only if it improves conversion, delivery quality and cash contribution.

04

Post-investment Review

Compare budget vs. actual

- Budget Cash Flow vs. Actual Cash Flow
- Expected Gross Margin vs. Actual Gross Margin
- Expected subscription rate vs. Actual renewal behavior
- Deviation Analysis
- Feedback → Next Budget Cycle



Capital is moved away from weak projects and reallocated to scenarios with stronger value potential.

Conclusion



SBU Responsibility Accounting

Define who owns what value, separate accountability

Layered Cash Flow Model

Reveal hidden value across hardware, SaaS, and data layers

R&D Reuse Accounting

Treat platform R&D as reusable asset, not period expense

Dynamic Ecosystem KPI Network

Track the full value creation process with cause-effect chain

Stage-gate Rolling Budget

Invest → Verify → Expand or Exit, capital allocation discipline

Market Feedback & Verification

Let the market validate, not just internal planning

Leedarson's AIoT expansion: strategically attractive, financially disciplined, operationally controllable

Summary



5



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Thanks for your listening !

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