

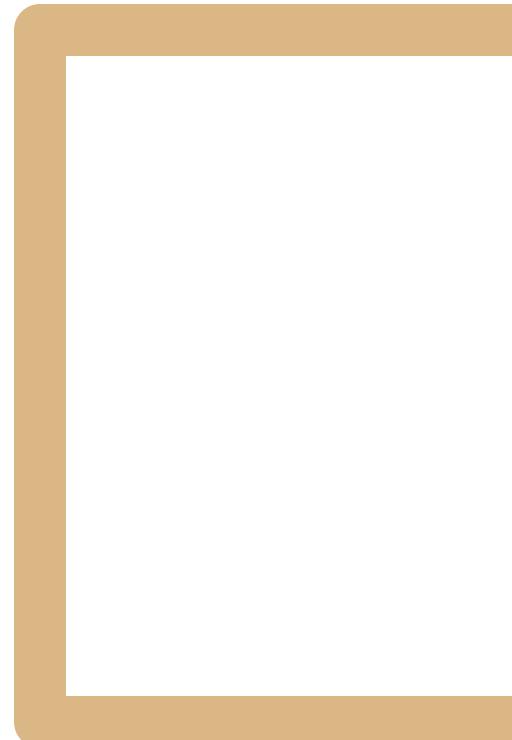
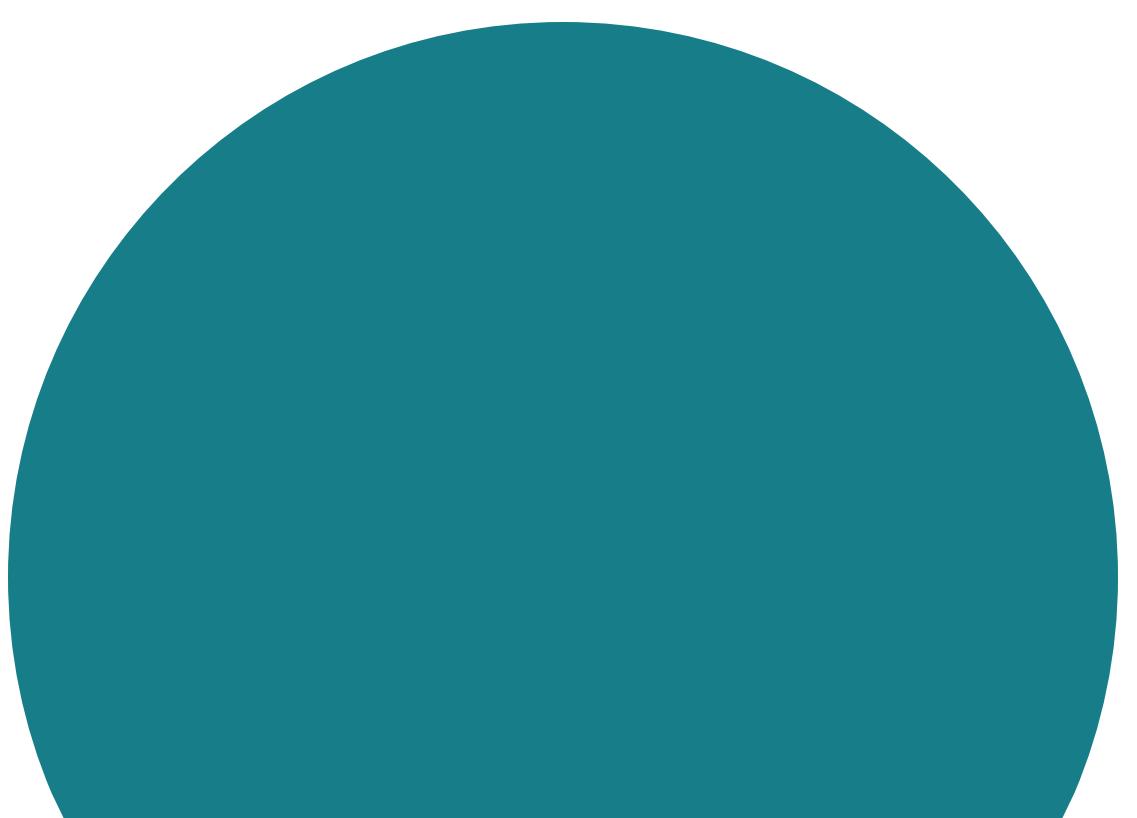
Session 8

Sanjeev Yamsani

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Overview

- Capital Intensive
- Recap of the Course



Capital Intensive

What is Capital Intensive?

- The term “Capital Intensive” refers to business processes or industries that require large amounts of investment to produce a good or service.
- As a result, it discourages Competitors from entering the space.
- These businesses have a high percentage of fixed assets, such as property, plant, and equipment (PP&E).
- High Depreciation and Strong Operating Leverage are key indicators for these Companies.

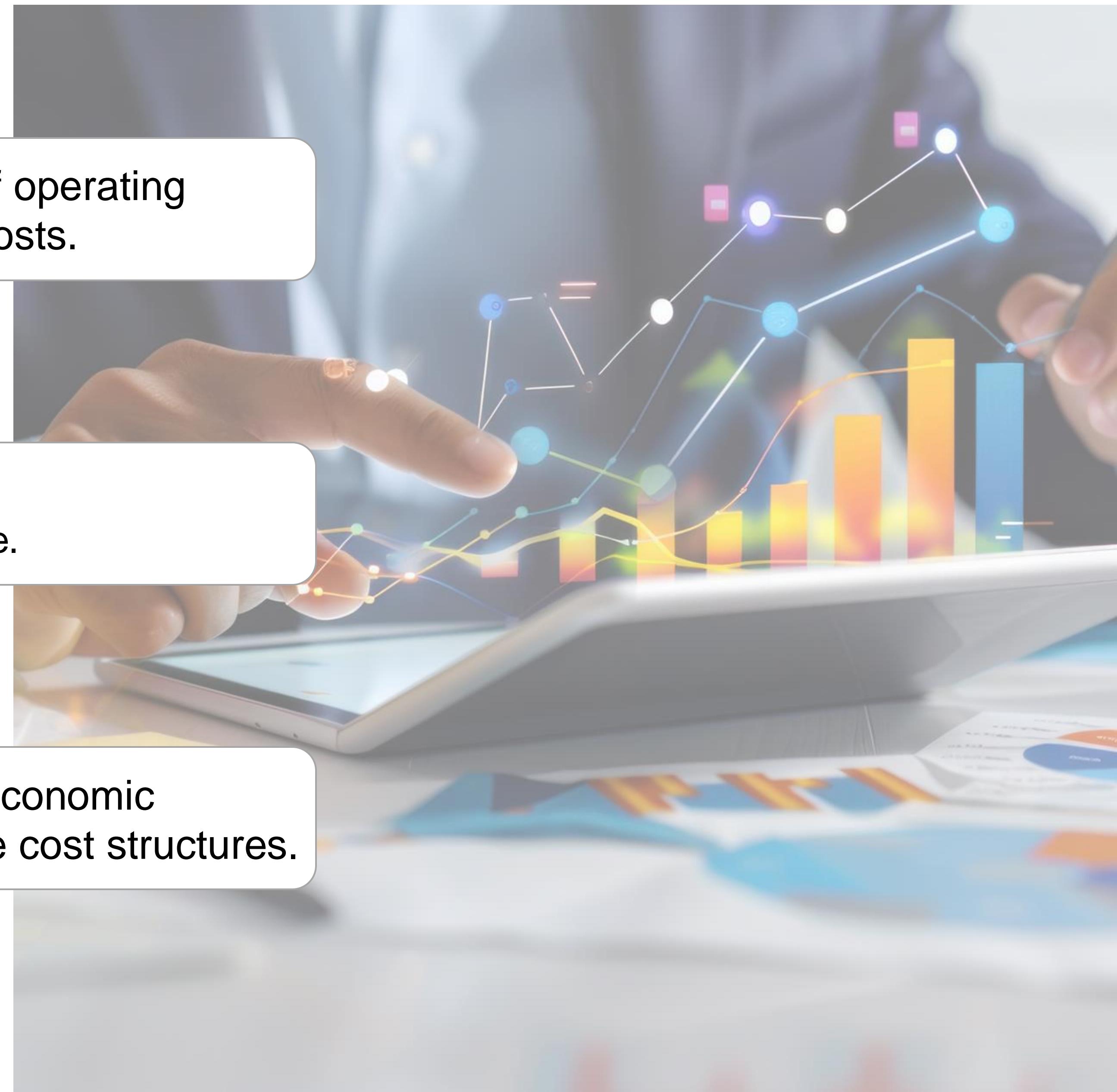


What is Operating Leverage?

Capital-intensive industries tend to have high levels of operating leverage, which is the ratio of fixed costs to variable costs.

Higher the Fixed Costs > the operating leverage.
Every Additional \$ of sales goes straight to the bottom line.

High operating leverage Moat is highly vulnerable to economic slowdowns compared to businesses with high variable cost structures.



Consider Airbus and Boeing

- A duopoly exists in the airline manufacturing space: Airbus and Boeing
- The high capital-intensive nature of the business has kept new competitors at bay
- A significant amount of capital is required for any competitor to build:
 - A prototype
 - Get it approved by regulators
 - Set up a supply chain
 - Get a sufficient number of orders, and so on..

Examples of Capital-intensive Industries

**Airline
Manufacturing**

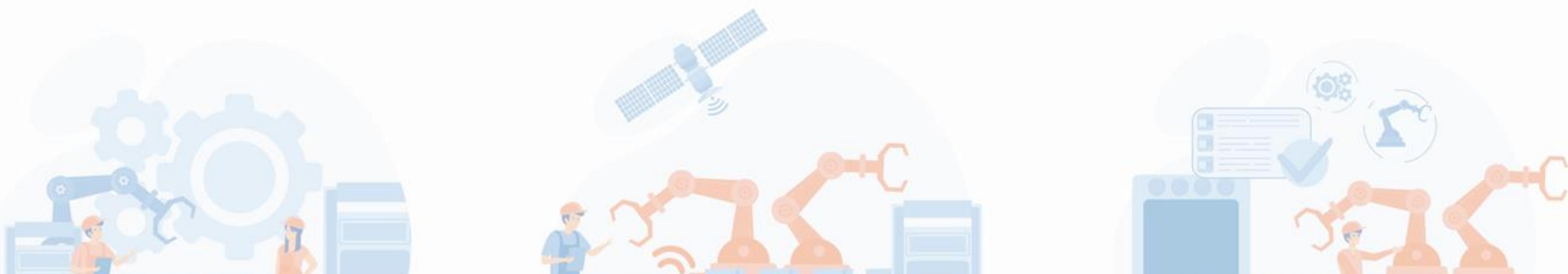
**Automobile
Manufacturing**

**Oil Production
and Refining**

**Steel
Production**

Telecommunications

**Transportation
Sectors
(e.g., Railways,
Airlines)**



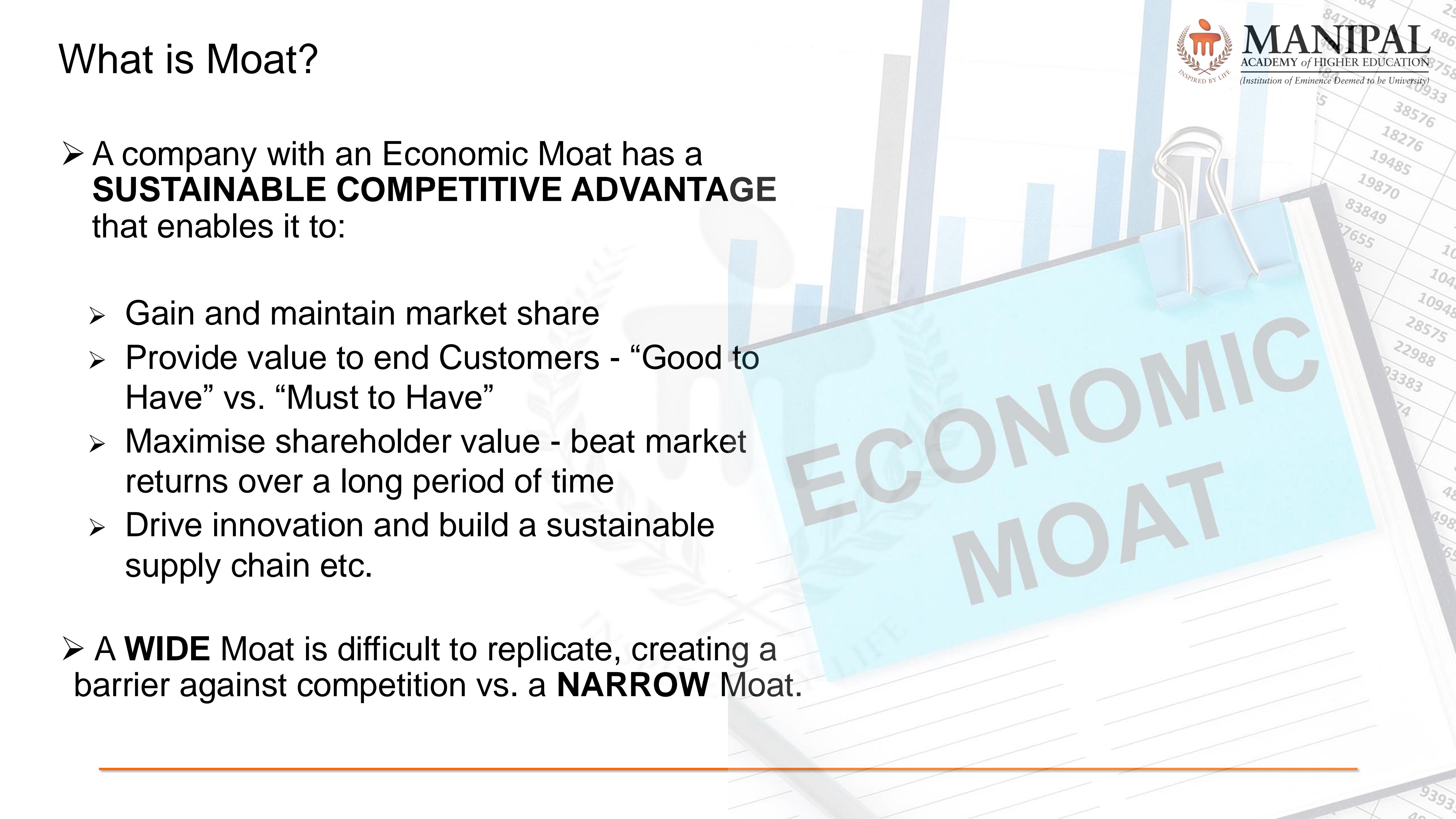


**TIME
FOR
RECAP**

A photograph of a stack of colorful books (yellow, red, orange) in the background. In the foreground, there is a white alarm clock on the left and a silver pen on the right.

What is Moat?

- A company with an Economic Moat has a **SUSTAINABLE COMPETITIVE ADVANTAGE** that enables it to:
 - Gain and maintain market share
 - Provide value to end Customers - “Good to Have” vs. “Must to Have”
 - Maximise shareholder value - beat market returns over a long period of time
 - Drive innovation and build a sustainable supply chain etc.
- A **WIDE** Moat is difficult to replicate, creating a barrier against competition vs. a **NARROW** Moat.



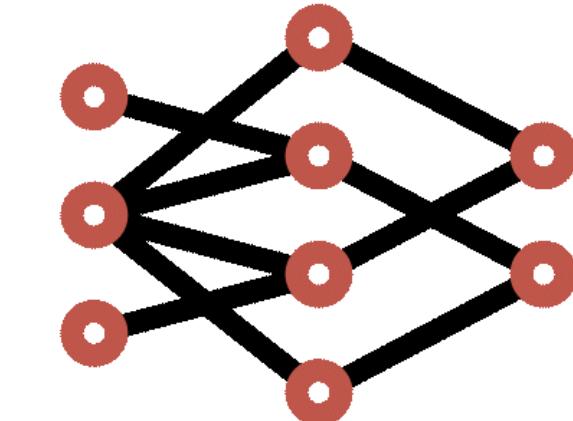
ECONOMIC
MOAT

How to Identify if a Company has a Strong Moat?

“Key Indicators” that “S&P 500® Economic Moat Index” uses:

Indicator	Details
Sustained High ROIC	$\text{Net Income} / ((\text{Total Shareholder Equity } t + \text{Total Debt } t + \text{Total Shareholder Equity } t-1 + \text{Total Debt } t-1) / 2)$ <i>What is the “Average” over the last 5 years?</i>
Sustained High Gross Margins	$(\text{Revenue} - \text{COGS}) / \text{Revenue}$ <i>Gross margin standard deviation over the past five years.</i>
High Market Share	Weighted average revenue in industry hierarchy

In the 20th century, the biggest companies in the world were built on Moats of
“Economies of Scale” or “Government/Regulatory”.



Standard Oil

The company controlled about 90% of all the refineries and pipelines in the United States and could set its own prices.

Moat in Today's World

Today, however, the most durable moats are being built on different types of advantages, such as:

- **Network effects**
- **Data**
- **Repeat engagement within a product ecosystem**

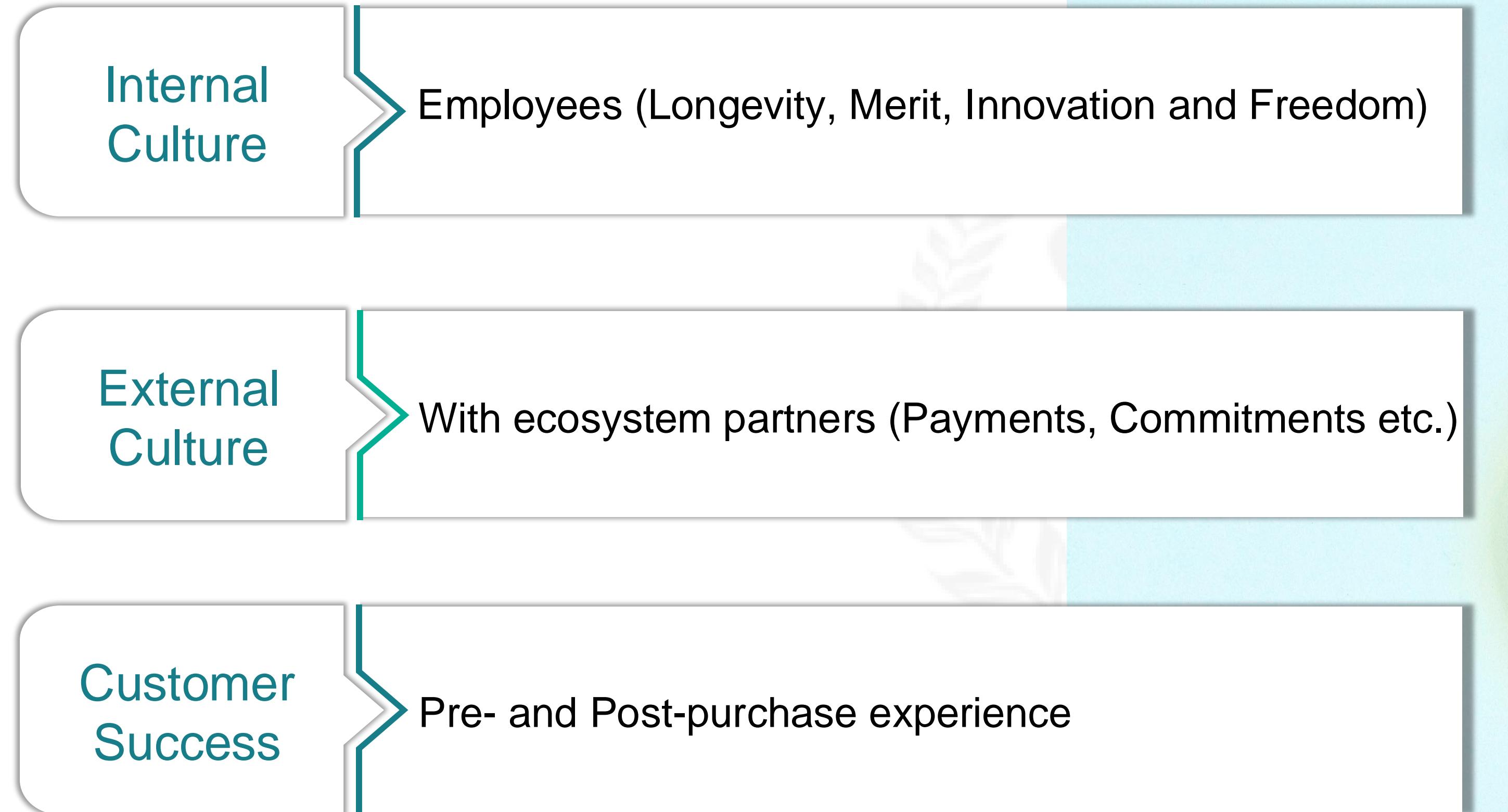


What is Sustainable Scale?

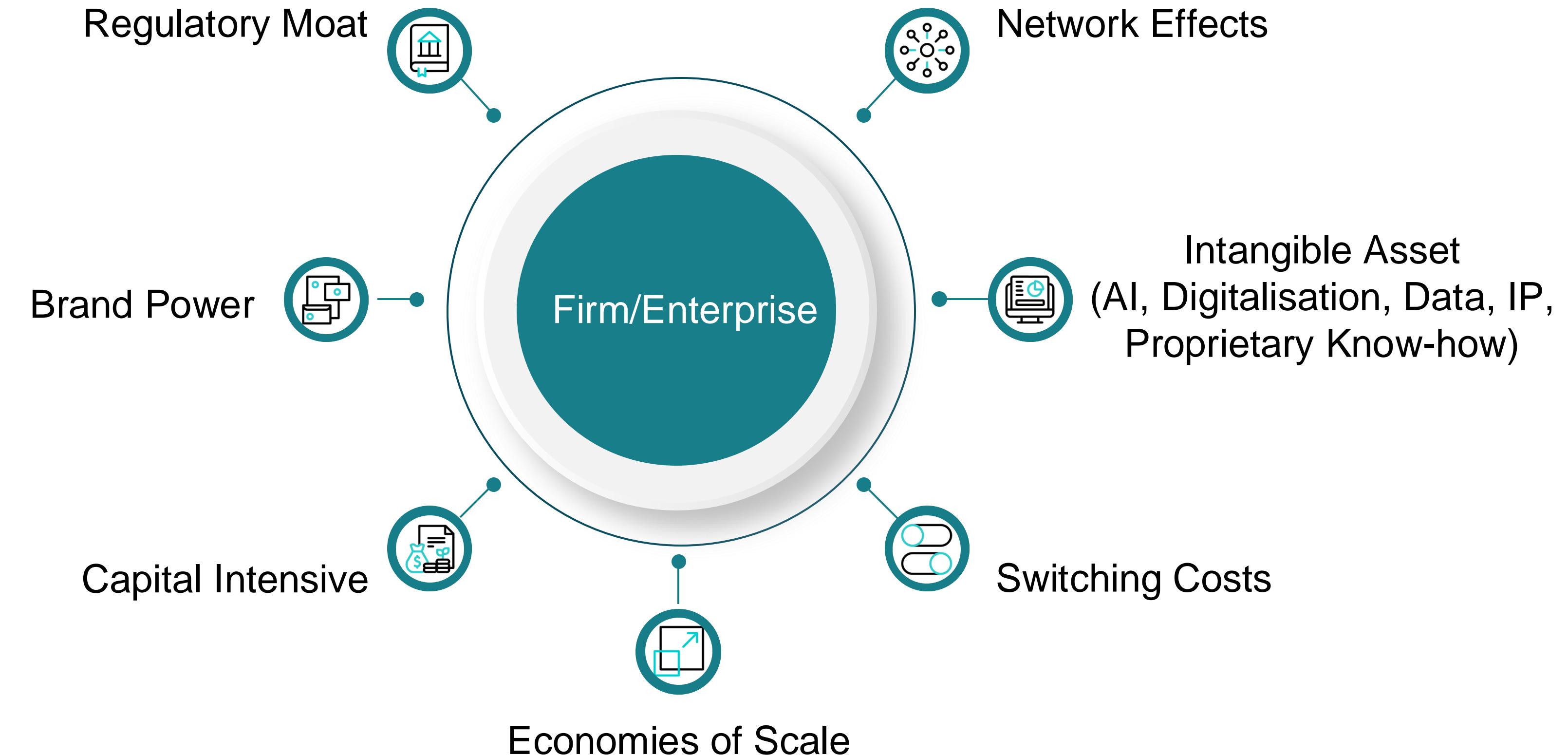
- **Strong Technology or Business Model Differentiation**
- Scale profitably in a **Capital Efficient** way
- **Market Leader** in core geography or in multiple geographies



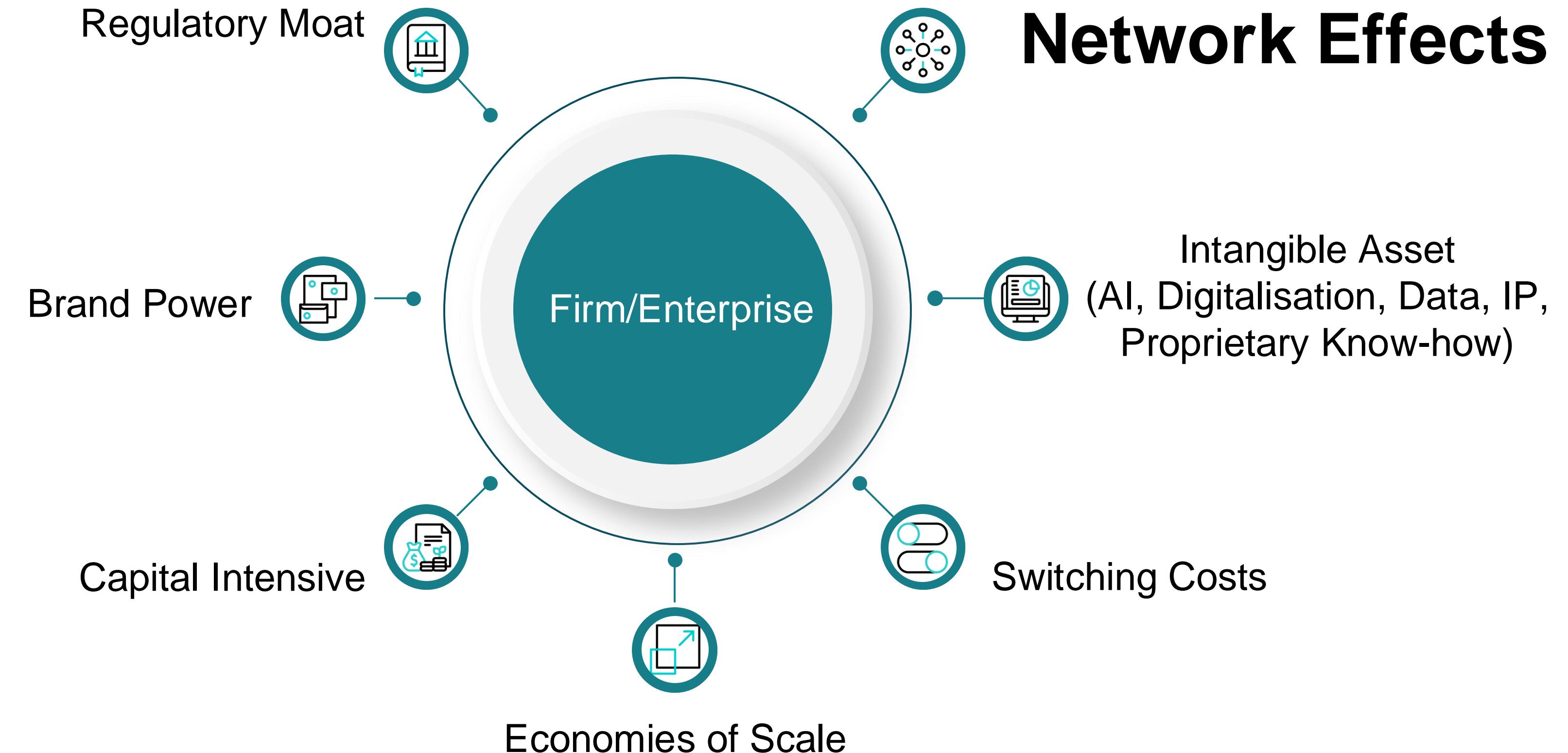
Soft Aspects of a Moat



Types of MOAT



Types of MOAT



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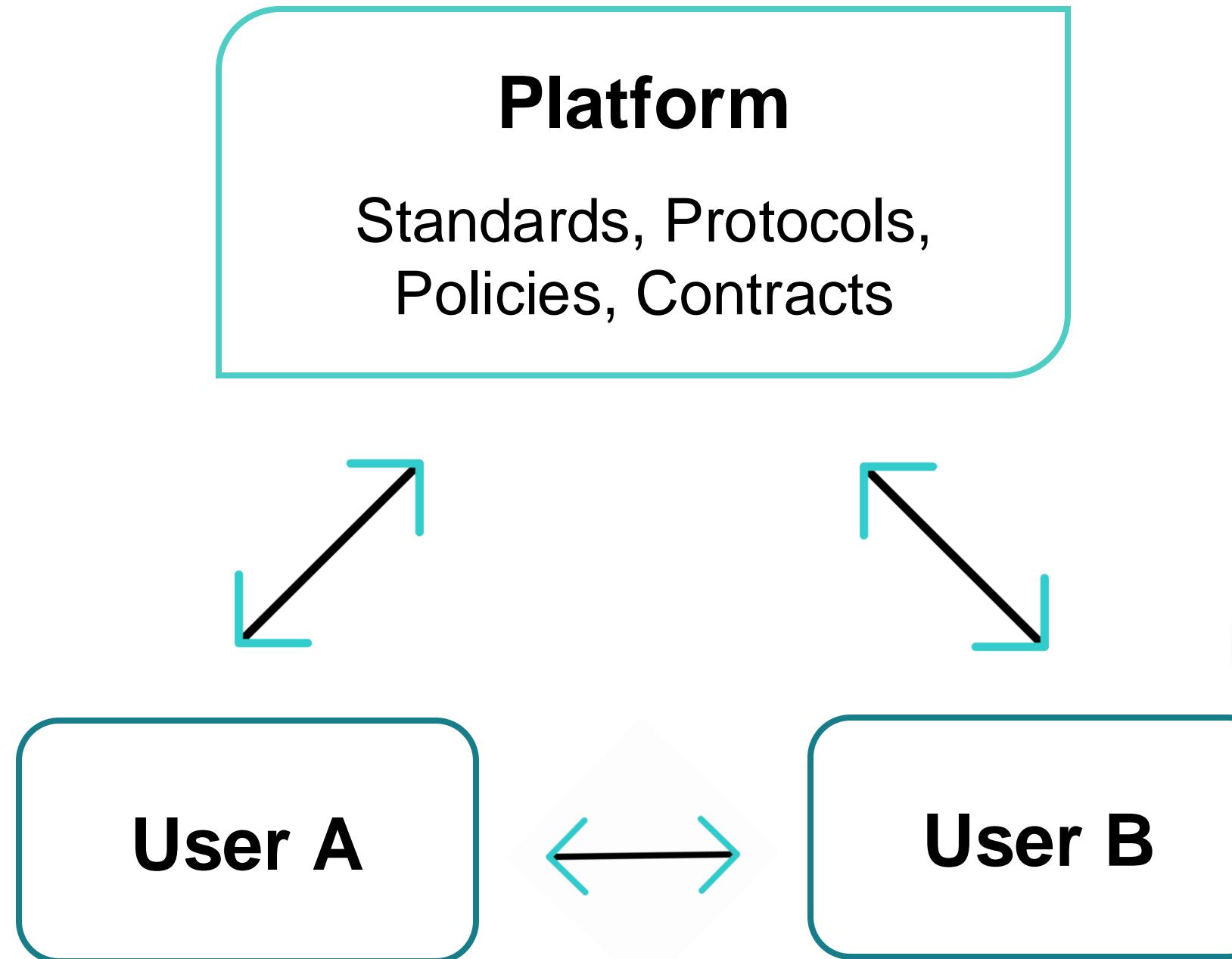
Network effects have been responsible for 70% of all the value created in Tech since 1994. Founders who deeply understand how they work will be better positioned to build category-defining companies.

- James Currier @NFX, SFO based VC

”



Introduction to Two-sided Networks



Platform:

- Offers products/services that bring together groups of users in two-sided markets.
- Provides infrastructure and rules to facilitate transactions between the two networks.
- Have to manage/grow two-sided markets differently than traditional business models.
- Value grows as the platform matches demand from both sides.

When successful, these platforms catalyse a virtuous cycle:
More demand from one user spurs more from the other

Platform: Costs and Revenues (Zomato)

Zomato

Revenues and Costs on both sides due to distinct groups of users on each side

400k Delivery Partners along with a large Tech, BD & Corporate team

247k Restaurant Partners

18 million Consumers

- Revenues:**
- Onboarding fees
 - Commissions
 - Ad Revenue

- Delivery fees
- Platform fees
- Rain fees, etc.
- Membership

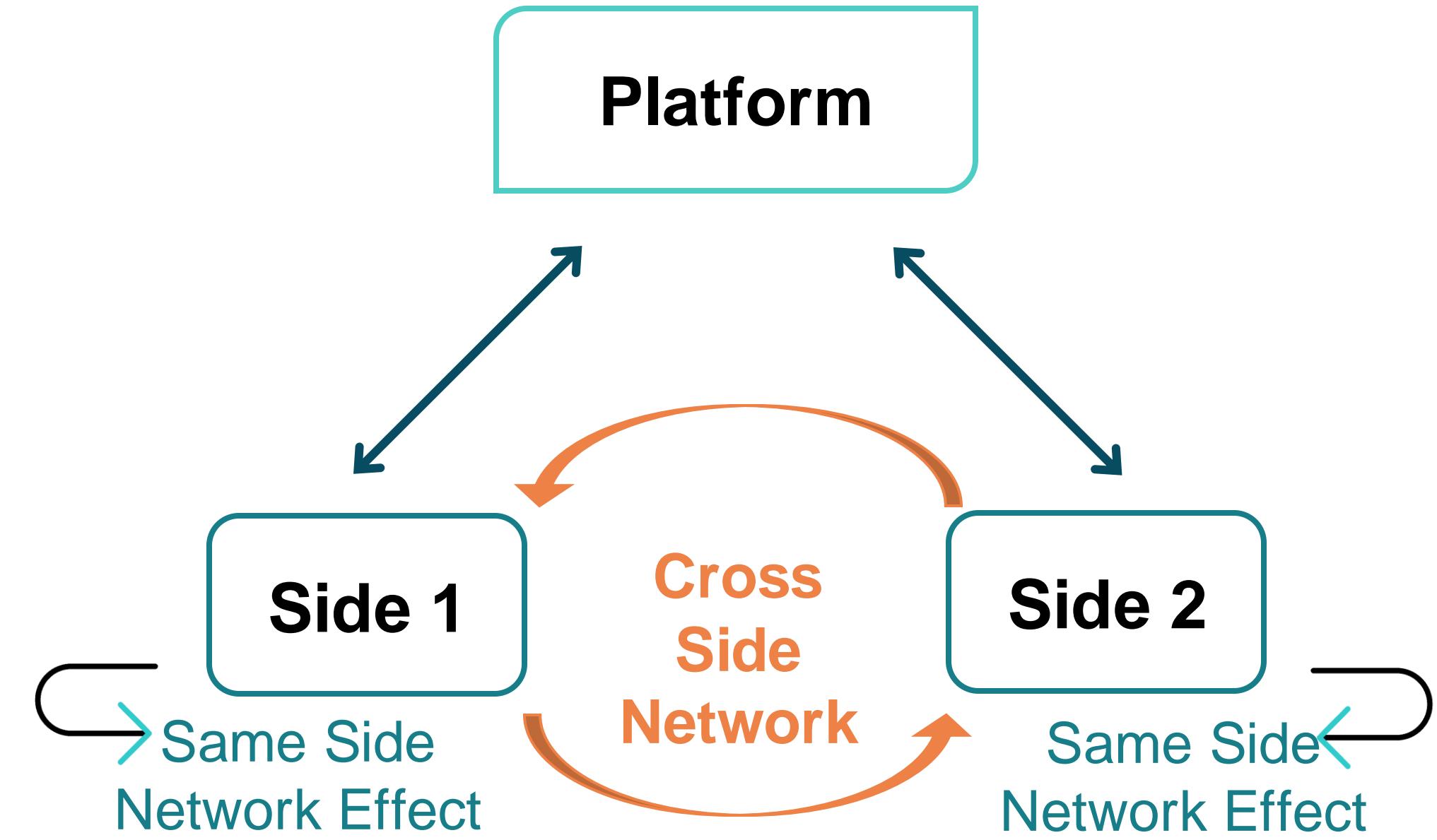
Started with lower commissions to regional and national brands to attract them as anchor

Started with subsidising this side of the network (Free Delivery)



The platform incurs costs in serving both groups and can collect revenue from each, although one side is often subsidised.

Cross Side and Same Side Networks



Same Side Network Effect:

Increasing the number of users on one side of the network makes it either more or less valuable to users on the same side.

Example:

- Naukri vs. IIM Jobs vs. Native
- Sellers prefer fewer rivals in B2B exchanges/platforms

Cross Side Network Effect:

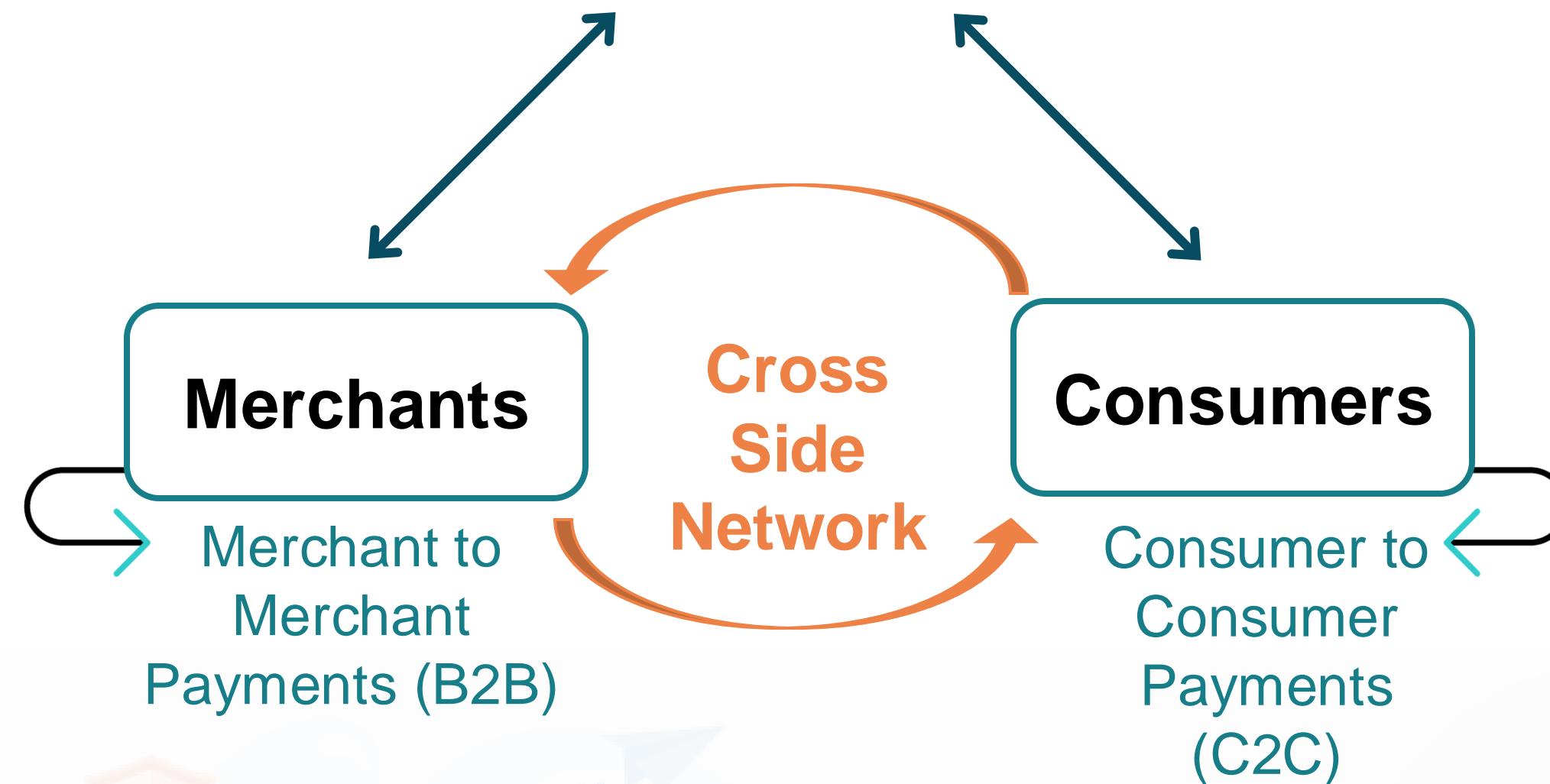
Increasing the number of users on both sides of the network often makes it more valuable.



UPI: Same Side and Cross Side Network Effect

UPI (Owned by NPCI)

Core Objective: A convenient payment stack for the unbanked or first-time digital consumers and merchants



Same Side Network Effect:

- UPI stack has displayed a positive network on both sides.
- Example:
 - **B2B payments** happening seamless without having to visit the bank, NEFT or RTGS.
 - **C2C payments** have reduced the burden on the banking system for small payments without having to visit banks.

Key Strategic Challenges: Envelopment

Platforms suffer the highest risks with common overlapping user groups

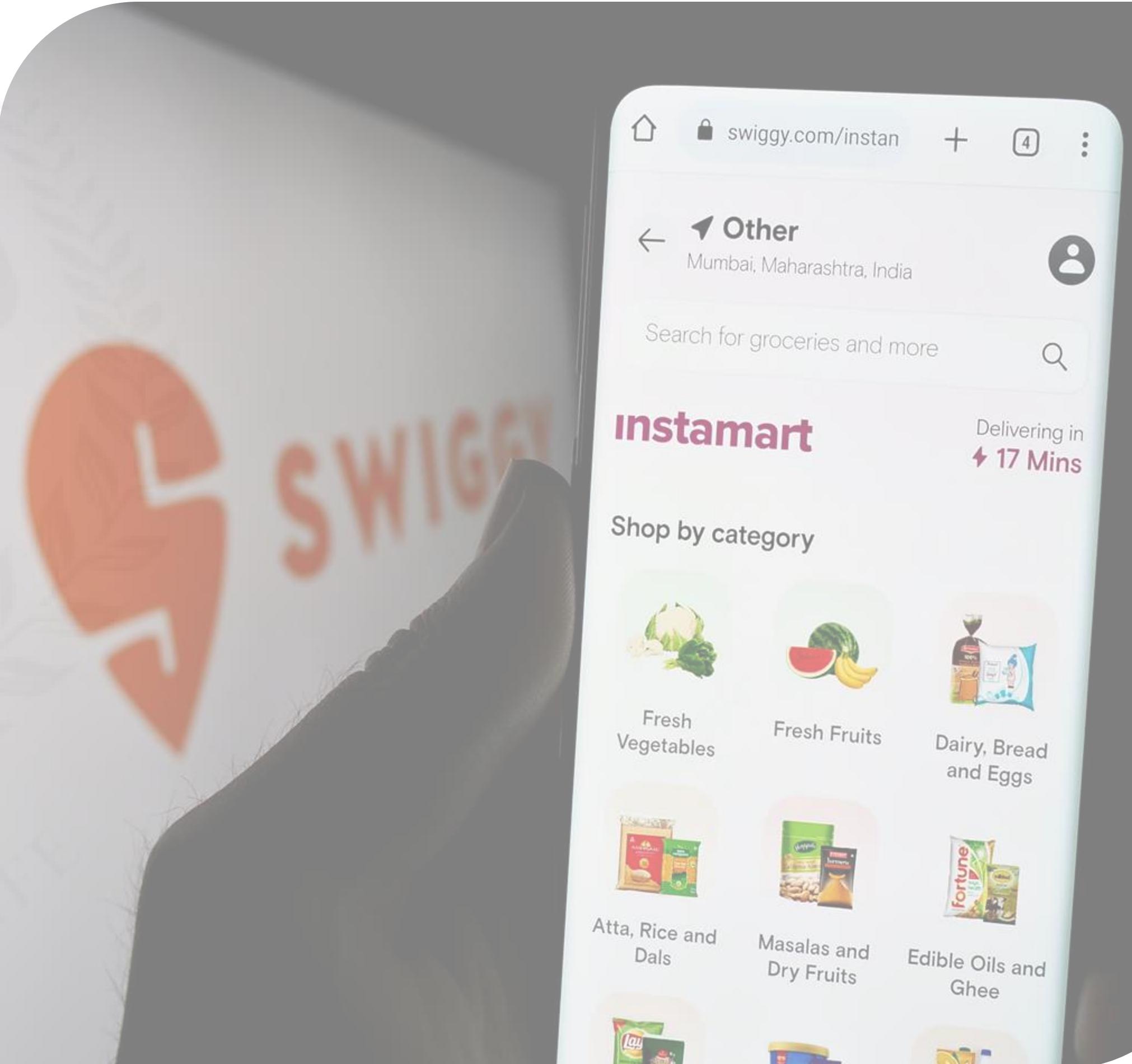
What is Envelopment?

Many platforms have overlapping user groups, tempting some related platform providers to swallow other users

Examples

Swiggy

Swallowing users of Big Basket (Instamart), Dunzo (Point to point delivery) using its infrastructure



Key Strategic Challenges: Envelopment

Platforms suffer the highest risks with common overlapping user groups

What is Envelopment?

Many platforms have overlapping user groups, tempting some related platform providers to swallow other users

Examples

Zomato

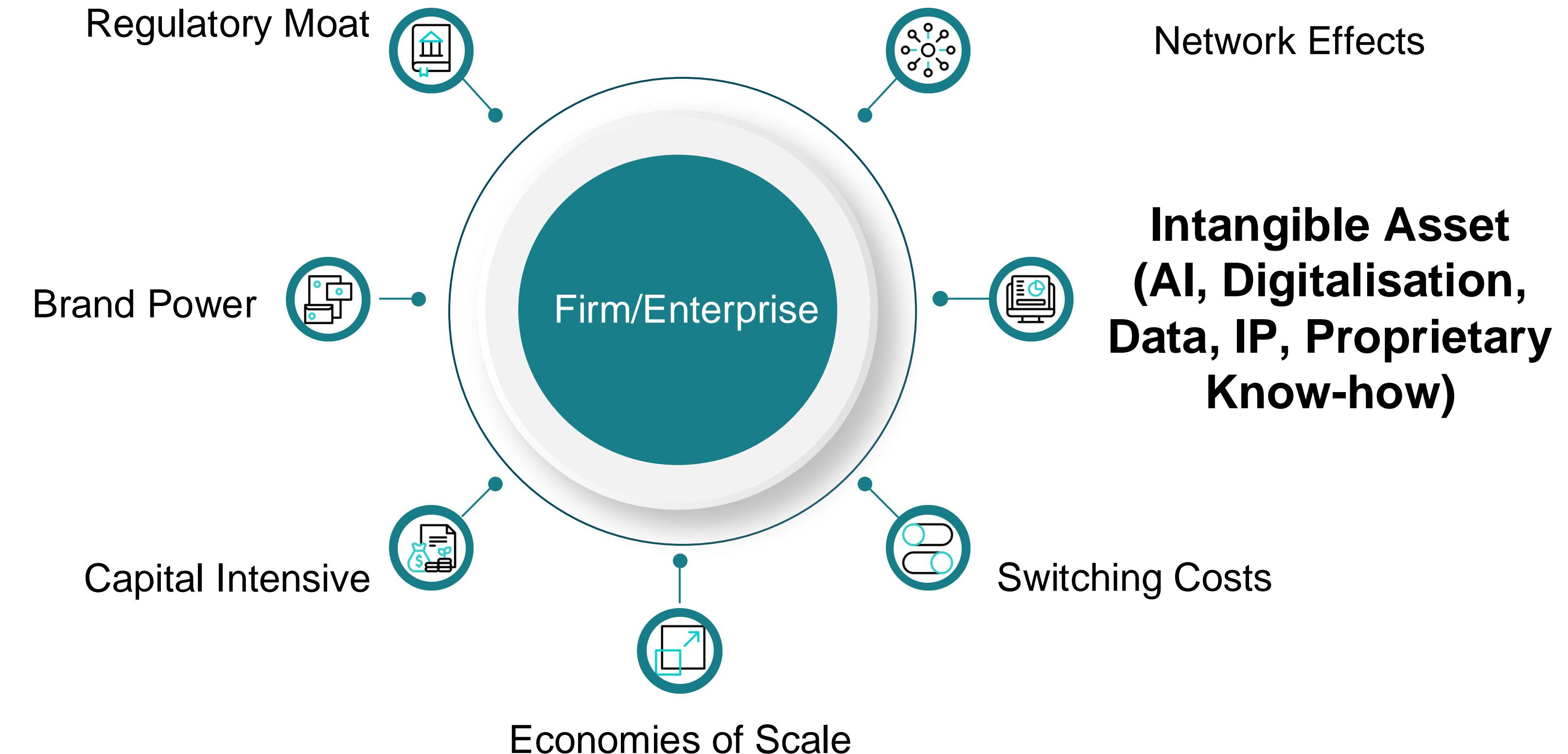
Attempting to swallow users of BookMyShow (District), Big Basket (BlinkIt)



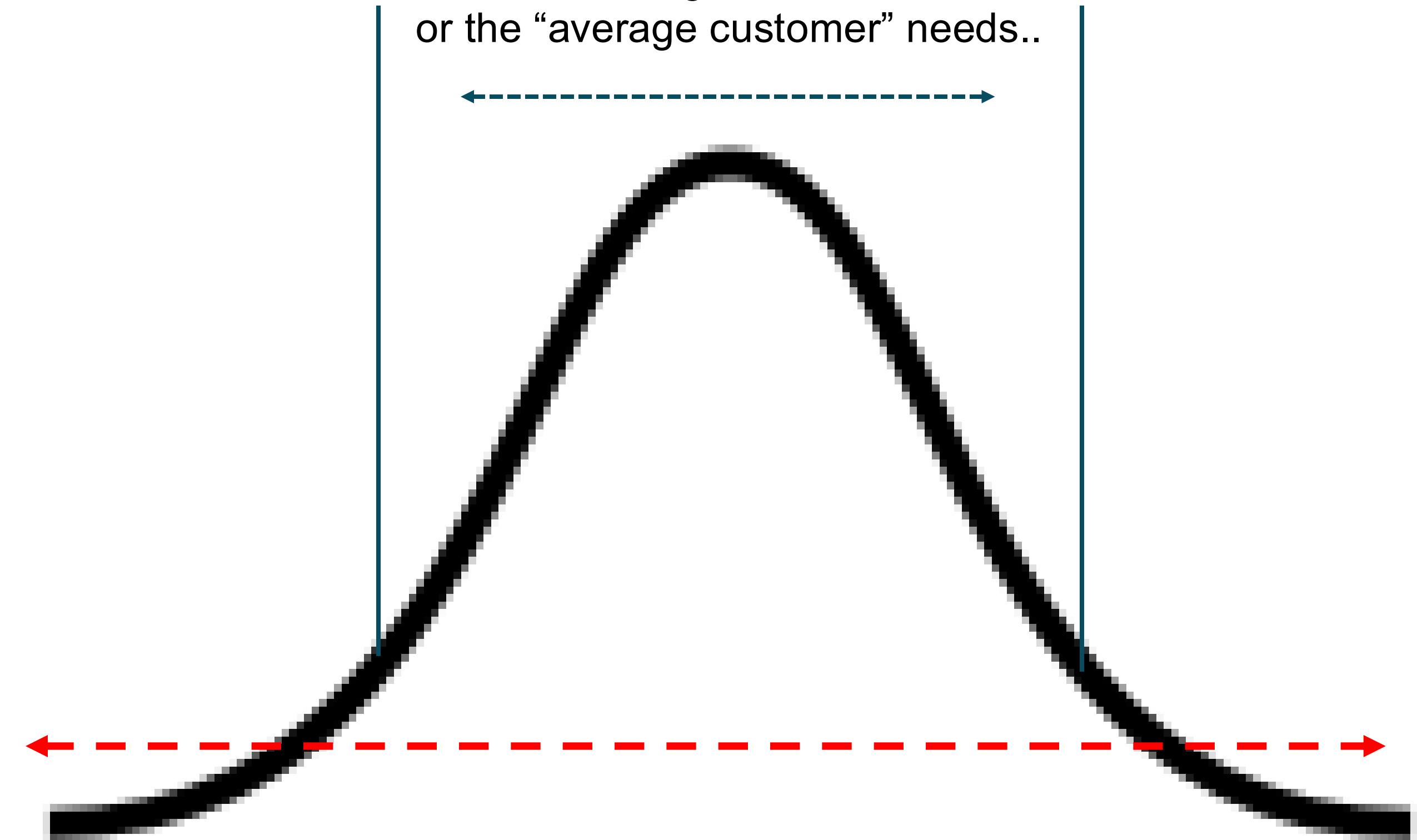
Key Questions to Evaluate the Strength of Network Effects

- To what extent do users really care about how many other users also buy the same product or service?
- How quickly does the extra value created for users diminish as additional users are added?
- For marketplaces, do buyers view suppliers as distinct/differentiated, or do they view them as interchangeable providers of the same product or service?
- Is the network effect global (e.g. Airbnb, Upwork) or local (e.g. Task Rabbit, Uber)?
- How difficult is it for buyers/suppliers/users to “multihome” (i.e. be active on multiple competing platforms)?
- How easy is it for users to coordinate their adoption decisions?
- Does the matching of buyers to suppliers (or between users) have to be synchronous or can it be asynchronous?

Types of MOAT



Most Traditional Businesses are built to serve the Big Middle of the market or the “average customer” needs..



With Data a large market can be served creating a significant MOAT

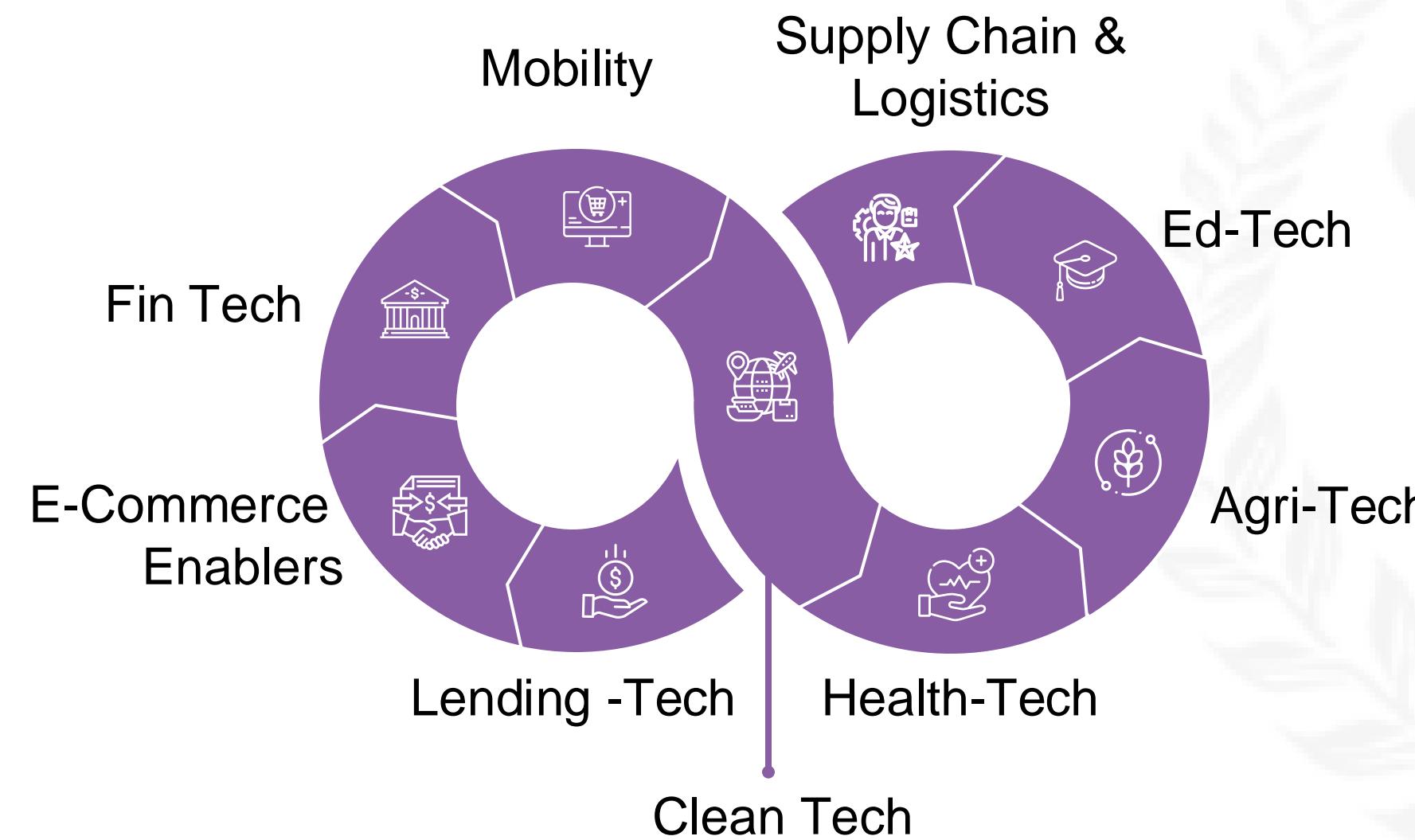
Data



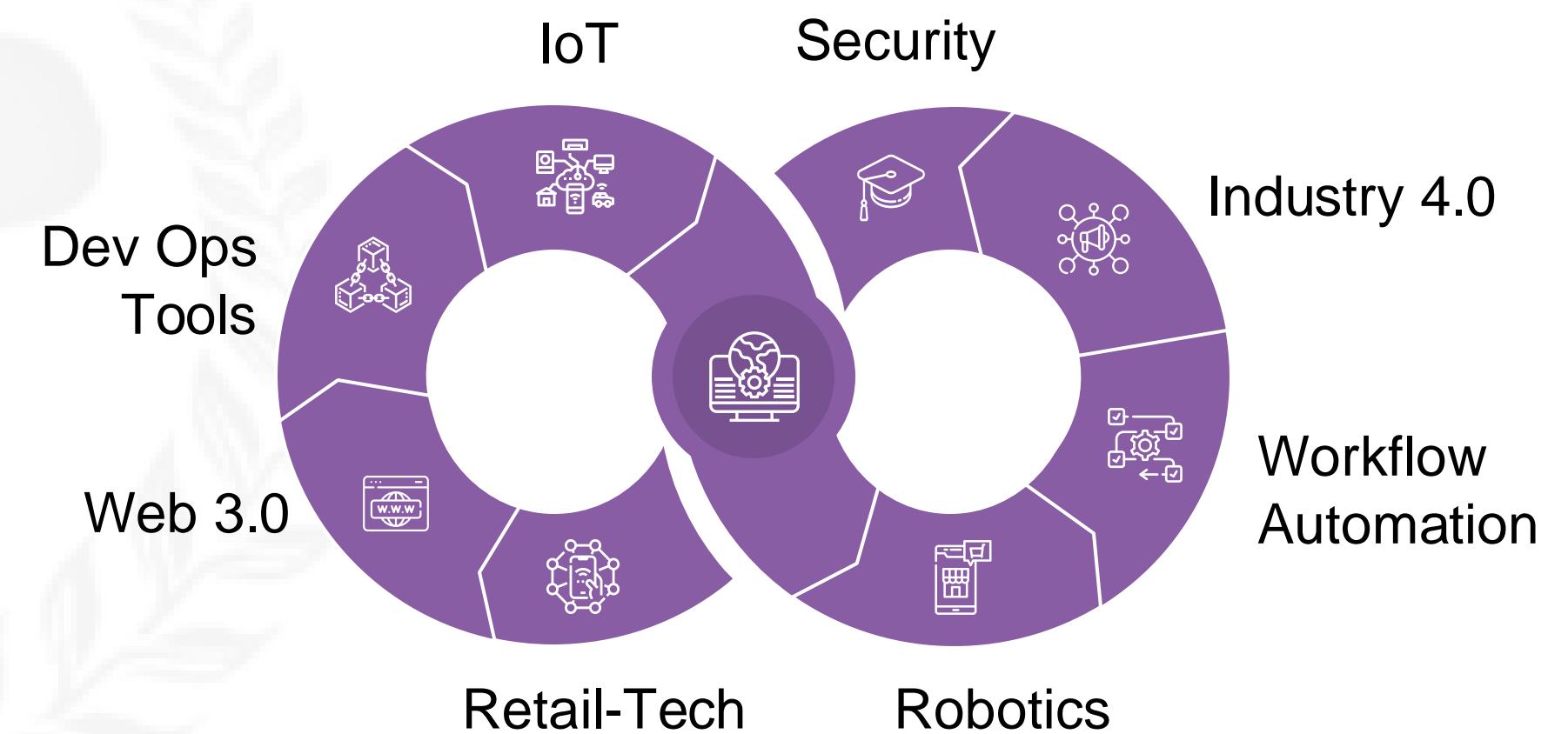
- **Demographic data:** Such as age, gender, and location
- **Behavioral data/Digital Footprint:** Social Media, Internet Consumption, Offline Consumption etc.
- **Transaction-level data:** Financial Data, Purchase history and Consumption behaviour etc.
- **Attitudinal data:** Such as a customer's opinions about a brand or its products
- **Identity data:** Such as a customer's name, address, email, and phone number

DATA as a MOAT: Across both B2B and B2C markets

B2C Sectors



B2B Sectors





BPC: Can One Use Data to Customise Products?

BPC: Can One Use Data to Customise Products?



BPC: Can One Use Data to Customise Products?

Our Success As A D2C Brand Is Driven By



Data Driven Approach

A repository of 200mn+ consumer-based data points collected



Focus on Consumer Insights

Better consumer understanding than competitors through an interactive platform



True Product Differentiation

Deploying AI/ML technology to curate unique regimen for each user



Constant Product Iterations

45%+ consumers provide feedback to drive product development for higher efficacy

Resulting In High Customer Stickiness

>90% vs 25%

Sales on our D2C platform vs Industry Average

57%+

Monthly Customer Repeats

2.5x+

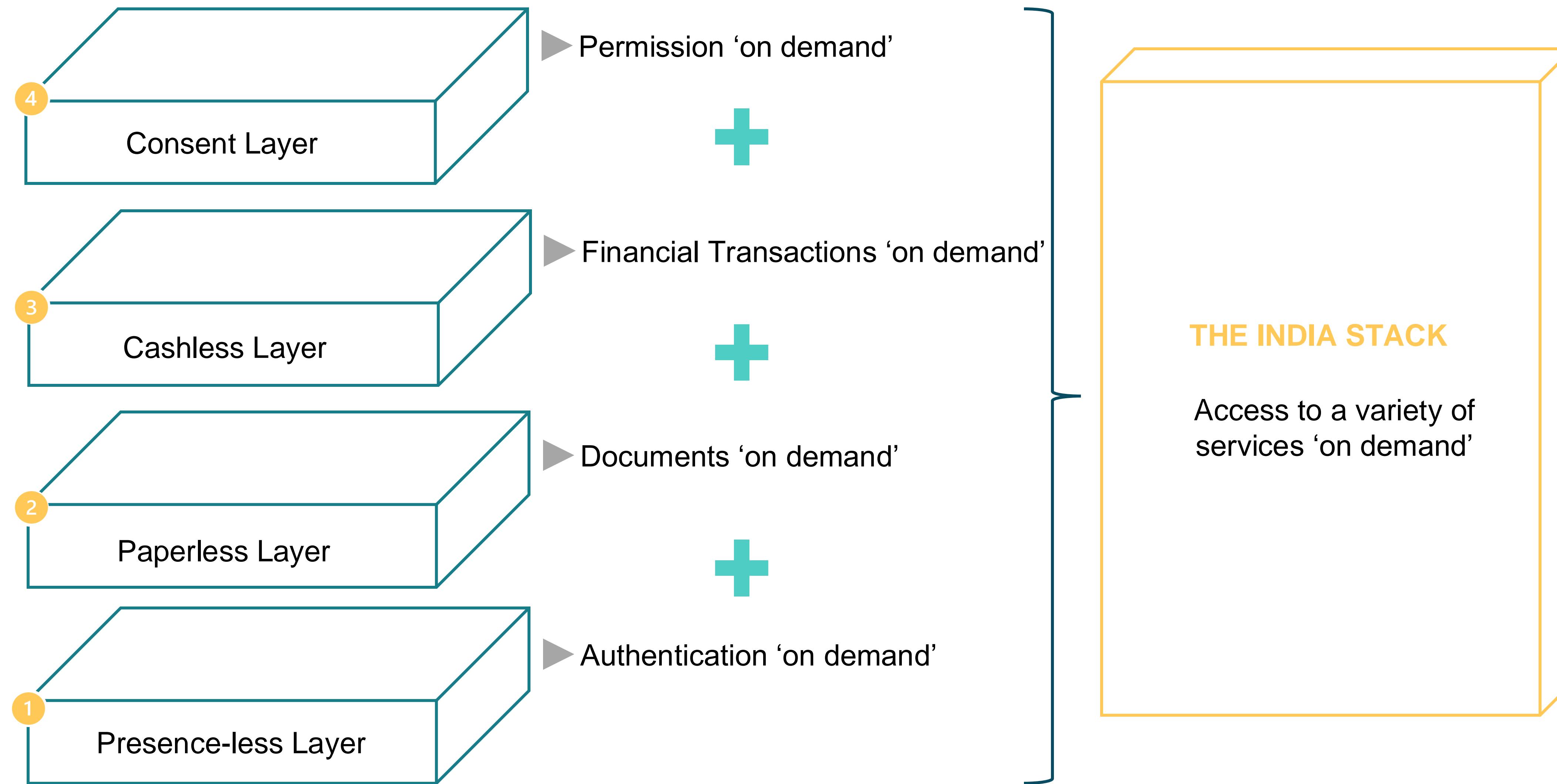
12M LTV/CAC

India Stack



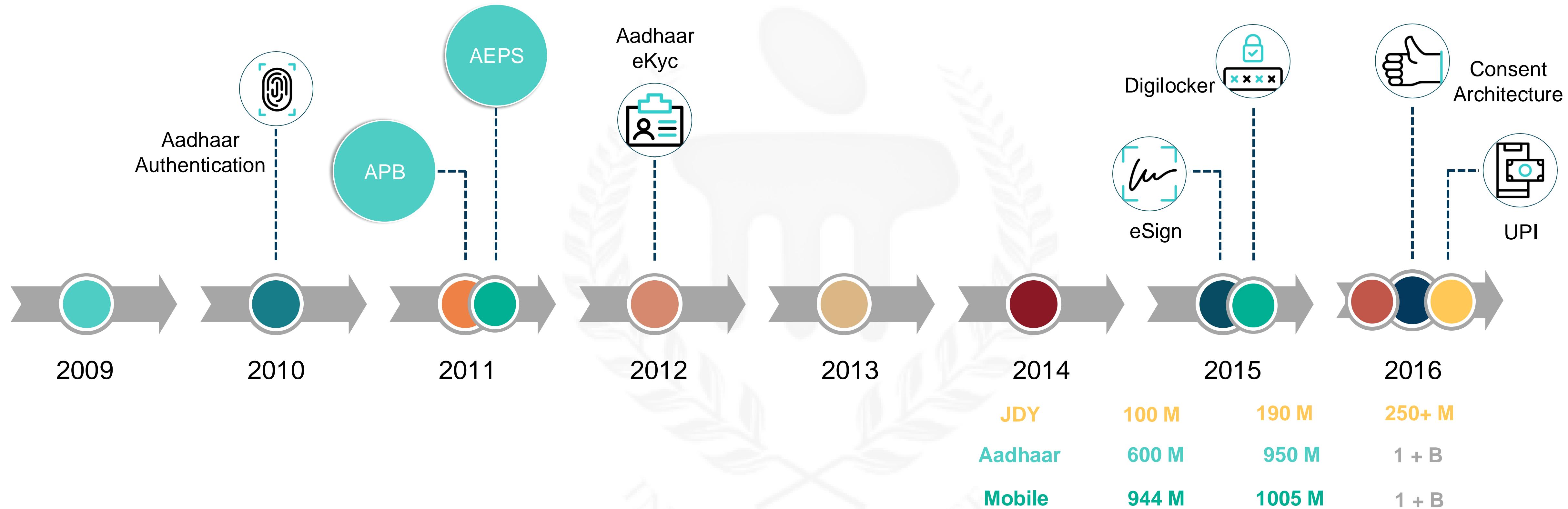
India Stack: Population Scale

Can you Use Digital Technology to Move The Needle? Inclusion, Formalisation And Economic Growth



Evolution of Digital Verification in India

The Digital Ecosystem in India is scaling rapidly due to the rapid growth of technology, supported by government initiatives.



- Aadhaar card is the National Identity card issued by the Government to every Indian
- APB (Aadhaar Payments Bridge): Facilitates seamless transfer of all welfare scheme payments to beneficiary residents' Bank Account
- AEPS (Aadhaar enabled payment system): Leverages Aadhaar online authentication and enables bank accounts to be operated anytime

2016: The Breakthrough Year for Digital India

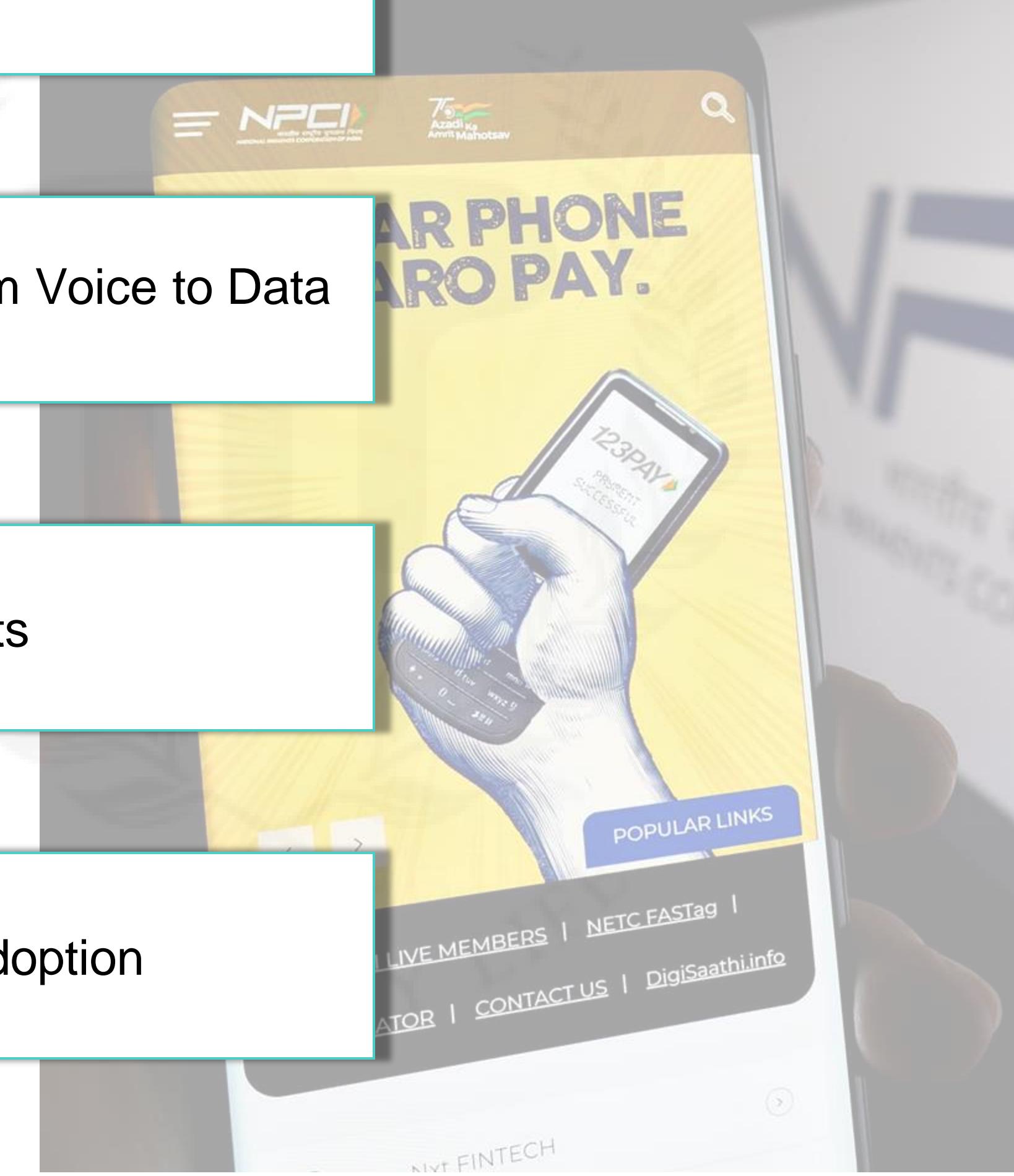
Year of JAM: Jan Dhan Yojana, Aadhar and Mobile

- India reached 1 billion Aadhar cards,
- Launch of UPI, JIO, BHIM
- Demontisation

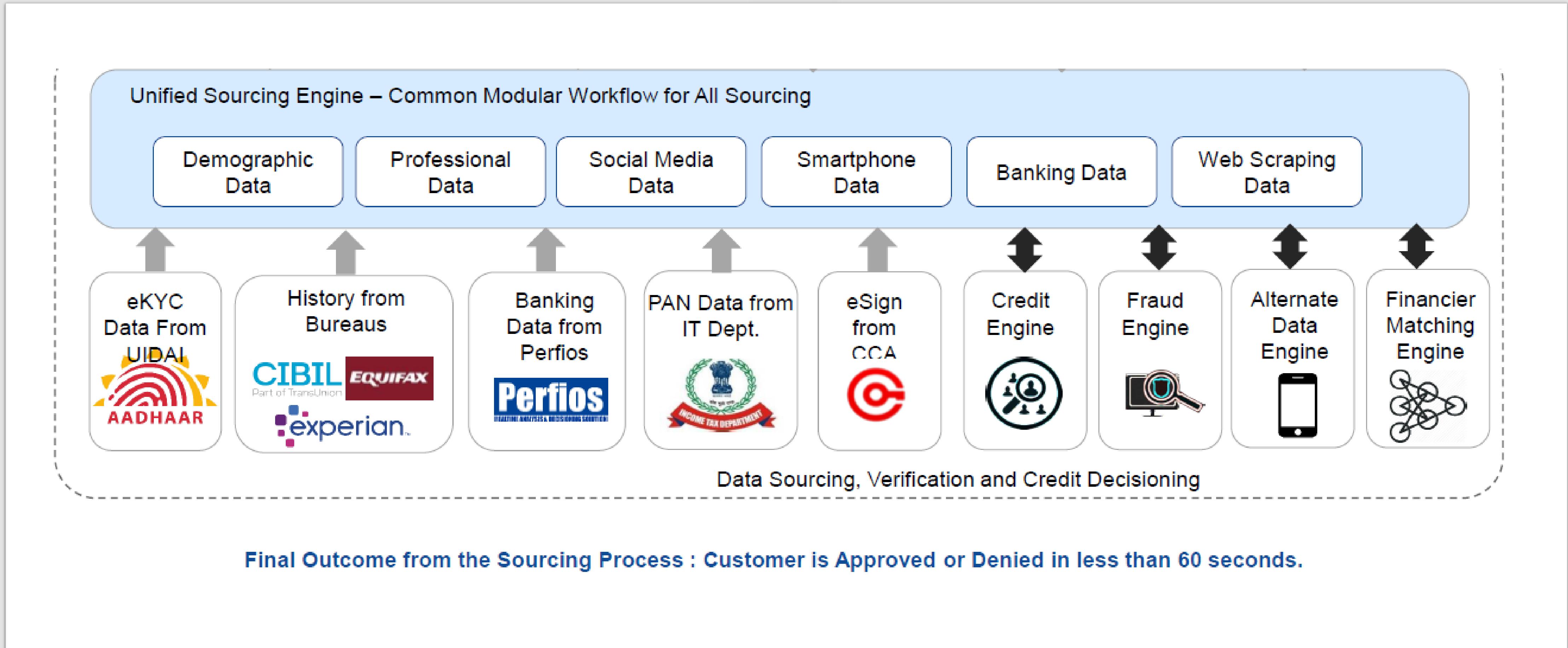
2016 was the inflection point when people moved from Voice to Data and smart phone penetration took off

Demonetisation gave the first boast to digital payments

Pandemic further gave a push post 2020 for higher adoption



Internal Tech Stack/API's to Integrate to Build An Underwriting Model



Internal Credit Scoring Model

Credit Risk – Model Parameters

A

Bureau Based

- Delinquent trade-lines (Ever 30+ on any trade in L6 months)
- Number of Enquiries
- Number of Unsecured Trades (Personal Loans, Consumer Durables)
- Total EMI (derived basis estimates on tenor, ROI)

B

Social Profile (LinkedIn, Facebook)

- Months since the most recent job
- Organisation and Category
- Total experience
- Education Institution
- Job Stability
- Number of Friends and Customer Location

C

Income/Employment

- Customer Income
- Derived income from bureau and SMS reading
- Name of the Employer and Employer Categorisation
- Regularity of Salary Credits

D

Merchant Transaction Data

- Customer Transaction Value (live to date)
- Customer Delivery Address (Compared Vs the KYC address)
- Product Value and Product Category
- Type of Product and Seasoning of Purchase

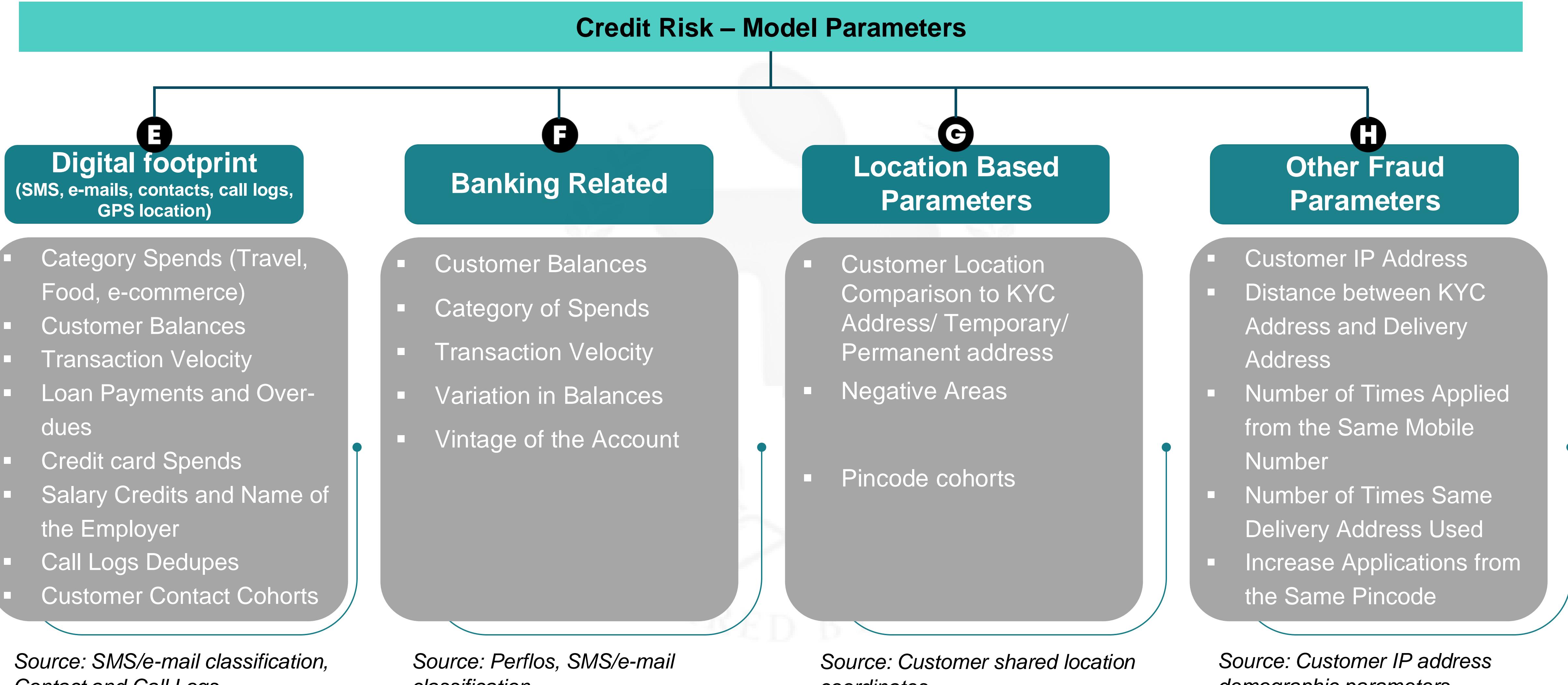
Source: Credit Bureau

Source: Customer Provided Access to Social Profile

Source: SMS/e-mail classification, Customer Documents

Source: Merchants

Internal Credit Scoring Model

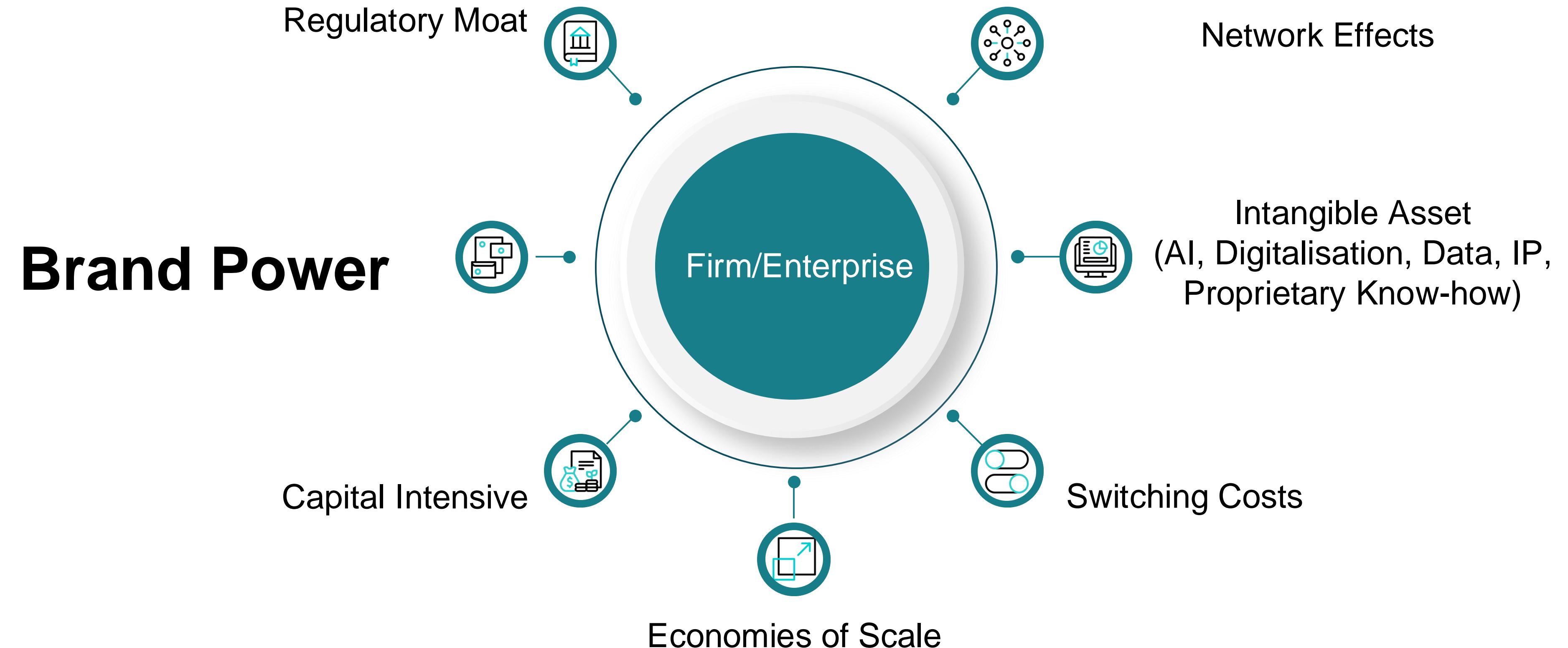


Tech-enabled Proprietary Credit algorithms: Can Capture Far More Data than Traditional Underwriting Models

855	Bureau variables
>1,000	Demographic segment pools
600+	Social media variables
75+	Fraud analytics triggers (location, IP address, time and frequency of transaction)
100+	Digital footprint variables for alternative credit assessment
16	Risk bands for risk based pricing

- Variables being run through Machine learning algorithms
- Continuous assessment done on the risk model
- 75+ Fraud risk parameters augment the credit risk model

Types of MOAT



What is a Brand?



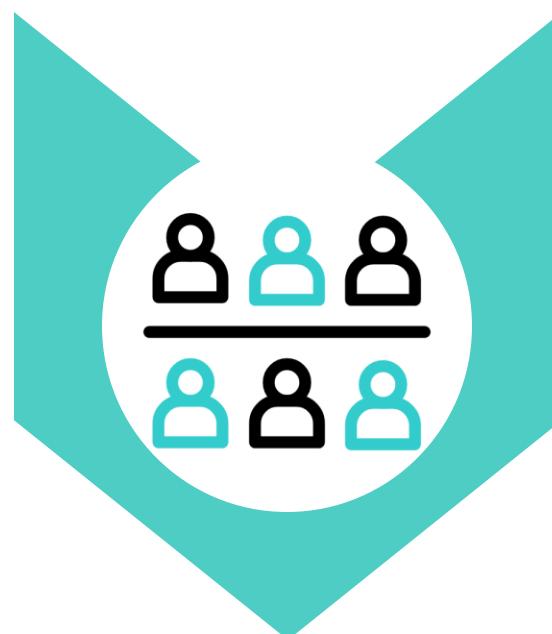
What your customer/market thinks of when he or she hears your brand name?

- It is both factual and emotional



A brand grows stronger when consumers start using it in everyday context/ interactions

- Google it vs. browse it
- Gpay/Phonepe vs. UPI
- FedEx it vs. courier it



The above only happens when customers feel enough of a relationship with a product to use it in their everyday conversations.
This happily reinforce the brand attributes.

- FedEx: Speed and Efficiency

Brand vs. Marketing vs. Sales

Brand

A Company's unique identity, character, values, purpose, mission, experience, inspiration, etc.

Marketing

Focuses on building awareness of the BRAND and interest in a company's products or services

Sales

Focuses on converting that interest in the company's product or services into a transaction or revenue.



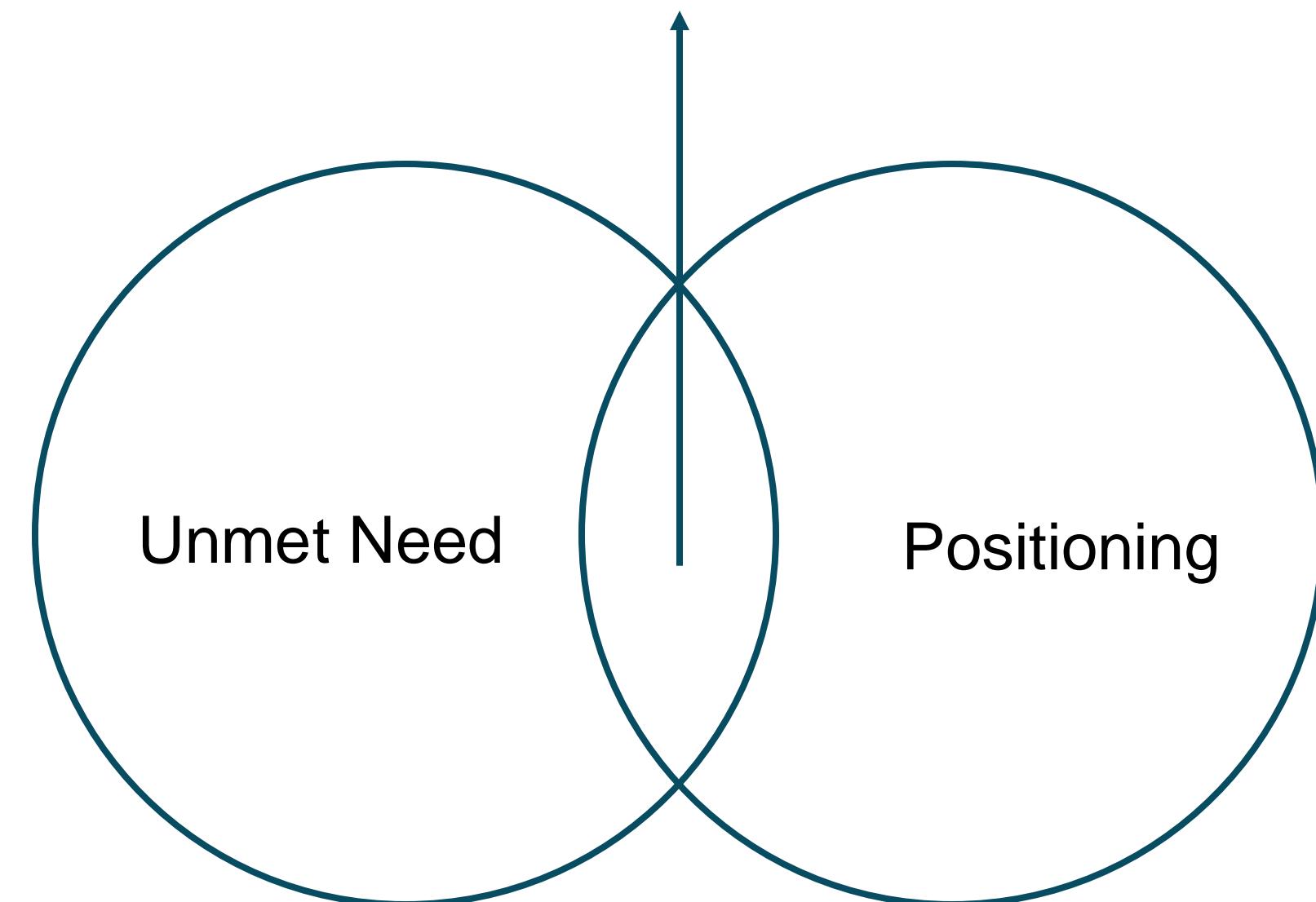
Why Branding: Gives a Distinctive Positioning

☛ **Captures attention**

☛ **Distinctiveness** provides a MOAT

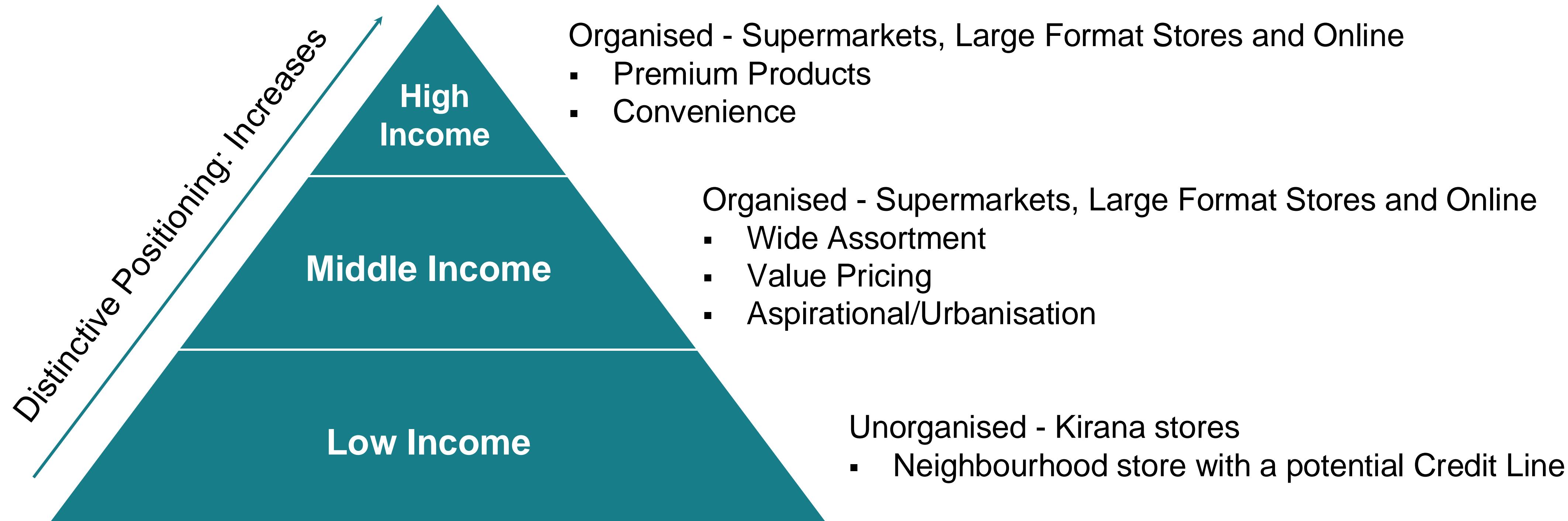
- A successful brand with zero distinctive elements will quickly be copied.
- Distinctive brands claim a space that others will find tough to copy without looking like a second-rate version of the original

Intersection provides a unique opportunity to Build a Distinctive Brand



Grocery Retailing

Grocery Retailing: Segmentation



Grocery Retailing: Brand Positioning

Offline

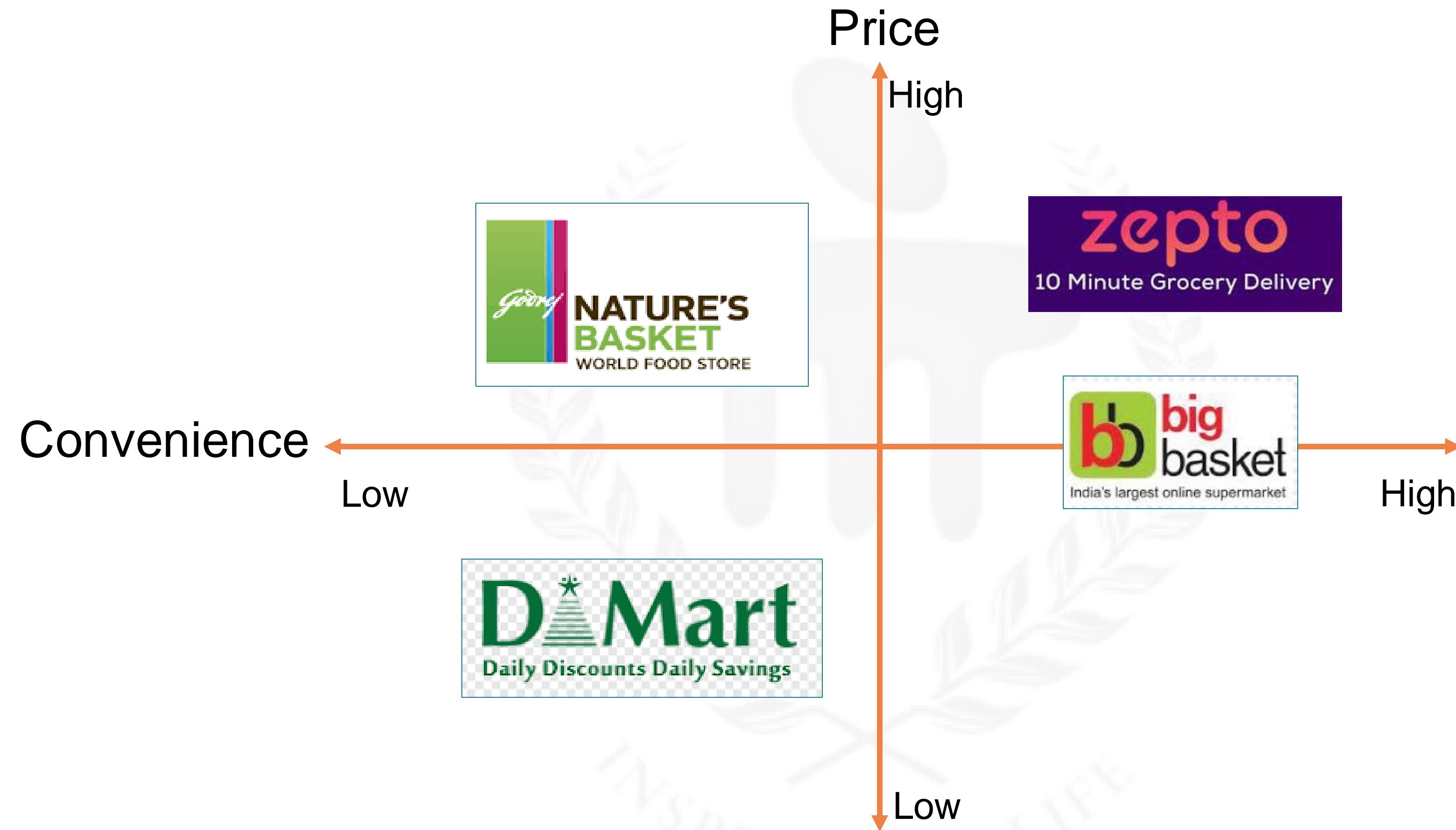
- Dmart: Everyday Low Price and Large Format Stores
- Nature's Basket: Retails Premium Global Products

Online

- BigBasket: Largest Online Retailer (Value Conscious)
- Zepto: 10 minutes Delivery of Everyday essentials (Convivence)



Grocery Retailing: Brand Positioning





boat Lifestyle

Brand boAT: Distinctive Positioning



Segment:

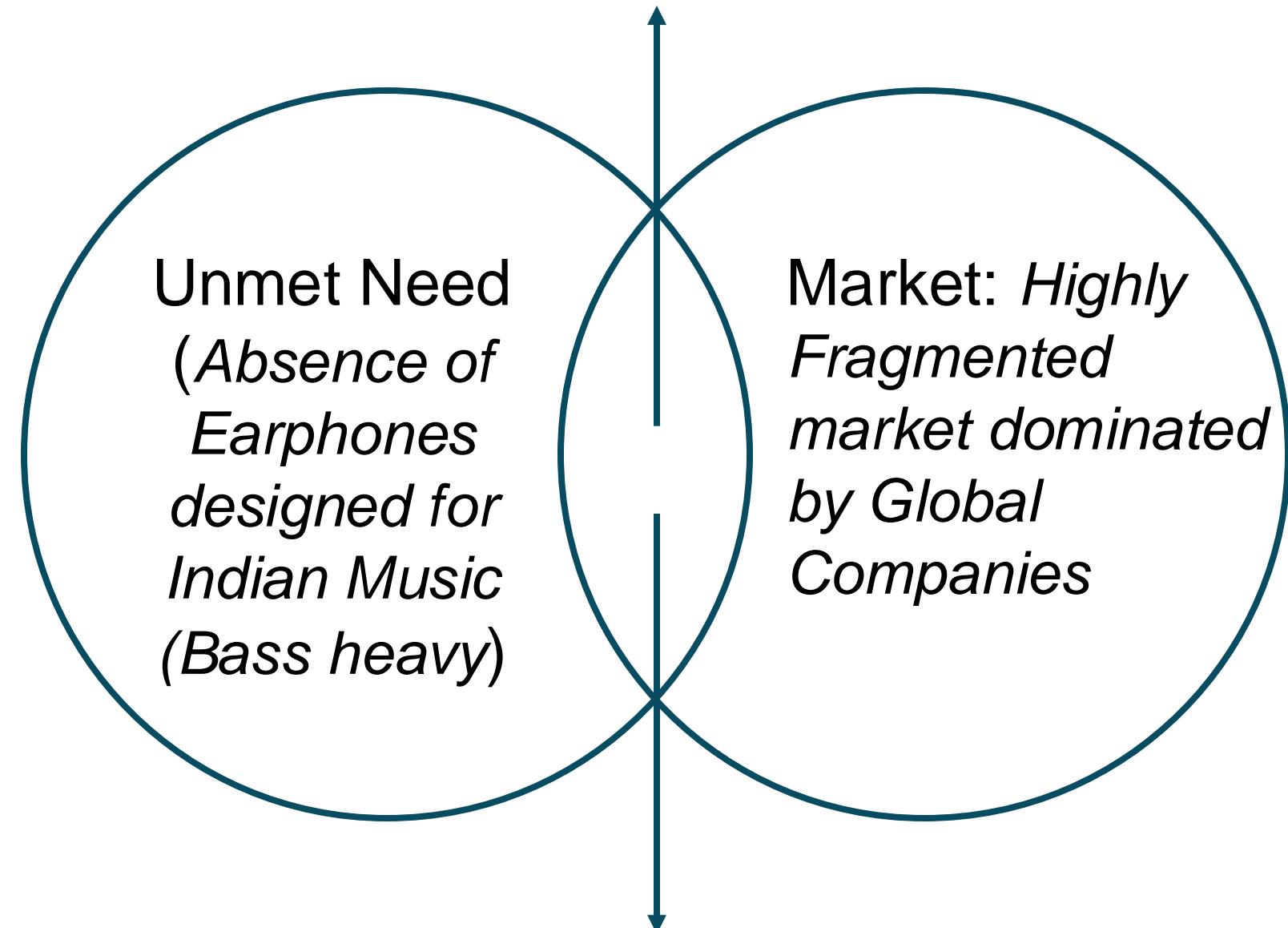
Millennials and GenZ



Segment Behaviour:

- Unique Shopping Preferences (Urbanisation drove towards Organised and Online)
- Considered Reviews and Recommendations
- Aspirational

Intersection provides a unique opportunity to Build a Distinctive Brand



Build a Brand for Indian Music that Aspirational and Affordable



boAT: Distinctive Positioning

➤ Aspirational (Digital First Approach)

Affordable

Innovative

- For Indian Music (Bass Focused)

Reliable Products (2 years Warranty)

Small Innovations and Improvements

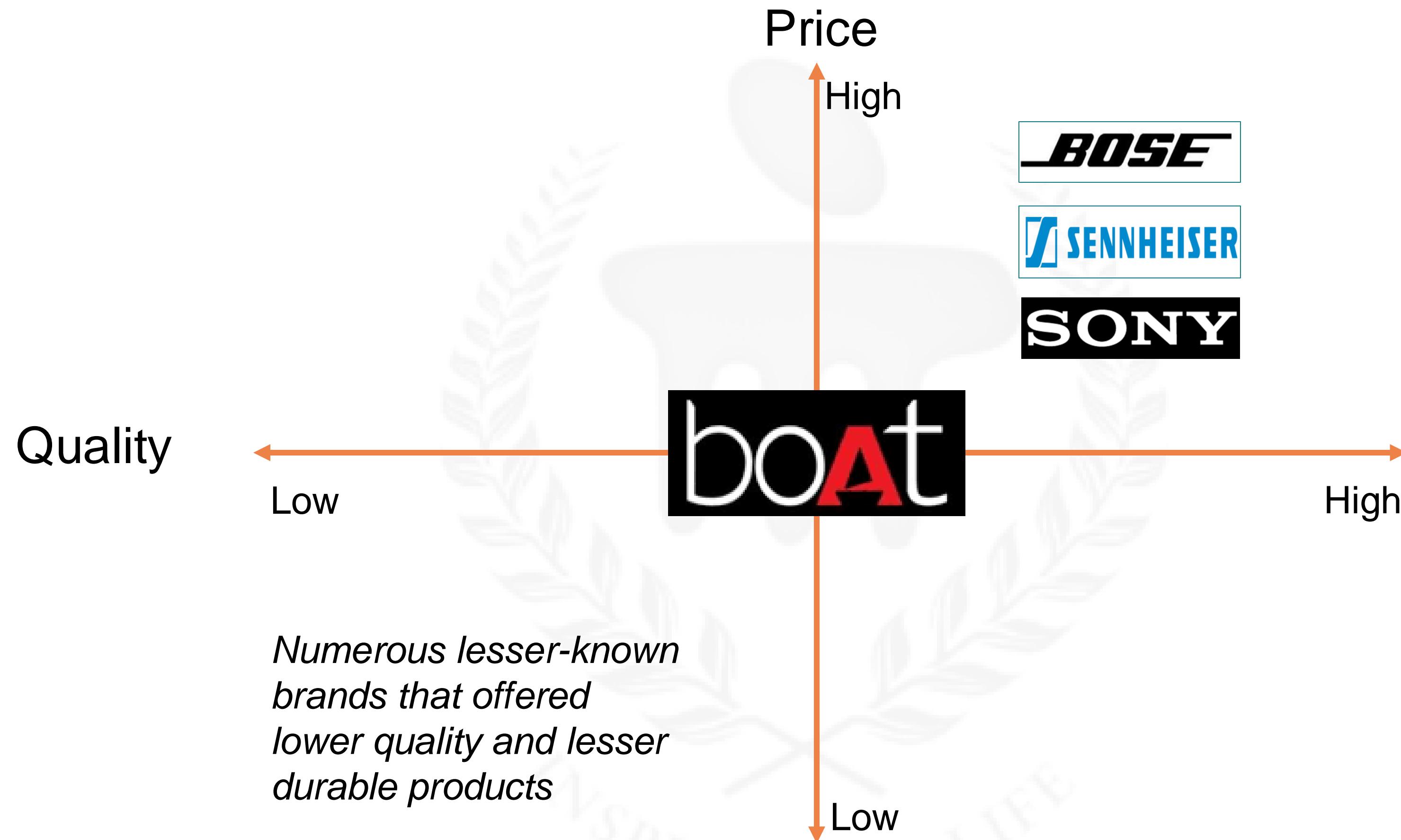
- Material for Indian consumers (warm climate, sweat, sturdy, durable etc.)



The logo consists of the word "boAT" in a bold, lowercase, sans-serif font. The letters are primarily white with a black outline, except for the letter 'A' which is filled with a vibrant red color.

boAT: Now in India

boAT: Positioning

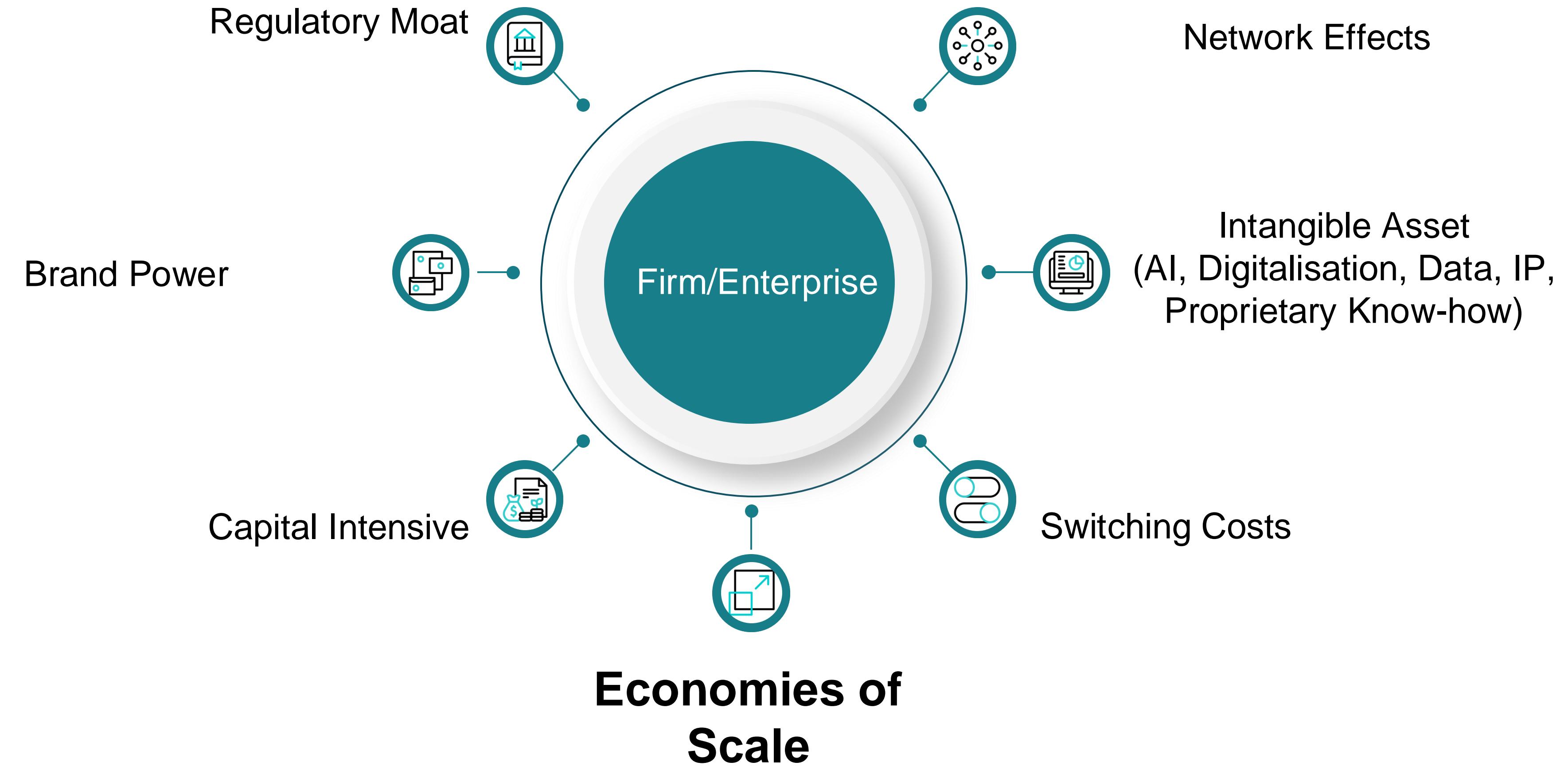


Building the boAT Brand

- Company positioned as a Lifestyle brand to appeal to younger consumers
 - Not an electronics positioning
- ‘boAthead’ Community: Used Social Media Channels effectively
 - “New-Age India”: Portrayed as rebellious, unapologetic and fearless group
- India: Bollywood, Cricket and Music
 - 3 things that constantly sell in India
 - Onboarded Hardik Pandey, and other celebrities
 - Co-sponsored Lakme Fashion Week



Types of MOAT

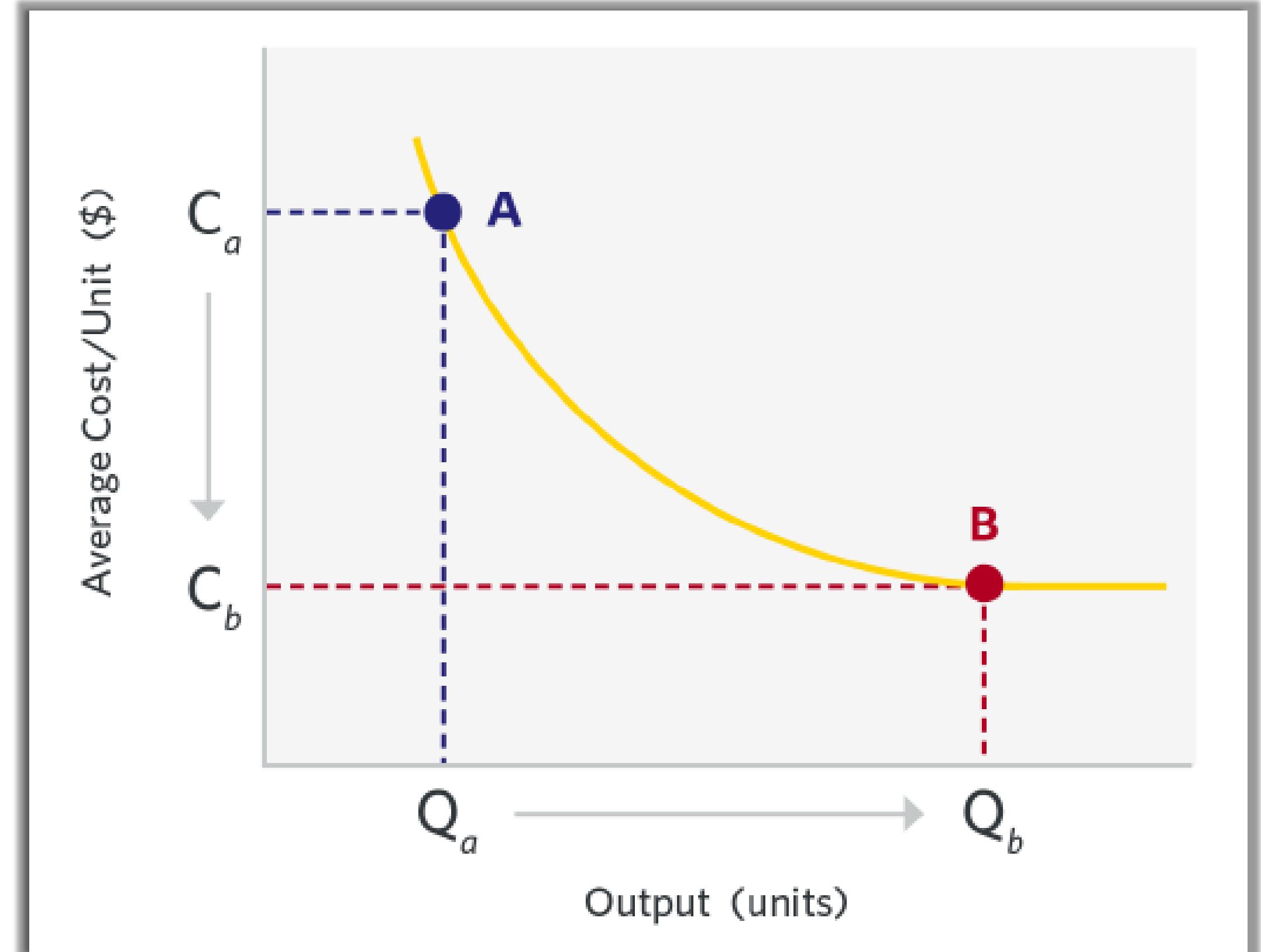


What is Economies of Scale?

Average cost declines as production volume increases

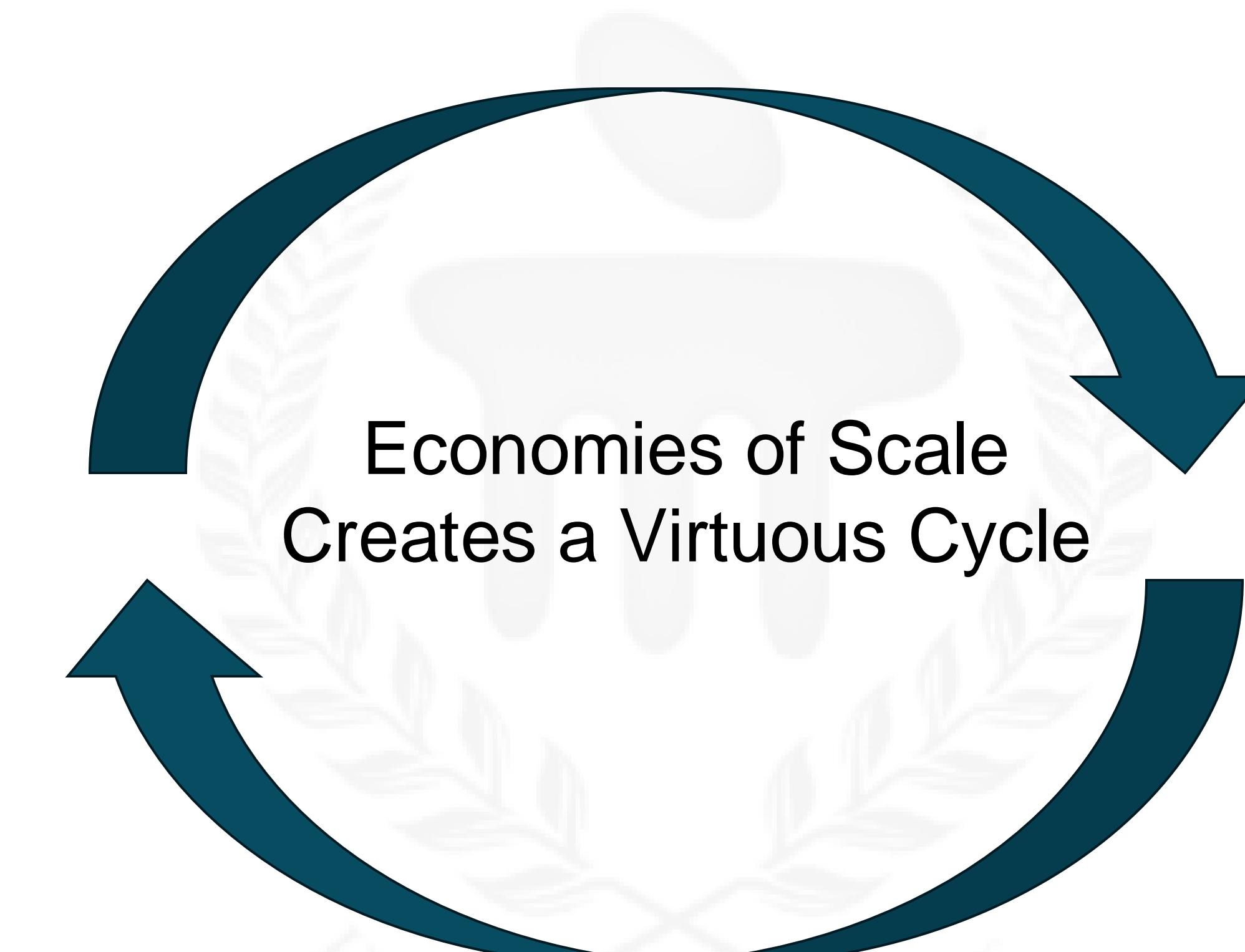
“Economies of Scale” reflect the presence of fixed costs

Implies that a company needs to produce a minimum volume to be cost-competitive



What is Economies of Scale?

Lower Costs
attract Growth



Growth Leads to
Cost Reduction

What is Economies of Scale?

Economies of Scale not only determine cost positions, but

- Influences selling prices and
- Profitability

High fixed costs limit the number of companies that can enter a market of a specific size





SpaceX: Economies of Scale

SpaceX: Opportunity to Disrupt and Build Economies of Scale

SpaceX: Opportunity to Disrupt & Build Economies of Scale?

Reusability: A key lever in generating commercial activity in the industry. The reason for spaceflight is because its very expensive. **The problem was rockets were non reusable**

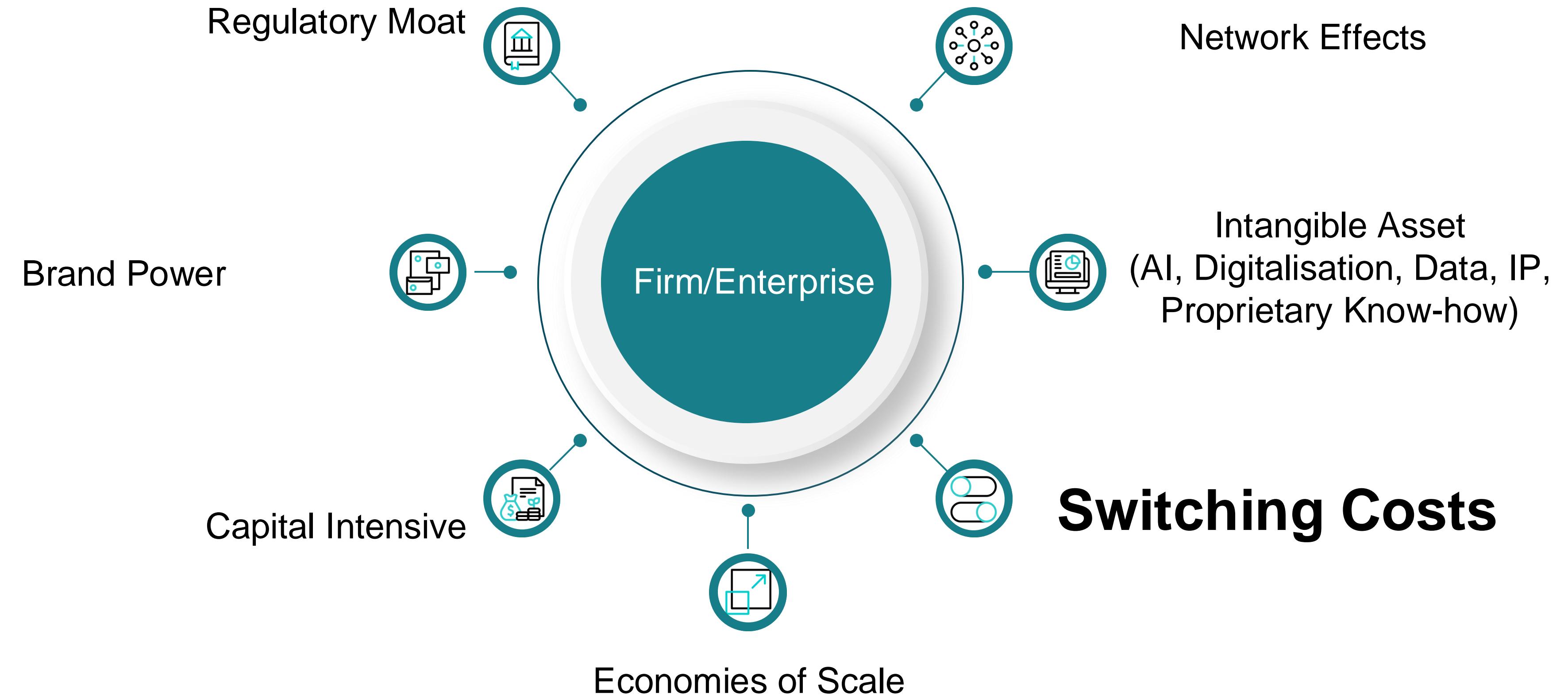
Reliability without over-engineering: Launch vehicle tended to be intentionally over-engineered.
Assumption that cost was tied to reliability was false.

Vertical Integration: Bring hundreds of subcontractors aligned

Comparison of US launch vehicles with SpaceX's Falcon 9

Vehicle	Electron	Minotaur IV	Minotaur C	Antares	Atlas V	Vector-R (Proposed)	Falcon 9
Manufacturer	Rocket Lab	Northrup Grumman	Northrup Grumman	Orbital ATK	ULA	Vector	SpaceX
2017 Total Launches	1	1	1	1	6	0	18
Total Launches in Last 10 years	1	4	10	7	74	0	46
Launch Reliability (Last 10 Years)	0/1 (0%)	4/4 (100%)	10/10 (100%)	6/7 (86%)	74/74 (100%)		45/46 (98%)
Year of First Launch	2017	2010	1994	2013	2002		2010
Payload to LEO (kg)	150	1,600	1,458	6,200-6,600	8,123-18,814	60	22,800
Cost	\$5.7 million	-	-	-	\$150 million	\$3 million	\$62 million
Cost/kg to LEO	\$38,000	-	-	-	\$8,800	\$50,000	\$2,700

Types of MOAT



What is Switching Costs?

Switching costs gives a company **pricing power** by locking customers into its unique ecosystem.

Beyond the expense of moving, they can also be measured by:

- the effort
- time and
- the psychological toll of switching to a competitor

The cost of learning about the **differences in product quality** is an example of switching costs.



What is Switching Costs?

- ⌚ Firms often deliberately build Switching Costs into their products and services.
- Apple products (Air, iPhone, MacBook, Apple TV, etc.), Switching to an Android smartphone involves a lot of costs and a steep learning curve
- SAP
- Airline frequent fliers and other loyalty programs
- Non-portability of cell phone numbers, discouraged customers from switching between telecom providers



Switching Costs: Harvesting Vs Investing

➤ Companies that benefit from high switching costs must choose between:

- **Harvesting:** raising prices on captured customers
- **Investing:** capturing additional customers, means lowering prices to drive growth

➤ Jio Vs Airtel

- When Jio entered the market, it switched the play from Voice to Data and kept the entry costs very low vs. the market leader, Airtel.
- Once Jio Captured a substantial market share, it switched to harvesting customers increasing prices YoY.
- Jio built entertainment as a switching cost for customers.
Example: Jio Cinema, and a combination of entry-level access to Netflix, Hotstar etc.



How to Strengthen Switching Costs?

➤ Land and Expand

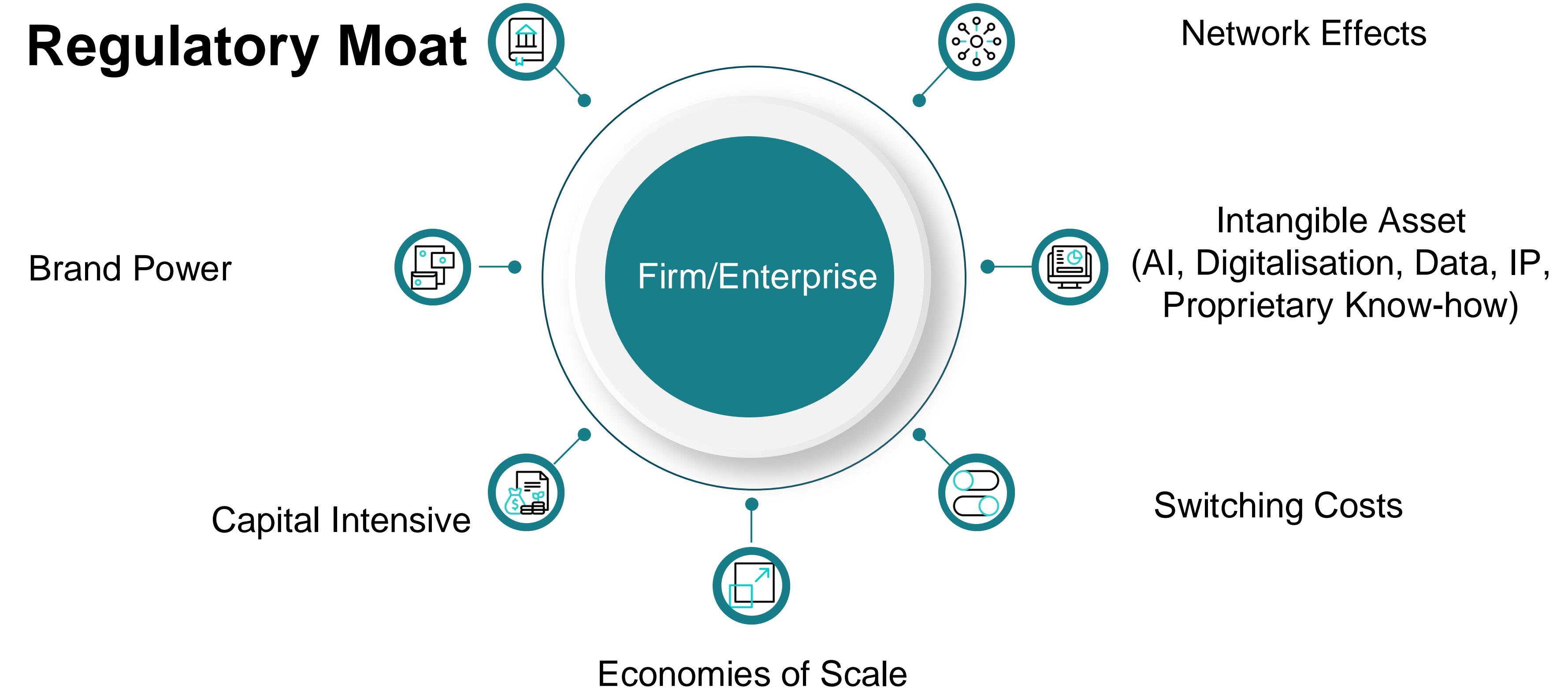
- Dollar Retention Ratio (DRR)
- Percentage share of customers spend achieved vs competition
- Percentage share of the potential with the customer

➤ Cross Sell and Upsell Offerings

- Consistently **cross-sell** and **up-sell** features/products to increase stickiness and make it **difficult to switch**



Types of MOAT



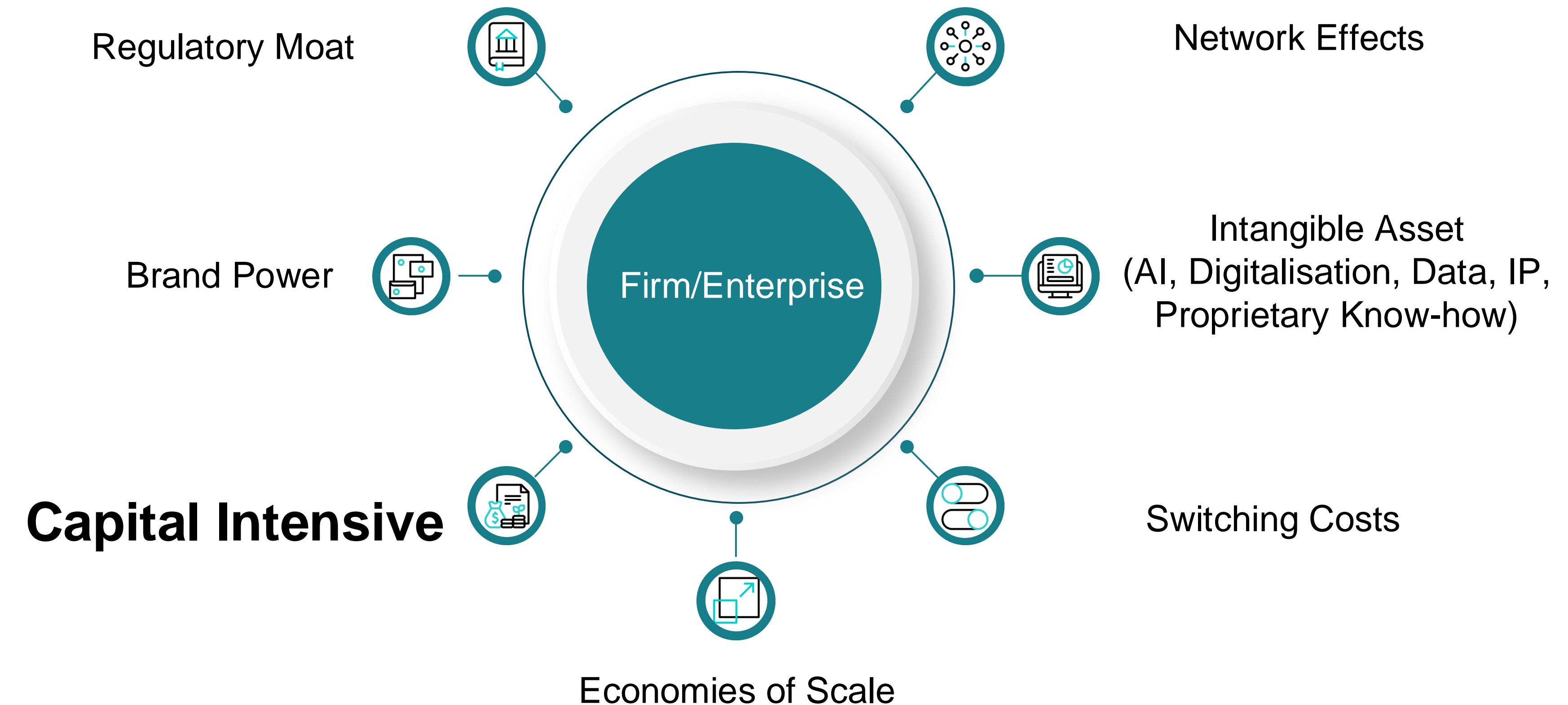
Regulatory Moat

A "Regulatory Moat" refers to the **protective barrier** created by regulatory compliance.

It often arises in industries with **high compliance requirements**, where existing, typically larger, companies can more easily bear the associated costs, effectively widening the moat between them and newer, smaller market entrants.



Types of MOAT





HAPPY LEARNING!

...