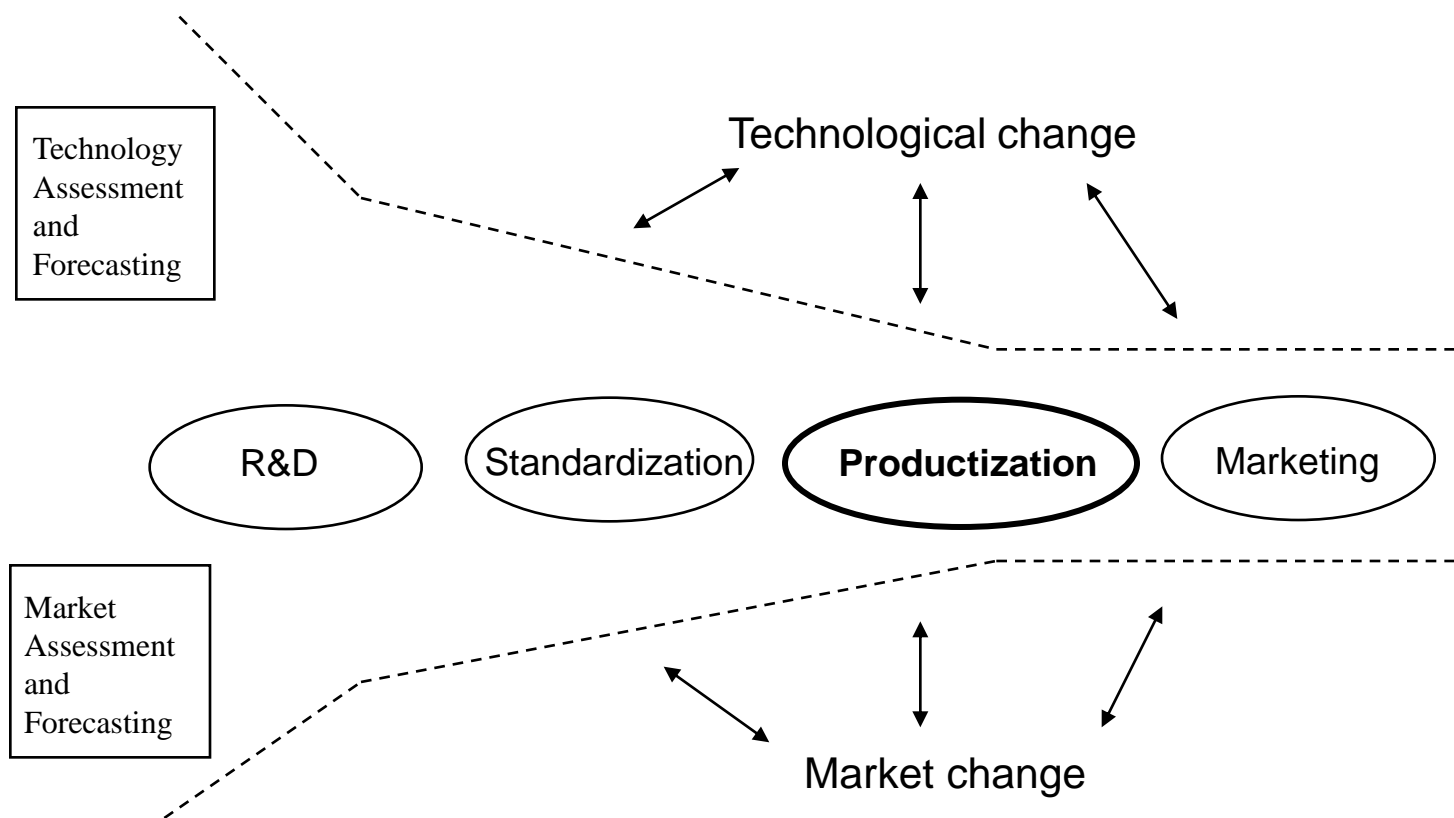


Innovation process

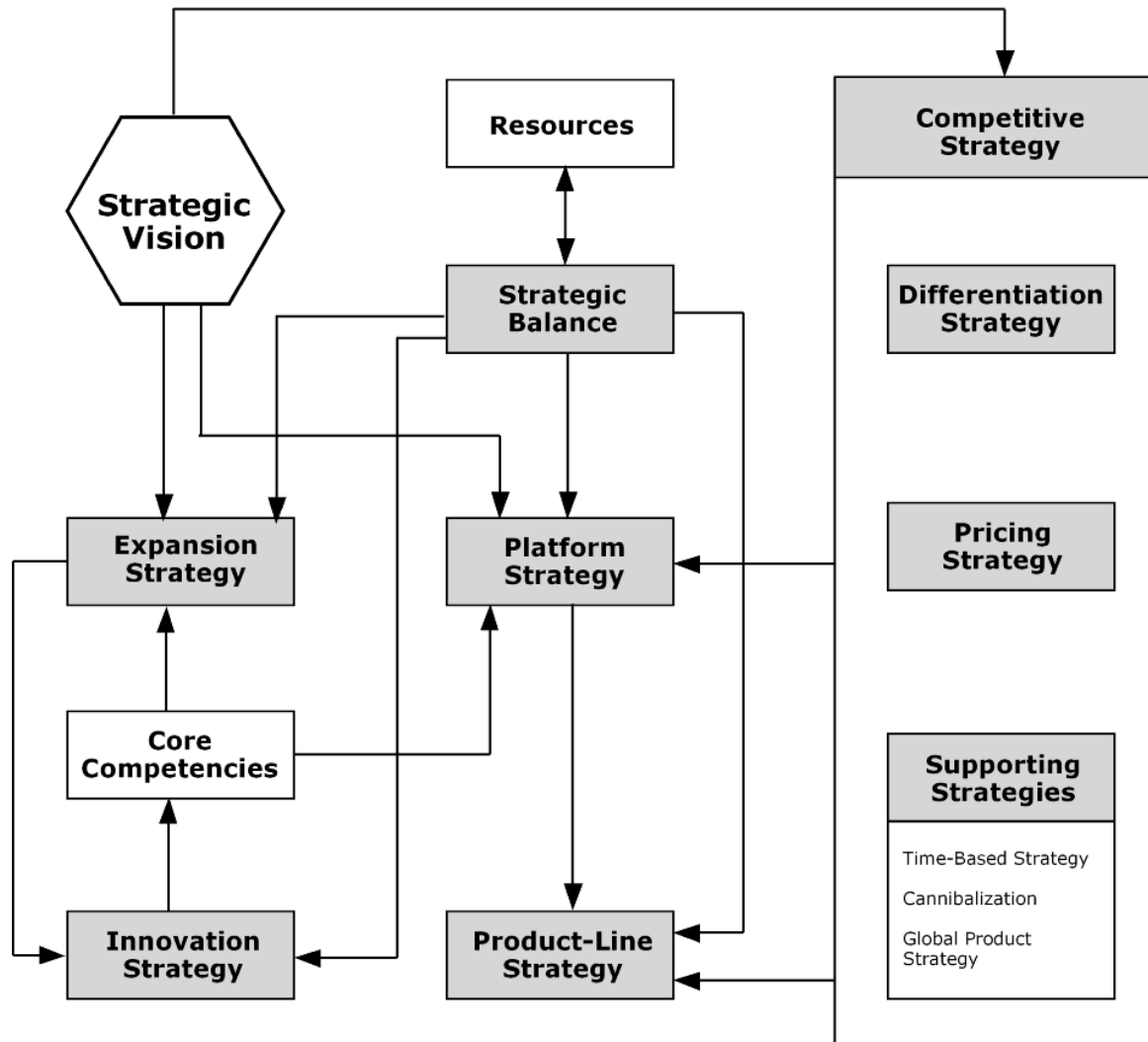


Productization

The aim of invest in R&D is to produce new and improved products, but failure in productization is common because they

- do not meet customer need
- are not sufficiently different than competitors ones
- do not meet technical specifications
- are too highly priced compared to value they offer
- do not comply regulatory requirements
- compete with existing products
- do not align with strategy

Process of Productization



Strategic Balance Trade-offs

- Focus vs. diversification
- Short vs. long term
- Current vs. new platform
- One business unit vs. another
- Research vs. development
- High vs. low risk
- Financial return

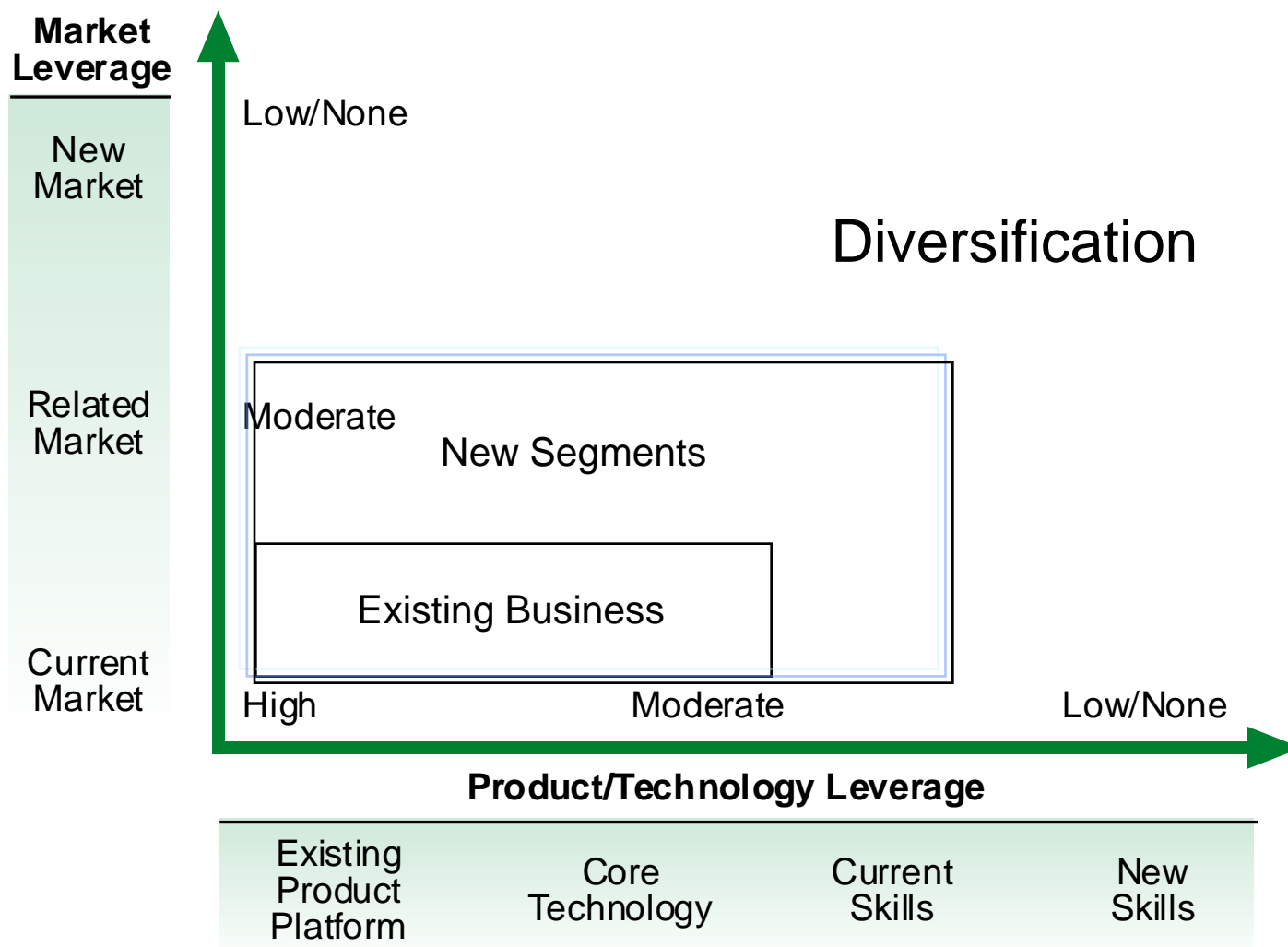
Strategic Vision

- Everything in a company should be done for purpose, which is to make money, **to make money company needs products** and/or services, to know what they are there should be a direction which is defined in a **strategic vision**
- Good strategic vision has focus, clarity, completeness, feasibility
- **Where** does company want to go, **how** will it get there, **why** will it be successful?

How Vision Guides Strategy

- Directing technology strategy
- Defining core competence
- **Focusing** the efforts of identifying new product opportunities
- Setting **expectations** for customers, employees and investors
- Establishing a framework for expansion

Expansion Strategy



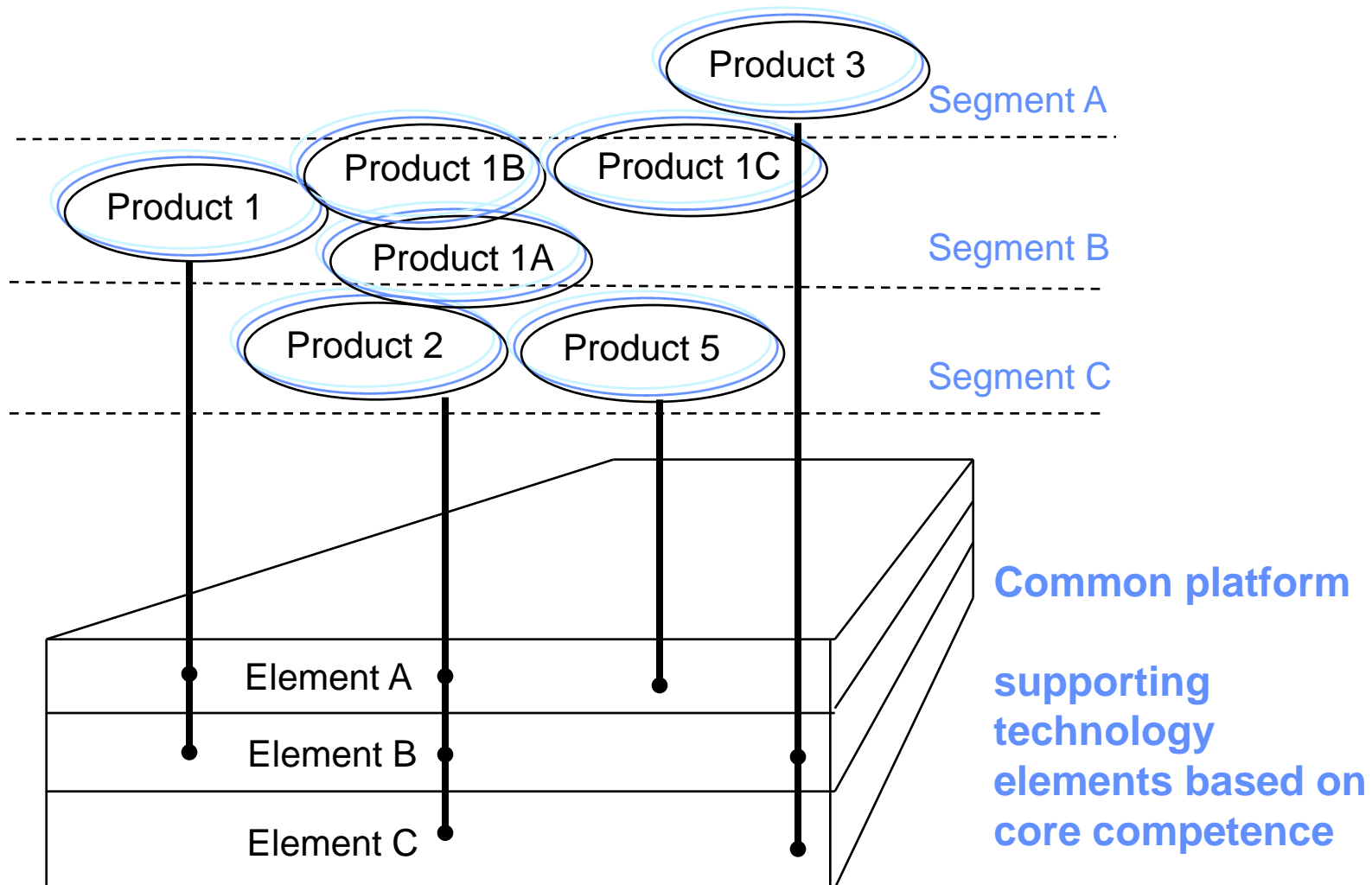
Growth through Acquisition

- Acquire product platform to expand into new market
- Acquire technology and technical skills to develop new product platform
- Acquire market and channel expertise to enter new market
- Acquire a competitor to strengthen a current market position
- Acquire a company with the capability to diversify into new market

Product Architecture

- Product architecture can have a large impact on the **structure of an industry and the types of follow-on innovation**
- Product architecture determines **who does what kind of innovation** and how much investment in complementary products will occur outside own organization
- Leading companies leverage their core technology but utilize frameworks such as **modular architectures and disclosure of interfaces** to ensure the supply of complementary products
- Product platform is a strategy of interdependence and a vision of a emerging business ecosystem

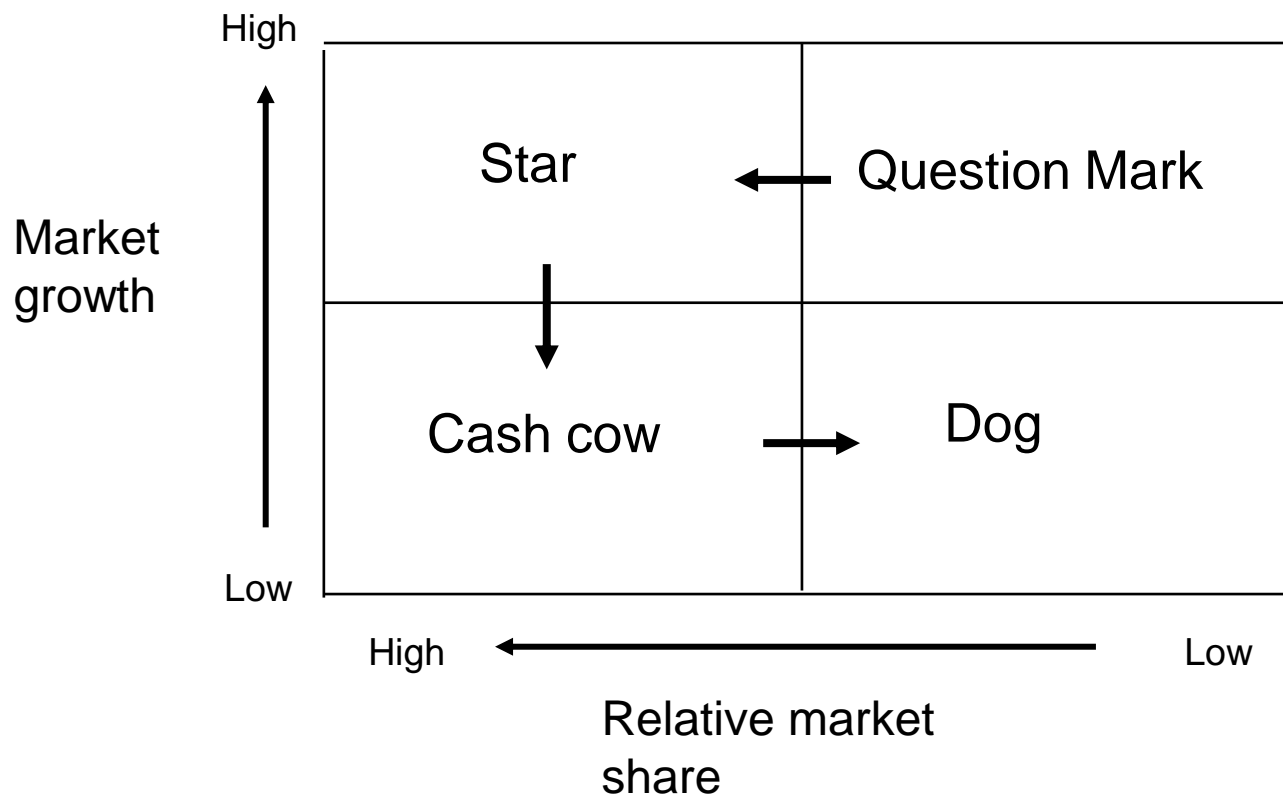
Product Platforms



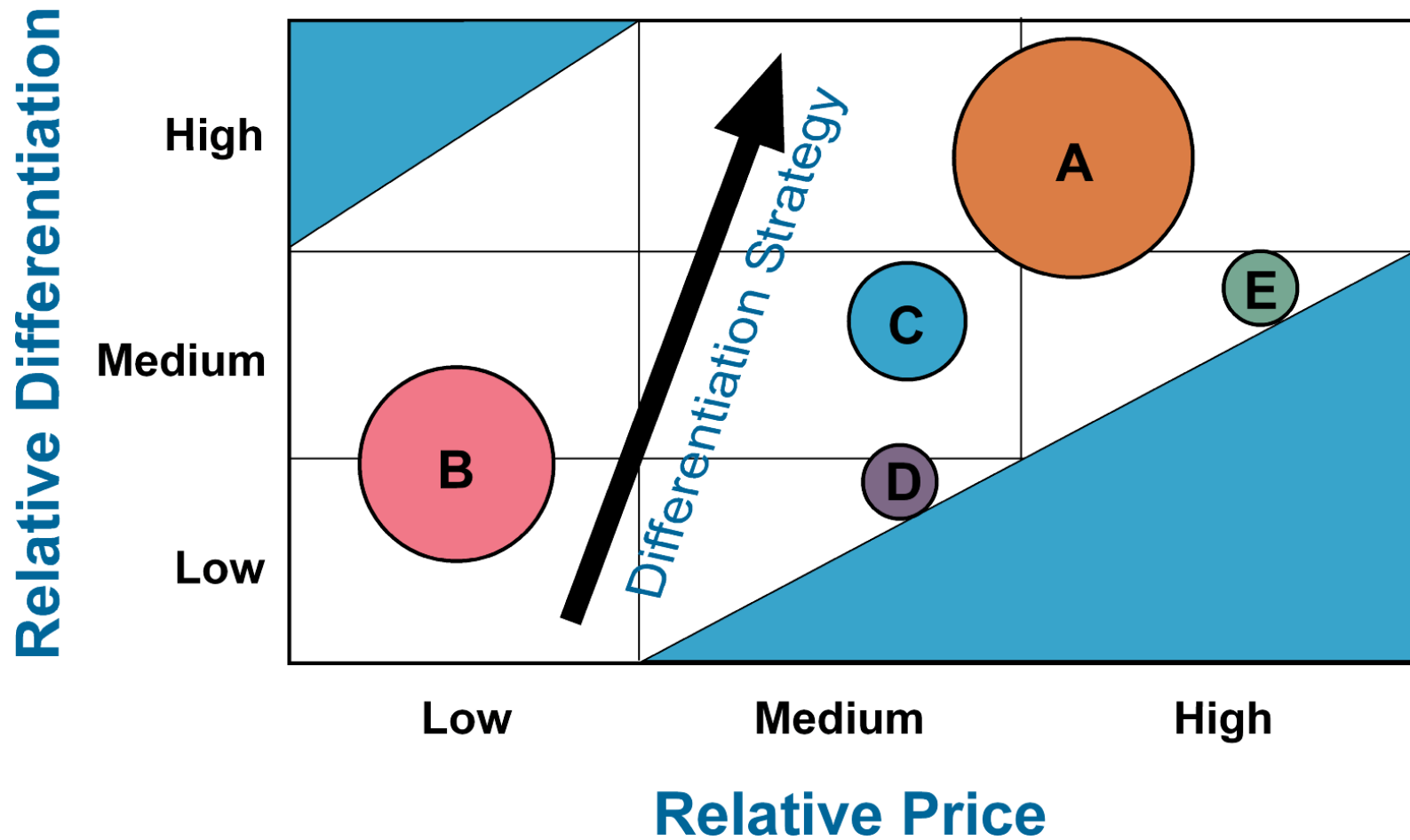
Benefits of Platform Strategy

- Enables rapid & consistent product development
 - Encourages a long-term view on product strategy
 - Dominant design position achievement – complementary products
 - Resource and channel synergies – **parallel** cost and differentiation advantage
 - Can leverage operational efficiencies
 - *R&D costs – **reuse***
 - *Manufacturing costs – **economies of scale***
 - *Increasing market using existing channels*
- **more value by decreasing unit cost**

Product Portfolio Management



Product positioning



Product Line Strategy

- The true potential of a platform strategy is extracted with an effective product line strategy
- A time-phased plan for developing products from a common platform, each product targeting a specific **market segment**
- Time-phased scheduling / sequencing of new market oriented features, platform technology can have own life-cycle and development plan
- High-end version first and then low-end by subtracting value from it
- New features first to high-end, then diffuse to low-end as competitive upgrades
- Creation of metrics for continuous evaluation of product profitability
- Segmenting based on customer needs and competitive situation - **differentiation**

Differentiation

- ICT products cost of production is dominated by the “first-copy R&D costs”
- This cost structure leads to substantial economies of scale without capacity constraints
- **Competitive forces tend to move the price toward marginal cost**
- A vector of differentiation enables sustained competitive product differentiation by continuous incremental innovation
- Differentiation as relative to competition, product roadmap

Differentiation dimensions

- Unique features
- Measurable benefits
- Ease of use
- Improved productivity
- Protecting the customer's investment
- Lower cost of product failure
- Higher-performance products
- Design
- Total solutions
- Total cost of ownership
- Brand

Risks of differentiation

- Not sustained
- Insufficient proximity to price
- Customer preferences misunderstood
- High cost
- Subsegmenting the market
- Emerging technology
- Perception of differentiation

Global Product Strategies

- Develop products uniquely for country markets
- Leverage country-specific product
- Customize global product platform
- Develop universal global product

Cannibalization

Causes of Unfavorable Cannibalization

- New product creates less profits
- New product requires significant retooling
- Greater technical risks

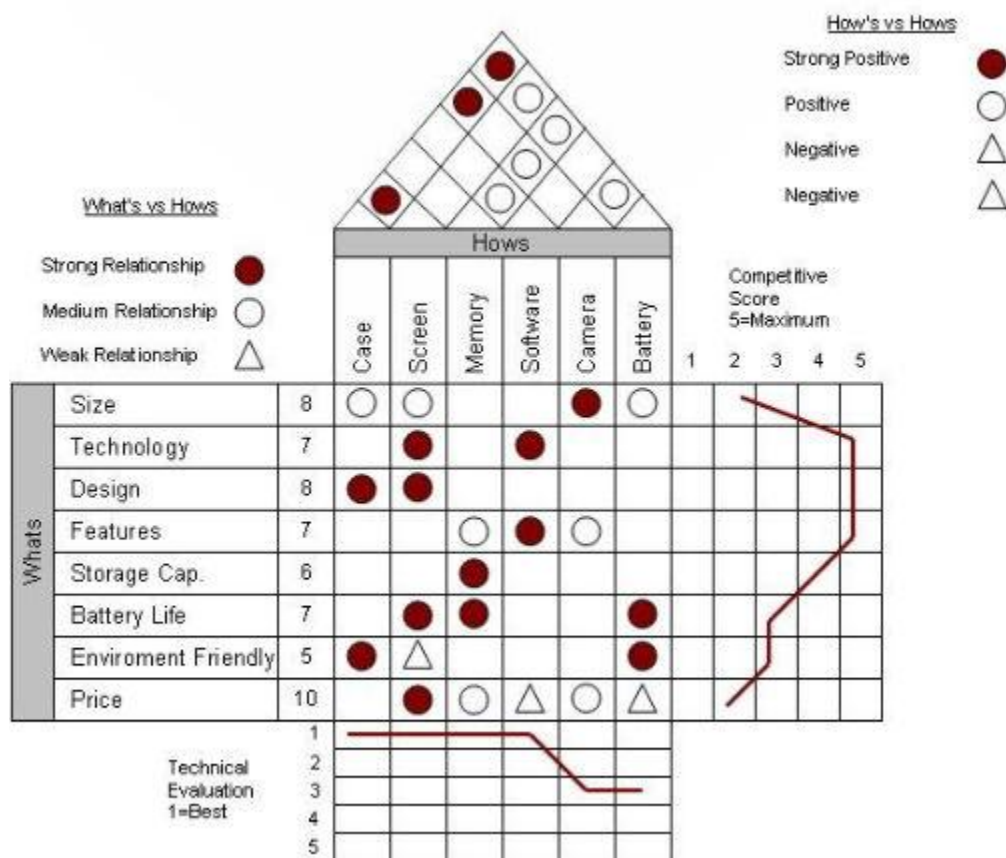
Offensive Strategies

- Attack market leader
- Introduce new technology first

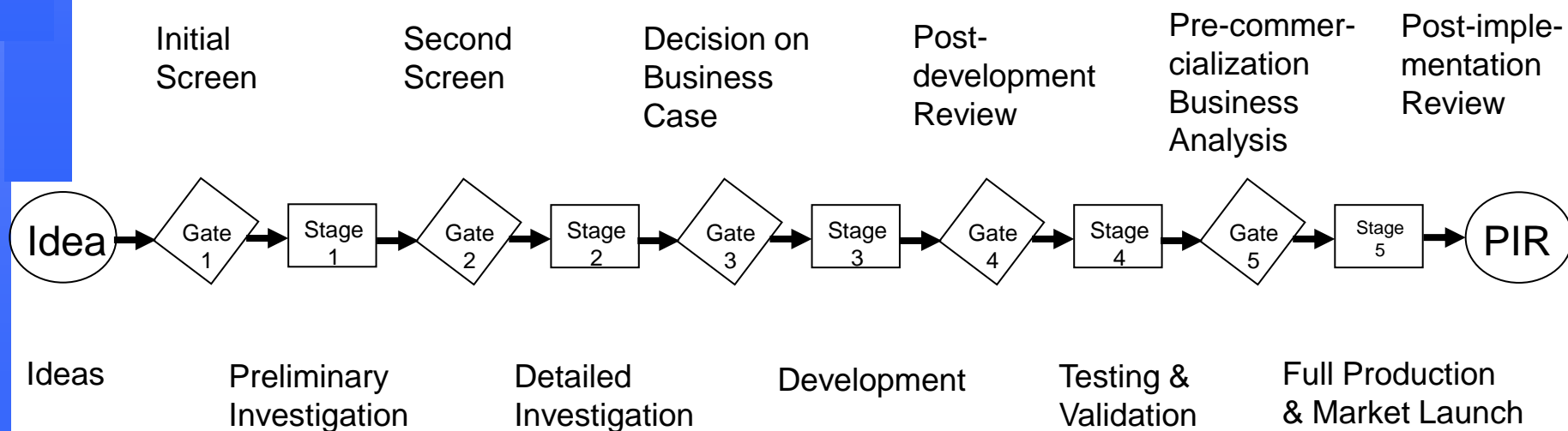
Defensive Strategies

- Cannibalize yourself before competitors
- Continue as technology leader
- Pricing
- Specific market segments

QFD-method



Stage-gate Method[®]

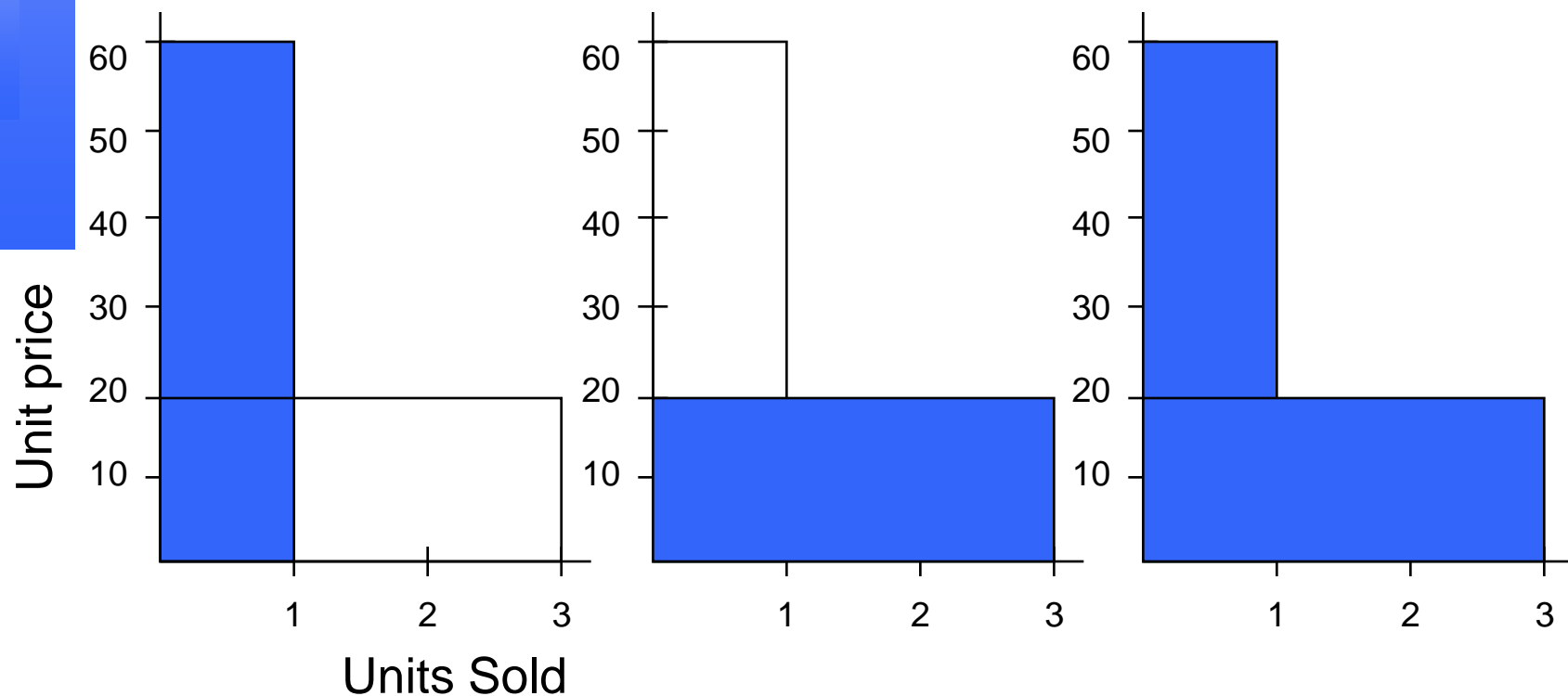


Source: Cooper, 1993

Managing External Relationships

- **Search for consensus** with complementors about technical standards and how they interface with products
- Consensus needs to be forged by one company driving the process
- Platform leaders should be **industry enablers**, they should help others innovate in better ways around the platform
- Platform leaders should not unnecessarily step out of their product boundaries into that of their complementors
- Leaders can reduce external tensions with a humble approach and by acting on behalf of the entire industry

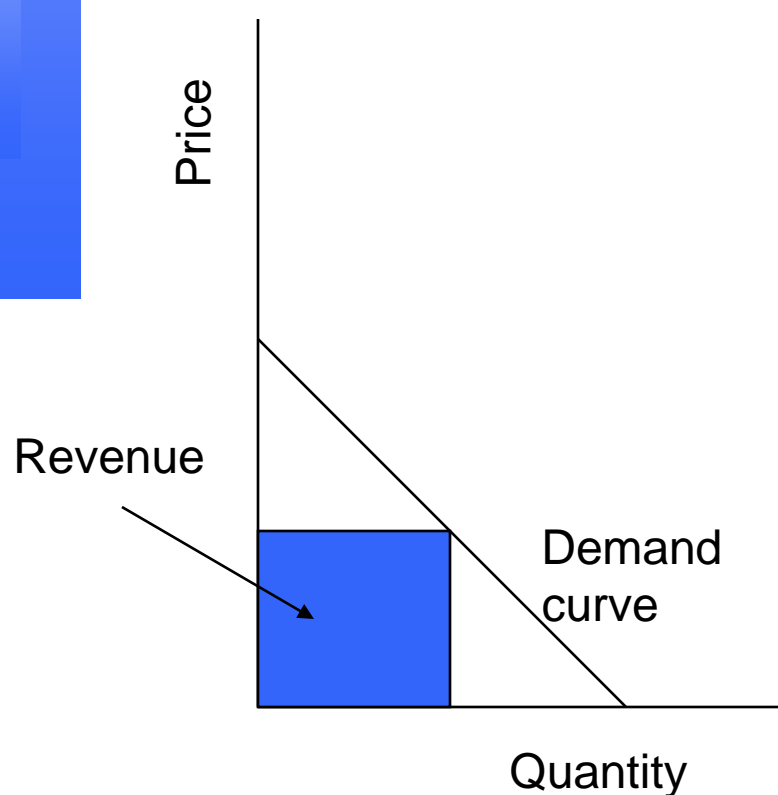
High, Low, and Differential Pricing



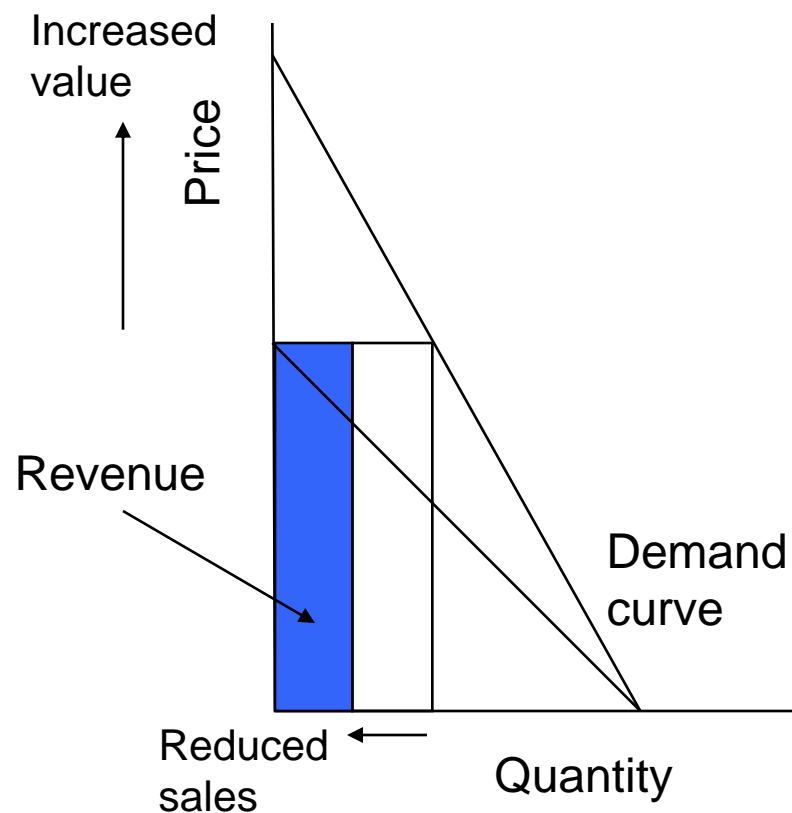
Types of Differential Pricing

- Personalized pricing
- Group pricing
- Versioning

Balancing Terms and Conditions with Sales



Baseline case



More liberal terms and conditions

Product Pricing Tactics

Offensive

- Establish price leadership as the basis for competing
- Penetration pricing to increase the market
- Experience-curve pricing to discourage competition
- Compete of price/performance
- Promotional discounting

Defensive

- Adapt to maintain highest competitive price
- Use price to segment the market
- Skim pricing
- Value-based pricing

Product Pricing Tactics

Risks of offensive pricing

- price leadership not sustainable
- price war
- no supporting cost advantage

Sources of cost advantage

- design
- economies of scale, platforms
- supply chain
- R&D process
- global scale

Product timing - First to market

- Influence to standards, technology leader
- Being the first to upgrade products with new technology
- Migration to existing installed base
- Requires actions to create a new market
- High proactive investments under high market uncertainty, requires responding rapidly to changes
- Earlier experience both from success and failure
- Market share advantage, higher prices

Product timing – Fast follower

- No proactive investment and innovation but efficient reactive R&D and production capabilities
- Waiting until a new market is clarified, learning of technology leaders failure
- Nearer in time to the market, easier to recognize suitable market segments
- Can use newer technology
- Getting and staying ahead when product life-cycles start to decrease