



School of Fish Strategy

BUILD SMARTER ENTERPRISE

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"Shoaling or School of Fish Strategy is a strategic design or configuring of an organization's value chain and assets as smaller, dis-aggregated and dispersed units through modularity, franchising, alliances, teams, and ownership-sharing so as to create competitive formations and reach markets far and wide, and achieve sustainable growth, learning economies, innovation, agility and speed while reducing cost and investment risk".



CHALLENGE BIGGER RIVALS

School of Fish or Shoaling Strategy

With the advent of new millennium, knowledge economy has taken stronger roots across many industries gradually replacing the scale economy firms. As markets have become quite dynamic and technologies are changing radically, it is inevitable for companies to continually innovate and adapt to change.

In this new context, established firms as well as emerging industry-challengers are continually searching for strategies that will ensure returns with minimal risk. While incumbent industry leaders - with their size built to secure scale-economy advantages - struggle to sustain the pace of innovations and market responsiveness, whereas emerging industry challengers search for innovations to break the industry barriers.



In their recent study, observing variety of companies from several industries, Professors Senthil and Parshotam challenge the traditional logic behind scale-integration based strategies, and argue that companies that operate in a dispersed but synchronized manner are able to concurrently achieve scale economies as well as market responsiveness. From their research spanning topics such as alliances, teams, sustainability, corporate structure and governance, Senthil and Parshotam develop a synthesis which contends that "***School of fish or Shoaling Strategy***" (SOFS) reduces the opportunity cost of not exploiting emerging market opportunities as well as reduces investment risk that accrues due to large-scale integration. As firms are witnessing uncertain business conditions and more thrust is being given to agility, speed and market responsiveness rather than scale and size, operating in a shoaling form is recommended as *de rigueur strategy* for firms across many industries.

Shoaling (SOFS) can be considered a unique business strategy because it allows small firms to effectively rally their resources against large rivals or can enable a large firm to operate with the nimbleness of small entrepreneurial firm. Shoaling formation enables dynamic competitive strategies permitting the firm to develop unique or optimal strategy for each rival it encounters in the respective market or region.

With School of Fish strategy, "quick fish - albeit smaller - can eat large fish" defying the notion "big fish eats slow fish". With shoaling formation small firms will have agility and speed as advantage to challenge larger rivals. Shoaling can also enable high-growth with lesser asset concentration and investment.

“Disaggregation and dispersion of value chain, kaleidoscopic structure (modular organization and products), franchised production, multi-pronged competitive strategy, dynamic reconfiguration of product and markets” are distinguishing features of school of fish strategy.

SCALE ECONOMY STRATEGY VS SCHOOL OF FISH STRATEGY

Market / Organization Characteristics	Scale Integration (Shark Strategy)	School of Fish Strategy (Shoaling)
		
Market definition / segmentation	Demographically-defined and stratified market categories	Personally-defined, scattered and dynamically shifting customer clouds
Product offerings	Standardized, predetermined and fixed product configurations	Mass customized and tailored dynamic product configurations
Competitive orientation	Positioning based on pricing, differentiation and segmentation	Dynamic and multi-pronged competitive positioning with complex array of customer-preferred attributes
Source of advantages	Firm size, economies of scale, market share or cost advantage	Transactive intelligence, economies of learning and continuous innovation
Corporate architecture	Capital intensive, large scale asset integration (merger, acquisition, subsidiary control)	Knowledge intensive networks and dispersed ownership of assets (alliance, franchise, employee/customer-owned)
Relational dynamics	Hierarchical, top-down, supervisory, power and control centered	Cooperative, trust based, knowledge sharing, mutual power & respect based
Organization design	Standardization, specialization, and centralization (Tower design)	Modularity, diversity, absorptivity, autonomy, and decentralization (Kaleidoscope design)
Coordination cost	High transaction cost, high bureaucratic cost, and high investment risk due to asset and ownership concentration	Less investment risk, low transaction cost and low bureaucratic cost

SOFS Competitive Strategy Mapping

Competitive Strategy Mapping is the primary starting point for formulation and execution of school of fish strategy. To design a multipronged competitive strategy, we need to know how competing brands are positioned with regard to product and market attributes. By mapping market characteristics, competitors’ product/brand attributes, features that customers value, we can formulate a business strategy - school of fish

multi-pronged competitive strategy – that can match or surpass the competing brands. Or design a strategy that is distinct enough to create new market domains.

A comprehensive competitive strategy mapping can help identify new possibilities in product innovation, outliers (emerging trends and new attributes that customer prefer), and strengths & weaknesses of competing brands. Plotting of the competitive strategy map can be done with data collected from sales and retail front, focus group interviews or elaborate market research. The scales can be standardized (same format) or non-similar, and the ranges can be specified according to the needs and convenience. Identification of the attributes can be based on sophisticated statistical analyses like multi-dimensional scaling, cluster analysis or simple aggregation of the measures collected from the survey, interviews or field observations.

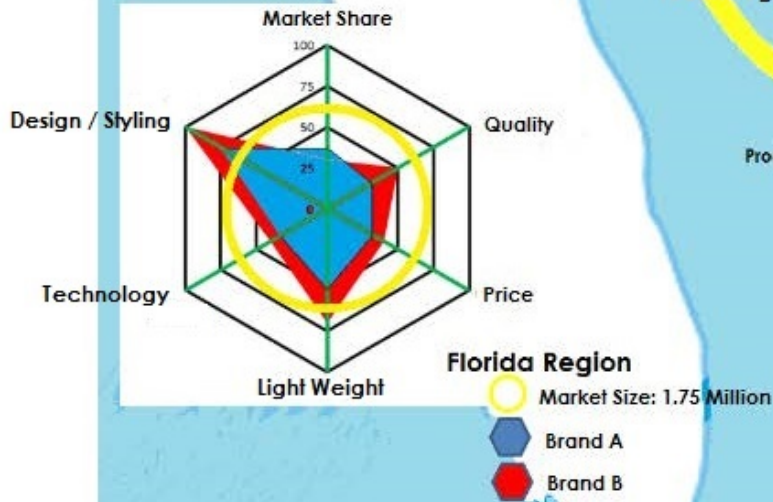
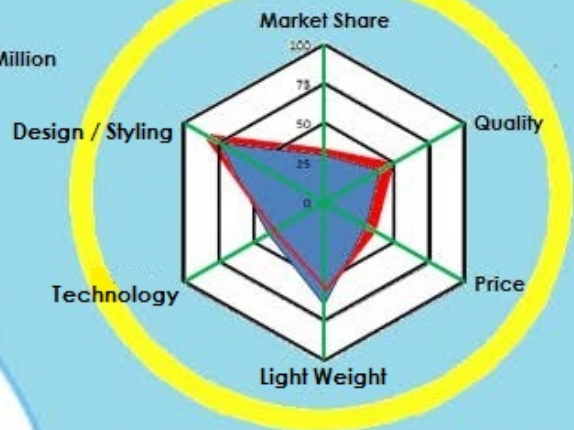
Once the right configuration of product/market attributes defined, firm's value chain, supplier alliances, extent of modularization, location and logistics of production/distribution can be effectively designed. Competitive Strategy Mapping will be helpful in comparing and summarizing differences across markets and regions. With strategy mapping, we can make comparative analysis of make vs buy implications, location decisions, centralization vs dispersion of value chain, transaction cost vs bureaucratic cost of organizing the value chain for each brand or every unique competitive strategy pursued by a firm.

With strategy mapping, a brand/product can be compared not only with competition, but also with substitutes, complementary product/service, across industries. We can identify intangible and tangible augmentation, and knowledge component for further innovation. Dynamic analysis of current and emergent posture of rivals can help arrive at new strategic direction for a brand of product or service.

A hypothetical strategy mapping of two competing brands of bicycles are configured in the insert as an example. The two brands A and B competing in 2 regions (Georgia & Florida), their respective product-market attributes, and aggregate of attributes (combining 2 regions) are mapped and compared.

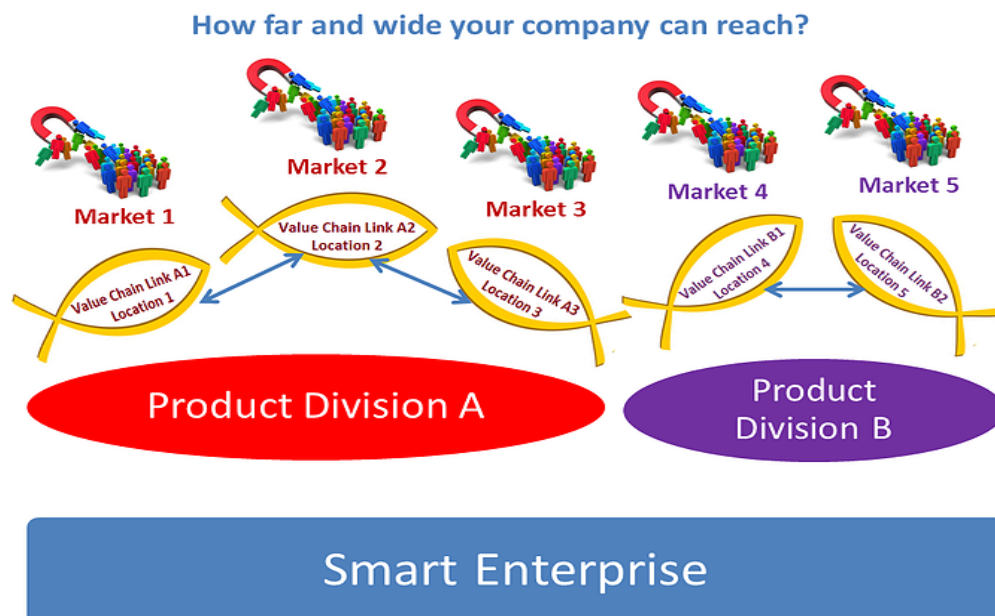
School of Fish Strategy Competitive Strategy Mapping

SOUTH CAROLINA



SOFS Modular Value Chain Dispersion

- How far and wide your company can reach in search of markets and resources? With right slicing and dispersion of value chain or business unit(s), your business can operate like a school of fish and reach distant markets; access critical resources located far away.
- With disaggregation and dispersion, your company can create new markets or with multipronged competitive strategies you can challenge larger rivals. School of fish formation can render a unique optimal strategy for each rival you encounter.
- This strategy enables outsourcing, offshoring, global reach and can reduce investment risk and bureaucratic cost. With school of fish strategy, you can try co-branding or create franchising or alliances in manufacturing, marketing and retail aspects of value chain. You can facilitate autonomy, profit sharing and enhance innovation and customer responsiveness.
- Operating like a school of fish, your value chain will have the potential to unleash innovations and render a kaleidoscopic configuration of new unoccupied product-market domains.



School of Fish Modular Value Chain Strategy



Identify product attributes that customers like or attributes that can attract new customers.



Which units or value chain of your company can deliver most of these attributes?



Identify alliance or franchise or offshore partners who can deliver on these attributes?



Analyze whether your company can create a distinct unit or form alliance/franchise to deliver these attributes effectively?



Examine whether critical product components & value-chain links can be modularized to form optimal strategy for each market (to serve the market better or outsmart the rivals).



Create links among units (producing core product modules) and value-chain links/alliances/franchises to deliver the product with right attributes to right market segments. Decide on processes and locations to optimize and achieve coordination efficiency, cost, marketing, transportation & logistic advantages.

Kaleidoscope as Organization Metaphor

Kaleidoscopic design for organization naturally complements school of fish strategy. Our study of several successful global enterprises reveals that organizations that are agile, innovative and quality-driven are built on 'learning economies' rather than the traditional logic of 'scale economies'. Our research corroborates this new phenomenon of flourishing knowledge-centric global enterprises operating like a school of fish in dispersed and permeable manner. We observed that the knowledge-era firms are drawing strengths from their organizational architecture that combines flat, flexible and lattice like (matrix) structure, and learning and innovation-driven team culture.

Kaleidoscopic design not only captures the agile & learning orientation of knowledge-economy enterprises, but it also embodies their creative and innovative spirit. To complement the school of fish strategy, structure and culture should render the kaleidoscopic reflectivity, modularity and diversity. Scale-economy industrial giants, however, have grown older and their strategies displaying myopic tendencies and organizations lacking information processing capacity to handle uncertain business environments due to bureaucratic lethargy, attrition and entropy.

Large integrated structure and rigid culture inhibit their adaptation to dynamic changes in technologies and markets. A firm will have limited choices if it cannot adapt to market dynamism, resulting in sub-optimization of resources, direct collision with competition, price wars, and entropy (i.e. depletion of organizational energy & resources).

Kaleidoscope is a simplest system one can imagine; however, it is capable of creating most complex and infinite number of patterns; in a creative sense, it personifies unlimited potential. It embodies a metaphor for flux, changing and seamless nature of markets and organizations.

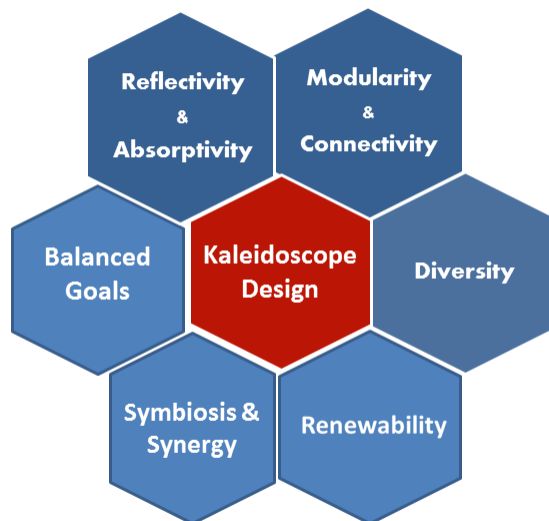
Kaleidoscope organization structure is a foundation for execution of school of fish strategy. Kaleidoscopic organizational design will enhance the dynamism and information processing capacity required to implement school of fish strategy. This mode enables an organization to continually renovate resources, seek opportunities across markets and industries, and continually redraw its boundaries.

To implement kaleidoscope design, certain principles required for organizing information, task, technology, resources and employees.

Following six principles are necessary for implementing kaleidoscopic design.

1. **Reflectivity & Absorptivity:** Organization should have absorptive boundary and high reflectivity for exchanging information and resources effectively across and within.
2. **Modularity & Connectivity:** Organizational systems need to be modular to connect and collaborate within and outside.
3. **Diversity:** Organization must allow for convergence of diverse ideas and people.
4. **Renewability:** Fostering organization culture seeking change and renewal.
5. **Symbiosis & Synergy:** Design the organization to build synergy through symbiosis among units & processes.
6. **Balanced Performance Goals:** Organization must set Fair, Ethical, and Balanced Goals.

Kaleidoscopic Organization Characteristics



Measure of Bureaucratic Cost

Bureaucratic Cost in an organization not only stems from tall hierarchy and huge administrative structure, but also rises due to inability of the organization to respond to customer expectations and dynamic markets. Organization structure – whether tall or short hierarchy – if it responds better, the bureaucratic cost will be less.

In scale economy, tall bureaucracy offered increased efficiency with slow rises in coordination cost. Whereas, in knowledge economy, as markets have become more dynamic, tall bureaucracy is less responsive with steep rises in coordination cost.

Measure the relative bureaucratic cost of your unit/division/company.

Using the pictorial scales 1 to 6 (ranging from 25 to 100) measuring Delegation, Response time, Customer responsiveness, Variability, Efficiency and Alignment, Calculate the score for bureaucratic cost. Higher the number on the scale, larger the inefficiency and coordination cost. Compare your company with bench-marks.

Example: Company A:

Bureaucratic Cost = 75 (delegation) + 50 (response time) + 50 (customer responsiveness)
+ 50 (adaptability) + 50 (efficiency) + 100 (alignment) = **375**

A unit having high efficiency and responsiveness will have the least score of **150**

A unit with high bureaucratic inefficiency will have the high score of **600**

Measure of Transaction Cost

Transaction cost to an organization rises due to uncertainty in business transactions with external sources, information asymmetry, lack of trust and commitment, and frequent renegotiations with suppliers.

In scale economy, transaction costs were quite high due to less reliability of suppliers enticing firms to acquire or internalize the sources of supply. In knowledge economy, however, transaction cost is getting flattened due to supplier reliability and advancements in transportation, telecommunication and information technology capabilities, and thus encouraging dispersing the operations and ownership of production.

Measure the relative transaction cost of your unit/division/company for each critical supplier.

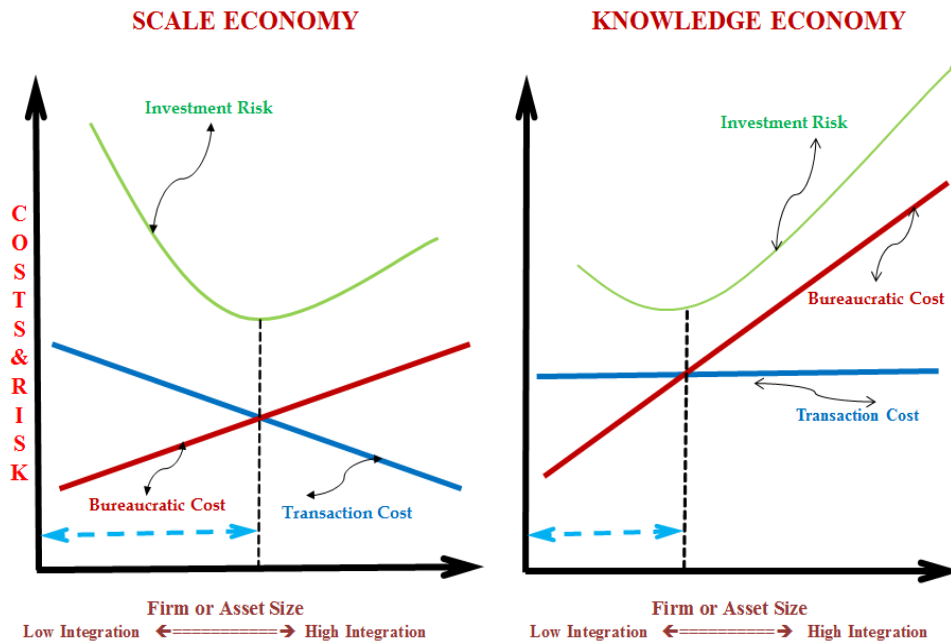
Using the pictorial scales 1 to 4 (ranging from 25 to 100) measuring Trustworthiness, Information Asymmetry, Power Asymmetry and Supplier Fit/Alignment, Calculate the score for transaction cost. Higher the number on the scale, larger the transaction risk and coordination cost.

Example: Company A:

$$\text{Transaction Cost} = 75 \text{ (trustworthiness)} + 50 \text{ (information asymmetry)} + 50 \text{ (power asymmetry)} + 25 \text{ (supplier fit)} = 200$$

A unit/company having low transaction risk and cost will have the least score of 100
A unit/company with high transaction risk and cost will have the high score of 400

CHANGING COST STRUCTURES FOR ORGANIZATION & PRODUCTION





Empowering Leadership

Empowerment is the cornerstone of school of fish strategy. Trustworthy leaders, greater autonomy and sharing power & ownership are natural corollaries of shoaling formation thus empowering the whole organization toward effective strategy execution. With disaggregated value chain nested through kaleidoscopic architecture (modular units, self-managing teams, cross-functional interfaces and communities-of-best-practices), a business can be endowed with greater impetus for innovation. The knowledge-driven dispersed organization can organize the core activity and its functions in the form of networked franchises or alliances providing the necessary autonomy, entrepreneurial dynamism and innovativeness.

Empowering features complement leadership and enhance the responsiveness, agility and speed required to function in complex and uncertain industries. Learning capacity is enhanced in shoaling organization because of its market orientation and shared ownership structure. Shoaling entails opportunities for emergent strategies. Instead of vertical commands, achieving 'concertive control' by fostering esprit-de-corps, team spirit and shared mindset will be given strategic thrust in school of fish organization.



Is your business poised for knowledge economy?

Does your company generate value from intellectual/knowledge assets?

What is the extent of cost advantage or value gain arising from the knowledge resource? As a proportion of total cost or selling price of your product / service?

**Are your knowledge resources leveraged to generate more value?
Exchanged with suppliers, buyers and influencers?**

Is your organization structure less hierarchical? flat?

Does your organization promote esprit-de-corps, team spirit and shared mindset?

What extent your company's employees, divisions, units interact through cross-functional teams, communities-of-best-practices and mutual-learning sessions?

Does your company have trustful alliances with suppliers and buyers across value chain?



Craft-beer-ship: breaking the barriers in the beer industry Boston Beer Company – pioneering the micro-brewery revolution



The Boston Beer Company represents one of the most successful craft brewers in the USA, competing effectively against large mass-produced breweries. “Boston Beer” was founded by Jim Koch in 1985 with a family recipe and entered the market with a crafted beer brand “Samuel Adams Lager”. This brand was initially brewed in small batches with an obsession for quality, freshness and flavor. Samuel Adams beers have won numerous international awards and are still brewed using the time-honored, traditional four-vessel brewing process and are market positioned in the “Better Beer Category”. Samuel Adams is the only brewer practicing a cooperative program with its distributors to buy back its beer when it is past its peak freshness date.

Samuel Adams brand boasts itself as high-quality hand-crafted beer made with world’s finest all-natural ingredients purchased from Bavarian hops farmers. Instead of locking all the capital in production assets, Boston beer has grown primarily through microbrewery production methods and contracting with third-party packers and franchisees to produce all its brands.

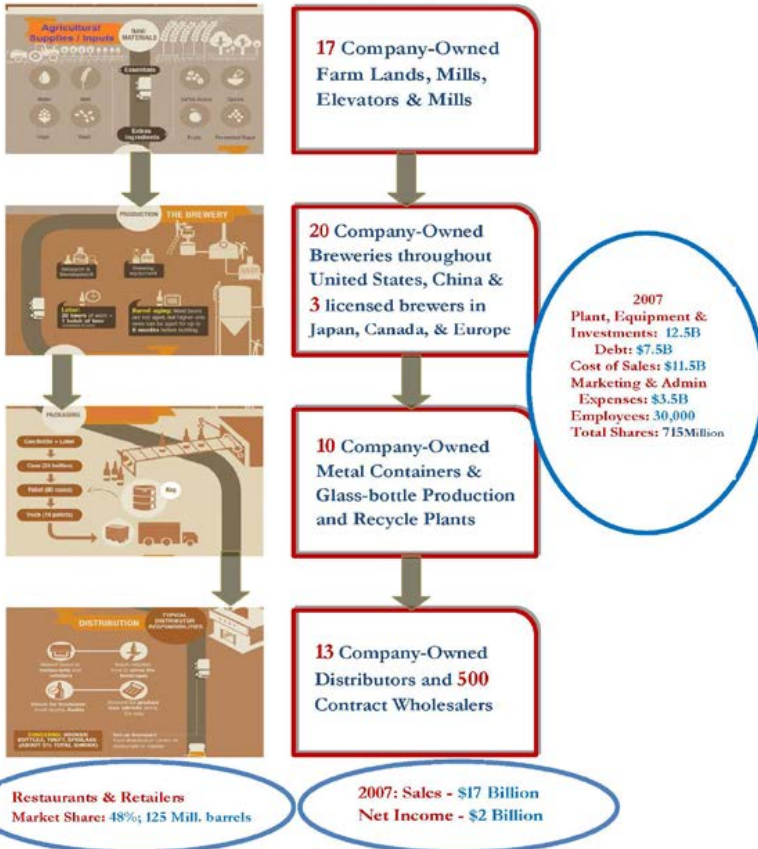
With the strategy of operating in a decentralized and dispersed manner using a chain of contract brewers, Boston Beer was able to market its specialty crafted beers nationally without incurring shipping expenses. From 500 barrels per year during its inception years to brewing close to 2 million barrels per year now, Samuel Adams has grown to be the largest craft brewer with 1 per cent of the total US beer market (www.bostonbeer.com). The success of Samuel Adams has become an inspiration and a catalyst to other small and

microbrewers. The exemplary performance of microbrewers and specifically specialty craft brewer like Boston Beer Company serves as a testament in support of the effectiveness of the business strategy of disaggregation and dispersion of manufacturing, marketing and distribution activities. The success of craft brewers like Boston Beer suggests that companies can operate profitably in a smaller scale disaggregating their core activities offering variety, quality, uniqueness and customization. And this shoaling strategy can be effectively replicated in a range of businesses and industries such as food processing, consumer durables and construction for achieving innovation and growth.

In addition to the cost and marketing-related advantages, there are several socio-economic benefits of disaggregating a firm's value chain. Through disaggregation of operations, a firm can decentralize decision making and provide more autonomy, and thus, in turn, develop a sense of ownership control among employees and managers. Disaggregation allows for more product or design variations in manufacturing. Decentralized operation enables simple and lean organization structure, reducing the power and salary distance between management and employees. Dispersed value chain allows unit and functional level managers to search for new opportunities resulting in diversification and growth.

With dispersed operation of the value chain, there is more opportunity for sharing or franchising the firm ownership with managers and employees, and thus reducing the cost of capital and investment risk. Dispersed arrangement helps firms to develop multi-pronged competitive strategies, that is, enabling the firm to develop a unique or optimal strategy for each rival it encounters in the respective market or region. In addition to achieving cost reduction, quality and customer responsiveness, dispersed operations would help companies reduce the environmental cost and enhance the sustainability performance. Samuel Adams's overall success in terms of cost savings, quality, innovation, employee learning and productivity, and overall effectiveness of financial and operational performance attest to the significance and consequence of scale reduction and dispersion of organization and production systems.

Value Chain of Anheuser-Busch (2007 before acquired by InBev)



Value Chain of Samuel Adams (2014 Boston Beer Company)

