

StratSimMarketingMarketing Strategy Simulation

Michael Deighan, Interpretive Simulations Stuart W. James, Interpretive Simulations Thomas C. Kinnear, The University of Michigan



Charlottesville, Virginia, USA

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We look forward to hearing your comments and suggestions on our latest release and best wishes for a great experience with *StratSimMarketing*.

Stu James Mike Deighan Tom Kinnear



Simulations are one of many different methods for learning business skills. They can capture the essence of reality and help us practice implementing business theory without the potentially large costs of errors. StratSimMarketing is a marketing strategy simulation game based on the automobile industry. Needless to say, much of the complexity of the industry has been simplified to allow participants to focus their time and energy on strategic issues. However, we've retained as much realism as possible to make it easier to quickly understand the overall environment.

StratSimMarketing addresses the following issues:

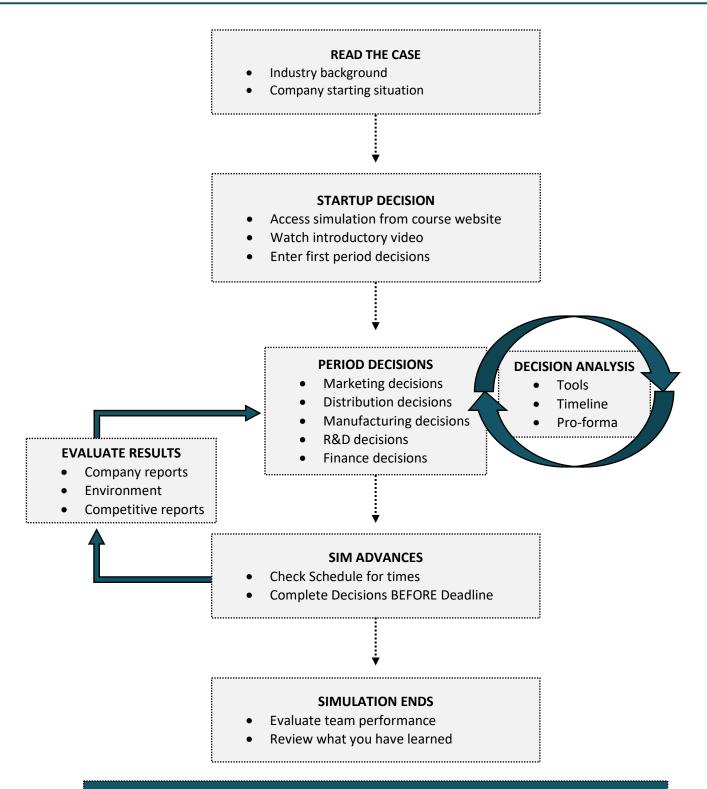
- Learning what it means to have a market-oriented perspective.
- Developing and implementing a profitable long-term marketing strategy.
- Identifying customer needs and creating products to satisfy them.
- Analyzing competitors and understanding their strategic intent.
- Using marketing research tools and techniques as a source of competitive advantage.
- Allocating scarce resources among products, functions, and other investment alternatives.
- Understanding the differences between consumer and B2B buying processes (optional).
- Negotiating mutually beneficial relationships with other firms through licensing (optional)

In the simulation, you or your group will be competing directly against other teams, either in your class or possibly at other universities. Decisions are made once each simulated year. Once all competitors have made these annual decisions, the simulation will be advanced, and the results will be updated. These results will be dependent upon your decisions, those of your competitors, and the evolution of the market. Each run of the simulation will develop uniquely based on how the competitors interact, what new products are introduced, and how these products are supported. As you will soon see, StratSim provides a very dynamic learning experience. Segment needs will evolve, new products will be introduced, and the economy will have its ups and downs. The simulation is designed to be a fun, but challenging, experience.

Competing in the StratSim environment will require complex analysis and decision-making. Therefore, take some time to familiarize yourself with the case before beginning the simulation. While working through your decisions, you will find it helpful to refer to the manual for information and strategy tips.

To get the most out of the StratSim experience, we recommend the approach outlined on the following page.

StratSimMarketing Quick Start Guide



Your instructor may require additional assignments during the simulation. Check the schedule and messages on your course website for details.

StratSimMarketing Manual

The remainder of this manual is divided into sections described below. Your understanding and success in StratSim will be greatly enhanced by reading this manual <u>before you begin the simulation</u>. The sections listed below will answer most of the questions students typically have during the simulation experience, and reading them has the added benefit of improving your competitiveness. Finally, the operations guide and StratSim case are also available online in the simulation software.

Section 1: StratSim Case presents the StratSim industry in a form similar to a business school case. It also serves as an introduction to the situation when starting the simulation. Following the case are examples of the various product classes and segment descriptions.

Section 2: Managing for Success in StratSim Tackling the simulation is quite an undertaking. This section provides a basic framework for designing and implementing a successful strategy in StratSim. Also contained in this section are some helpful tips for performance analysis and timeline planning.

Section 3: Market-Based Marketing Management provides some of the core concepts of marketing strategy theory in textbook form. For the most part, these topics apply to StratSim, but they may also be assigned for reading as part of the class outside of the StratSim exercise.

Appendix: This section contains a glossary and an index.



Congratulations on your recent appointment to manage one of the firms in StratSim. Though your primary objective will of course be to learn, you will also be setting other goals and objectives for your firm. Those may be to become the market leader, or perhaps to maximize shareholder return, or possibly to generate the most net income over the course of the game. Selecting objectives is up to your instructor and your group. However, you will find that the firms who do best in StratSim have a market-oriented strategy and execute it better than their competitors. This is far easier to say than to achieve. That is the challenge faced by all marketing managers and executives.

The case provides background information on the industry in which you will be competing. The data that appear in this case may not match your scenario. Be sure to use the reports in the simulation for exact numbers.

Industry Overview

Your firm is one of five competitors in the StratSim environment. At the start of the simulation each firm is in a unique starting position, with three vehicles targeting different market segments. All revenues are generated through sales of cars and trucks to automobile dealers, who sell to consumers in the StratSim world. Additional revenues may be possible through business-to-business (B2B) or via licensing agreements. Industry sales in the most recent year in domestic consumer markets were 4.4 million units, and some growth is expected in the next year. An overview of the five firms and the vehicles they manufacture at the start of the simulation is provided in Exhibit 1.1 below. Note that the first letter of each vehicle matches the first letter of its manufacturer for easy identification.

Exhibit 1.1: Company Overview

Firm Name	Vehicles	Sales (000s units)	Sales (billions)	Income (billions)
(A) Amazing Cars	Alec, Alfa, Awesome	1,278	\$21.9	\$1.3
(B) Best Motor Works	Beaut, Boffo, Buzzy	374	\$11.7	\$1.2
(C) Cool Cars	Cafav, Camini, Climax	482	\$13.3	\$1.2
(D) Driven Motor Co.	Defy, Delite, Detonka	1,128	\$20.0	\$1.3
(E) Efficient Motors	Efizz, Estruck, Euro	1,099	\$21.3	\$1.3

Vehicle Attributes

While vehicle class and price may be consumers' first characterization of products, vehicles have additional attributes that can be measured and compared. In StratSim, these are size, performance, interior, styling, safety, and quality. Each attribute has a range of values based on what can feasibly be designed and built by a firm. The interior, styling, safety, and quality attributes (ISSQ) have a maximum value dependent upon the firm's technology capability in that area. Currently, the maximum values are somewhere between 3 and 8, depending on the firm and the attribute. Vehicles with higher attributes in these four dimensions are more appealing to customers, all other things being equal. Customers may find a particular attribute more important (i.e., consider it a "hot button"), depending on their needs and preferences. In evaluating vehicles, customers weigh the ISSQ attributes against the price of the product, while also considering the class, size, and engine performance of the vehicle. Exhibit 1.2 summarizes vehicle attributes and the range of values associated with each.

Exhibit 1.2: Vehicle Attribute Descriptions

Attribute	Description	Range of Values
Class	(E)conomy; (F)amily; (M)inivan; (S)ports; (L)uxury; (U)tility; (T)ruck; (A)lternative Energy Vehicle, or AEV; (D)elivery	E, F, M, S, L, U, T (Existing) A (Potential) D (B2B Only)
Price	Manufacturer's Suggested Retail Price (MSRP). Actual (retail) selling price to customer will vary from MSRP.	Generally, ranges from \$10,000– \$50,000
Size	Length and width of vehicle, which includes passenger and cargo space. Size is measured on a scale of 1–100.	1–100 (smallest to largest)
Performance	Measured by engine horsepower (HP).	50–300 HP (low to high performance)
Interior	Comfort, visibility, instrumentation, music systems, ergonomics.	1 to maximum firm capability
Styling	General curb appeal, styling, handling, finish / workmanship.	1 to maximum firm capability
Safety	Structural design, braking systems, safety features.	1 to maximum firm capability
Quality	Overall reliability, durability, consistency of products.	1 to maximum firm capability

The current vehicle attributes and manufacturer's suggested retail price (MSRP) are summarized in Exhibit 1.3, grouped by vehicle class.

Exhibit 1.3: Vehicle Attributes/Characteristics by Class and Name

Class	Vehicle	MSRP	Size	Horsepower (HP)	Interior	Styling	Safety	Quality
Faanamy	Alec	\$ 15,351	14	135	2	1	3	2
Economy	Delite	\$ 11,293	5	85	1	1	1	1
	Alfa	\$ 24,084	28	165	2	1	3	2
Family	Boffo	\$ 35,003	49	200	4	3	2	2
Family	Cafav	\$ 31,361	49	165	4	2	2	2
	Defy	\$ 25,922	43	165	2	1	3	2
	Efizz	\$ 18,869	35	140	1	1	2	1
1	Beaut	\$ 38,385	62	240	2	4	2	2
Luxury	Climax	\$ 45,997	74	240	4	2	2	2
Minivan	Camini	\$ 24,144	82	200	2	1	2	1
Sports	Buzzy	\$ 34,652	54	190	3	3	2	3
T	Detonka	\$ 19,572	66	185	1	1	1	1
Truck	Estruck	\$ 21,843	75	280	1	1	1	2
114:1:4	Awesome	\$ 21,149	40	220	1	1	1	1
Utility	Euro	\$ 26,528	59	200	1	3	1	1

Vehicle Classes

The industry has historically been broken into seven vehicle classes—Economy (E), Family (F), Luxury (L), Sports (S), Minivan (M), Truck (T), and Utility (U). However, two new classes offer future potential if developed and marketed well—the Alternative Energy Vehicle, or AEV (A) and Delivery (D). The AEV is a potential new breakthrough in drive technology while the Delivery is designed only for the fleet buyer (B2B). Each of these classes represents a unique configuration that requires a significant expenditure in R&D to develop. Remember that there are underlying needs met by these product classes. For example, a minivan meets the need for family transportation plus cargo room in an economical package. Exhibit 1.4 describes the vehicle classes, shows unit sales for each class, and identifies the vehicles competing in each class at the beginning of the simulation, along with their share of class sales.

See Exhibit 1.4 on the following page.

Exhibit 1.4: Vehicle Classes

Vehicle Class	Description	Expected Price	Typical Size	Typical Engine	Sales (000s units)	Vehicles (with share of class)
Economy (E)	Small, basic car that is inexpensive to buy and operate.	Under \$20,000	1–30	Under 150 hp	872	Alec (68%) Delite (32%)
Family (F)	Mid-sized car for reliable, safe transportation at a reasonable price.	\$15,000 to \$38,000	30–65	120–200 hp	1,457	Alfa (24%) Boffo (6%) Cafav (10%) Defy (33%) Efizz (27%)
Luxury (L)	High-end vehicle with top of the line features and performance.	Above \$35,000	45–75	Over 150 hp	273	Beaut (53%) Climax (47%)
Sports (S)	Cars emphasizing performance and style. Size and price range widely, but all are fun to drive.	\$14,000 to over \$35,000	15–60	Over 150 hp	144	Buzzy (100%)
AEV (A)	Alternative-energy- drive vehicles use new drive technology that is energy efficient and low polluting.	Above \$20,000	1–50	70–150 hp	0	No vehicles introduced.
Minivan (M)	Family-oriented vehicles with lots of passenger and storage room.	\$18,000 to \$35,000	50–100	120–240 hp	214	Camini (100%)
Utility (U)	Classified as a truck, but more passenger room and style.	\$17,000 to \$40,000	30–90	Over 150 hp	710	Awesome (47%) Euro (53%)
Truck (T)	Traditionally working vehicles, trucks are finding broader appeal as second vehicles and alternatives to sport cars.	\$15,000 to \$35,000	30–90	Over 150 hp	690	Detonka (53%) Estruck (47%)
Delivery (D)	Covered trucks specially designed for delivery companies. B2B only.	\$20,000 to over \$40,000	60–100	Over 190 hp	0	No vehicles introduced

Consumer Segments

There are two broad approaches to analyzing the StratSim market—by vehicle class and consumer segment. Both approaches offer advantages, and both should be considered. The five consumer segments in StratSim are numbered 1 through 5, each representing a different group of consumers with shared demographics and needs. However, it is the intersection of the consumer segment and vehicle class that will be the primary basis for competition. For purposes of identification in StratSim, this intersection is called a *microsegment*. Microsegments are labeled 1–5 for consumer segments and E–U for preferred vehicle class. As an example, the 1E microsegment consists of customers who are Value Seekers (1) with a preference for an Economy (E) car.

Consumers in some microsegments have a strong preference for a particular vehicle class. For other consumers, there are two or more vehicle classes that would meet their needs. For example, in the StratSim environment, 4F customers are High Income (4) people who have a primary preference for a Family (F) car and a secondary preference for a Luxury (L) car. However, it should be noted that if the consumer finds a vehicle from another class that provides a better solution to their needs and budget, they might purchase that vehicle instead.

Exhibit 1.5 provides a description of each consumer segment, unit sales at the start of the simulation, and associated microsegments with their preferred vehicle classes.

Exhibit 1.5: Consumer Market Segments

Segment	Description	Sales (000s Units)*	Preferred Vehicle Class
(1) Value Seekers	Value seekers have basic transportation needs, using their vehicle for commuting or as an all-purpose vehicle. Quality and safety are important to these price sensitive buyers.	768	(1E) Economy (1T) Truck
(2) Families	Families have somewhat basic transportation needs but require flexible vehicles with both people and cargo-carrying capabilities. Safety and quality are most important to these fairly price sensitive buyers.	1,724	(2E) Economy/ Family (2F) Family (2M) Minivan
(3) Singles	The singles market is young and tends to spend a high percentage of disposable income on their vehicles. Singles look for vehicles that are fun to drive. Styling and performance are important to this segment.	865	(3S) Sports (3T) Truck / Sports (3U) Utility / Sports
(4) High Income	This segment includes families, professionals, or retirees. With high disposable income, they are willing to spend more for extra features. Interior, styling, and safety are important attributes.	381	(4F) Family / Luxury (4L) Luxury
(5) Enterprisers	Enterprisers see their vehicle as an extension of their business and personal aspirations. They use their vehicles for business and to impress. Styling and performance are important.	621	(5L) Luxury / Sports (5U) Utility

^{*}NOTE: Segment unit sales shown are per firm at startup. Actual sales will change over time based on underlying market conditions and competitive dynamics.

Market research has also identified several new microsegments where customers' needs are not satisfied by the current vehicles. Customers in the new microsegments may be looking for a new vehicle class, such as an AEV, or a significantly different configuration of an existing vehicle class. If a firm introduces such a vehicle that "excites" these customers, the new microsegment may "pop," creating new demand in the marketplace. As a rule, in StratSim, at most one new microsegment can "pop" each period. Additional new customer opportunities may be identified as the simulation progresses. It is important to understand that there are no guarantees with introducing products into new markets and StratSim reflects this risk: Introducing a vehicle targeting a new microsegment does not guarantee that it will "pop."

Consumer Purchase Process

The vehicle a consumer will ultimately purchase reflects a complex decision-making process. Consumers typically begin by looking for a specific class of vehicle in the right price range, though they may consider a couple of different vehicle classes. Hypothetically, a family (2) buyer might consider both a minivan and a family class sedan in the \$25,000-\$30,000 price range. When consumers find a vehicle of the right type, they will then take a close look at the attributes of the vehicle. Of course, the overall appeal of the vehicle is weighed against the price the customer will ultimately pay. This trade-off between price and appeal is what creates value in the mind of the buyer. Each consumer has different needs and places different importance on each need. Some attributes may be very important to the consumer ("hot buttons") while others are less important. In some cases, consumers may want more of an attribute, while in other cases, they may have a particular ideal in mind. Their decision will also be impacted by their knowledge of the vehicle (awareness), ability to find a local dealership for sales and service, the experience at the dealership, and special promotional offers and activities. Note that the dealership sets the final purchase price for the consumer.

The diagram in Exhibit 1.6 illustrates the consumer purchase process for vehicles in StratSim.

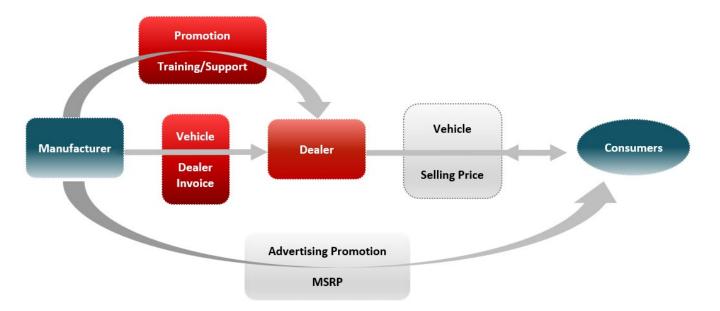


Exhibit 1.6: Vehicle Purchase Process (Consumer Market)

B2B Purchase Process (Optional Feature)

Unlike the consumer market, where automakers are selling to individuals and small organizations through their captive dealership network, the business-to-business (B2B) or corporate fleet buyer purchases in large quantities directly from the manufacturer. Examples of B2B customers are rental fleets such as Hertz, Avis, Enterprise, Sixt, and Europear; parcel carriers such as DHL, UPS, FedEx, and DPD; and other large entities such as national and local governments or large multinational companies. In StratSim, these three customer types comprise the three B2B segments and are briefly described in the table below.

Exhibit 1.7: B2B Segments

Segment	Description
(6) Rental Fleets	The B2B Rental Fleet market is composed of rental vehicle companies operating in all regions of the country. Most contracts are nationally recognized rental car companies that provide vehicles to traveling businesspeople or vacationers, typically for less than one week.
(7) Parcel Carriers	The Parcel Carrier fleet market is composed of national delivery companies that provide coast-to-coast pickup and delivery of packages, such as UPS and FedEx. Most parcel carrier companies service their own vehicles, resulting in lower distribution coverage minimums, but are concerned with the cost of purchasing, owning, and maintaining the vehicles. In addition, parcel fleets typically require a custom-built vehicle of the delivery class.
(8) Other Fleets	The Other Fleets segment is composed of other B2B customers such as government agencies and large corporations. Most of these other fleet contracts represent smaller orders and require high levels of dealership support, as they typically are not servicing their own vehicles beyond basics.

B2B customers may be satisfied with the same models as individuals, although with a different purchase process and use/needs. For example, rental car companies, some government agencies, and large companies could be happy with ordering an existing product line. In other situations, the customer may have unique needs that would require a customized platform. In this situation, manufacturers would be required to design a specialized vehicle for the customer. For example, parcel carriers require a delivery class vehicle with unique load and configuration specifications.

B2B buyers also have a significantly different purchase process than individuals. First, these buyers will only purchase a specific vehicle class and have requirements that must be met for a manufacturer to qualify for a contract. These include meeting or being less than a maximum price, meeting or exceeding dealer coverage requirements to provide an adequate service network, being within a particular range for size and performance, and meeting or exceeding ISSQ attributes (interior, styling, safety, and quality). Second, their purchase is direct from a manufacturer rather than through a dealership, so while they may require a low price, the dealership will not receive a margin on B2B sales. Finally, one manufacturer will be selected as a

preferred supplier and receive a contract for twice as many vehicles. Preferred supplier status goes to the company which meets the required specifications at the lowest price.

Firm Decisions

Each period in StratSim, firms make many individual decisions that should add up to a coherent strategy. Your team will need to invest in technology capabilities, upgrade existing vehicles and/or develop new products, allocate corporate and product marketing expenditures, support and potentially grow your dealership network, and set overall manufacturing capacity as well as production volume for each vehicle. Finally, you'll need to make sure you have the resources to implement all these decisions. This section describes in more detail each of the decision areas.

<u>Technology</u>

Each firm in the StratSim world has technological capabilities that parallel the vehicle attributes of interior, styling, safety, and quality (ISSQ). To keep measurement relatively straightforward, these are rated from 1 to the current maximum (where 1 equals a poor rating on that attribute). All firms in the industry start with different initial technology ISSQ capabilities. Firms can expand their capabilities up to current industry technology limits through investments in technology capabilities. These investments provide two advantages—first, the ability to develop cars with enhanced features (i.e., higher ISSQ); and second, lowering the cost to develop a similar set of characteristics. For example, a firm with technology ISSQ capabilities of 8/7/7/8 would be able to produce a 4/4/4/4 car at a lower unit cost than a firm with a technology profile of 6/6/5/6. The current technology profiles with the maximum limitations at the start are displayed below.

Exhibit 1.8: Technology Capabilities of Firms

	Interior	Styling	Safety	Quality
Maximum:	9	11	9	11
(A) Amazing Cars	5	5	4	6
(B) Best Motor Works	7	8	5	8
(C) Cool Cars	6	7	5	7
(D) Driven Motor Co.	4	5	5	6
(E) Efficient Motors	3	5	3	5

Note that having the capability to build a vehicle with certain attributes is not the same as designing a vehicle with those specifications. Increasing the firm's technology capabilities does not automatically increase the attributes of individual vehicles. To enhance or create new vehicles using the increased firm technology capabilities requires starting new development projects, either to upgrade existing vehicles or develop new ones.

As is the case with the automobile industry, product development in StratSim is expensive, time consuming, and risky. However, the reward of having the leading vehicle within a product class is often well worth the investment, and falling behind other vehicles in terms of styling, performance, and appeal is dangerous. Additionally, new products are needed to take advantage of opportunities in the market. For every development project, there is also an overall cost for the development process, an estimated unit cost, and time to complete.

Product Development

Each firm has a limited number of product development centers, affecting its ability to work on multiple development projects (upgrades and new products) concurrently. All firms start with two centers. Funding new centers increases your ability to develop more products at the same time. This investment corresponds to hiring more product development engineers and expanding R&D facilities, allowing your firm to work on more new vehicles or upgrades at the same time. It takes one year for a new center to be built and come online.

Developing a *new vehicle* starts with a *concept* created by development engineers based on your specifications. You can create as many concepts as you want, and there is no cost until you decide to move the concept into a development center ("build"). New vehicles in a class in which you already have experience take two years to develop, while a new class takes three. *Concept tests* are an opportunity for your firm to get early feedback on your potential product before the costly development cycle begins. Spending some time up front with customers can save resources down the road.

Upgrades are changes to an existing vehicle to better suit customer needs. Changes can be made to the ISSQ characteristics as well as the size and horsepower. The modifications can be major or minor. Minor changes can be completed for the next period, while major changes are ready in two periods. When an upgraded vehicle is put into production, any existing inventory will be sold in markets outside the StratSim simulation at a loss. Note that while a minor upgrade can be deployed quickly, any inventory will be written off immediately. The extra period required for a major upgrade gives you time to get excess inventory under control before it is written off. On the other hand, much-needed product enhancements are delayed.

All projects have an estimated unit cost based on 100,000 units of production ("base cost"), which depends on the vehicle class and attributes. If actual production is less than 100,000 units, actual unit costs will be higher than the estimate. If actual production is greater than 100,000 units, actual unit costs will be lower than the estimated base cost. In general, unit costs decrease with greater production volumes due to scale and experience effects. You can also initiate a cost reduction upgrade to reduce the base cost of a vehicle. A cost reduction upgrade makes changes to the vehicle engineering and manufacturing process to lower unit costs without affecting the ISSQ, size, or HP attributes.

An overview of the product development paths is illustrated in Exhibit 1.9.

Exhibit 1.9: Product Development Timelines

	Current Period	Period + 1	Period + 2	Period + 3
Cost Reduction \$100-\$200 Million in current year	Put in Dev. Center (no changes to specs allowed)	IN MARKET Retooling. Results impacted. (vehicle costs reduced, no impact on sales)		
Minor Upgrade \$100-\$300 Million in current year	Put in Dev. Center Tweak Specs* Adjust Marketing Mix Adjust Production (Inventory disposed)	IN MARKET Results impacted. (Including sales, retooling, inventory write-off)		
Major Upgrade \$250-\$750 Million Spread over 2 Yrs.	Put in Dev. Center Modify Specs† Build Add'l Capacity	Project in Dev. Center Tweak Specs* Adjust Marketing Mix Adjust Production (Inventory disposed)	IN MARKET Results impacted. (Including sales, retooling, inventory write-off)	
New Product (Existing class) \$250-\$1,500 Mill. Spread over 2 Yrs.	Create Concept Put in Dev. Center Name Product Build Add'l Capacity	Project in Dev. Center Tweak Specs* Set Marketing Mix Set Production	IN MARKET Results impacted. (Including sales, retooling)	
New Product (New class) \$500-\$2,500 Mill. Spread over 3 Yrs.	Create Concept Put in Dev. Center Name Product	Project in Dev. Center Tweak Specs* Build Add'l Capacity	Project in Dev. Center Tweak Specs* Set Marketing Mix Set Production	IN MARKET Results impacted. (Including sales, retooling)

^{*} Max change for each of the interior, styling, safety, and quality attributes (ISSQ) is 1; HP is 5; and size is 2.

Licensing (Optional Configuration)

Depending on the simulation configuration, you may have the opportunity to license vehicles from other firms. In this situation there are no development costs, and vehicles are purchased at a fixed unit price plus an optional annual fee. For example, Firm A might license a luxury vehicle from firm C based on the specifications of the Climax. The product will be marketed under a new name starting with "A," such as Ant.

Licensing a platform from another firm is something worth considering if a manufacturer lacks experience in a vehicle class or has limited technological or development capabilities. Often licensing is a short-term measure until R&D can design a vehicle internally. However, a firm cannot license more than two vehicles from other firms at any given time. Firms that have strong

[†] In the first period of a major upgrade, you're allowed a max change of 2 for ISSQ, 20 for HP, and 10 for size.

product development capabilities and low-cost production but weak distribution may find licensing vehicles to other firms a profitable option. Licensing is unlikely to occur unless both parties gain materially from the exchange.

Consumer Marketing

In StratSim you will make marketing decisions for the corporation as a whole and for each individual product. To make your marketing effective, you must first identify the kind of company you want to be, then use advertising, promotion, and pricing decisions to support your chosen corporate positioning and to align your products with your strategy.

Corporate advertising budgets are set on a regional basis. These funds are spent on generating a corporate identity in support of the dealer network in the regions. A public relations budget is also set to support publicity events for the firm as well as corporate and investor relations. Finally, direct marketing can be used to generate interest in target segments.

Product advertising creates vehicle awareness and shapes consumers' perceptions of products. In the StratSim world, managers are responsible for setting an advertising budget and an advertising theme. Most of the budget is spent on media buys, with the remainder on creative input and theme. The theme emphasizes one of the primary characteristics of the vehicle—performance, interior, styling, safety, or quality. Product managers attempt to match the advertising theme with the "hot buttons" of their target customer.

Promotional budgets are set at the product level and include incentive programs and general promotional activities. The purpose of special incentive programs is to improve sales during slower periods of demand. Examples of incentives include consumer rebates, below-market financing, and dealer-oriented sales incentives. Examples of general promotional activities include funds for brochures, advertising in support of incentive programs, mailings, trade shows, and motivational contests.

Vehicle pricing is complex and requires careful attention to detail. Depending on the context, price can have several meanings. The manufacturer sets the vehicle *MSRP* (Manufacturer's Suggested Retail Price). This is the price that is posted in the window of the vehicle but is rarely the price that the customer pays. *Average retail price* is the average of all the actual prices that customers pay. This price includes dealer mark-ups, promotional discounts, negotiation with the salespeople, etc. The *dealer invoice* is what the dealer pays for the vehicle and is the monetary value your firm receives as revenues. Finally, the *manufacturing cost* for the vehicle is the cost associated with production of the vehicle. The dealer invoice less the unit manufacturing cost is the per unit *margin* the manufacturer receives for each sale.

Choosing the best marketing mix for a vehicle is a difficult task. Test markets allow marketers to try different combinations of price, advertising, and promotion to estimate potential effects on sales and profitability. In StratSim, test markets can be used with vehicles that have existing sales. A test market experiment is created in a particular city where levels of price, advertising, and

promotion are adjusted from your national levels and the change in the sales in that market is measured. By extrapolating this change to national levels, a marketing manager can make better judgments on how much to adjust the marketing mix variables for the coming year.

B2B Marketing (Optional Configuration)

Depending on the simulation configuration, you may have the opportunity to pursue contracts for selling large numbers of vehicles to fleet buyers (B2B).

To compete in the B2B market, the first step is to purchase marketing research on the contracts. The research report will tell you the class of vehicle, number of units, maximum price, vehicle attributes, and minimum dealer coverage required by the buyer. This analysis will provide the information to know if a contract is possible or worthwhile to pursue. The next step is to hire salespeople to establish a relationship with the B2B buyers. Salespeople are hired automatically when contracts are targeted.

One period after hiring sales force to pursue a contract, you will receive the opportunity to bid on the contract. If your bid meets all the requirements, you will receive a contract for the guaranteed number of units. If your bid price is the lowest of all qualified competitors for the period, the contract will be for double the guaranteed number of units.

Distribution

While the purpose of advertising and promotion is to generate interest, create an image, and communicate information about the vehicle, it is the automobile dealership that makes the sale and provides follow-up services. In StratSim, each firm has a captive dealership distribution structure organized on a regional basis. Each period, firms must decide how many dealerships to open or close in each region as well as allocate funds for training and support. You may grow or shrink your dealership network by up to 10% of the total dealers in a single period. Below is a table of the dealership network for each firm at the start of the simulation.

Exhibit 1.10: Dealerships by Region

Firm	Number of Dealers						
'''''	North	South	East	West	Total		
Α	120	120	120	120	480		
В	65	<i>7</i> 5	65	<i>75</i>	280		
С	80	95	85	90	350		
D	70	100	110	120	400		
E	100	130	70	80	380		

The number of dealerships in a region is an important part of strategy. There are two measures in StratSim to guide your distribution strategy: dealer coverage and dealer ratings. Dealer coverage equals the number of dealers divided by the number of sales territories in a region. Thus, 100% coverage means you have a dealership in every sales territory. Having too few dealerships can leave smaller cities and towns uncovered. Having too many dealerships may spread sales too thinly across dealerships and lead to overly competitive pricing within the region and/or low new vehicle and service revenues for a dealer. Management often looks to sales and gross profit per dealer in addition to coverage as indicators of the proper balance. Dealer ratings provide insight into the success of dealerships. A strong dealer gross is expected to translate into a successful dealership, but training, support, and service revenues all contribute as well. Remember, the profitability and success of a dealership depends to a large extent on the popularity of a manufacturer's vehicles. It is a partnership where both parties must contribute to the success of the other.

Manufacturing

Having good products, effective marketing, and a strong dealership network are all essential to create demand for your products, but you must also produce enough vehicles to meet that demand. In the short term, managers must decide how to use plant capacity to produce the best mix of vehicles. Longer term, the firm may need to increase or decrease capacity to meet demand for new and/or upgraded vehicles or to adjust for competitive and marketing conditions.

Capacity for each firm is fixed for a given year. However, changes of up to 50% of your current capacity may be initiated at any time. While a decrease will affect the next year's results, an increase in capacity takes one year to take effect. Thus, if you build additional capacity this year, next year you will be able to set production levels based on the new plant capacity. It is important to coordinate capacity increases with the launch of new products. When necessary, firms may choose to set production levels above capacity in the short run by running extra shifts and paying overtime, resulting in over-capacity charges.

Firms must decide on production volume for each product on the market. When the production level on a line is increased from the previous period, the capacity now associated with that product is upgraded and retooled. Retooling costs are also incurred when production volume is dedicated to a new product line. One benefit of retooling is that plant maintenance costs are typically reduced.

Firms may choose to use the flexible production option that increases or decreases production by up to 10% from the firm's target production value, depending on demand. If production volume is insufficient for demand, consumers who are unable to purchase a vehicle at the end of the period postpone their purchase decision until the beginning of the next year, purchase an alternative brand, or buy a used vehicle.

Inventory levels should be considered when deciding on production schedules for the coming year. Too little inventory can result in lost sales, and too much increases costs and puts downward

pressure on dealer margins. A reasonable target for inventory is 30 to 60 days. If a product is being redesigned or discontinued, the current inventory will be sold in markets outside the StratSim simulation at 85-90% of cost (a loss of 10-15%), so it is especially important to manage inventory levels when upgrading a vehicle.

Plant capacity expansion costs and retooling investments are recorded as assets on the plant and equipment line of the balance sheet. The plant assets are depreciated over ten years, and the expense is included in the cost of manufacturing products each period. Cumulative depreciation is shown below plant and equipment on the balance sheet.

Financing

Financial management in StratSim is important. In addition to choosing among investments in technology, manufacturing, and product development, firms must also manage margins, expenses, cash flow, and investor expectations.

A firm running low on cash for operations has three options in StratSim: sell stock, issue bonds, or draw on a revolving line of credit. Selling stock has the benefit of not creating an interest expense or additional obligations. However, the drawback is dilution of the shares of stock that may lower the share price at the time of issuance. In StratSim, you specify the amount of capital to raise, and the appropriate number of shares will be sold at the current stock price to reach your goal. Stock sales are recorded at a par value of \$1 per share, with any amount above that going to additional paid in capital on the balance sheet.

The second option for raising capital is to sell 10-year bonds, callable after three years. The interest rate on the bonds will reflect current interest rates and the credit rating for the company. AAA rated bonds offer the lowest investment risk and therefore the lowest interest rate. The interest rate is fixed for the life of the bonds and interest is paid out automatically each period, with the principal coming due at maturity (after the simulation is over). When bonds are sold, the issue amount is added to long-term debt on the balance sheet. After three years, the bonds can be called. Only one bond issue can be called in a period, the entire issue must be paid off at once, and there is a one-year interest penalty for calling the bonds.

StratSim firms must maintain a minimum amount of cash on hand to sustain operations, about 1% of revenue. If there are not sufficient funds, a loan is issued, adding to short-term debt on the balance sheet. The interest rate on the line of credit tends to be higher than the rate on bonds and will vary with changes in the prime rate and company credit rating. Interest due each period is paid automatically, but it is up to the finance manager to schedule repayment of the principal.

A firm with a surplus of cash has several options. In addition to investing the cash in expanding the company, it can be used to purchase a one-year certificate of deposit, retire debt by calling bonds, or distribute dividends to shareholders. If management thinks the firm's stock is undervalued, it may also be possible to repurchase stock with the extra cash. If stock repurchase is permitted, the firm is limited to 20% of the current market value of the company.

Financial Reports

Financial statements track company results and help you understand the financial impacts of your decisions. Shareholders and lenders use a firm's financial statements to evaluate its performance in setting a stock price and bond rating. In StratSim, firms have access to the income statement and balance sheet of all their competitors, allowing them to compare their own results against other firms in the industry. A summary of the financial condition of all the firms in the industry at the beginning of the simulation is provided in Exhibit 1.11.

Exhibit 1.11: Financial Summary

	Firm A	Firm B	Firm C	Firm D	Firm E
Val Mkt Share	24.8%	13.2%	15.1%	22.7%	24.1%
Unit Share	29.3%	8.6%	11.1%	25.9%	25.2%
Preference	19.3%	27.0%	20.3%	15.1%	18.3%
Sales	\$21,886	\$11,675	\$13,310	\$20,041	\$21,280
cogs	\$16,857	\$7,756	\$9,404	\$14,925	\$16,254
Marketing	\$378	\$379	\$376	\$377	\$384
R&D	\$1,029	\$1,001	\$820	\$1,223	\$1,182
G&A	\$897	\$464	\$528	\$807	<i>\$790</i>
Other	\$1,468	\$862	\$971	\$1,409	\$1,373
Income	\$1,258	\$1,213	\$1,211	\$1,301	\$1,297
Stock Price	\$48.72	\$44.69	\$45.83	\$47.49	\$48.06
Mkt Value	\$17,783	\$10,726	\$11,687	\$15,909	\$17,302
Total Debt	\$10,539	\$3,489	\$4,903	\$9,444	\$8,991
	Note: Dollar	amounts (except	stock price) are in	millions.	

The *Income Statement* summarizes revenues and expenses for the company. Revenues in StratSim consist of vehicle sales to dealers and direct sales to businesses. All costs directly attributable to the production of the vehicles sold are shown under cost of goods sold (COGS). This includes both the variable cost of materials and labor, as well as the fixed costs of the plant. The *Cost of Goods Sold* detail shows how COGS is calculated. Subtracting COGS from revenue yields the gross margin on vehicles sold. Low gross margins are a sign that products are priced too low, or production costs are too high.

Some expenses, such as marketing, research and development, and general and administrative expenses are not directly attributable to production. Marketing expenses include corporate advertising, product advertising and promotion, and sales force expenses. Research and development expenses are the costs associated with product development and technology capabilities improvements. General and administrative expenses include overhead from sales and the dealership network. Dealership training and the cost of changes in the number of

dealerships are the result of your decisions, but most G&A expenses are not under your direct control. Income from operations is calculated by subtracting these indirect expenses from the gross margin. Income from operations is a good measure of the health of the company's core business. If the gross margin is healthy but operating profit is low, that may be due to ineffective marketing, heavy investment in R&D, or rapid expansion of the dealer network.

Interest income and expense as well as extraordinary items are applied to operating income to calculate income before tax. A high interest expense relative to income from operations could be a sign that a firm is having trouble managing its debt. Finally, taxes are deducted, leaving net income. Net income, less any dividends paid, is added to retained earnings on the balance sheet each period. If net income is negative, retained earnings will be reduced. There is no provision for tax loss carry-forward in StratSim.

The *Balance Sheet* provides a snapshot of the firm's assets, liabilities, and equity. In StratSim, assets include cash, receivables, inventory, and plant and equipment less depreciation. The firm must always keep enough cash on hand to pay current expenses, about 1% of revenues. Receivables are the unpaid invoices owed by dealers. Dealers who are struggling will be slower to pay, resulting in higher receivables as a percentage of revenue. Rising inventory may indicate changes in demand or a competitive environment, while inventory that is too low could result in lost sales. Plant and equipment is the total investment in production facilities through expanded capacity and line retooling; depreciation on the balance sheet represents the cumulative plant depreciation expense shown on the income statement.

Liabilities consist of accounts payable, short-term debt, and long-term debt. Accounts payable is the amount owed to suppliers and payroll taxes collected but not yet paid to the government. Short-term debt in StratSim is the balance on the revolving line of credit, while long-term debt is the total of bonds issued.

Equity consists of the original value of stock at par, any additional paid in capital, and retained earnings. Stock is sold at \$1 par value per share. Your firm's initial shares of stock outstanding were all sold at par value. If stock is issued at a higher price, then the amount over par is shown in a separate line item as additional paid in capital. Retained earnings show the cumulative net income from the income statement, less any dividends distributed. Dividends may not be distributed if you have negative retained earnings.

The Cash Flow statement shows the sources and uses of the firm's cash. The changes in the amount of cash in the firm are calculated based on income from operations adjusted for depreciation, inventory, payables, and receivables; investment activities such as capacity increases, plant retooling, and CD investments; and financing activities such as stock or bonds issued, changes in loan balance, or dividend payments. A healthy company will have positive cash flow generated by core operations. It is, however, possible for a healthy company to have a negative cash flow due to large current investments necessary to sustain future growth.

The reports discussed so far give an overview of the results for the entire company. The *Product Contribution* report allows managers to identify which products are contributing toward the

success of the company, and which products might need improvement in development or marketing. When calculating product contribution, only revenues generated by the product and direct variable costs, along with product advertising and promotion, are considered. The report is very helpful in prioritizing development projects and identifying the effectiveness of marketing for specific products.

Industry Reports and Tools

StratSim provides multiple reports with information on the market environment and the competition. Market reports include general news in the industry, market shares by vehicle, regional analysis, and sales by consumer segment. Competitive reports are available on the products in the market, technology capabilities of competitors, spending on marketing, dealer networks, manufacturing capacity and utilization, and a summary of the financial results for each firm. Analyzing data on the market, customers, and competitors will help managers make better decisions.

There are also several research tools available in StratSim to help you convert data into knowledge and to improve your ability to make good decisions. Some tools will help you with product design, others will help you with resource allocation, and others may offer competitive insights not available from public secondary sources. The exact tools that will be available to your team will depend on the configuration of your game. New tools may also be introduced as the game is advanced, so be aware of changes in availability. Most of these tools will cost money to use, just as ordering and designing market research studies would in the real world. Spend some time learning when and where these tools will be of the most value to you.

Important! Since everyone on your team is sharing the same decision set, when there are a limited number of studies that can be run, this total is for your ENTIRE team, not just you as an individual. Be sure to coordinate purchase of research studies. Once someone on your team purchases a study or tool, your entire team will have access to the results of that research.

Next Steps

The task of the management team is to maintain long-term profitability in the context of an increasingly competitive and changing environment. Customer needs and tastes will evolve. Competitors will be battling for market share and entering new product classes and markets. Technologies and cost structures will change over time based on the impact of investments.

Every simulated year, each firm will perform a situation analysis, identify problems and opportunities, and generate alternative options for decisions. Finally, based on careful consideration, persuasive presentation of competing ideas, and probably some arm-twisting, your team will come to a consensus as to which set of decisions is best and implement them.

Once your firm has a thorough understanding of the StratSim world, one of the first tasks should be to define a strategy. A successful firm will likely have a strategy that is well thought-out and consistently executed. Creating a sound strategy is the most important process your firm will undertake because your strategy is the framework for all decision-making and firm organization. The strategy should be a long-term vision for your firm that every member of your team can reference when making decisions and analyzing data. Strategy is defining segments served and creating a sustainable competitive advantage. It is your road map. It is where and how your firm chooses to compete. It is essential.

Enjoy your tenure as a management team in the StratSim world. It should be an exciting and challenging learning experience. Good luck and have fun!

Summary of Decisions

Each period your firm will need to make many decisions. The table below provides a summary of these decisions to help you track them.

Decision Category	Firm Decision	Product Decision
Technology	 Technology Investment Interior Styling Safety Quality 	(none)
Product Development	New Development Center	 Vehicle Upgrade Major Minor Cost Reduction New Vehicle Create Concept Move to Development
Licensing (Optional)	(none)	 Licensee Extended Offer Vehicle Name Partner Unit Price & Overall Fee Vehicle attributes Licensor Received Offer Accept with a Vehicle or Not
Consumer Marketing	 Corporate Advertising By Region Themes Social Media Direct Marketing Budget Target Segments 	 Pricing MSRP Dealer Discount Advertising Budget Theme Promotion Sales Forecast Remove from market?
B2B Marketing (Optional)	> Target Contract(s)	> Contract Bid
Distribution	 Dealer Openings / Closings By Region Training and Support 	(none)
Manufacturing	> Capacity Change	Schedule ProductionFlexible Product On / Off
Finance	 Purchase CD Issue Stock Distribute Dividends Short-term Loan Repayment Issue Bonds / Call Bonds 	(none)

Product Class Examples

The following pages provide a sample picture of a vehicle in each product class in StratSim as well as a brief description of some of the features one can expect to find in each class. Please note that the specifications and examples are approximate and meant as a general guide to distinguishing product classes—base your decisions on the information in the simulation reports.

Economy



Economy vehicles typically are small, low priced cars with less powerful engines. Price in the early periods is under \$20,000. Engine horsepower is likely to be under 150. Most economy vehicles will have a hatchback and sedan model option, and some may also offer a small wagon. An economy car can usually seat 4 adults, though probably not comfortably. A child may be able squeeze in the middle of the back seat in a pinch. Legroom and storage space are minimal. In StratSim, this corresponds to a size of approximately 1–30.

Features on an economy car are also likely to be basic in order to keep the costs down. Some consumers are willing to pay more for these features, but one should be careful not to provide too many, driving up costs and eroding profitability. It is difficult to make significant money in the economy segment, though production volumes are significant. Also, for many consumers, an economy vehicle is their first car purchase, and therefore is an important part of your vehicle line-up.

Examples of economy vehicles are the Honda Civic, Nissan Sentra, Hyundai Elantra, Kia Forte, Volkswagen Golf, Toyota Corolla, Toyota Yaris, Fiat Panda, Peugeot 208, and Renault Clio.

Family

Family vehicles are mid-sized, medium priced cars with mid-range engines. Price in the early periods is between \$15,000—\$38,000. Engine horsepower is likely to be 120—200. Most family vehicles will have several different model offerings, and most will have four doors. A family car can usually seat 5 adults, though those in the back seat may be a bit cramped. Legroom and storage space are reasonable. In StratSim, this corresponds to a size of approximately 30—65.



Features on a family car are likely to focus on

safety and flexible storage. Customers who are in search of a family vehicle want a reliable, safe means of transportation for their families at a reasonable cost. This vehicle is likely to be their primary mode of transportation and should hold up well under the normal wear and tear of everyday family life. Volumes for this class are significant, so it is important to create a vehicle with wide appeal. Price and promotional deals have a significant impact on buyers of these vehicles.

Examples of family vehicles are the Toyota Camry, Honda Accord, Nissan Altima, Nissan Sylphy, Skoda Octavia, and Volkswagen Lavida.

<u>Luxury</u>



Luxury vehicles are high priced cars with top of the line features and performance. Price is typically in excess of \$35,000. Engine horsepower is likely to be over 150. Luxury vehicles come in a wide array of models including sedans, coupes, and even wagons. A luxury car can usually seat 5 adults comfortably. Legroom and storage space are ample. In StratSim, this corresponds to a size of approximately 45–70.

Features on a luxury car are normally numerous. Interior, styling, safety, and quality are all likely to be quite high. Customers who are in search of a

luxury vehicle want the best and are willing to pay for it. Though volumes in this class are less, per vehicle profit margins are high. These vehicles are also often the "flagship" brand for the company and help create showroom traffic.

Examples of luxury vehicles include various vehicles manufactured by Lexus, BMW, Porsche, Acura, Mercedes-Benz, and Audi.

Sports

Sports vehicles emphasize performance and come in a range of prices and sizes. Typically they appeal

to the young and the young at heart. An economy sports car might be priced as low as \$14,000, whereas a high-end sports car may well be in excess of \$35,000. Engine horsepower is likely to be over 150. Sports cars normally are coupes or hatchbacks. Some sports cars have only two front seats while others may have small back seats for additional cramped seating. Legroom in the front is reasonable, but there is typically little storage space. In StratSim, this corresponds to a size of approximately 15–60.



Features on sports cars usually are related to styling and performance. Customers who are in search of a sports car want to be noticed and are willing to spend a good chunk of their disposable income to that end. Though volumes in this class are less, per vehicle profit margins are pretty good. These vehicles are also often high awareness brands for the company and help create showroom traffic.

Examples of sports cars are the Ford Mustang, Dodge Challenger, Chevy Camaro, Chevy Corvette, Hyundai Veloster, and Porsche 911.

Alternative Energy Vehicle (AEV)



Alternative Energy Vehicles (AEVs) have more to do with the technology used to power the vehicle than the style and size of the vehicle. AEVs encompass a wide range of technologies that might be used to power the vehicle including electricity only (rechargeable batteries), fuel cell, hydrogen, solar, or some combination of these. Though the technology is more expensive and somewhat untested, it does lead to significantly improved energy efficiency and lower pollution. Power and/or range still remain a challenge. Expected prices are from \$20,000 and up. Engine horsepower is likely to be 70–150, and size in StratSim ranges from 0–50 depending upon the application.

Examples of AEVs are the Tesla 3, Tesla Y, Wuling HongGuang Mini EV, Chevy Bolt, Nissan Leaf, Renault Zoe, and Hyundai Kona.

Minivan

Minivans are family oriented vehicles that have lots of passenger and storage room, but drive more

like a car than a truck. These are perfect for families who need more space than a family vehicle can offer. Price is typically between \$18,000–\$35,000. Engine horsepower is likely to be 120-240. Most minivans will have several different model offerings, which mainly vary seating capacity and cargo area. A minivan can usually seat 7 adults, possibly more depending on the seating configuration. Legroom and storage space are excellent. In StratSim, this corresponds to a size of approximately 50–100.



Like family vehicles, features on a minivan are likely to focus on safety and flexible storage. Customers who are in search of a family vehicle want a reliable, safe means of transportation for their families at a reasonable cost. This vehicle is likely to be their primary mode of transportation and should hold up well under the normal wear and tear of everyday family life. Price and promotional deals have a significant impact on buyers of these vehicles.

Examples of minivans include the Dodge Grand Caravan, Chrysler Pacifica, Honda Odyssey, Toyota Sienna, and Wuling Hongguang.

<u>Utility</u>

Combine the attributes of a truck, minivan, and sports car, and you get a utility vehicle. Utility vehicles



offer a little bit of fun and utility for those who need more passenger room than a truck, but don't want to have the minivan "family" image. Price starts at around \$17,000 for small utility vehicles, but fully loaded large ones will sell for over \$40,000. Engine horsepower is likely to exceed 150. Legroom and storage space are excellent on larger models, which can also seat 5 adults. In StratSim, sizes of utility vehicles range from 30–90.

Features on utility vehicles usually are related to styling and performance. Many of the high-end models come with leather seats and other amenities normally found in luxury cars. Most customers prefer the 4-wheel drive models.

Examples of utility vehicles include the Toyota RAV4, Honda CR-V, Nissan Rogue, Ford Explorer, Ford Escape, Jeep Cherokee, Jeep Wrangler, Chevy Equinox, Subaru Forester, Subaru Outback, Peugeot 2008, and Haval H6.

Truck

At one time, trucks were reserved for farmers and handymen, but no more. Truck sales have taken off in recent years thanks to their broadening appeal as an alternative to sports cars and a

great second vehicle. Truck prices start at around \$12,000 for small ones, but fully loaded larger trucks will sell for \$25,000 or more. Engine horsepower also has a wide range depending on the size of the truck. Leg and headroom is ample, and most trucks seat 2 or 3, though some new models are adding back seats. In StratSim, sizes of trucks correspond to a range of approximately 30–90.



Features on trucks usually relate to styling and performance. Four-wheel drive models are very popular as well. Truck buyers are quite brand-loyal.

Examples of trucks include the Ford F-Series, Chevy Silverado, Ram Pickup, and Toyota Tacoma.

Delivery (Business-to-Business Model Only)



Delivery vehicles are covered trucks specially designed for national delivery companies that provide coast-to-coast pickup and delivery of packages, such as UPS and FedEx. They typically focus on providing ample space for storage and enough horsepower and torque to power a full load of shipments. Delivery prices start at around \$20,000 for smaller vehicles, but ones with more capacity and features will sell for \$40,000 or more. Engine horsepower also has a wide range depending on the size of the delivery vehicle. In StratSim, sizes of delivery vehicles correspond to a range of approximately 60–100.

Examples of delivery vehicles include the Ford Transit 350, Mercedes Sprinter, and custom platforms.



StratSim is designed to be a challenging and realistic learning experience. We hope that you will enjoy the challenge. The idea behind a simulation is that by striving to improve your performance in an active way, you will better understand how to operate a business. This section of the manual will provide you with insights that will help your StratSim team manage a successful business while making decisions based on ambiguous information in a dynamic environment.

The first goal of StratSim is to allow you to develop, implement, and potentially adjust a strategy in a dynamic environment over multiple years. What exactly does "dynamic environment" mean in the context of business? It means that we can expect customers, competition, and macroeconomic conditions to change as time progresses. A good strategy must reflect current realities while also assessing future paths to success in an ever-changing world.

The second goal of the simulation is to give you experience in strategic planning and decision-making in an ambiguous environment. You will be leaving behind the comfort of structured exercises and entering a situation where the road to success is not so clearly defined. Although a company's strategy is planned and implemented based on knowledge of the current situation, a strategy is also based on certain assessments and judgments about an uncertain future. Furthermore, decisions in StratSim are interrelated. Decisions should not be based solely on how one decision in isolation will impact an outcome, but also must consider how to integrate multiple decisions in the context of a changing competitive landscape and environment. How these decisions will interact is difficult to predict. Remember as the simulation progresses that even if you do not "win" in the simulation, gaining the experience of wrestling with these difficult decisions in an ambiguous environment is an important part of the learning process. In fact, many participants of the simulation will say that their greatest learning occurred when challenges were the greatest.

The third goal of StratSim is to give you experience in making decisions as a group where your teammates will likely have different opinions about what your company should do. If this is your first time experiencing a group decision-making process, it requires new skills that focus on group and managerial processes in addition to knowledge and judgment. How will you organize your group? How will you make decisions? Consensus? Delegation? Can you come to a shared vision and mission for your company? Will you embrace your strategy, or will you second-guess others if faced with obstacles? Managing people and organizations is indeed a challenge. Your team should develop a written "charter" that describes the operating process that the team will use to do analysis, divide labor, and make decisions. Use StratSim as an opportunity to gain experience in this group process.

Before we jump into analysis for success in StratSim, let's begin with a quick review of the fundamentals of strategy, because a team with a well-reasoned strategy has a better chance of succeeding than a team without one. Then we will discuss some points regarding execution of strategy in the context of StratSim. These include measures that provide strategic insights and helpful tips that should improve performance.

Fundamentals of Strategy

Strategy in its simplest definition is choosing where a company is going (objective), developing a path to get there (plan), and doing the day-to-day tasks that are necessary to be successful (implementation). If the future were known and fixed, strategy would be relatively easy to design and execute, but nothing in the future is static—the environment is constantly changing, competitors are responding to chosen actions, and customers and employees are always shifting their desires and priorities. It is the dynamic nature of business that makes strategy both fascinating and frustrating. Consider how many strategic plans were upended by the impact of COVID-19 or Artificial Intelligence (AI). And in today's world of social media, everyone is a Monday morning quarterback, so there is plenty of criticism for every decision, even when it was reasonable at the time. This unfortunately often puts additional pressure on leaders to make definitive statements or to not make any, neither of which is in the best interest of the company.

It should also be noted that strategy isn't about annual budgets or off-site retreats, though they are often part of the process. These are the safe havens of strategy. CEOs and executive teams believe they have accomplished something tangible when they present their annual budget or the results from two days spent away from the everyday fires of management, but unfortunately, mastering these tasks rarely leads to exceptional performance.

It is in this context of uncertainty that strategic thought leaders thrive. Their ideas and guidance help business leaders consider their options more deeply and from a new perspective. Over the years, some names have risen to the top of bestseller lists and strategic consulting roles, including Peter Drucker (Management by Objective), Henry Mintzberg (Emergent Strategy), Michael Porter (Five Forces and Competitive Advantage), Clayton Christensen (Disruption), CK Prahalad (Core Competency), Roger Martin (Playing to Win), W. Chan Kim & Renée Mauborgne (Blue Ocean), Vikas Mittal (Focus and Fidelity), and Rita McGrath (Strategic Agility). As you can imagine, the strategies for General Electric, Apple, Walmart, and United Airlines do have some commonalities, but are also likely to be unique based on their environments. Contrast that with the strategy for a local restaurant or a small start-up firm, and the differences become even more apparent. Reading the books (or following the blogs) of some of the above authors will help you think about your own company's business situation in a new light.

For our purposes with StratSim, we'll briefly cover two frameworks that may prove useful: Michael Porter's Sources of Competitive Advantage, which will provide a broad view of strategy, and Donald Hambrick and James Fredrickson's strategy diamond, which will provide a checklist or recipe-oriented approach. Both are good places to start your strategic journey.

Michael Porter cites a strategic model that predicts two sources of strategic advantage that lead to better than industry average performance: Low-cost and Differentiation. A firm with a low-cost position in an industry can produce essentially the same product or service as its rivals at a lower cost. A firm with a differentiation advantage is one that offers a sufficiently unique or

enhanced product or service where it can charge a price high enough to cover the costs of differentiation. StratSim reflects this underlying logic. Generally, customers are willing to pay more for what they believe to be a superior product or service within the set of brands they are willing to consider. Therefore, in your target markets, make sure you have either a cost advantage (allowing you to lower prices) or superior product differentiation (allowing you to charge a higher price). Without one of those two advantages, your firm will likely find itself in a less profitable position within the industry. Of course, it may be possible to develop both a cost advantage and superior differentiation for a product, brand, or service for a specific segment.

However, it is not sufficient only to declare a company to be low-cost or highly differentiated. One must be able to prove it. A good place to start is to understand the company's business situation or its relative position in its industry, both compared to competition and in the minds and choices of its customers. Internal and external situation analysis is the name of this process. Internal analysis is about the capabilities and resources of your organization. External analysis focuses on the environment where your company chooses to do business. This will include both industry-level considerations (markets, channels, competition, suppliers, etc.) as well as macro considerations (political, economic, socio-cultural, technological, environmental, and legal—sometimes referred to as PESTEL). The goal here is to understand the forces that impact your company. One classic framework that is often used to organize internal and external insights is SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats). When you perform this analysis, always ask yourself, how do we compare with our primary competitors? And what is most important to my customers? A strength is only a strength in the context of a company's competition and customers (and the same applies to a weakness).

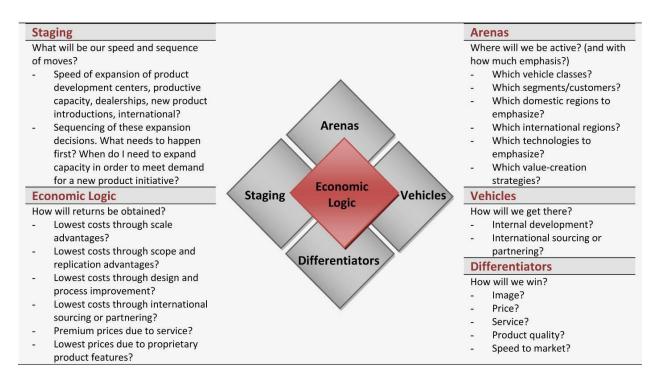
In concert with situation analysis, leadership will set the overall direction for the firm by communicating its shared mission and vision. A company's mission and vision define where and how it chooses to do business and provide the context for setting corporate goals, objectives, and measures used to evaluate performance and acceptable outcomes. Mission and vision are also the primary drivers of corporate culture and organizational structure and must be chosen with key stakeholders in mind. *Stakeholders* are the people and organizations that stand to gain or lose something based on the success of the organization. Typical stakeholders include owners, employees, customers, partners, and suppliers.

Within these broad guidelines for strategy, there are many choices to be made. In their 2001 article from the Academy of Management Executive, "Are you sure you have a strategy?," Donald Hambrick and James Fredrickson provide an excellent framework that defines five necessary elements of a strategy. The authors propose that an organization defines its strategy by answering five questions:

- Arenas: Where will we be active?
- Vehicles: How will we get there?
- Differentiators: How will we win in the marketplace?
- Staging: What will be our speed and sequence of moves?
- Economic Logic: How will we obtain our returns?

These questions must be answered in the context of internal and external analysis, as well as the organization's vision and mission. Remember to be specific when addressing these questions. In StratSim, just as in the real world, establishing a well-defined and agreed-upon strategy and set of objectives will improve your group's decision-making process and strategy implementation. In the following graphic, these five questions are expanded and applied to StratSim to help guide your team's strategic planning process.

The Elements of Strategy Applied to StratSim



The above provides only a brief overview of the process of designing a successful strategy. Your instructor will likely provide additional resources for you to learn more about strategic planning. To summarize, be sure your team has the following:

- A good grasp of the business situation through internal and external analysis
- An agreed-upon set of objectives and priorities for your company
- An established process for group analysis and decision-making

Regardless of the framework used, the objective of a strategy is to leverage a firm's capabilities and resources in the context of the external environment to create a competitive advantage over both the short- and long-term. The remainder of this chapter is devoted to helping you improve your performance in StratSim.

Importance of Strategic Assessment and Judgment

The quality of strategic analysis is an essential part of success in StratSim. Be sure to take the time and effort to fully understand the industry and your firm's position within that industry. An example where a team's strategy could move in a non-optimal direction would be if your analysis of the industry causes you to believe that your firm is a high-end provider of vehicles, when in fact your firm is more of a volume producer. That is different than saying that "although our company is currently positioned as a volume producer, we want to reposition ourselves as a highend provider." This latter statement at least acknowledges the strategic challenge. Then the question becomes, how does the company reposition itself and is it viable to do so?

A second example might be concluding that your firm enjoys a cost advantage over its rivals, when in fact the company does not have a true cost advantage where it can produce the same product at a lower cost. Instead, it has low per unit costs due to poor product specifications (i.e., the design has poor ISSQ—Interior, Styling, Safety, and Quality). In both examples, the decisions your firm will make will reflect these underlying strategic assessments, which, in the above examples, were not accurate. Poor assessment will often lead to poor performance. So, it is worthwhile to take the time to question important assessments to make sure your strategy is based on accurate information.

Another area to consider is the definition of competitive arena—both how the arena is defined and where a company chooses to compete. There are several different ways to define the competitive arena. Should it be vehicle class? Consumer segment? Microsegment? Region? Each approach has its merits, but focusing on one arena definition alone may lead to an incomplete analysis. For example, one can leverage experience in a vehicle class, as it is less expensive and faster to develop another vehicle of the same class than to invest in an entirely new class of vehicle. But that may lead to cannibalization of the current product line. A second example might be pursuing opportunities in the truck class without having thought through how the alignment of dealerships in particular regions factors into your ultimate success. These are examples of how arena definition needs to support one's strategic assessments.

In terms of choice of arena, consider two companies—one which focuses on low-end economical vehicles, and another that has been making high-end luxury and sports cars. Which do you think would be more successful launching a high-end sports utility vehicle for \$50,000? Would customers wonder if the low-end company can design this vehicle? Is this potential customer also looking for an element of prestige associated with owning a particular brand of vehicle? Remember that your company will have a perceived positioning in the marketplace which should be considered when evaluating alternative strategic options. So, when you move into new market spaces, remember that it may take more time and money to gain success in areas that are far from your core experience. It can be done but requires resources and patience.

Performance Success and Shortfalls

Most of the sources of poor financial performance fall into one of three areas: 1) not having enough sales to sustain the ongoing costs of running the business; 2) failing to understand the financial structure of your company (e.g., too-high product or fixed costs); and 3) failure to have a long-term plan that takes into consideration the proper staging of actions and investments. The remainder of this section will help you identify and diagnose sources of common performance successes and shortfalls.

The Profit Equation

Because long-term profitability is one of the measures of financial performance for your company, you should understand the drivers of profit. As the graphic below shows, unit sales multiplied by unit margin less fixed costs equals your company's profit. Put another way, if your unit sales multiplied by your unit margin does not cover your fixed costs, your profit will be negative. So, generally, you will find that if your profit is negative, your unit sales are low, your margin is low, or your fixed costs are high relative to industry standards. This should be straightforward to business students, but easy to forget as the dynamics of your industry play out.



We can further define unit sales as market size multiplied by a company's share of the market. We can also further define the unit margin as the selling price less the cost of goods sold (COGS). We will refer to this formula as **the profit equation**. Therefore, poor profit performance is caused by some combination of low overall demand, low share, poor margins (the difference between selling price and COGS), or high fixed costs. Improved performance (in profit) is caused by some combination of increased overall demand or market share, improved margins, or lower fixed costs for a given sales level. Let's look at each of these factors in more detail for potential causes of performance successes or shortfalls.

Unit Sales: Market Size

What are some of the factors that influence overall (or segment or microsegment) market size? As shown in the graphic below, these factors include base or intrinsic demand, current economic conditions, and the competitor dynamics within the industry.

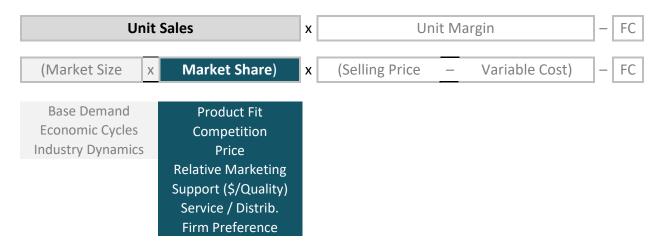


Let's consider some examples of each of these factors. Base or intrinsic demand depends on long-term trends in population, the environment, or customer preferences. Separate from intrinsic trends would be the impact of the economic environment on demand. The automobile industry historically has been extremely cyclical. During recessions, new auto sales almost always slump as people put off purchasing new vehicles if they are not immediately needed. Also, rising (or declining) gas prices can negatively (or positively) impact the overall demand for vehicles and cause a shift in the demand of specific customer groups or for specific vehicle classes. So, one must consider how changes in the economy and gas prices will impact demand. Finally, how all the firms compete in a market also impacts demand (overall or within a segment). If all the firms innovate, advertise, expand distribution, etc., this will generally stimulate demand. Industries where there is less investment in these areas will grow less, all other things remaining equal.

So how do changes in demand impact profitability? In general, the more a company's costs are fixed rather than variable, the more dramatic the impact on profitability will be when demand falls (or rises). As an example, for a firm with \$100M of revenues, if variable costs are running at 60% of revenues (\$60M) and fixed costs constitute 30% of revenues (\$30M), profit will be 10% of revenues (\$10M). If demand falls by 10% resulting in revenues of \$90M, the firm's profits will decline to 6% of revenues (\$6M or \$90-\$54-\$30). This represents a 40% decline in profit or four times the magnitude of the sales decline. Had all costs been fixed (\$90M), there would have been no profit with a 10% sales decline. Generally, if overall demand is down, all firms will see their profits fall, but weaker firms (firms without a cost or differentiation advantage) will be hurt the most as their gross margins are typically smaller.

Unit Sales: Market Share

If the size of the market is stable but your share of the market declines, a corresponding drop will be seen in unit sales. After recognizing that your market share has dropped, analyze changes in share at the vehicle class or microsegment level to find the root cause. What caused the drop in market share in your target vehicle class, segment, or region? Was a new product launched by a competitor? Did a competitor upgrade a product? Was it due to a change in the marketing mix by either your firm or one of your competitors—pricing, advertising, or promotion? Was it due to insufficient production or perhaps a competitor finally increasing their production to meet demand? If you see that all your vehicles are losing market share, perhaps the cause was more at the corporate level, due to distribution or firm preference. Usually, problems in these areas will impact all your product lines more or less equally.



All these issues are drivers of your market share. What makes it difficult to diagnose is that there are normally changes in multiple factors each year, which can lead to very reactive decision-making. Your firm's strategy is what provides you with the long-term direction as to how best to alter your tactics as the game progresses. Which target markets should receive limited resources? Do products meet target customer needs? Which competitors must be understood and monitored most closely? What will be the most effective methods (levers) to use to drive market share? Utilization of tools to help you better understand the customer and competition, such as the test market, focus group, and others, is critical for success.

Unit Sales: Forecasting Sales for a Product

Now that we have discussed the drivers of market size and market share, it is a good time to consider how one might forecast unit sales. Why is this important? In StratSim, you will be asked to enter a production plan for each vehicle. Though this can be adjusted by up to 10% each year by selecting the flexible production option, it is important for your production decision to be as accurate as possible to avoid stockouts, where there is insufficient production to satisfy demand, or having unsold inventory, where production plus existing inventory exceeds demand. A stockout will result in lost sales and, presumably, lost contribution. Unsold inventory ties up cash

and runs the risk of becoming obsolete, resulting in an inventory write-off if the product is upgraded or discontinued. Avoiding these conditions should be one of your company's goals. Of course, the production level for a vehicle should reflect the current level of inventory available for sales of that brand.

Because the production plan should be based on next period's expected sales adjusted for existing inventory, the key to making an accurate production decision is having a good estimate of sales for next year. This is not a trivial process, and the techniques one would use in StratSim are different for an existing product than for a new product. For both situations, however, the drivers of the *Market Size x Market Share* part of the profit equation are the basis for the forecast. What varies is the level of uncertainty and the tools one would use to calculate the estimate.

Forecasting the sales of a new vehicle class requires using a combination of information about the vehicle class and consumer segments. The first step is to identify the market segment in which the new vehicle will be competing. Next, estimate the number of consumers in the segment that prefer the vehicle class, and project the share of those consumers the firm can expect to sell to with the new vehicle. Take as an example a firm developing a truck for a particular market. The class preferences for the segment might include luxury and truck vehicles. Based on this information, they might estimate that 25% of those consumers would prefer a truck. Further, they project that 50% of those consumers will buy their new truck based on the results of a concept test and the fact that no other manufacturer is selling a vehicle in the class. If the size of their target market is 1000 thousand units, then the sales forecast would be:

sales forecast = 1000 thousand x 25% x 50% = 125 thousand units

A similar analysis could be done at the microsegment level and then combine the primary microsegment forecasts to determine the total sales volume.

For an existing product, there is the advantage of knowing current sales as a base to start the process. For this example, let us state that the product achieved sales of 100,000 units. The first question to ask is whether there were any special circumstances regarding production levels that impacted these sales. For example, was there a stockout situation either for this product or one of its direct competitors? Check the manufacturing detail for your company and the competitors to find this information. Read the message (some shortages: <10%, significant shortages: 10%-30%, or extreme shortages: >30%) to get an idea of the magnitude of the production shortfall. If, for example, you saw a message that stated "significant shortages," you may want to adjust your base to 120,000 units as an estimate of what you would have sold had you produced sufficient volume to meet demand. In the same way, if a direct competitor's sales were affected by insufficient production, you may want to adjust your base downward.

The potential impact of upgrades should also be considered. Conjoint analysis and concept tests are helpful tools to estimate the potential increase in market share. However, these analyses do not consider any potential competitive product upgrades or changes in the marketing mix. Remember also that for a major or minor upgrade, any existing inventory will be liquidated.

Next, consider what decisions you are planning for the marketing mix. The potential impact of changes in price, advertising, and promotion may be measured using the test market tool to help you estimate the sensitivity to adjustments in these variables. Of course, this tool assumes that there are no other changes to either your product or competition.

This brings us to the most difficult assessment you must make—what will the competition do and how might this affect next period's market share for the product? One critical factor is whether a new competitor is entering into the same market or vehicle class as the product. In the industry news report, all new product (new class) entries are announced one period before the vehicle is sold in the market. Obviously, a competitive entry will impact both overall demand and your share, but perhaps as importantly, it creates more variation in potential outcomes. Upgrades and new products (same class) are not announced in advance and these also impact sales. By analyzing historical trends, available development centers, and competitor past behavior and intent, you may be able to gain some insight as to what the competitor is likely to do regarding upgrades.

There are two final considerations when deciding on production volume. First is your assessment of the risk of losing sales (due to under production) against the cost of holding excess inventory (due to over production). Some of the factors to take into consideration when weighing lost sales versus holding costs are the margin on the product; your plans to upgrade the product in the future, thus making current inventory obsolete; and the cost of capital associated with building and holding inventory. The second consideration is the potential cost of retooling. Remember that any time production is increased from the previous period, a retooling charge is assessed. Therefore, a steady production volume over time is preferable to one with significant variation, all things being equal.

Unit Margin

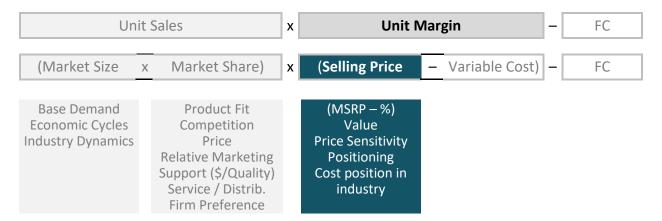
Unit margin is defined as the difference between your selling price (which in StratSim is your MSRP less your dealer discount) and the unit variable cost or cost of goods sold (COGS). Unit margin is how much your firm makes on each vehicle sold. In a business where the variable costs are a high percentage of your selling price, pricing and unit cost savings are especially important. This is certainly the situation in StratSim where COGS is often between 65-85% of revenues (or on a per unit basis, of the selling price). Therefore, pay close attention to the impact of pricing and variable costs on the profitability of your business. Let's explore these two areas in more detail.

Unit Margin: Selling Price

Pricing is one of the most critical issues facing a firm. This is because the pricing decision influences all parts of this performance equation. In the profit equation, pricing affects the revenue inflow side of the margin (what the firm receives when it sells a product or service). But the pricing decision also impacts: 1) your market share due to price relative to the competition, 2) overall demand due to general price levels in the market, and 3) COGS due to potential changes in volume sold (and produced).

Let's look at an example to illustrate the importance of unit margin and therefore pricing. Let's say your business currently sells a product for \$100 and COGS is approximately 80% or \$80. If you decide to reduce your price by \$10 and the COGS remains the same, you have also reduced your margin by \$10. On a percentage basis, however, you have cut your margin by 50% (\$20 reduced to \$10). This means that unless unit sales **double**, your profits will decrease. At least in the short term, your firm should be asking whether a 10% reduction in price will double your sales—a tall order. Alternatively, consider a \$10 increase in price with the corresponding increase in margin of \$10/unit. On a percentage basis, you have increased your margin by 50% (\$20 increased to \$30). Under this scenario, your sales can decrease by 33% to maintain contribution.

Examining the price expectations in consumer segments and utilizing tools such as the test market, focus groups, and conjoint analysis (if available) can help you evaluate these trade-offs. Basically, these tools are provided to help you understand price sensitivity or price elasticity for your target market. So, that is the tactical nature of the pricing decision, but pricing has far greater strategic implications.



Let us consider some of the more strategic aspects to this pricing decision. Most of these have to do with the dynamic nature of strategy. First, a price advantage is often temporary. A competitor can easily adjust prices if their cost position is equivalent. Is this a dynamic that you want to engage in with your competition, or would other ways to compete be more effective over the long run? Second, consider the possible impact on the scale of your business. Is it appropriate to assume that fixed costs will remain the same, or will a price reduction require new

investments in productive capacity? A third strategic consideration is how you want to position yourself in the marketplace. Is it important to have a consistent message with your position of a high-end or value provider? Price points send a message to consumers about what they might expect from your company and vehicles (just make sure you deliver if you are high-end!).

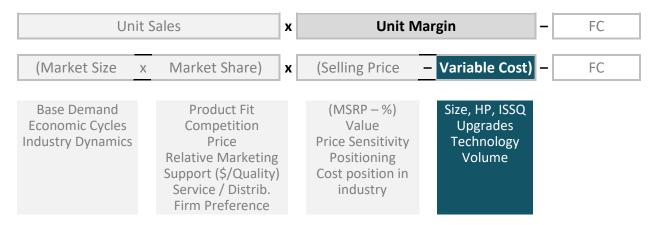
You may want to frame the question of adjusting a product's price as one of many potential "investments." For example, you might estimate that cutting price will cost \$50 million in lost margin. Are there better uses for that investment? Can you instead capture that value and reinvest it in either product (or service) enhancements or cost reduction opportunities? Or conversely, would your target customers be willing to pay more for product improvements?

The main point is to think carefully about pricing. Consider the impact on your profitability and the potential for competitors to match the price. Think about consistency across your product lines regarding positioning. Always understand the financial implications of your pricing choices. The pro-forma contribution and pro-forma income statement can be of great value in trying out different scenarios.

Unit Margin: Cost of Goods Sold (COGS)

The other half of the margin equation is your variable cost of goods sold (COGS). Note that in StratSim, there are two components to COGS: a variable portion that is in every unit and a fixed portion that is spread across all units produced. Here we will focus on the variable aspect, but recognize that the fixed portion (capacity, retooling, depreciation, maintenance, and overcapacity charges) also make up a significant part of COGS. Let's consider what impacts the variable portion of COGS. How can your firm strive to lower these unit costs?

The variable cost of your vehicle is based on the specifications of the vehicle regarding size, HP, and ISSQ (interior, styling, safety, and quality); the technology capabilities of your firm; and the volume produced of that vehicle and vehicles in the same class (experience effects). All firms in the industry are also impacted by changes in labor and materials costs over time.



There are several drivers of variable cost savings in StratSim, including learning curve effects, cost savings through product design, and investments in technology capabilities.

Experience Curve Effects. The experience effect shows that with each doubling of cumulative volume, there is a consistent percentage decrease in unit costs. In StratSim, there are experience curve effects present at both the brand level and the class level. Therefore, all things being equal, a firm that has a higher production volume of a particular brand, or of a particular vehicle class, will enjoy a cost advantage over those products or firms with lower production. For example, if experience effects of 90% are present, and the unit cost of the 100,000th vehicle is \$10,000, the cost of the 200,000th vehicle produced will be \$9,000 (\$10,000 x .90).

Savings through Product Design. Recognize that the product design process has an impact on unit variable costs. Part of this is determined by the specifications of the product, with higher values increasing the unit costs, all other things being equal. However, another way to lower unit variable cost is through the upgrade process. When a vehicle is upgraded, along with creating a new product design, the engineers working on the product also attempt to find ways to lower the cost of the product without sacrificing the value that the customer perceives in the brand. Your firm can calculate the impact of the cost savings of an upgrade by choosing a cost reduction project, which makes no changes to the specifications but only lowers costs via other design improvements. Compare the base cost on the original ("previous") product design with the upgrade.

<u>Savings through Investment in Technology Capabilities</u>. Finally, a firm may invest in technology capabilities, allowing a firm to create vehicles with higher specifications while also decreasing costs on existing vehicles. An estimate of the savings based on your current product portfolio and projected sales is provided on the "technology capabilities" input screen. More specifically, a firm with higher capabilities in ISSQ can produce an identically specified vehicle at a lower cost than a firm with lower capabilities in ISSQ.

Your firm should consider the effectiveness of using these cost-saving techniques in the context of your overall strategy. Cost savings are a net positive whether they improve your profit margin or are passed on to the customer in hopes of gaining more sales. However, remember that it is implementation of "smart" cost savings that is ultimately rewarded. Having the largest production capacity is only an effective cost savings if that capacity is used in production (and sold). Having a low-cost vehicle is only effective if consumers still want to purchase it. Thus, the successful manager is always looking for ways to lower costs but keeps an eye on whether that cost savings is ultimately rewarded by affecting the bottom line.

Fixed Costs

Fixed costs are costs which do not fluctuate based on units sold, even if those costs are discretionary. Investments in upgrades, new products, technology capabilities, development centers, new capacity, distribution, advertising, etc., generally are the same regardless of the level of unit sales in the market. This is not to say these investments will not have an impact on

unit sales. The firm makes these investments in the aggregate and then unit sales occur. The amount of fixed cost per unit is just the division of the amount of fixed cost by the number of units sold.



Strategic and tactical questions your group should discuss pertain to which of the fixed cost investments should be made to positively influence the rest of the profit equation. Should the focus be on product improvement, corporate infrastructure, technology, cost reduction, marketing, distribution, etc.? Over the course of the simulation, your firm will likely invest in all of these areas, but the questions of priorities, direction, and financial benefit must be reviewed in the context of your overall strategy and objectives. As a group, you will also have to find the proper balance between short-term and long-term perspectives. Obviously, the best way to maximize profit in the short run is to not invest in any long-term projects that have no immediate impact. The related corollary is also true, that a company that only makes short-term investments will face long-term challenges. StratSim reflects this need for balance in time horizons.

In addition to the strategic nature of alternative fixed investments, there are also important operational elements to manage. For example, your firm may find that fixed expenses are consistently running high and putting pressure on profits. How does this occur? One common source of trouble is having too large an operation for your level of sales. To check for this, compare your sales with your capacity. If sales are less than 70% of capacity, there are unproductive fixed assets that increase depreciation and plant maintenance expenses. If low-capacity utilization is expected to continue, you may want to consider selling/writing off some of your plant capacity. Although resulting in a one-period loss, it may improve overall future performance. You also may want to check your expenditures on R&D and marketing versus the industry averages. If you are significantly out of line and it is not part of your strategy, you may want to rethink high levels of fixed expenditures.

Typically, firms that are struggling with high fixed costs relative to their total gross margin will find themselves going into debt. The associated debt interest payments then become another fixed cost to manage. The cost structure of the firm not only impacts the profit equation but also the firm's cash flow. Fixed costs that are charged to the fixed cost part of the profit equation include amortizations of investment in capacity, development centers, etc. The cash required for

these investments is often expended earlier than their positive impact on revenues or lower expenses. Thus, the firm will need to be concerned with both the profit and cash flow aspects of fixed costs.

Make sure your firm has sufficient funds from operations available early in the simulation to fund any long-term projects and weather any challenging periods. This is not always possible based on operations alone, so be prepared to use debt and equity markets to satisfy the firm's cash needs.

Last, there are some "hidden" costs of doing business that you should try to control. These include on-going inventory write-offs, high retooling costs, and the like. Often this is due to the difficulty of accurate forecasting, which was discussed previously. As you gain experience and make better use of the tools, you will improve your ability to manage these operational issues.

Monitoring Performance and Pro-Forma

The best way to analyze the profit equation during the decision-making process is by using the pro-forma analysis. The pro-forma reports use your forecasts and the projected cost of your decisions to generate forward-looking financial statements based on these assumptions. It is important to recognize that YOUR forecasts are what drive unit sales in the pro-forma analysis; the simulation does not forecast sales for you. However, the pro-forma analysis will allow you to test your assumptions about the profit equation and basically answer the question, "If we make these decisions and achieve our forecasts, what will be the financial outcome?"

Once you have made your decisions and the simulation is advanced, compare your estimate of results from the pro-forma (sales, market share, net income, etc.) with actual results. If there is a significant difference between the two, you should find out why. Sometimes results will be better than expected. Other times (and probably more often), results will be less than you hoped. Analyze what assumptions led to these inaccuracies and become more proactive within your group to challenge optimistic assumptions.

Long-Term Planning in StratSim

In StratSim and strategy in general, decisions often take time to implement and to have an impact in the marketplace. This section discusses some of the most important timing and staging issues in StratSim to help you plan your timeline accordingly. Some decision impacts are immediate (that is, a decision is made, and the results are impacted as soon as the simulation is advanced) while the impact of other decisions may be delayed for up to two additional advances. Furthermore, some decisions have longer-term effects. New products sell for multiple periods; advertising has both an immediate and long-term effect through building brand equity; investment in technological capability, development centers, dealer capacity, plant capacity, etc.

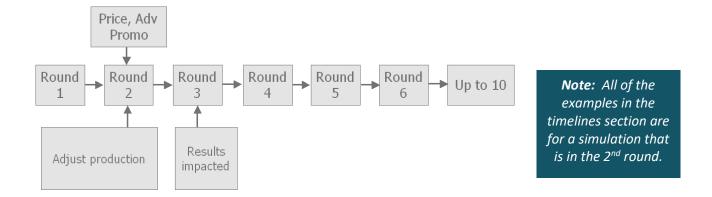
has longer term impacts. Finally, remember that costs and cash flows do not always match up with these effects, so one must also consider funding sources for various investments.

It is essential that you understand the staging of various decisions for planning purposes. The graphics below should help with this staging process. Also, review the table in the StratSim case that covers product development. The following graphics show related issues to consider (such as disposing of inventory and adjusting production when a minor upgrade is implemented).

Timelines

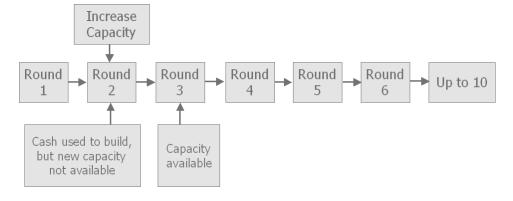
Marketing Mix Decision Timeline (Immediate)

Marketing mix decisions (pricing, advertising, promotion) have immediate effects on results, and therefore production should be adjusted based on the expected impact of the revised decision as shown below.



Capacity Decision Timeline (Capacity Available in the Following Year)

When adding capacity, cash is used to build the additional productive capacity immediately, but the additional capacity cannot be used until the following decision period. There is a maximum change of 50% of current capacity in any period. When selling off capacity, the loss shows up as an extraordinary item after the advance, and there is a cash inflow of the sales price of the plant (50% of book value).



Product Development Decision Timelines (Immediate to 3 Years)

For all upgrades and new products shown below, a simple rule to remember is that:

A brand will become available for sale in the last year it is in the development center. On the product development input screen, it will show a message such as "launch now."

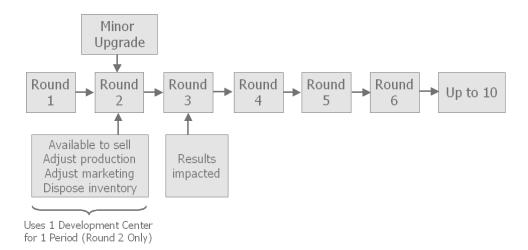
Now we will review each of the product development options in more detail.

Cost Reduction Upgrade (Launch Now)

A cost reduction upgrade only impacts your COGS for the product. Any existing inventory will not be liquidated. The timeline for cost reduction upgrades is the same as the minor upgrade (below), but the only impact will be on costs.

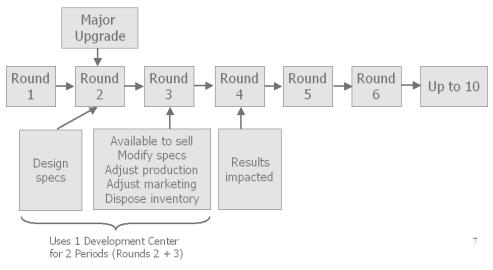
Minor Upgrade (Launch Now)

Minor upgrades are the fastest way to get product changes into the market. Basically, the same period you initiate the minor upgrade is the period you also prepare for the upgraded brand's introduction into the market for sale. The maximum change for a minor upgrade is 1 on the four vehicle specifications, 5 on HP, and 2 on size. A minor upgrade is in a development center for one period. Also remember that any existing inventory will be written off at a cost of approximately 10% and that production must be adjusted immediately upon initiating the minor upgrade.



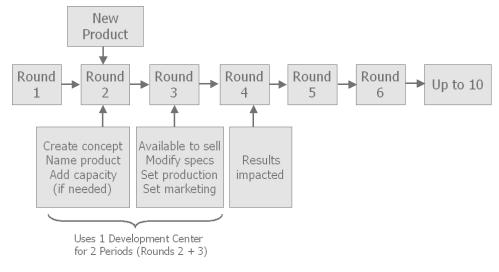
Major Upgrade (Launch after 1 Advance)

Major upgrades take one period longer than minor upgrades but allow you to make more significant changes to the product. They occupy a development center for two periods, rather than one period as in minor upgrades. The maximum change for a major upgrade in the first year is 2 on the ISSQ specifications, 20 on HP, and 10 on size. These may be slightly modified in the second year of development. Because major upgrades take an extra period, you will be charged half of the total development cost in the first period of development and the remainder in the second period. Any existing inventory will be disposed of in the second period when the major upgraded vehicle is offered for sale in the market.



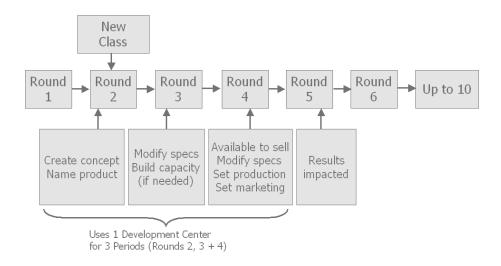
New Product in the Same Class (Launch after 1 Advance)

New product in the same class has the same timing as a major upgrade but without the complication of potentially disposing inventory. A development center will be occupied for two decision periods and the development costs will be divided equally between the two periods. The one additional consideration here may be adding capacity (if needed—it is not a requirement if you have sufficient capacity to produce all your product lines). For a new product where you already have developed a vehicle in the same class, the decision to add capacity should be done in the same period that you start product development, as shown below.



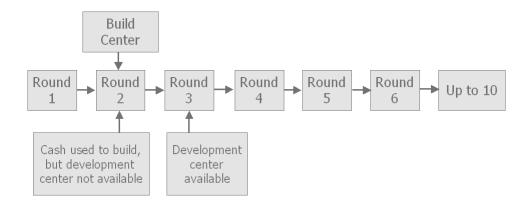
New Product in a New Class (Launch after 2 Advances)

New product in a new class works much the same way as a new product in the same class, except that it takes one additional period to complete. In this situation, capacity (if needed) would be added the period after the product development project is initiated. Note that the development center will be occupied for three rounds, so it is important to plan accordingly. Development costs will be spread equally over the three periods that the product resides in the development center.



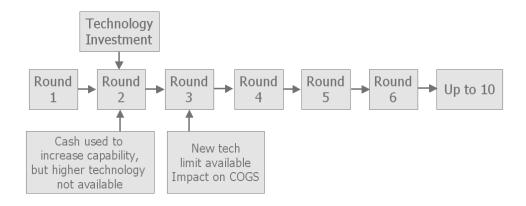
Development Centers (Center Available after 1 Advance)

Your firm needs to decide the appropriate number of development centers to execute your strategy, when they will be needed, and how to raise the funds necessary to build them. If you decide to add development centers, be sure to think ahead as it takes one period before it is available to be used for development projects. However, the cash used to build the center will be used and expensed immediately. Only one new development center may be added in each period, and there is a maximum of five total centers for any firm.



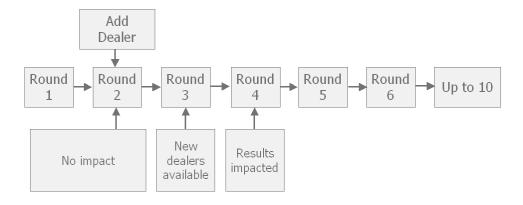
Technology Investments (New Limits Available after 1 Advance)

Investing in technology works much the same way. It will take one year to increase that capability. Remember that investing in technology only increases your ability to design a vehicle with higher specifications. It does not automatically implement those changes to your existing vehicles; you must explicitly use upgrades to accomplish this. So again, it is important to plan ahead.



Dealership Decision Timeline

Dealerships also take a year to implement, reflecting the time required to build new buildings and hire personnel to expand your distribution and/or meet B2B coverage requirements.



Conclusion

To summarize what was covered in this section, here are six key points to review with your group as you work through the simulation.

- Understand the business situation through internal and external analysis.
- Create an agreed-upon vision and mission for your company.
- Establish a process for group analysis and decision-making.
- Use the concept of the profit equation to better understand the dynamics and financial implications of your alternative decisions.
- Use the pro-forma reports to check your sales and financial assumptions.
- Take into account the time required to complete various strategic decisions as part of your long-term planning process.

Using this strategic checklist will keep your group on track strategically and help you avoid many of the reactive pitfalls that naturally occur as competition intensifies. Best of luck managing your company!



This section discusses the issues that arise for marketing decision-makers in their firm's relationship with consumers in the marketplace. Specifically, the following pages address how a firm becomes a market-based organization, and how a marketing decision-maker creates customer value and captures a significant part of that financial value for the firm.

Basically, the marketing decision-maker's job is to prepare the firm to create and capture long-term or strategic customer value, while at the same time creating and capturing enough short-term value to make the firm profitable in the short run. It is this combination of thinking strategically for the long term as well as thinking about current sales and profits that defines the complex challenge facing marketing decision-makers.

The specific general manager's topics that we will discuss are:

- 1) Creating the market-based organization
- 2) Marketing scope
- 3) Customer value creation, measurement, and capture
- 4) Market segmentation
- 5) Basis for reaching market segments
- 6) Segment targeting and product positioning
- 7) Creation of a market-based organization structure

It needs to be clearly understood that these issues involve all the senior general managers and senior functional managers of the firm. This is true because these issues impact all aspects of the firm. These issues clearly draw upon the capabilities of the marketing function to provide appropriate strategic analysis and implementation. However, they transcend the marketing function to impact corporate strategy, operations, information technology requirements, research and development, human resource approaches, and financial value dynamics. These issues have too broad an impact and are too important to be the domain of only the marketing function, or any other function, but the marketing function is a key player in this process.

Special Firms – Special Market Relationship

If you ask a group of senior executives to name firms with exceptional customer focus, high satisfaction, and a deep relationship with consumers, you will usually get a common set of firms mentioned by very diverse groups of executives from all over the world. This set of exemplary firms includes Nordstrom, Singapore Airlines, and Lexus automobiles. What do these firms know and do that most firms only dream about, or pretend to do? Let's take a quick look at each.

Nordstrom: Ask a Nordstrom customer about the "Nordstrom experience." You will be deluged with superlatives about how sales personnel have gone out of their way to anticipate and respond to customer needs.

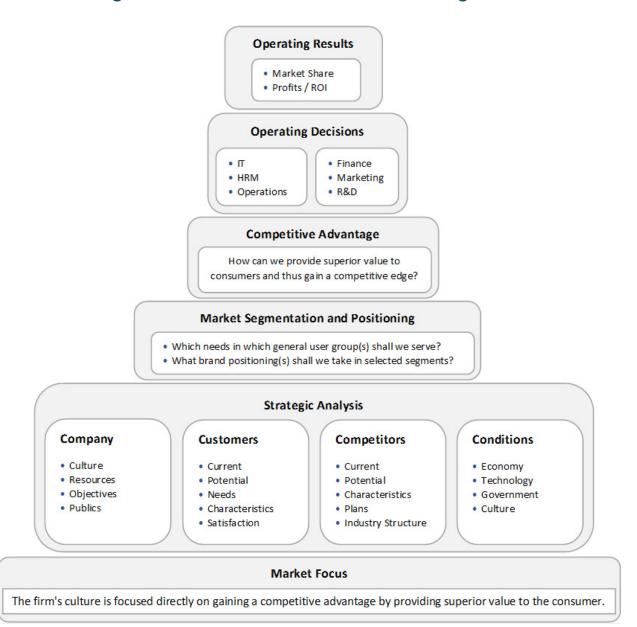
Singapore Airlines: The mention of most airlines sends many air travelers into a tirade, recounting numerous examples of how they have been mistreated. One of the few exceptions is Singapore Airlines. Again, listen to their customers describe the attention paid to their needs in every detail.

Lexus Automobiles: In a short period of time, Lexus established itself as a premium nameplate in the car business. This was accomplished through keen attention to meeting the desires of luxury car buyers, from the design of the cars to a positive retail experience at the dealership to the delivery of an attentive and deeply personal level of service.

Creating the Market-Based Organization

Just what is a market-based organization, and why is it so important that the general manager should care passionately about it? The basic framework to answer these questions is provided in Figure 1.

Figure 1: The Structure of Market-Based Management



Market Focus

Like all great structures, a market-based management structure requires that the firm build a deep and strong foundation. Refer to the base of the pyramid in Figure 1. The market-based organization's foundation is comprised of an obsessive "market focus" by all employees, not only the general and senior marketing managers. The firm's culture must be focused directly on gaining a competitive advantage by providing superior value to the consumer. It is the marketing manager's job, in combination with the work of other senior managers, to create such an environment through hiring practices, training, compensation methods, and promotions.

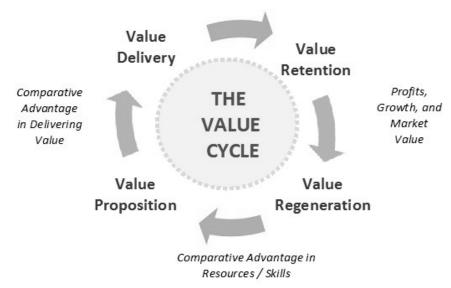
The question that should occupy the mind of the general manager is, "Do all our employees get out of bed every day with the obsession of creating superior value for our consumers?" The firm's entire culture should be focused directly on gaining a competitive advantage by providing that unique and superior value to the consumer.

Consumer Led versus Consumer Leading

It is important to understand that obsession with consumer value creation does not mean blindly following the consumer wherever the consumer leads. What we can expect from consumers is an articulation of their needs. However, we should not expect them to articulate the exact product or service that will satisfy their needs.

Link to Results

The key point of this obsession with the consumer is that there is a positive link between a market-focused culture (Figure 1, base level) and the financial value creation of the firm (Figure 1, top level). Simply stated, firms that build a market focus into their culture gain substantially on such marketing performance measures as market share, consumer satisfaction, and consumer retention, and on such financial performance measures as profit, return on investment, and cash flow.



The mechanism of this relationship is further illustrated in Figure 2. Here we see the relationship among the concepts of the value cycle: 1) creating a customer-based value proposition based on comparative advantage in the firm's resources and skills in marketing and other business functions; 2) creating competitive advantage in delivering this value to the customer; 3) thus developing customer satisfaction and loyalty; 4) thus being able to retain a significant part of the value created in the firm; 5) resulting in significant market share and financial rewards; 6) that allow enough resources to be available to regenerate the value proposition to repeat the value cycle.

Also key to the proper implementation of the value cycle is that the customer value creation question be answered from the perspective of the consumer and not based on internal company beliefs. The relationship between market focus and operating results holds only if the consumer truly believes that the firm cares about their needs and provides a product/service offering of real value.

Strategic Analysis

The market-based firm not only builds a market-focused culture but is also committed to objective strategic analysis. This concept is reflected in the four building blocks on the second level of Figure 1. Proper strategic analysis systematically and routinely examines the company, customers, competitors, and other conditions in the environment.

This analytical structure is presented in more conceptual detail in Figure 3. Here we see the basic marketing decision-making process.

SITUATION ANALYSIS Purpose: To Identify Key Problems & Opportunities INTERNAL ANALYSIS EXTERNAL ANALYSIS Goals, Strengths, Weaknesses Opportunities & Threats MARKETING STRATEGY IMPLEMENT, Purpose: To Determine the "Value Proposition" MONITOR, ADAPT, SEGMENTATION TARGETING POSITIONING & REVIEW Identify Segments Select Targets Develop Positioning MARKETING MIX Purpose: To Determine "Value Delivery" PRODUCT PLACE PRICE PROMOTION PEOPLE PROCESS

Figure 3: Marketing Decision-Making Process

This strategic analysis and the marketing decision-making process can be thought of as asking and answering four basic questions which parallel the process in Figure 3:

1) Where are we as a firm? (Situation Analysis)

This is the basis of the situation analysis for the firm. Here we examine in detail all relevant aspects of the four boxes on level 2 of Figure 1. This analysis is comprised of an understanding of the current goals of the firm and the SWOT (strengths, weaknesses, opportunities, and threats) analysis that defines the firm's current circumstances. We need to be clear on the definitions of the SWOT components.

Strengths and weaknesses are **internal** to the firms as follows:

<u>Strengths</u>: Superior resources and/or skills and/or position held that can be drawn on to exploit opportunities and diminish threats.

<u>Weaknesses</u>: Deficiencies in resources and/or skills and/or position held that inhibit the firm's ability to capture opportunities or that must be overcome to avoid failure or underperformance.

The strengths and weaknesses are related to all aspects of the firm: marketing, operations, R&D, human resources, natural resources, financial, etc. They should also not be considered a stagnant concept. The firm may be required to acquire or develop new strengths or strive to overcome current weaknesses.

Opportunities and threats are **external** to the firm as follows:

<u>Opportunities</u>: Environmental {<u>c</u>onsumer, <u>c</u>ompetitors, <u>c</u>hannels, <u>c</u>onditions (political, economic, social, technological, deregulation, etc.)} states of being or trends with positive consequences. They provide a potential new basis for competitive advantage and provide a possibility of improved performance <u>if pursued</u>.

We must clearly note that opportunities are <u>not actions</u>. Indeed, many opportunities may not be acted upon. Marketing managers must make the decision to act upon a specific opportunity or not.

<u>Threats</u>: Environmental {<u>c</u>onsumer, <u>c</u>ompetitors, <u>c</u>hannels, <u>c</u>onditions (political, economic, social, technological, deregulation, etc.)} states of being or trends with negative consequences. They may impede the implementation of strategy, increase the risks of a strategy, increase the resources required, or reduce performance expectations.

When evaluating a course of action, the strengths of the firm and the opportunities that are related to a course of action are the "pros" that argue for taking that alternative. Similarly, the weaknesses of the firm and the threats that are related to a course of action are the "cons" that argue for not taking that alternative.

2) Where do we want the firm to be? (Marketing Strategy)

This sets the strategic direction of customer value creation by the firm in terms of a) the identification of market segments; b) the targeting of selected segments; and c) the positioning of the firm's products within the chosen segments.

3) How should the firm get to where it wants to be? (Marketing Mix)

This is where we develop the marketing mix to determine the delivery of value. What exact product composition, distribution structure, price, promotion, processes, and people will drive the implementation of the strategy?

4) What is next after we implement the marketing program?

Here we monitor, adapt, and renew the value cycle.

The marketing decision-making process involves an ongoing review of these questions. In some firms this is an annual process; in others it may follow a different pattern. In StratSim, each decision-making cycle requires this same process.

Market Segmentation and Positioning

The third level of the pyramid in Figure 1 involves the strategic choice of market segments and product positioning. Here the marketing decision-maker must specify which needs of which user groups to serve and what brand positioning the firm should strive for within the selected segments. These are essential elements of success in marketing strategy as well as in StratSim, and we will examine these topics in detail later in this section.

Competitive Advantage

Once the firm has built a culture around providing superior value to the customer, performed a competent SWOT analysis, and specified the target segments and the brand positioning, the firm must provide a structure for the marketing program that will deliver this value to their customers. This is illustrated in the competitive advantage box on the fourth level of Figure 1. This approach is then implemented through operating decisions (Figure 1, level 5) across all functional areas to generate the operating results (Figure 1, top level).

state it simply, marketing decision-makers have the task of utilizing strengths and overcoming weaknesses to actualize the selected opportunities while overcoming the threats that confront the firm. This is one of the jobs of the senior marketing officers of the firm. Sometimes this requires the development of new strengths and strategies to overcome weaknesses (i.e., changing the firm over time). However, what should not change is the fundamental creation of a market-based and consumer-centric culture in the firm.

Marketing Scope

Defining the scope of the marketing effort is an important aspect of strategy development. Here we define the arena where the business will compete as the foundation for the entire marketing effort. Defining the scope of the marketing effort allows the firm to 1) focus attention on needs satisfied for the customer groups served; 2) establish directions for growth and boundaries of this effort; 3) provide a framework for comparisons with competitors; and 4) create a starting point for strategy development.

The marketing scope is a direction statement that is a key decision for a strategic business unit. An innovative definition of marketing scope can provide the base for competitive advantage. Marketing managers need to periodically review the appropriateness of the firm's definition of marketing scope.

So just what do we mean by scope? Marketing **scope** involves the following strategic choices:

- Segments Served: Of the segments identified, whom do we choose to serve?
- **Functions Provided:** Of the array of product attributes and services available, which ones do we choose to deliver?
- **Technologies Utilized:** Of the technologies or processes available to support the customer segments selected, which ones do we choose to utilize?
- Value Added Chain: Does the firm provide an end-to-end solution or use strategic partners?

Figure 4 provides a visual illustration of the first three concepts of scope. On the horizontal dimension we see the choice of customer groups or segments to serve. In this medical scanning device example, the customer segments could be research hospitals, standard hospitals, community hospitals, remote clinics, doctors' offices, etc. On the vertical dimension, we see choices related to the customer functions intended to serve the needs of selected customer groups. In this example, the scanning devices could be used simply for diagnostics or additionally for therapy planning or even treatment. The firm could also choose to do any of these along with a choice of alternative technologies such as X-ray, magnetic resonance imaging (MRI), ultrasound, or CT scanners.

Thus, one firm could choose to serve only large research hospitals with an MRI device that only does diagnostics. Another firm could take a broader scope on any or all the dimensions. It could provide all technological solutions for all customers' needs across all segments. Scopes of varying degrees between these extremes are also possible.

The fourth dimension of scope related to the structure of the value chain could similarly be narrow or broad. In the former, the firm might sell in cooperation with a larger strategic partner or through wholesalers. In the latter, the firm would provide an end-to-end solution.

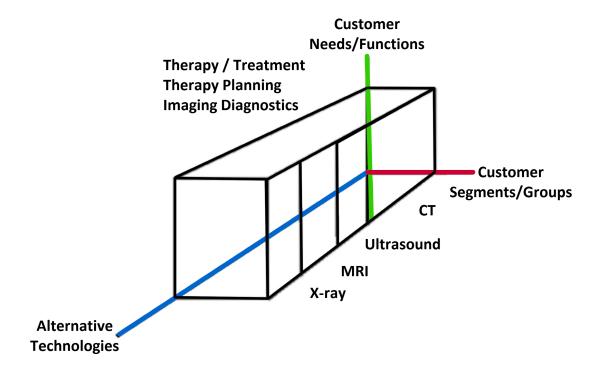


Figure 4: Contrasting Marketing Scope

For each of the four aspects of scope there are four sub-questions:

- Which of the targets/activities/technologies/value chain structure that the industry accepts as convention should our firm <u>not do</u>?
- Which of the targets/activities/technologies/value chain structure that the industry accepts as convention should our firm do <u>below accepted industry standard</u>?
- Which of the targets/activities/technologies/value chain structure that the industry accepts as convention should our firm do <u>substantially above accepted industry standard</u>?
- Which of the targets/activities/technologies/value chain structure should be implemented that the <u>industry has never offered</u>?

The discount airline industry provides an example to consider these questions. For example, Southwest Airlines provides no interconnect schedules or baggage transfer with other airlines, nor does it provide a specific seat reservation. However, it does offer a premium on-time record and low fares. EasyJet of the UK goes so far as to provide a refund of the ticket price if the plane is over two hours late. These scope decisions define EasyJet as very different from classic full service, high cost airlines.

These two sets of four questions define where and how the firm chooses to compete and define the customer of the firm. Our customer is one who falls within the scope that we define for the firm, based upon the answers to these eight questions. Strategically, we will provide great value for this customer. However, if a potential customer falls outside of the defined scope, we will not accept them as our customer. The latter is "the devil carrying cash." That is, they have the potential to distract us from our focus.

To illustrate this set of choices, let us examine the Marriott Corporation line-up of property types as it relates to the choice of segments. Figure 5 presents the various brands used by Marriott and the general nature of the target that each brand serves.

Marriott Resorts	Vacation Villas and Activities
Marriott Marquis	Luxury Urban Hotel
Marriott Suites	Premium Priced Suites
Marriott Hotels	Standard, Basic Hotel
Courtyard	Business Travelers
Fairfield Inn	Economy Leisure and Business
Residence Inn	Premium Extended Stay
Ramada International	International Economy
TownePlace Suites	Extended Stay, Mid-Price
SpringHill Suites	Apartment-Like, Economy
ExecuStay	Extended Stay Apartments
Marriott Vacation Club	Opulent Activities
Renaissance Hotels	Premium-Priced Special Hotels
Ritz-Carlton	Super-Premium Hotels

Figure 5: The Marriott Product-Brand Line-Up

As Jack Welch, legendary ex-CEO of General Electric noted: "It takes courage and tough-mindedness to pick the bets, put the resources behind them, articulate the vision to the employees, and explain why you said yes to this one and no to that one." 1

Customer Value

With the marketing scope of the firm decided, marketing managers need to turn their attention to the creation, measurement, and capture of customer value.

Customer value is =

Perceived Total Benefit Derived from Purchase - Perceived Total Cost of Purchase

¹ Fortune, March 27, 1989.

We note that as the consumer's perceptions of total benefits exceed perceptions of total cost, the customer derives greater value from the exchange.

Sources of Benefits include:

Product Benefits — derived from use of product

Service Benefits — value-added services that enhance customer satisfaction

Reputational Benefits — derived from the image of the "brand" or producer of the product

Sources of costs include:

Purchase Price — net price after discounts/rebates

Transaction Costs — costs of acquisition (shipping, terms of payment, etc.)

Usage Costs — costs of use (maintenance, disposal, etc.)

It is important to note that price is only one aspect of the cost of the brand. Marketing managers need to focus on the whole set of costs. Thus, the manager should avoid the knee-jerk impulse to reduce price to compete. The adage that "any fool can cut prices" is relevant in this situation.

The difference between perceived benefits and perceived costs across all these dimensions defines the net value to the customer. We can summarize this net position on a customer value map (see Figure 6).

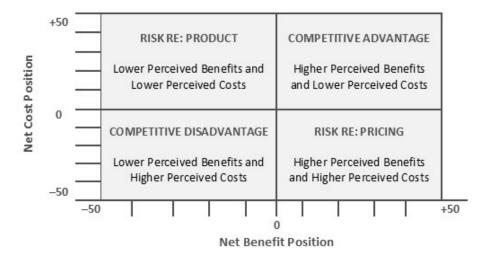


Figure 6: Customer Value Map

This matrix defines the net benefit and cost position of the brand relative to the brand's competitors. The crossing of the zero point on the net benefit position on the horizontal axis and the zero position on the net cost position on the vertical axis defines a position where the brand has no value creation greater or less than its competitors. Perceived benefits increase by moving to the right on the horizontal axis and decrease when moving to the left. Perceived total cost advantage increases by moving up on the vertical axis and decreases when moving downward.

The best competitive advantage position in value is the top right box. Here we have the advantage of both benefits and total cost.

To improve a brand value perception relative to competitors, the manager could:

- 1) Strengthen position in areas of competitive risk, and/or
- 2) Shift perceived importance to undervalued benefits or non-price aspects of costs, and /or
- 3) Add new benefits create new sources of value, and/or
- 4) Find ways to lower the total "cost" of purchase without lowering revenue, and/or
- 5) Lower purchase price only as a last resort!

Although price plays a very visible role in a customer's perceptions of value, there are many non-price factors to be addressed in developing customer value-based strategies.

Customer Value Measurement

Marketing managers should use marketing research to measure the customer value that they create or are attempting to create. All aspects of perceived benefits and costs should be researched. These techniques are beyond the scope of this discussion, but some are available in StratSim.

Customer Value Capture

Once the manager has created and measured the customer value, there is still a need to determine how to share the value created between the customer and the firm. We want the customer to have value and we want the brand to be profitable. Figure 7 shows an example of the potential relationship between the value created and the margin shared between the firm and the customer.

The vertical axis of Figure 7 shows the prices charged for various car brands. The horizontal axis shows the perceived customer value created by these car brands. The 45-degree line between price and value represents the "fair" price value relationship as perceived by customers. Therefore, car brands on this line are perceived as providing a fair value for the price. Now note the Lexus ES 330, which lies beneath the 45-degree line. This position indicates that the vehicle is priced lower than expected, thus having a superior price to value relationship. Its value is seen as equal to the BMW 5 Series, but its price is slightly below the BMW 3 Series. The vertical distance from the point of the ES 330 to the 45-degree line represents the incentive for the customer to purchase the ES instead of the BMW 5.

If the ES 330 were priced at the point indicated on the graph, all the extra value created would be assigned to the customer as an incentive to buy the ES. If this were the case, the firm would not capture approximately \$15,000 in margin related to the value created. Indeed, the marketing managers may decide to set a higher price for the ES 330. For example, at \$37,500 the firm and

customer would equally share the value created. Marketers must always remember that their jobs involve creating value and capturing margin, not just selling many units.



Figure 7: Customer Value Capture

Market Segmentation

The choice of segment or segments in which to compete is critical not only to marketing programs, but also to other functional areas of the firm. The choice of which customers to serve determines in large part the nature of the research and development that the firm undertakes, the skills sets required, the types of personnel that the firm hires, etc.

Definition

Market segmentation is defined as:

The process of dividing heterogeneous markets into smaller, homogeneous subsets of people or businesses with similar needs and/or responsiveness to marketing mix offerings.

This process is illustrated in Figure 8.

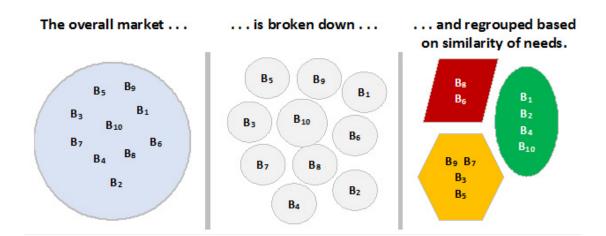


Figure 8: Market Segmentation Definition Process

Steps in Market Segmentation

Consider this example. The management at Bausch & Lomb developed a set of eye care products based on different consumer needs-based segments: dry-eyes, computer related sore-eyes, allergy-eyes, and dust-eyes.

In a sense, each of us is a distinct market segment because no two people or companies are exactly alike in their motivations, needs, decision processes, and buying behavior. Obviously, it is usually not feasible to tailor a specific marketing mix to every individual, due to cost. Thus, the objective is to identify groups within the broader market that are sufficiently similar in needs and responses to promotional and other marketing mix actions to warrant separate marketing treatment. The marketer then seeks to correlate the groups defined by their needs and responsiveness to other characteristics such as lifestyle, demographics, or geographic location.

More specifically, effective market segmentation requires six steps, which are listed below.

- 1) Identify the needs structure of the consumer population (people or companies) at the individual level. This is usually done by selecting a sample from the overall population and measuring individual consumer needs or benefits sought, as those needs relate to the product or service of interest. Thus, the general manager at this point will have many needs profiles that represent the diverse needs of the whole group of consumers.
- 2) Group the consumers into homogeneous subgroups or segments based on needs profiles. The intention in this step is to form groups of consumers that are very homogeneous within the groups in terms of needs or benefits sought and very heterogeneous across the groups. This is usually done with the use of a clustering computer program that can quickly do the necessary calculations on the sample of consumers to form the homogeneous needs profile groups. For example, in the car

- market, this might yield one segment whose primary need is large passenger and cargo capacity, while another segment's primary need might be fuel economy.
- 3) The identification of factors or descriptors that are correlated with the needs-based subgroups or segments of the market. These correlates or descriptors include such variables as demographic, lifestyle, geography, and consumption patterns. For example, the Classico premium brand of pasta sauce is targeted at the "25- to 54-year-old segment." What is really happening here is that this age profile is correlated in a useful fashion to the need for higher quality sauce that this segment desires. Be careful with this issue, because many marketers often loosely discuss segments in terms of the variables that correlate with the needs rather than the real needs themselves. It is the needs that form the segment and the correlates that allow one to access the segment with promotional effort.
- 4) The selection of target markets. This is the selection of the segment or group of segments for which a specific promotional program or programs and other elements of the marketing mix will be developed. The selected target segment or segments are those that offer the greatest opportunity for profitability under a given set of market and competitive conditions.
- 5) The development of a "positioning" for the product or service offering within the selected segment or segments. Positioning addresses the issue of how consumers in the targeted segment or segments are supposed to perceive the marketer's product or service offering as compared to those of competitors. Positioning is discussed in detail later in this section.
- 6) Develop a marketing strategy, objectives, and marketing mix for each selected segment. Here the marketing manager develops the details of the implementation plan to serve the selected segments.

These six steps require a careful analysis of buyer motivation and behavior as discussed in the previous sections. The first three steps are designed to identify usable market segments. In a sense, the identification of usable market segments is one of the most practical payoffs in marketing research. We will consider the first three steps together, followed by discussion of steps 4 and 5. First, however, we will address the issue of usable market segments.

<u>Criteria of Usable Segments</u>

Sometimes segmentation identification produces results that are not of much use in promotional planning. For a market segment to be usable, five criteria should be met: 1) the segment should be of sufficient size and market potential to warrant expenditure of marketing funds; 2) the segment's market potential must be measurable; 3) it must be possible to reach or access the segment through available media; 4) the segment should show clear variations in market behavior in comparison with other segments (i.e., the response of the segment to promotional variables must be different); and 5) the existence of the segment must be durable.

Sufficient Size: If a total market consisted of 1 million persons, it could be divided into 1 million segments. Obviously, such an approach is of no use because a segment must offer sufficient size and market potential to be of any significance. A leading manufacturer of paper products was confronted by this problem when it introduced a new and demonstrably different crayon in 11 test markets. Although the product appealed to a certain segment of users more than to others, it appeared that only 2 percent of a \$30 million market could be captured. The possible sales revenue did not warrant the expenditures necessary to produce and market the product.

Measurability: A key to assessing the size of a segment is the degree to which its purchase potential can be measured. For example, the market potential for machine vision systems in factory automation of circuit boards in the electronics industry is unknown. The size of paint inspection systems in the auto industry for the same machine vision technology is accurately known. The latter target is a more useful one for promotional planning because some sense of the likely payback is possible.

Accessibility: The marketer must design a marketing program that can be delivered to the identified segment. For example, the marketers of Sunkist lemons found little or no demographic correlation with the heavy consumption of lemons. This made targeting heavy lemon users with demographic-based media such as magazines very impractical.

Market Response Differences: For any segmentation scheme to be useful, the consumers in the segments must in general respond differently to variations in promotional activity directed at the segment. Thus, we have Coke using various versions—country, rock, blues, and so on—of its basic musical theme to reach different segments. The country music-oriented radio audience responds well to a country theme, but not as well to some general theme or to a rock version. Without this variation between segments, the market segmentation has no point at all.

Durability: It is also imperative that the identified and targeted segments exist over a long enough period to warrant the cost and effort of developing specific promotional activities and other marketing mix dimensions to meet the needs of the consumers in the segment.

Basis for Reaching Market Segments

Once the market segments have been formed based on the clustering of similar consumer needs structures, a key issue becomes how to reach these consumers. The promotional manager can use a great variety of factors to reach the targeted segment. The key is that the selected factor or factors, sometimes called *market descriptors*, must be correlated with the fundamental needs that define the segments. These descriptors do not define the segments themselves but serve as a basis to reach the segments. Often marketers refer to these descriptors as "segmentation variables." Again, be careful with this terminology because these descriptors do not in themselves define the segments. Only the basic needs structure defines the segments.

The descriptors must (1) be correlated with the needs-defined segments and (2) be associated with a particular media or other promotional devices. For example, a needs-based segment might demand a "smooth ride" in a car. The question for the promotional manager then becomes how to reach this segment to inform them of how a particular vehicle fits this need. A segment descriptor could be "age." People over 55 might have a high need for a smooth ride. Thus, age fulfills the first requirement because it is correlated with the needs structure of the segment. In turn, the over-55 age group is highly associated with certain magazines such as *Modern Maturity*. Thus, age also fulfills the second requirement of being associated with a particular media option.

The bases for reaching segments are classified as being geographic, demographic, psychographic, or behavioral. The first two classes describe the consumer's "state of being," whereas the third and fourth are related to the consumer's "state of mind."

Not all the bases listed have proved equally useful in developing promotional strategies. Bases of a demographic or geographic type, together with selected psychographic and behavioral approaches, such as product usage rate, attitude toward brand, and preferred values and benefits, are the most widely used in current practice. Thus, our discussion here of bases for reaching market segments will be limited to these, with particular attention being paid to the problems associated with measurement and analysis. Market segmentation is not difficult to understand conceptually, but real problems may arise when applying the concepts.

Geographic Variables

Very significant differences exist in the usage of many products based on geographic location, both across countries and within the United States. Thus, promotional managers commonly use a geographic basis to form segments. Indeed, one of the significant trends in promotional activity has been the development of regionalization of promotional programs. Frito-Lay uses this type of regional basis to segmentation. Since the basic consumer need is correlated with geography, and the promotional effort can be directed regionally, this base satisfies the two accessibility criteria.

For geography to be most useful as a basis for reaching segments, the promotional manager must calculate the relative sales possibilities in the various potential geographic segments. For example, if a product is sold nationwide, how much promotional effort should be expended in Chicago relative to Phoenix? This key question can be answered only when market potentials are computed, for effort is generally allocated in proportion to potential, all other things being equal.

Several different potentials might be computed for a given product: 1) volume attainable under ideal conditions (i.e., if all efforts were perfectly adapted to the environment); 2) the relative capacity of a market to absorb the products of an entire industry, such as the major appliance industry; 3) the relative size of market for a company's type of product (i.e., sales of television sets versus stereo sets); and 4) the actual sales a company can expect. The last category, of course, is the equivalent of the sales forecast for a firm, or the sales volume that can be expected

if the firm continues its present course. Potential, on the other hand, refers to sales possibilities rather than expected sales and is of greater significance for the purpose of demand analysis. Although forecasting is necessary to determine allocations and budgets, an extended analysis of it is beyond the scope of this discussion.

This is not to say, however, that potential is the sole basis for allocating resources, because potential for industry sales does not reveal the competitive structure of a market or the firm's ability to make inroads. Boston, for example, might appear to offer high potential, but competitors may be so entrenched there that inroads would be impossible. Ideally, then, potential must be augmented with information about the competitive structure as well as the firm's previous experience in the market. The goal, of course, is to make an optimum allocation of resources to alternative markets. This can only be done with great precision with a reliable estimate of the impact of a given level of promotional expenditure on market share.

Demographic Characteristics

The market potential for any product is equal to the number of people who want or need that alternative and have the resources to obtain it. Motivation to buy is to some extent both determined and revealed by the demographic life position of the person (age, education, income, gender, and so on), as is ability to pay. The most widely used are age, income, and gender.

Age: Buyers' wants and ability to buy obviously change as they age and pass through various stages in life, and this provides useful clues for marketing strategy. Jergens' Aloe & Lanolin lotion proved to be most appealing to women over 35. This is not surprising, given the preference of younger consumers for a medicated skin conditioner. There would have been little to gain if the younger market had been the target of efforts to change preferences, so the logical strategy was to target the older segment and capitalize on that opportunity.

Income: Marketers have long used income segmentation with generally favorable results. For example, the Jaguar automobile is targeted to those making about \$100,000 per year, and the media used include mostly national magazines and Sunday newspaper supplements appealing to this affluent segment. The effort is confined largely to the two coasts, reflecting the geographic segmentation of the market.

One must be cautious in assuming that income reflects the consumer's social class. This obviously is not the case, given the high wages now earned by those in the trades and various blue-collar occupations. Therefore, income *by itself* usually is not an accurate basis for segmentation.

Gender: Broadly speaking, some products tend to appeal more to men than to women, and vice versa. With the increase of women working outside the home, women have become a target for a wider variety of products. Women now purchase almost half of all cars sold in the United States for their own use, requiring major changes in the promotional activities of car companies. In addition, changing gender roles have resulted in the necessity to promote many grocery products to men.

Psychographic Characteristics

In the psychographic approach to reaching segments, consumers are differentiated based on differences in patterns by which people live and spend time and money. The requirement for this type of segment descriptor is that segment needs are correlated with psychographic characteristics. These patterns represent consumer lifestyles. Some analysts include social class as a part of lifestyle, whereas others classify it as a demographic variable. For the most part, psychographics or lifestyle refers here to consumer attitudes, interests, and opinions (often referred to as AIO measurements) and the way in which these affect buying activities. For example, consider the heavy users of eye makeup. Demographically, they are younger and better educated than average and are more likely to be employed outside the home. This tells us something, but notice how much helpful information is added when users are differentiated from nonusers in psychographic terms:

Highly fashion conscious; desire to be attractive; oriented to the future; interested in art and culture; interested in world travel; not home centered; relative rejection of the traditional.

Behavioral Variables

In the behavioral method of reaching needs-based segments, buyers are differentiated based on their knowledge of and attitude toward a product or its attributes, and of their response to and use of the product. It is finding widespread use. Our discussion here is confined to segmentation by product usage rates.

Product Usage Rates

Promotional managers often find consumer usage rates for a specific product category helpful in reaching segments in the market. Different strategies are then required for those in various usage categories. Again, the requirement is that the basic needs of consumers are correlated with the descriptor, product usage rates.

Nonusers of Product Category: It is important to determine whether nonusers offer a potential market. Sometimes the problem is only lack of awareness of the brand. If this is the case, an opportunity may exist to build familiarity through promotion and thereby lay the groundwork for later sales. In other instances, a basically favorable attitude may exist, but may be constrained by opposing forces from the environment. For example, if the problem is concern over financing, it is possible that advertising or personal selling could stimulate sales by promoting the offer of easy credit.

Most likely the analysis of nonusers will document segments that will not respond, regardless of the strategy. There may be a basic conflict between the company offer and evaluative criteria, lifestyles, and so on. Every attempt should be made to avoid such segments, if possible, because the probable return would not be worth the expense.

Users of the Product but Not the Company Brand: The purpose of this inquiry is to assess the probability of making inroads into competitors' markets. If their offerings or images are weak in certain respects or fail to satisfy important evaluative criteria, it may be possible to increase market share. On the other hand, competitors may be invulnerable in certain segments, especially if there is brand loyalty based on psychological commitment or centrality. The best strategy always is to appeal to the "waverers" (those whose commitment is diminishing) rather than to attack an entrenched competitor head-on.

Regardless of competitive market shares, many promotional managers believe that the best strategy is to appeal to "heavy users" of the product class, often referred to as the heavy half. For example, the so-called heavy half of the beer drinkers' market (in actuality, this is 17 percent of the total market) consumes 88 percent of all beer; the heavy half in the market for canned soup (16 percent of the total) consumes 86 percent of the product sold. The assumption is that the heavy half is the most productive segment, and there probably is some merit in this viewpoint. Certainly, the propensity to respond will be higher. Concentration on this segment has been made more feasible through use of data from syndicated research services showing the product consumption by audiences of various advertising media.

Efforts should not be concentrated on the heavy half, however, unless there is evidence that it is not feasible to turn nonusers into users and light users into heavy users. There should be an inquiry into why they buy or do not buy, what the product means to them, and other related questions. The answers to these questions may make it possible to win over buyers.

Users of Product and Company Brand: The greatest asset possessed by any organization is its core of satisfied users, and the present user cannot be overlooked in promotional strategy. It is particularly important to monitor brand image and to clarify that the company offerings are still satisfying salient evaluative criteria better than the perceived offerings of a competitor. Any deficiencies should, of course, be remedied. Frequent buyer programs (airlines, hotels, rental cars, etc.) take this approach as their basic premise. The promotional program is then designed to help establish a lasting relationship with these consumers.

In addition, it is useful to monitor awareness of the company brand and competitive brands. In a highly volatile market, eroding awareness can be followed by a sales decline. A frequent advertising objective is just to maintain "share of mind"—that is, relative awareness vis-à-vis competitors.

It may also be possible to assess the potential for increasing brand loyalty among light to moderate users, for stimulating new product uses, for encouraging switching from competitive brands, and for preventing inroads by competitors, to mention only a few of the many possibilities.

Undertaking Segmentation Analysis

Many approaches for reaching segments and associated segment descriptors have been analyzed in this section; none of these are applicable in every situation. Thus, it is impossible to generalize with respect to the ideal descriptor variables. What emerges is the wide variety of ways in which imaginative research and creative planning can identify groupings that are a part of the total market. Marketing strategy requires a probing analysis to determine if viable segments exist. If these are present and recognized, they offer an opportunity for success.

There are, however, two general approaches for reaching segments: *a priori* and *post hoc*. In the *a priori* approach, the marketer has a good reason to define the segmentation description criteria in advance. We might be certain, for example, that the most frequent purchasers of our product category are either women or people with incomes over \$50,000. To use this approach, the marketer must have good reason to believe that the descriptors selected to define the segment are correlated with the consumer needs structure that actually forms the segment. For example, for the gender variable, it seems reasonable and appropriate to use the specific physiological needs of a woman *a priori* to describe the segment.

In the *post hoc* approach, the criteria for segmentation are not decided in advance, but rather are an outcome of the analysis itself. The first step is to develop a set of needs-assessing questions that define the domain of interest to the marketer. Second, a large sample of potential consumers is selected and asked to respond to these needs-assessing questions. Third, the respondents are clustered into homogeneous groups or segments based on the similarity of their responses across the needs-assessing questions. They are clustered using one of several multivariate data analysis procedures that are appropriate for this purpose. The needs structure of the groups is then examined for its uniqueness, and other characteristics (demographic, media usage, psychographics, etc.) are checked for their correlation with the needs groups.

The Target Market Decision

Once the market has been segmented along the relevant bases or criteria, the marketing manager must make the target market decision. The target market decision relates to the selection of the specific segment or segments toward which promotional activity will be directed. In general, the managers would like to select a segment or segments where: 1) the firm's capabilities fit highly with the choice; 2) the customer segment is highly attractive; and 3) the competitors are relatively weak.

Within this context, the firm has three basic general options: undifferentiated marketing, differentiated marketing, and concentrated marketing.

Undifferentiated Marketing

If an undifferentiated marketing strategy is followed, segments are in effect ignored and one marketing mix is offered for everyone. All efforts are poured into building a superior image that will overcome these demand variations. The cost advantages to this approach are undeniable, as Henry Ford found when the Model A Ford was introduced in any color you wanted "as long as it is black." Ford, of course, had a near monopoly on the market, but few firms enjoy that advantage today. As a result, undifferentiated marketing is exceedingly rare.

A more common variation is to target only the largest segment of the market, perhaps using the heavy-half concept discussed previously. The problem is that this strategy appeals to most competitors, as they concentrate in a similar fashion and ignore smaller segments. The outcome of using this approach is often that the marketer becomes a sitting duck for competitors who differentiate and provide the desired option ranges.

Differentiated Marketing

In differentiated marketing, a firm operates in two or more segments and offers a unique marketing mix for each. This strategy has become quite common in larger corporations, as is reflected in a trend toward multiple product offerings. It certainly offers the advantage of recognizing the demand variations that exist and capitalizing on them, in contrast with undifferentiated marketing.

Differentiated marketing is not without its disadvantages. For example, national marketers are finding that the latest marketing trend of regionalization is a complex way to market their products. Regionalization replaces national mass-marketing strategies with custom-tailored approaches in the hope that such localized targeting can boost market share in a slow-growth environment. By segmenting the market into tightly focused areas, companies can design special advertising and promotional campaigns, and even develop new products (or new versions of existing products) that cater to local tastes. Although the idea seems simple enough, implementing the strategy can be a major undertaking.

Concentrated Marketing

In the undifferentiated strategy, marketers target the whole market, while in the differentiated strategy, they target two or more segments. It is often wise to concentrate on one segment, with the objective of establishing a larger share, and focus resources on excellence in a more limited market.

The danger of concentration, of course, is that the target market can be a small segment or can even dry up rapidly. Therefore, including some diversification may be a wise policy to follow, especially if there is a high rate of product change.

The Choice of Approach

The fundamental means by which the marketer selects one of these approaches to segmentation is a cost/benefit analysis. The marketer expects to generate additional revenue from a segment by more completely satisfying the needs of that group and by providing promotional activities that better match the segment. In doing so, the marketer incurs additional costs for new ads, new promotions, new sales-force activities, and so forth. In general, a unique program would be developed for a segment if the incremental revenue expected exceeds the incremental costs of serving it. Of course, the marketing manager must also consider other constraints such as financial resources.

Positioning

Once the general manager has identified the potential segments and has chosen the segments to be targeted for promotion, they must still select a *positioning* for the product or service in the minds of the consumers in the selected segments. *Positioning* is defined as the perception that targeted consumers have of a firm's offering relative to competitors.

One very easy and useful way to understand positioning is to fill in the following sentence for each of your products.

For (target market segment), the (product/service brand) is (single most important benefit), because (reason why).

Positioning is often the most critical element in a firm's strategy because it defines the perception the firm intends consumers to have of its product or service. In addition, positioning directs the entire marketing mix of the firm. A clear positioning statement is key to the direction of promotional activity.

As an example, Lexus Automobiles uses positioning for its line of cars. The relevant positioning dimensions are 1) rational benefits, composed of reliability, quality, maintenance cost, durability, and resale value; and 2) emotional benefits composed of luxury, style, safety, and performance. The positioning map (provided previously) shows the Lexus desired target positioning relative to the competitors. Lexus analysis also indicated that a significant segment of consumers desired cars that would occupy this positioning in the map. All aspects of the Lexus product development work, distribution structure, and promotional strategy were then focused on delivering against this target positioning with great success.

Positioning strategy generally may be approached in one of six ways:

- 1) by attribute(s)
- 2) by price and quality
- 3) by use or application
- 4) by product user
- 5) by product class
- 6) by competitor

Positioning by Attribute

The most common positioning strategy is to associate a product with an identified level of a defined set of attributes, such as power, sportiness, caffeine content, or color. Thus, the American Express platinum card is positioned highly on the attribute "travel emergency assistance," an attribute of great salience to a certain segment of consumers, and the Hummer SUV takes the high position on the attribute "true off-road capability" by using the claim, "Go places and do things no other wheeled vehicle in the world can do."

Positioning by Price and Quality

Although price and quality may be thought of as attributes, they are so important that they warrant separate treatment. In many product categories, some brands that offer more features, better service, or better performance use a higher price as a cue to the consumer that they have higher quality. Alternatively, other brands emphasize lower price with limited features to drive a value positioning. For example, BMW holds a premium-quality positioning, and Chevy Geo holds a value-based positioning.

Positioning by Use or Application

In positioning by use or application, the marketer attempts to position his or her brand as being associated with a particular use or occasion. For example, Gatorade took the "use with strenuous exercise" positioning when it was first introduced, and Hallmark took the positioning of being the card to send "when you care enough to send the very best."

Positioning by Product User

In positioning by product user, the brand is associated with a specific user or class of users. For example, Revlon makeup has built a consumer franchise on a succession of well-known models such as Cindy Crawford.

<u>Positioning by Product Class</u>

It is possible to position one's brand with respect to the product class in which it competes or to some associated product class. For example, the margarine brand "I Can't Believe It's Not Butter"

has been positioned with respect to the associated product class "butter" rather than "margarine." Weight Watchers brand foods have been positioned with respect to higher caloric foods rather than diet foods.

Positioning by Competitor

In all positioning approaches, an explicit or implicit frame of reference is the competition. This is because an established competitor's image can be used as a reference point for another brand's positioning. In addition, what is most important is how consumers perceive your brand relative to competitive offerings, not how it is absolutely perceived. The relevant question is whether your brand is better than a given competitor in service, cost, value, or particular use.

<u>Developing a Positioning Strategy</u>

The development of a competitive positioning strategy is a seven-step process:

- 1) Identify the relevant competitors; they may be brands within the product category or substitute products outside the category.
- **2) Determine how the competitors are perceived and evaluated**; this requires marketing research to measure consumer perceptions. It may involve research to determine the relevant attributes for the positioning.
- **3) Determine the competitors' positions**; all competitors, including one's own brand, are placed relative to each other.
- **4) Analyze the consumers relative to their needs**; the marketing research is designed to define an open and attainable position for the current product or new product.
- 5) Select the desired positioning; for example, a firm might desire to offer the highest fiber cereal.
- **6)** Implement a marketing and promotional program to establish the desired positioning.
- **7) Monitor the consumers' perception of the positioning**. The marketer must continuously monitor the marketplace to see the impact of changing consumer tastes and competitors' new products or attempts to reposition themselves.

Key Strategic Choices: Segment Targeting and Product Positioning

The success of a market-based strategy depends on two key strategy choices that involve general management: the choice of segment or segments to be targeted for promotional effort and the designation of the positioning desired for the organization's product in consumers' minds. The choice of target segment determines where the marketer will fight the promotional battles, and the designation of positioning determines what ammunition the marketer will fight with. Indeed, in any given market, the segment target and the positioning choices will largely determine who the competitors are going to be.

Market-Based Organization Structure & Process

To make marketing decisions competently, the firm must create an organizational approach that captures their understanding of markets. A key approach to achieving this is to create horizontal thinking in the firm. This type of thinking puts all the resources and skills of the firm against the chosen customer segments. The purpose of this thinking is to overcome two great enemies of effective marketing: functionalism and regionalism. The former occurs when all the functions of the firm do not line up to serve the customer. The latter occurs when market segments have been identified in various regions of a country or across countries, and the regional or country managers do not effectively implement a national or global strategy against segments. One approach to overcoming functionalism and regionalism is to create a horizontal orientation to the firm as described below.

The Horizontal Market-Based Global Company

The marketing management of the 21st century global corporation faces the challenge of making their far-reaching global company responsive to the market segments in which the management has chosen to compete. This is difficult even in a domestic market context. It is especially problematic when these segments exist in a global context across countries and cultures.

Thus, management faces the complex problem of organizing all the business functions within its global businesses across market segments that exist horizontally across countries. In this context, how does the firm: 1) learn about the existence and needs of these horizontal market segments; 2) identify the go-to-the-market global strategy that will work in these horizontal segments; and 3) define the role of the country and central management in the global marketing strategy?

This section explores the nature of how marketing management, along with other senior management, can help create a horizontal company to be responsive to the presence of these global horizontal market segments.

Figure 9 illustrates conceptually such a horizontally structured, market-based company. We note the existence of both specialists and integrators. The specialists provide deep expertise in the marketing sub-functions and other non-marketing functions. The integrators have relationships with consumer segments (the consumer equity teams), the channels (the customer management teams), and the supply chain (the product supply team).

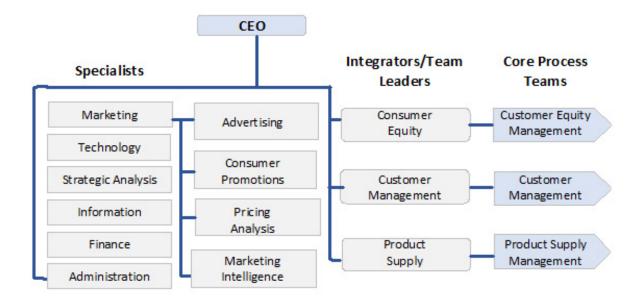


Figure 9: A Horizontal Market-Based Organizational Concept

In this context, consider the following real management situations:

• A large UK-based consumer packaged goods company has historically been organized on a country-by-country basis. The country manager has the final say on all aspects of new product introductions, brand target segments, brand names, brand positioning, advertising, sales promotion, pricing, and so on. The senior corporate management in the UK has become concerned that: 1) major new product innovations developed in one country or in the central research and development laboratories are introduced in various countries in a very slow fashion or not introduced at all; 2) no global or even regional brand names have been developed; and 3) common new products often have different segment targeting, positioning, advertising, and so on, in different countries.

For example, it took ten years for this company to introduce a major new household food product in the major countries of the EU, and this implementation consisted of six different brand names, varied segment targeting and brand positioning and related price points that ranged from "premium" to "bargain," and very diverse advertising and promotion programs.

Senior management believed that the firm was not reaching its potential, as competitors were duplicating its product innovations and introducing them into countries that the firm was slow to enter. There was also a belief that recreating complete marketing strategies and programs from each country was wasteful.

 One of the world's largest global banks was a major competitor in credit cards in North America and Europe. It had some presence in Asian countries in commercial, mortgage, and retail banking and had a few branches in major Asian cities. Senior management believed that there was great opportunity for the bank to market Visa-and MasterCard-based credit cards across sixteen Asian countries. In each country, the bank encountered varying degrees of competition from local bank credit cards and from American Express. Virtually all the bank's country managers opposed the introduction of credit cards in their countries.

• A major global marketer of industrial manufacturing robots, control systems, and related services had traditionally organized its marketing and sales activities around vertical markets based on industry type, such as specialty chemicals, automobiles, electronics, aerospace, and so on. Under this system, each of its vertical divisions separately pursued technical product and service applications without regard to the other divisions. Senior management was concerned that this approach to the market ignored any synergies that might exist across vertical markets and divisions. In addition, this vertically based structure was combined with a country-based vertical structure similar to the UK-based packaged goods company described above.

For example, its aerospace, automobile, and electronics divisions were all separately developing "visual" inspection systems. The research and development cost of developing these three was very high, as were the on-site implementation costs and customization required for specific industries across different countries. As a result, this was a very unprofitable set of product lines.

The Meaning of Market

All three of these firms believed that they were a "market-based" company. After all, the UK packaged goods company was taking country differences into account; the credit card company allowed the country managers to do what was best in their countries, given the competitive situation; and the robotics firm was developing deep understanding of the specific industry requirements for its products. This type of "vertical" thinking is still commonplace in many global companies today.

The problem with this vertical thinking is that in many situations, it no longer represents the real market that it purports to serve. A truly market-based company organizes itself around market segments based upon consumer needs. A market segment is a set of consumers with a common needs structure, not necessarily consumers in a specific country or a specific vertical industry. The problem with the vertical structure noted above is that it is unrepresentative of the needs-based market segmentation that has developed in many markets.

Real Horizontal Markets

Let's illustrate the horizontal nature of market segments related to the three situations at the beginning of this section. The packaged goods company discovered that the market for an

innovative yogurt was not based on the countries that form the EU, but on four needs-based segments that existed to varying degrees in each country. One such segment was the "health and innovative" segment. It constituted about 25 percent of yogurt users in Denmark, Germany, and the UK, 18 percent in Ireland and the Netherlands, and only about 4 percent in France, Portugal, and Spain. One segment, the "top quality seekers" was strongly represented across all the EU countries. Thus, we can see the commonality of needs across the EU countries has given the opportunity to place different brands and formulations of yogurt horizontally across the countries of the EU.

In a similar fashion, the global bank found with intensive marketing research that there existed a usable needs-based segment for credit cards across Hong Kong, Singapore, India, Indonesia, Malaysia, Thailand, and Taiwan. This segment needed a card that had flexible credit limits, was usable when traveling internationally, and offered premium services such as airline club entry, insurance, and so on. The size of this segment in some of the countries would not support the required high cost of obtaining customers, taken one country at a time. However, taken across all the countries, the cost-benefit was easily positive. There were enough total potential customers and great cost economies of logistics and the marketing program if the business was managed horizontally.

The story for the industrial robotics company is similar. For example, in robotics-based visual inspection systems application, there were several common segments across the vertical industries. In one instance, inspection for the presence of a part in an assembled product (rivet, chip, etc.) was common across automobiles, electronics, aerospace, and so on. The technological approach was similar, and the company was able to develop more off-the-shelf products with great savings in the costs of customizing software.

Failure to understand and act upon the existence of needs-based segments that are often horizontal has left many companies with declining fortunes. In contrast, senior management that has grasped this understanding has led to some legendary successes. IBM eventually found that its vertically structured mainframe computer magic was unresponsive to the large group of both individual and corporate consumers who did not require, nor were willing to pay for, pre-sale education or full-service installation for their personal computers. Dell and Gateway developed this understanding and put the appropriate logistical system in place to serve this horizontal segment. "Dot com" firms are by their nature often horizontally based. Country borders mean little to their approach as they look for commonality across these borders. For example, firms such as E*Trade and Amazon have left traditional competitors wondering what to do with their vertically oriented infrastructures and if they can operate both their classic vertical company and a new dot com company simultaneously. For example, Merrill Lynch spent years struggling with this dilemma. In the interim, the innovative companies have grabbed large customer bases and market position.

On the positive response side, Procter & Gamble saw the horizontal nature of markets arising in Europe almost twenty years ago. As a result, P & G can now introduce a new product globally in

less than eighteen months based upon a horizontal approach. This is in sharp contrast to the up to fifteen to twenty years to do so in the old days of omnipotent country managers.

Implementation Challenges

The commitment to approach markets in a horizontal fashion raises many challenges. These include: 1) identification of the needs-based segments; 2) constituting horizontal teams to manage against the targeted segments; 3) making appropriate use of vertically based specialists; 4) determining the split between central and country or other vertically based authority; and 5) designing an appropriate compensation system.

Identifying Needs-Based Segments

The most positive aspect of vertical or country-based segmentation is that it is relatively easy to do. For example, in the vertical world, one only need say that the firm is targeting the "French market," or the "automotive market." Consider how much more difficult it is to identify and locate the "top quality seekers" for yogurt, or the "inspection for the presence of parts" segment for visual based robots. A horizontal organization is one committed to the discipline of using marketing research to identify needs-based segments. Top management of these organizations also recognizes that needs-based segments change over time and that the organization must adapt as these segments change.

The Role of Teams

Teams that are simultaneously cross-functional and cross-geographic regions are required to manage the horizontal enterprise. These teams perform the critical integrating function. The development and acceptance of a charter of team responsibilities by senior and middle management is critical. The teams must have clear authority and responsibility. Typically, effective horizontal teams have senior management leadership, have consistent membership of the same people, have individuals responsible for critical functions and geographic regions present, and stick to the domain of decisions defined in their charter.

Integration of Specialists

One of the difficulties of horizontal teams is that they often lack depth of functional expertise, both in marketing and other functional areas. Effective teams must have easy access to a stable of functional experts in marketing research, marketing strategy, advertising, production planning, finance, and so on. The key is that these specialists be effectively integrated into the decision-making of the group. Without the group integrators, the team will not deliver the whole enterprise against the needs-based segment. Without the effective use of specialists, the team is likely to perform shallow analysis and not create high quality marketing and other programs. The intention is to obtain the skills of the vertical organization along with the needs-satisfying aspects of the horizontal organization.

Central versus Decentralized Authority and Responsibility

The horizontal team structure usually exists alongside both the functional vertical organization and the country or regional manager's organization. What tasks should be performed by the horizontal team in this context? One approach is to have the teams responsible for the strategic aspects and leave the details of implementation to the vertical functions and regional managers. No global team can competently make all the detailed decisions of implementation around such issues as advertising copy, promotional contests, exact price discount structure to the channel, and so on. However, the team can be instrumental in identifying and targeting the horizontal segments, selecting a positioning for the brand, setting general price levels, setting general tone for the advertising programs, and pushing product innovations. These are the critical strategic issues for the company. The charter for the teams must articulate the locations and nature of these authorities and responsibilities.

Compensation

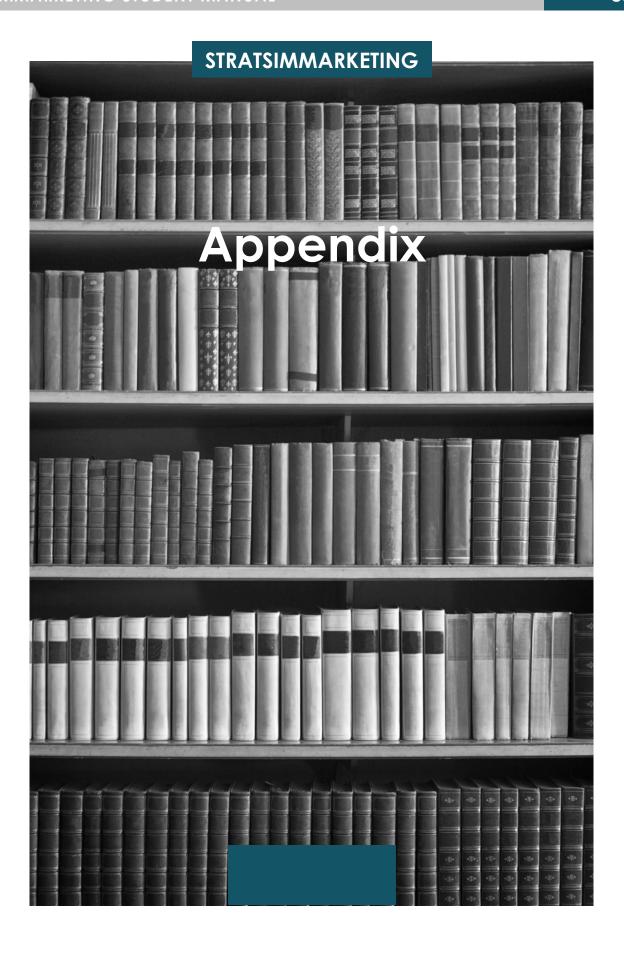
We noted in the packaged goods and credit card examples above that the country managers tended to be resistant to horizontal initiatives. There could be many reasons for this, including their belief that local knowledge about markets is superior, and political fights about the evils of headquarters. Hopefully, these types of issues will be clarified in the team charter. However, there is one issue that is beyond the scope of the charter. This is compensation for functional and country managers. This concern was the root cause of the resistance of the country managers of the packaged goods and credit card companies to accepting the horizontal initiatives. They expected their bottom lines to be adversely impacted by the costs of introduction of the horizontal brand and by other decisions made by teams outside of their control. Since their bonuses were based on functional performance standards or country-specific measures, they were naturally resistant.

The most logical solution is to change the compensation system to reflect the true nature of their responsibilities. Thus, for a country manager, some part of compensation must be based on their positive participation in the horizontal teams, the performance of horizontal brands across countries, along with the performance of the parts of the marketing and other functional programs that are specific to their countries.

All three of the companies discussed earlier implemented a horizontal-oriented organization and strategy with resounding success. For example, the credit card business in Asia became the most profitable part of its banking business. The packaged goods company now routinely introduces brands globally within a few years and has experienced both increases in market share and cost savings. The robotics firm basically saved itself from bankruptcy.

The Marketing Management Challenge

It is the job of those who toil in marketing management to effectively manage all the elements discussed so briefly in this section of the StratSim manual. The challenge is to create a market-based organization by competently completing a SWOT analysis, defining a marketing scope, creating customer value, identifying and targeting market segments, selecting a positioning, and creating a horizontal market-based organization structure.



Glossary

Advertising	Any paid form of non-personal presentation and promotion of ideas, goods, or services by an identified sponsor.
Advertising Message	The point that an advertisement is trying to make, whether to build a particular image, stress the benefits of the product, compare with other brands, or maintain awareness.
Average Retail Price	The average price for a product charged by retailers, including both those dealerships with higher prices due to increased personal service, exclusive merchandise lines, attractive showroom atmosphere, special promotions, convenient location, or special services, and those who offer a no-frills, low-price approach.
Awareness	The level of consumer familiarity with a product, brand name or advertisement.
Breakeven Analysis	An attempt to determine the volume of sales necessary (at various prices) for the manufacturer or merchant to cover his or her costs or to break even between revenue and costs. Breakeven analysis is useful to help set prices, estimate profit or loss potentials, and to help determine the discretionary costs that should be incurred.
Cannibalization	Sales of a new product that take away sales of another product in the product line.
Capacity Utilization	The extent to which the physical production ability of a plant facility is being used. Normally described as a percent of total capacity (i.e. 50% of capacity).
Channel of Distribution	Any firm or individual who participates in the flow of goods and services as they move from producer to ultimate user (consumer or industrial).
Competitive Analysis	The process of studying other companies who are vying to satisfy similar consumer needs. This includes analyzing competitors' strategy, product, pricing and channels of distribution.
Dealership	The retail distribution outlet where consumers purchase the product (automobiles).
Demand	The desire of consumers for a certain product.
Fixed Costs	Financial obligations of a firm that remain at the same level no matter how many units of a product are produced and marketed. Amortization charges for capital equipment and plant, plus such charges as rent, executive salaries, property taxes, and insurance are examples.
Gross Margin	Total revenue less product manufacturing costs (materials, labor, plant and equipment).

Inflation	A general rise in the prices that people must pay for goods and services.
Inventory	Stock of a product that is already produced but not yet sold.
Margin	The difference between the price of a product and its per unit cost.
Market	People or businesses with the potential interest, purchasing power, and willingness to spend the money to buy a product or service that satisfies a need.
Market Share	The percentage of sales of a certain product in a market in relation to other products in that market (i.e. Brand X / Total sales in market).
Marketing	The process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, and services to create exchanges that satisfy individual and organizational objectives.
Marketing Research	The systematic and objective approach to the development and provision of information for marketing decision making.
Microsegment	The intersection of a consumer segment and a preferred vehicle class. For example, 1E identifies those Value Seekers (1) who prefer an Economy class vehicle (E).
Net Contribution	The contribution after marketing less fixed costs.
Net Income	The profit remaining after all costs are subtracted from revenues.
Price	The amount of money required for a product or brand in order for an exchange of ownership to take place.
Product Mix	All of the individual products available from an organization.
Promotion	The communication mechanism of marketing designed to inform and to persuade consumers to respond.
Quality	The totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs. In the automobile industry, quality is sometimes more narrowly defined and measured by defects per 1000 cars or reliability.
Research and	Portion of a firm designated to research, analyze, and design
Development	products to meet consumer and market needs.
Segmentation	The process of dividing large heterogeneous markets into smaller homogeneous segments of people of businesses with similar needs and / or responsiveness to marketing mix offerings.
Unit Sales	The total volume of units sold by a manufacturer in a market.
Variable Costs	Costs directly tied to production including direct labor and raw materials charges.

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