

Integrating Marketing Concepts in Competitive Decision Making —A Case Study

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Students experienced applying Marketing concepts while making decisions in multiple disciplines (including Marketing, R&D, and Production) in a Competitive Decision-Making course. Marketing students competed to achieve desired performance outcomes (such as, Market Share, ROS, and Cumulative Profit) in a realistic business simulation. Marketing students applied an array of ten traditional Marketing concepts in this experiential course: 1. Market Scaling; 2. Market Segmentation; 3. Product Pricing; 4. Product Ageing; 5. Product Positioning; 6. Product Reliability; 7. Promotions Budgets and Media Selection; 8. Sales Staffing and Channel Selection; 9. Market Research; and 10. Sales Forecasting.

Keywords: case study, business simulation, student competition, marketing concepts, decision making, market segmentation, product management, CapStone(R)

INTRODUCTION

The Professor was confident based on past course assessments that his Marketing students learned the essential concepts of marketing management. However, he was also convinced by his experience and training that more than just classroom lessons were needed for his Marketing graduates to succeed in their business careers. Successful graduates should be able to engage in multi-disciplinary, integrative decision-making processes. Students should be able to incorporate their marketing concepts when they participated in realistic business situations. The Professor saw the opportunity to achieve this learning objective through the business simulation experience within his competitive decision-making course.

COMPETITIVE DECISION MAKING

Business Simulation (“Sim”)

The Professor’s Competitive Decision-Making course was based on a widely-used business simulation (“Sim”), which was regarded as the most mature and robust business simulation available. In the Sim, up to three competitions (“industries”) were established, each with six small teams (“companies”) of 3 or 4 marketing students (“members”). Each company managed a portfolio of as many as eight products (“sensors”) in order to fulfill the distinct needs of five discrete market segments in a simulated electronics sector. Teams made as many as eighty entries (“decisions”) in each of a series of up to eight rounds

("years"). The Sim maintained an objective realism by requiring that each of a company's decisions be expressed and entered in precise quantitative terms. For example, annual sales forecasts for each product were expressed in thousands of units. Decisions that were saved by the published deadline ("11pm CT") were automatically uploaded into the simulation software for processing. After the processing deadline, student teams immediately viewed their performance results, presented in analytic financial and marketing reports. (Marketing students often waited anxiously for the processing deadline to pass, so that they could view their team performance outcomes.)

Acknowledgement of CapStone® Business Simulations

The Professor gratefully acknowledged the use of the CapStone® business simulation product, which was licensed to students in the Competitive Decision Making course by CapSim, LLC. CapSim licensed the software, hosted the simulations, and provided all of the learning materials and user services support, which were referenced in this case study. The Professor relied on the CapStone® product for business simulations in his Competitive Decision Making ("CDM") courses for over twenty years. This case study was written for the benefit of all Professors who wished to provide similar learning experiences to Marketing and other Business students in graduate and undergraduate courses. This case study was prepared using the CapStone® simulation model and materials and data contained in and derived from past CapStone® simulations. Any errors contained in this case study in the effort to present examples of past student experiences were entirely those of the Professor and author, and are not attributable to CapSim, LLC or any of its employees. The primary source for the model, materials, and data used as examples in this case study was the CapStone® *Team Member Guide* © 2016, which was included in registration materials provided to CDM Students:

https://ww3.capsim.com/modules/GIA/files/2016C_0/0/Capstone/EN/PDF/2014_Capstone_Team_Member_Guide.pdf

Performance Measurement

In order to experience objectively the performance outcomes resulting from their competitive decisions, Marketing students were instructed to focus on three performance metrics: *Market Share*, *Return on Sales*, and *Cumulative Profit*. In the Sim, these three metrics, chosen from eight available metrics, were both objective measures of company performance and sensitive to the full range of decision entries. *Market Share* provided a meaningful measure of whether the company was growing relative to the industry and its competitors. *Market Share* measured the outcomes of a "zero sum game." The six competitors began the Sim with equal market shares, one-sixth ("16.67%") of the total ("100%") industry demand. As the total market demand in the industry grew at 15% per year, the marketing students learned that they needed to grow their company's revenues by 15% per year in order to maintain their beginning *Market Share*. Marketing students intuitively understood this measure as a key indicator of their competitive performance, and readily accepted its validity.

The Marketing students also experienced following two widely-accepted financial measures of company performance: *Return on Sales* and *Cumulative Profit*. *Return on Sales* ("ROS") represented the current year's net profits as a percentage of total annual revenue. Each company ended the previous, start-up year with a modest ROS of just over 4%, and sought to improve on that baseline performance each year. The Marketing students understood that ROS was a clear indicator of how well their company performed, in the current period. The Marketing students took on a key role in managing the relationship between their products' prices and their costs. Marketing students learned to price their products to achieve a contribution margin of at least 30%, in order to cover their company's fixed ("overhead") costs, and still yield an acceptable ROS.

Cumulative Profit provided students with a longer term measure of how profitable their company was through all previous periods of the simulation. Each company ended the previous year, with just over \$4 million in cumulative profit from the initial round, and teams sought to increase their annual profits by at least this baseline amount for each of the subsequent rounds. *Cumulative Profit* was closely related, as a measure, to the company's balance sheet equity and to its market capitalization, and was an indicator of

sustained revenue and increased assets in their high growth industry. Marketing students learned to plan growth in their product revenues and to target improving their products' contribution margins so as to accumulate increasing profits.

Decision Making and Performance Outcomes

The Marketing students saw clearly that their discrete decisions in the Sim were connected with the key team performance outcomes. For example, a Marketing student's decision to reduce a product's Price had the direct effect of increasing the team's *Market Share* in that segment. The Marketing students also experienced that consistency among team members' decisions, made in Marketing and other disciplines, impacted team performance. For example, a Marketing team member's increased product Sales Forecast (based on the continuous growth of industry demand in a market segment) conflicted with another team members' reduced overtime production plan (based on the industry requirements for continuous unit cost reductions). The result of these two members' conflicting decisions was frequently a disappointing product "stock-out," which was reflected negatively in their team's *ROS* and *Cumulative Profit* performance measures, and to no beneficial effect in gaining *Market Share*.

Perhaps more significantly, Marketing students became acutely aware that they were making decisions in a highly competitive industry, and that the decisions made by the five other competing teams affected their own team's performance outcomes. For example, the Marketing students on two competing teams, attracted to the same high-margin market segment, launched aggressive sales campaigns, which offset each other's effectiveness and resulted in both teams having increased overhead ("SG&A") expenses, but neither team achieving improved *Market Share* performance. Therefore, through the Sim's decision-making process, Marketing students experienced how Marketing concepts applied on several levels in a competitive, multi-disciplinary business environment.

Strategy Integration in Decision Making

Among the most difficult concepts for Marketing students to grasp during their Simulation experience were related to the integration of Marketing decisions with their company's overall business strategy. Early in the Simulation, student teams were encouraged to adopt a single business strategy. Six general business strategies were offered as models. Teams were encouraged to decide whether to adopt either a "Differentiator" orientation, which implied they would provide Customers in their target market segments with "premium, lasting" products, or a "Cost Leadership" orientation, which implied that they would deliver products that represented "low cost and solid value" to their target customers. This choice between these two strategic orientations had a significant impact on the decisions that Marketing students made in the Sim. The Differentiator strategies called for the Marketing students to make more aggressive promotions and sales expenditures in their chosen segments and to set premium prices for their products. The Cost Leadership strategies called for the Marketing students to make more modest promotions and sales expenditures in their chosen segments and to set below industry-average prices for their value-oriented products. See Appendices for Strategy Integration Guides, which outline appropriate implementation steps in Marketing and other disciplines within a company.

Within the Differentiator orientation, Marketing students could experience three strategies: 1. The Broad Differentiator, which offered products in all available market segments; 2. The Niche Differentiator, which offered products only to the more specialized, higher-tech market segments; or 3. The Differentiator with a Product Life Cycle ("PLC") Focus, which emphasized products in the higher-volume, mainstream market segments. (**See Appendix 1a.**) The Broad Differentiator strategy called for Marketing students to make more aggressive promotions and sales expenditures and to price products at a premium in all of their target markets. The Niche Differentiator strategy called for Marketing students to make aggressive spending and premium pricing decisions in the higher-tech, higher-margin segments, with reduced spending and harvest pricing in the lower-tech, non-target segments. The Differentiator strategy, with PLC Focus, called for Marketing students to make aggressive spending and premium pricing decisions in the higher-volume, mainstream segments, with reduced spending and harvest pricing in the lower-volume, non-target segments.

Both the Niche and the PLC Focus strategies tended to not perform well on the *Market Share* measure, because two or three of the five segments were exited to pursue narrow priorities. Student teams experienced putting all of their resources to grow a smaller number of specific segments in order to maintain their company's market share.

Marketing students also experienced making product management decisions consistent with these three Differentiator strategies. For the Broad Differentiator, this meant Marketing students sought to maintain and introduce products that rated high in meeting customer buying criteria in all available market segments. For the Niche Differentiator, this meant Marketing students sought to maintain and introduce products that rated high in meeting customer buying criteria only in the higher-tech segments, while divesting products in the non-tech segments. For the Differentiator with a PLC Focus, this meant Marketing students maintained and introduced products that rated high in meeting customer buying criteria only in the higher-volume, mainstream market segments, while converting other products to the desired specifications for these target segments.

Within the Cost Leader orientation, Marketing students could choose from three general strategies: 1. The Broad Cost Leader, which offered products in all available market segments; 2. The Niche Cost Leader, which offered products only to the higher-tech market segments; or 3. The Cost Leader with a Product Life Cycle ("PLC") Focus, which emphasizes products in the higher-volume, mainstream market segments. (**See Appendix 1b.**) The Broad Cost Leader strategy called for Marketing students to make more moderate promotions and sales expenditure decisions and to price products below industry averages in all available target markets. The Niche Cost Leader strategy called for more moderate promotions and sales spending and below-industry-average pricing in the lower-tech, price-sensitive segments, and for reduced spending and harvest pricing in the higher-tech, price-insensitive segments. The Cost Leader strategy, with PLC Focus, called for more moderate promotions and sales expenditures and below industry average pricing in the higher-volume, mainstream segments, with reduced spending and harvest price in the lower-volume, non-target segments.

Marketing students also experienced making product management decisions consistent with these three Cost Leader strategies. For the Broad Cost Leader, this meant Marketing students maintained and introduced products that provided real value to customers by satisfying their buying criteria in all available market segments. For the Niche Cost Leader, this meant that they maintained and introduced products that provided real value by satisfying customer buying criteria only in the lower-tech market segments, while divesting products in the higher-tech segments. For the Cost Leader with a PLC Focus, this meant that they maintained and introduced products only in the higher-volume, mainstream market segments, while converting other existing products to the desired specifications for these targeted segments. Again, both the Niche and the PLC Focus strategies tended not to perform well on the *Market Share* measure, thus, discouraging students from adopting other than the Broad strategies.

Ten Marketing Concepts Applied to Competitive Decision Making

Marketing students experienced applying Marketing concepts while making decisions in multiple disciplines (including Marketing, R&D, and Production in the Simulation) to achieve desired performance outcomes (such as, *Market Share*, *ROS*, and *Cumulative Profit*) in a competitive situation. Marketing students experienced applying an array of ten traditional Marketing concepts in the Sim: 1. Market Scaling; 2. Market Segmentation; 3. Product Pricing; 4. Product Ageing; 5. Product Positioning; 6. Product Reliability; 7. Promotions Budgets and Media Selection; 8. Sales Staffing and Channel Selection; 9. Market Research; and 10. Sales Forecasting. The following descriptions, based in large part on the *CapStone® Team Member Guide @ 2016*, include past examples of Marketing students' learning experiences in applying these ten Marketing concepts during the business simulation:

Market Scaling (Size and Growth Estimation)

In the Sim, Marketing students experienced managing five existing products in five distinct market segments. Each of the five segments differed in its initial market size and in its projected growth rates over the eight rounds ("years") of decision-making. **See Table 1.** Though the industry Revenues as a whole grew

at 15% per year, the smaller-volume, higher-tech segments grew at faster rates (i.e., 16 to 20%) than the larger-volume, lower-tech segments (i.e., 9-12%). **Table 1** computes the projected ending Revenues and Contributions for each of the five market segments. Marketing students experienced making better informed decisions about which of the six general Strategies to adopt by estimating the potential size of the revenues and contributions in each market segment.

For example, student teams pursuing Broad strategies competed in all five market segments where total potential industry revenues grew from \$630 million to about \$1.5 billion by the final round. Student teams pursuing Niche Differentiator strategies chose to compete in only three higher-tech segments, in which combined revenues grew from about 37% of starting industry potential to more than 50% by the final round. Student teams pursuing Niche Cost Leader strategies chose to compete in only the two lower-tech segments, in which combined revenues declined from about 63% of starting industry potential to less than 50% by the final round. Student teams pursuing either of the strategies with a PLC focus chose to compete only in the three higher-volume segments, in which combined revenues declined from about 78% of industry potential to start to about 69% by the final round. Marketing students experienced that their teams' decisions about which strategies to pursue would determine their potential *Market Share*, a key measure of performance. Similarly, strategy decisions to limit participation in market segments effected the potential contributions to *Cumulative Profits*, a key financial performance measure.

TABLE 1
MARKET SCALING (SIZE AND GROWTH ESTIMATION)

<u>Market Size Estimation:</u>	<u>Starting (Round 0)</u>			<u>Growth Rates</u>	<u>Ending* (Round 8)</u>		
<u>Market Segment:</u>	<u>Revenue (\$MM/Yr)</u>	<u>Industry Share (%)</u>	<u>Contribution [\$MM (%)]</u>	<u>Volume (%/Yr)</u>	<u>Revenue (\$MM/Yr)</u>	<u>Industry Share (%)</u>	<u>Contribution (\$MM@30%)</u>
Low End	\$188.2	29.8%	\$50.8 (27%)	11.7%	\$386.9	25.9%	\$116.0
Traditional	\$206.8	32.8%	\$60.0 (29%)	9.2%	\$358.1	24.0%	\$107.4
High End	\$97.0	15.4%	\$32.0 (33%)	16.2%	\$288.3	19.5%	\$86.5
Size	\$65.5	10.4%	\$19.7 (30%)	18.3%	\$220.7	14.8%	\$66.3
Performance	\$72.8	11.6%	\$16.7 (23%)	19.8%	\$235.5	15.8%	\$70.6
<u>Industry Totals</u>	<u>\$630.3</u>	<u>100.0%</u>	<u>\$179.3 (28%)</u>	<u>15.0%</u>	<u>\$1489.5</u>	<u>100.0%</u>	<u>\$446.8</u>

* Derived from Starting Revenues and Growth Rates given in CapStone® Team Member Guide © 2016, Chapter 5.5

Market Segmentation (By Buying Criteria)

In the Sim, the five market segments (i.e., Low end, Traditional, High end, Size, and Performance) differed in their prioritization of the four common buying criteria (i.e., Price, Age, Position, and Reliability). **See Table 2.** Marketing students experienced that the more important buyer criteria weighed more heavily in the customer survey and market share outcomes. The buying criteria ranged from primary importance (43 to 53% of total weight), to secondary (23 to 29%), to tertiary (16-21%), and to low (7 to 9%). The lower-tech buyers in the Low-end and Traditional segments placed greater importance on the Price (“US \$”) and Age (“Years”) criteria. Consequently, Marketing students experienced posting lower prices within competitive ranges, (and, concurrently, to limiting expensive R&D product revisions and to control fixed Marketing and variable Production costs) for these two segments.

The leading-edge buyers in the High-end and Size segments placed higher priority on Position and Age criteria, so Marketing students experienced making aggressive R&D decisions, updating existing products and launching new ones, in these two segments. The quality-oriented buyers in the Performance segment prioritized Reliability (“MTBF”) and Position (“Size and Speed”) criteria, so Marketing students

experienced making efficient R&D decisions [that is, they optimized product reliability while increasing the Speed specifications] in the Performance segment.

As an illustrative example of this concept of Market Segmentation by Buyer Criteria, **Table 2** shows that the key requirements within the Low-end market segment were quite distinct from those of the High-end market segment. The levels of importance (expressed as percentages, and totaling 100%) represented the weights attached to each criteria in the product’s customer survey results. For example, the Low-end market segment placed primary importance (53% weight) on Price, secondary importance (24%) on Age, tertiary importance (16%) on Position, and low importance (only 7%) on Reliability. Therefore, Marketing students identified the Low-end buyers as “Price-sensitive and Quality-indifferent.” Whereas, the High-end market segment placed primary importance (43% weight) on Position, secondary importance (29%) on Age, tertiary importance (19%) on Reliability, and low importance (only 9%) on Price. Therefore, Marketing students distinguished the High-end buyers as “Quality-oriented and Price-insensitive.” We will examine further this concept of Market segmentation by each of the four key Buying Criteria. Marketing students learned from these experiences with weighted buying criteria not to “over-engineer” products intended for the lower-priced markets, and not to “under-price” products intended for the higher-tech markets.

**TABLE 2
MARKET SEGMENTATION BY BUYING CRITERIA**

Buying Criteria:	Price (US\$)		Age (Years)		Position (Size/Speed)		Reliability (“MTBF”)	
	Import. (Weight)	Range (Drop/Yr)	Importance (Weight)	Ideal (Range*)	Importance (Weight)	Ideal (Drift/Yr)	Import. (Weight)	Ideal Range
Low End	Primary (53%)	\$15-25 (-\$.50)	Secondary (24%)	7.0 (3.5-10)	Tertiary (16%)	1.7/18.3 (+.5/-5)	Low (9%)	12-17K
Traditional	Secondary (23%)	\$20-30 (-\$.50)	Primary (47%)	2.0 (0.5-3.5)	Tertiary (21%)	5.0/15.0 (+.7/..7)	Low (9%)	14-19K
High End	Low (9%)	\$30-40 (-\$.50)	Secondary (29%)	0.0 (0.0-2.0)	Primary (43%)	8.9/11.1 (+.9/-9)	Tertiary (19%)	20-25K
Size	Low (9%)	\$25-35 (-\$.50)	Secondary (29%)	1.5 (0.0-3.0)	Primary (43%)	4.0/10.6 (+.7/-1.0)	Tertiary (19%)	16-21K
Performance	Tertiary (19%)	\$25-35 (-\$.50)	Low (9%)	1.0 (0.0-2.5)	Secondary (29%)	9.4/16.0 (+1.0/-7)	Primary (43%)	22-27K

*Derived from Examples in CapStone® Team Member Guide © 2016, Chapters 2.1 and 3.2.1

Product Pricing

Marketing students experienced that buyers in all segments in the Sim expected them to reduce prices each year, which put continuous downward pressure on product contribution margins. They had to find incremental cost savings each year, just to maintain previous period’s contribution margins (and ROS). They experienced that, while they had to offer competitively lower prices in two segments (i.e, Low end and Traditional), their buyers in the three other segments (i.e, High end, Size, and Performance) were relatively “price insensitive.” Buyers, who were more concerned with other criteria than price, tended not to respond to prices lower than those offered by the competition. Instead, students learned to invest in R&D improvements meeting the buying criteria (e.g., Position and Reliability) that were of greater importance than Price in those segments. Marketing students quickly learned through these experiences that their proclivity for unwarranted price cuts in these insensitive segments would be like “leaving money on the table.”

While buyers in all five segments expected prices drops of \$.50 each period, buyers in the different segments varied in their Price sensitivity, and their starting preferred price ranges. See **Table 3**. As specific examples, “Price-sensitive” Low-end buyers placed primary importance (53% weight) on paying lower prices within the lowest beginning price range (\$15 to \$25 per unit), while the “Price-insensitive” High-

end buyers placed the lowest importance (only 9%) on paying lower prices within the highest beginning price range (\$30 to 40 per unit). Students found, as an example, that a Price reduction of \$1.50 in the Low-end segment would improve a product's survey score by as much as 5.3 points, on a scale of 100 as expressed in the annual customer surveys. Whereas, an identical price reduction of \$1.50 in the High-end segment would improve a product's survey score by only as much as 0.9 points. (An analysis of potential survey gains by price reductions of \$1 and the maximum for each segment is presented in **Table 3**.)

The pricing concept that a dollar price reduction had “five times more impact” in one market segment than in another did not always meet favorably with the predilections of the Marketing students. They preferred to view the prices that were under their control as “hammers” and every product in every market as “nails.” However, Marketing students, many of whom tended to be less precise in their reliance on such quantitative analysis, were able to develop pricing “rules of thumb” that served them well in the Sim competitions. They intuitively appreciated a competitive pricing strategy in which they sought to offer neither the highest-priced nor lowest-priced products, but rather somewhere in the “middle of the pack” among five competing product prices within a market segment. Meaning, even in markets where price was of low important, they did not want to put their products at a competitive price disadvantage. This simple concept served the less-analytic Marketing students well as a “survival tactic” in the Sim.

TABLE 3
PRODUCT PRICING – BUYING CRITERIA

Price (US\$)	Buyer Criteria		Buyer Survey* (Out of 100)		\$1 Price Drop* within Range		Max. Price Drop* within Range	
	Import. (Weight)	Range (Drop/Yr)	Price (Discount)	Survey Value	\$1 Discount	Survey Gain	Max Discount	Survey Gain
Low End	Primary (53%)	\$15-25 (-\$.50)	\$21 (-40%)	21.2	-\$1 (-10%)	+5.3	-\$6 (-60%)	+31.8
Traditional	Secondary (23%)	\$20-30 (-\$.50)	\$28 (-20%)	4.6	-\$1 (-10%)	+2.3	-\$8 (-80%)	+18.4
High End	Low (9%)	\$30-40 (-\$.50)	\$38 (-20%)	1.8	-\$1 (-10%)	+0.9	-\$8 (-80%)	+7.2
Size	Low (9%)	\$25-35 (-\$.50)	\$33 (-20%)	1.8	-\$1 (-10%)	+0.9	-\$8 (-80%)	+7.2
Performance	Tertiary (19%)	\$25-35 (-\$.50)	\$33 (-20%)	3.8	-\$1 (-10%)	+1.9	-\$8 (-80%)	+15.2

* Derived from Examples in Capstone® Team Member Guide © 2016, Chapters 3.1.2 and 4.2.1

Product Ageing

The buyers in the five market segments also preferred products at different stages (“ages”) in their life cycles, ranging from 7 years (“Mature”) in the Low end to 0 years (“New”) in the High end. **See Table 4.** Buyers in three segments (High end, Performance, and Size) preferred relatively newer (<2 years of Age) products, so Marketing students experienced the need to update their products for these segments each period (“year”). In fact, High-end buyers wanted brand new products (0 years of Age), so students experienced introducing (“launching”) new products into this “leading edge” segment to satisfy this “Age” criteria.

Marketing students realized, with occasional prompting, that each of their products became a year older with the passage of each period of the Sim. Some students experienced that, as their products naturally aged (i.e., 1 year per Sim period, quite logically), they could employ a “Product Life Cycle” Strategy. That is, they could shift products over time from one segment to another (e.g., from High end to Traditional and/or from Traditional to Low end), satisfying those latter segments’ preferences for relatively greater Age, while spending less R&D and Finance resources than for new product developments.

On the other hand, Traditional buyers wanted “proven” products (2 years of Age) and Low-end buyers wanted “mature” products (7 years of Age), so Marketing students learned to make revisions to

specifications in these two segments only when required to keep their products competitive. Some students learned, often only through trial and error, that the planning horizon (“7 years”) for changes to mature products could be almost as long as the 8 periods of the entire Sim. This generation of Marketing students were not well conditioned to make decisions with time horizons of more than one year. Perhaps with less life experience, they intuited that “in the long run, we are all dead.” The Professor (older than the students’ grandparents) found it difficult to argue with their perspective.

As a specific example of Market segmentation by Age, **Table 4** illustrates how the Traditional buyers placed primary (47% weight) importance on having proven (“2-year old”) products, while Performance buyers placed low (only 9%) importance on having relatively newer (“1.5-years old”) products. The customer survey results in each segment reflected the importance, or weight, placed on that buying criteria. So, updating a Traditional product to the ideal age of 2 years improved its survey score by as much as 47 survey points over products at either edge of the acceptable Age range (~0.5 to 3.5 years for this segment). However, updating a Performance product to its ideal age of 1.5 years improved a product’s survey scores by only as much as 9 points over products at either edge of the acceptable Age range (~0 to 3 years for this segment).

The concept that a product update (reduction in Age) had “five times more impact” in one market segment than another was less than purely intuitive to the Marketing students. That the Low-end product gained 6.7 survey points by being allowed to age for a year showed up in their analysis. However, the concept that any of their products needed to age, was anathema to their marketing perspective. They asked each other: “How could older be better?” They preferred to “adjust their chess pieces” every round, because they could. Therefore, some Marketing students experienced making a classic “Rookie” mistake: They updated their Low-end product (Ideal age 7.0), making a product which was already too new (4.6 years), into one that was “twice too new (2.3 years).” Few Marketing students missed this valuable learning opportunity made available through experience.

**TABLE 4
PRODUCT AGE – BUYING CRITERIA**

Age (Years)	Buyer Criteria		Buyer Survey (Out of 100)		1 Year Closer in Range		Max. Closer in Range	
	Import. (Weight)	Ideal (Range)	Start. Age Proximity	Survey Value	1 Year Closer	Survey Gain	Max Closer	Survey Gain
Low End	Secondary (24%)	7.0 (3.5-10.5)	4.6 (32%)	7.7	1 year (28%)	+6.7	3.5 (100%)	+24
Traditional	Primary (47%)	2.0 (0.5-3.5)	3.1 (27%)	12.7	1 year (67%)	+31.5	1.5 (100%)	+47
High End	Secondary (29%)	0.0 (0.0-2.0)	1.7 (15%)	4.3	1 year (50%)	+14.5	2.0 (100%)	+29
Size	Secondary (29%)	1.5 (0.0-3.0)	2.5 (33%)	9.5	1 year (67%)	+19.4	1.5 (100%)	+29
Performance	Low (9%)	1.0 (0.0-2.0)	2.6 (0%)	<1.0	1 year (100%)	+9.0	1.0 (100%)	+9

* Derived from Examples in CapStone® Team Member Guide © 2016, Chapters 3.1.4 and 4.1.3

Product Positioning

Buyers in different market segments shifted their product Position requirements (“Speed and Size coordinates”) at different paces and with different emphases. **See Table 5.** Marketing students soon learned the necessity to make their High-end products faster and smaller, their Performance products faster, and their Size products smaller by means of periodic R&D revisions. Product position improvements involved

R&D investments and increased variable material costs, which students principally passed on to the less price-sensitive buyers in these three segments. However, students also experienced that, if the buyers in the Low-end and Traditional segments were less concerned about products meeting precise position specifications, then they need not spend limited R&D resources by making more frequent product revisions. Price-sensitive buyers simply would not pay more for such “over-engineered” products.

Buyers in all five segments “drifted” their products’ “ideal spots” to some extent each period. The buyers in different segments varied in the rate of change of their Speed and Size coordinates, and the level of importance they placed on Position specifications. As an example, buyers in the Size segment placed primary importance (43% weight) on the product Position criteria and advanced their Size more rapidly than their Speed coordinate. Marketing students learned to position their Size product near the leading-edge ideal spot, within the “fine cut” circle. Product positioning at the ideal spot, as compared to just within the “rough cut” circle, improved customer survey scores by as much as 43 of 100 possible points.

On the other hand, Low-end buyers placed only tertiary importance (16%) on the product Position criteria and drifted their Speed and Size coordinates the least each period. Positioning a Low-end product near the trailing-edge ideal spot, within the fine cut circle, as compared to just within the rough cut circle, improved a product’s customer survey score by only as much as 16 of a total 100 points

However, the Positioning concept shown in **Table 5** that moving a High-end or Size product was three times more beneficial than moving a Low-end product highlighted the relative priorities the three products should be given in using scarce R&D resources. Marketing students became better prepared to justify their arguments for product updates in a company with limited resources. They intuitively wanted all of their products at their ideal spots, but, at least, after this experience, they could understand the difficult trade-offs to be made.

TABLE 5
PRODUCT POSITIONING – BUYING CRITERIA

<u>Position (Speed/Size)</u>	<u>Buyer Criteria</u>		<u>Buyer Survey (Out of 100)</u>		<u>1.0/1.0 Closer to Ideal Spot</u>		<u>Max-on Ideal Spot</u>	
	<u>Criteria Import. (Weight)</u>	<u>Ideal Position Year end (Drift/Yr)</u>	<u>Starting Proximity (Range)</u>	<u>Survey Value (% of Weight)</u>	<u>Move/Offset-> FineCut Distance</u>	<u>Improve Survey Value (Weight)</u>	<u>Move to Ideal</u>	<u>Improve Survey Value (100%)</u>
Low End	Tertiary (16%)	1.7/18.3 (+.5/- .5)	3.0/17.0 +1.3/-1.3	7.6 (48%)	1.2/3.6 (33%)	+5.3	3.6/3.6 (100%)	16.0
Traditional	Tertiary (21%)	5.0/15.0 (+.7/- .7)	5.5/14.5 +0.5/-0.5	4.2 (80%)	1.2/2.5 (48%)	+10.1	4.2/4.2 (100%)	21.0
High End	Primary (43%)	8.9/11.1 (+.9/- .9)	8.0/12.0 -0.9/+0.9	27.5 (64%)	1.2/4.5 (27%)	+11.6	4.5/4.5 (100%)	43.0
Size	Primary (43%)	4.0/10.6 (+.7/-1.0)	4.0/11.0 0.0/+0.4	36.1 (84%)	1.2/4.2 (29%)	+12.5	4.2/4.2 (100%)	43.0
Performance	Secondary (29%)	9.4/16.0 (+1.0/- .7)	9.4/15.0 0.0/-1.0	17.4 (60%)	1.2/4.2 (29%)	+8.4	4.2/4.2 (100%)	29.0

* Derived from Examples in CapStone® Team Member Guide © 2016, Chapter 3.1.1

Product Reliability

Buyers in different segments placed different levels of importance on product Reliability, expressed as a product’s expected life (or “MTBF”), and ranging from 12,000 to 27,000 hours. Segments’ expectations did not change over the periods of the Sim. **See Table 6.** Primary importance (43% weight) was placed on the Reliability criteria by Performance buyers, but relatively less importance (only 19% to 7%) was placed on this criteria by the other four market segments. Marketing students experienced making their

Performance products very reliable and accepting the associated higher material costs, which they passed on to the moderately price-insensitive buyers in this segment. On the other hand, students also learned that, if the buyers in the other four segments were not concerned about product Reliability, then they should not waste valuable R&D resources by making their products “out-last” their competitors. Instead, they should invest in improving on the other buyer criteria that were of higher priority to those segments.

While buyers in all five segments maintained an acceptable range of Reliability throughout the periods of the Sim, buyers in different segments varied in the importance of the Reliability criteria and in the ranges. As examples shown in **Table 6**, Performance buyers placed primary importance (43% weight) on having products with a MTBF in the most reliable range (24,000 to 29,000 hours). On the other hand, Low-end buyers placed the lowest importance (just 7%) on having products with MTBF in the least reliable range (12,000 to 17,000 hours). Expressed in customer surveys, a MTBF improvement of 1,000 hours in the Performance segment improved a product’s customer survey score by 8.6 points of a possible 100. Whereas, a MTBF improvement of 1,000 hours in the Low-end segment improved a product’s survey score by only 1.4 points of a possible 100. That is, a 1,000-hour improvement in reliability was about six times more beneficial in the Performance segment than in the Low end.

TABLE 6
PRODUCT RELIABILITY – BUYING CRITERIA

Reliability (MTBF)	Buyer Criteria Importance		Buyer Survey (Out of 100)		1K MTBF Increase in in Range		Max MTBF Increase in Range	
	Import (Weight)	Ideal Range	Starting Reliability	Survey Value	1K Increase	Survey Gain	Max Increase	Survey Gain
Low End	Low (9%)	12-17K	14K	3.6	1K/5K (20%)	+1.8	3K/5K (60%)	+5.4
Traditional	Low (9%)	14-19K	17.5K	6.3	1K/5K (20%)	+1.8	2K/5K (40%)	+3.6
High End	Tertiary (19%)	20-25K	23K	11.4	1K/5K (20%)	+3.8	2K/5K (40%)	+7.6
Size	Tertiary (19%)	16-21K	19K	11.4	1K/5K (20%)	+3.8	2K/5K (40%)	+7.6
Performance	Primary (43%)	22-27K	25K	25.8	1K/5K (20%)	+8.6	2K/5K (40%)	+17.2

* Derived from Examples in CapStone® Team Member Guide © 2016, Chapters 3.1.3 and 4.1.1

Promotions Budgets and Media Selection

Marketing students experienced making decisions about Promotions Budgets and Media Selections effecting their products’ Awareness, i.e, the percentage of potential customers who knew that the product existed. Promotions Budgets produced incremental increases in buyers’ Product Awareness, which otherwise declined by about one third from period to period. As illustrated in **Table 7**, the total dollar expenditures in the Promotions budget effected the percentage gain in Awareness. Total Promotions expenditures of \$1.5 to 2.5MM increased awareness by 35 to 50%.

However, the effectiveness and potential impact of promotions budgets varied by type of media within the different product segments. **See Table 7**. For example, in the Low-end and Traditional segments, print and direct media expenditures were more effective in increasing product Awareness, while in the Performance and Size segments, social media were more effective, and in the High-end, trade shows were better. Thus, Marketing students experienced optimizing the effectiveness of their budget expenditures by selecting different promotional media appropriate to each product’s segment.

**TABLE 7
PROMOTION BUDGET AND MEDIA SELECTION**

Promotion Media and Budgets:	Print Media		Direct Media		Internet		Email		Trade Shows		Total Promotion Budget	
	Effectiveness	Budget	Effectiveness	Budget	Effectiveness	Budget	Effectiveness	Budget	Effectiveness	Budget	Budget	Awareness Gain
Market Segment:		Max: \$700K		Max: \$800K		Max: \$500K		Max: \$600K		Max: \$300K	Range: \$1500-2500K	35%-50%
Low end	Good	\$700K	Good	\$800K	Poor	\$300K	Poor	\$400K	Fair	\$200K	\$2400K	48%
Traditional	Good	\$700K	Good	\$800K	Poor	\$200K	Poor	\$300K	Fair	\$200K	\$2200K	45%
High end	Fair	\$500K	Fair	\$500K	Fair	\$300K	Fair	\$400K	Good	\$300K	\$2000K	42%
Size	Fair	\$500K	Poor	\$300K	Good	\$400K	Good	\$500K	Poor	\$100K	\$1800K	39%
Perform.	Poor	\$300K	Poor	\$300K	Good	\$400K	Good	\$500K	Poor	\$100K	\$1600K	36%

* Derived from Examples in CapStone® Team Member Guide © 2016, Chapter 4.2.2.

Sales Staffing and Channel Selection

Marketing students experienced making decisions about Sales Staffing and Channel Selections that effected market Accessibility, i.e, the percentage of potential customers who could transact business with their company. Sales staff increases produced increments in buyers’ Accessibility, which otherwise declined from period to period. Total Sales budgets of \$2 to 3MM increased Accessibility by 22 to 32%. See Table 8.

However, the effectiveness and potential impact of sales staffs’ varied by channel (i.e, type of sales personnel) in different market segments. For example, as illustrated in Table 8, in the Low-end and Traditional segments, distributor channels were more effective, while in the High-end and Size segments, outside sales representatives were more effective, and in Performance, inside sales reps were better for accessibility. Thus, Marketing students experienced optimizing their sales staffing by channel for each market segment.

**TABLE 8
SALES STAFFING AND CHANNEL SELECTION**

Sales Channels and Budgets:	Outside Sales (\$125K/ Sales Rep)			Inside Sales (\$50K/ Sales Rep)			Distributors (\$100K/ Distributor)			Total Sales Budget	
	Effectiveness	# of Sales Reps	Budget	Effectiveness	# of Sales Reps	Budget	Effectiveness	# of Distributors	Budget	Total Budget	Gain Accessibility
Market Segment:		Max: 12			Max: 30			Max: 15		Range: \$2MM-\$3MM	Range: 22%-32%
Low End	Medium	8	\$1000K	Low	10	\$500K	High	15	\$1500K	\$3000K	32%
Traditional	Low	4	\$500K	Medium	15	\$750K	High	15	\$1500K	\$2750K	30%
High End	High	10	\$1250K	Medium	15	\$750K	Low	5	\$500K	\$2500K	27%
Size	High	10	\$1250K	Medium	10	\$500K	Low	5	\$500K	\$2250K	24%
Performance	Medium	4	\$500K	High	20	\$1000K	Low	5	\$500K	\$2000K	22%

* Derived from Examples in Capstone® Team Member Guide © 2016, Chapters 3.2.3 and 4.2.2.

Market Research

Marketing students experienced using year-end market research surveys to estimate changes in Market Share for the coming year. They also experienced estimating the effect that their decisions to alter product

parameters would have on customers' ratings using the buying criteria. Students estimated product ratings, by summing the product's estimated score on each of the four weighted buying criteria. **See Table 9.** The total product survey ratings (Maximum of 100) and the change of each product's total survey rating over the previous year was used qualitatively to adjust market share forecast for the next year. That is, changes in each product's rating qualitatively supported any expected change in market share for the next period.

For example, as illustrated in **Table 9**, the starting customer survey score of 40.1 out of 100, in the Low end segment, was comprised of values based on the weights of each buying criteria, including Price which had a value of 21.2. The Size segment had a starting survey value of 58.8 out of 100, which included a value of 36.1 for Position. The survey scores provided a measure of product quality, which Marketing students translated into market share.

**TABLE 9
MARKET RESEARCH – SURVEY VALUES**

Starting Survey Values:	Price (US\$)		Age (Years)		Position (Size/Speed)		Reliability ("MTBF")		Total Value*
	Import. (Weight)	Survey Value	Import. (Weight)	Survey Value	Import. (Weight)	Survey Value	Import. (Weight)	Survey Value	Survey Total
Low End	Primary (53%)	21.2	Secondary (24%)	7.7	Tertiary (16%)	7.6	Low (9%)	3.6	40.1
Traditional	Secondary (23%)	4.6	Primary (47%)	12.7	Tertiary (21%)	4.2	Low (9%)	6.3	27.8
High End	Low (9%)	1.8	Secondary (29%)	4.3	Primary (43%)	27.5	Tertiary (19%)	11.4	45.3
Size	Low (9%)	1.8	Secondary (29%)	9.5	Primary (43%)	36.1	Tertiary (19%)	11.4	58.8
Performance	Tertiary (19%)	3.8	Low (9%)	0.1	Secondary (29%)	17.4	Primary (43%)	25.8	47.1

* Derived from Examples in CapStone® Team Member Guide © 2016, Chapters 3.2. and 10.2

Sales Forecasting

Marketing students learned that the one set of “Marketing” decisions that had, perhaps, the greatest impact on their companies was their product Sales Forecasts. Fortunately, total Industry unit demand for each future round could be determined from data provided at the segment level. **See Table 10.**

Accurate and objective forecasts for their products were critical to the performance of their entire company. Sales Forecasts that were unrealistically optimistic (i.e., “Too high”) resulted in the company incurring: a. higher production costs to produce an excessive quantity of product, b. higher inventory costs to warehouse and finance unsold product, and c. revenue shortfalls against financial projections, resulting in cash shortfalls and unbudgeted short-term or emergency loans. On the other hand, Sales Forecasts that were unduly pessimistic (i.e., “Too low”) resulted in the company incurring: a. inventory “stock outs” and not producing enough product to meet potential buyer demand, b. waste of promotion and sales budgets, which generated buyer orders that the company did not fulfil, and c. buyers satisfying their demand for product by shifting their orders to competitors. In either case, the performance outcomes are negatively affected for the company, and the Marketing student’s inaccurate Sales Forecast is to blame.

Marketing students experienced completing their sales forecasts by estimating market share for the future periods, as illustrated in **Table 10**. The importance of accurate Sales Forecasts elevates the importance of objective Market Research in the Marketing students’ experiences. Marketing students learned that objective Market Research centered on accurately assessing each of their products’ quality relative to competitors’ products within the range of buyers’ expectations. This product comparison, using the buyers’ criteria and the relative importance of each of the buyer’s criteria within each of the five market segments, is the essence of purposeful Market Research

TABLE 10
MARKET RESEARCH – SURVEY VALUES

Sales Forecasting (in K units)	Year 0		Year 1*		Year 3*		Year 5*		Year 7*			
	Market Segment:	Total Demand K Units	Annual Growth Rate	Total Demand K Units	Market Share @ 17%	Total Demand K Units	Market Share @ 20%	Total Demand K Units	Market Share @ 23%	Total Demand K Units	Market Share @ 26%	Sales in \$ MM
Low End	8960	11.7%	10008	1701	12487	2497	13948	3208	17403	4524		\$79.2
Traditional	7387	9.2%	8066	1371	9619	1923	11470	2638	13678	3556		\$87.1
High End	2554	16.2%	2967	504	4007	804	5410	1244	7305	1899		\$65.5
Size	1915	19.8%	2294	390	3260	652	4678	1075	6714	1745		\$51.5
Perform	1984	18.3%	2347	399	3284	657	4597	1057	6433	1672		\$49.3

* Derived from Examples in CapStone® Team Member Guide © 2016, Chapters 4.2.3 and 10.

Long-Term Product Planning (PLC Focus Strategies)

Student teams who adopted either the Differentiated or Cost Leader strategies that involved Product Life Cycle (“PLC”) Focus, experienced important lessons in the necessity for long-term product planning. See **Table 11** for an illustration.

The Buyers in the Low-end segment preferred products that were cheaper, older, larger, slower, and less reliable than in other segments, with primary importance placed on cheaper, and secondary importance placed on older. However, some students made the “Rookie Mistake,” in their first round, by eagerly updating the Position of their Low-end product. That is, they made Research and Development (“R&D”) decisions to meet the tertiary- and low-importance buyers’ criteria to reduce their product’s Size, and/or increase its Speed and Reliability, and they failed to recognize that such updates also reduced the all-important apparent Age of their product.

All that said, Marketing students were justifiably concerned about the gradually approaching obsolescence of their existing Low-end product, which represented a substantial portion of their company’s total Market Share. Most students, new to the Sim, were not prepared to make decisions that extended through the projected life span of their products. However, they were well advised to conduct “long term” product planning for a competitive Low-end product in order to meet the anticipated price, age, size, and speed criteria and the increased demand of the Low-end buyers in the later rounds of the Sim. Their situation consciousness led some students to identify three decision options for their long-term product plans: a. Reposition their existing Low-end product by means of an extensive reengineering (i.e., “expensive R&D project”) during the middle rounds of the Sim; b. Allow their existing Traditional product, which started out as well-positioned for the late round, Low-end specifications, to age in place; c. Launch, as early as the first round, with minimal R&D and capacity investment, a new product in the ideal late-round Low-end position and allow its age to increase and expand its capacity to late-round perfection. Making this critical choice among three valid options, early in the Sim, shifted some students toward adopting a long-term “Product Life Cycle” strategy for their companies.

The Buyers in the Traditional segment preferred products that were average in every respect: Age, Price, Size, Speed, and Reliability (in that order of importance). This meant that students were well-advised to make periodic incremental R&D decisions, which were intended to satisfy buyers’ expected Price, Size, Performance, and Reliability specifications, and to update regularly the all-important apparent Age of their product. This starting situation prompted most students to decide between three options: a. Reposition their existing Traditional product regularly to manage its primarily-important apparent Age and to meet Traditional buyers’ lower Price requirement and capacity demand; b. Keep their existing Traditional product with its substantial capacity in place to age into a lower priced, late-round, Low-end product.

c. Launch a new product, near the existing Traditional product, at minimal R&D and capacity investment and with lower material cost, to meet the important low price and high age criteria for a late-round Low-end product. [Students who chose early to adopt their Traditional product as a late-round Low-end product (option b) realized their ongoing need to have a Traditional product with sufficient capacity to meet buyer demand for the remaining Sim rounds.]

Third, the Buyers in the High-end segment preferred products that were well-advanced in both Size and Speed specifications, brand new in Age, and higher in Reliability (in that order of importance). This meant that students were well advised to make frequent periodic R&D decisions, which were intended to satisfy buyers' expected Size, Performance, and Reliability specifications, and to minimize the apparent Age of their product. The weak starting position and higher age of the existing High-end product led many students to decide between three options: a. Rapidly reposition their existing High-end product each period, using expensive R&D resources, to improve its primarily-important Position specifications and to meet buyers' low Age expectations (of secondary importance); b. Keep their existing High-end product with its substantial capacity in place to age into a middle-round, Traditional product. c. Launch a brand new High-end product, positioned well beyond the existing High-end product, with a substantial investment in R&D and capacity, and at higher material costs, to meet the all-important, advanced position and low age criteria for a price in-sensitive, early round High-end product. [Students who chose early to adopt their High-end product as a middle-round Traditional product (option b), realized the ongoing need to have a new High-end product with sufficient capacity for the remaining Sim rounds.]

**TABLE 11
LONG-TERM PRODUCT PLANNING GUIDE**

Product Life Cycle Planning Guide	End of Year 0 (Start of Simulation)					End of Year 1*	End of Year 3*	End of Year 5*	End of Year 7*
	Start Age (Years)	Ideal Age (Weight)	Start Position (Perf/Size)	Ideal Position (Weight)	Drift Rate (P/S)	Ideal Position	Ideal Position	Ideal Position	Ideal Position
Market Segment:									
Low End	4.6 (Note 3)	7.0 (24%)	3.0/17.0	1.7/18.3 (16%)	+5/-5	2.2/17.8	3.2/16.8 (Note 3)	4.2/15.8 (Note 4)	5.2/14.8 (Note 4)
Traditional	3.1 (Note 2)	2.0 (47%)	5.5/14.5 (Note 4)	5.0/15.0 (21%)	+7/-7	5.7/14.3 (Note 2)	7.1/12.9 (Note 5)	8.5/11.5 (Note 5)	9.9/10.1 (Note 5)
High End	1.7 (Note 1)	0.0 (29%)	8.0/12.0 (Note 5)	8.9/11.1 (43%)	+9/-9	9.8/10.2 (Note 1)	11.6/8.4	13.4/6.6	15.2/4.8
Size	2.5 (Note 6)	1.0 (29%)	4.0/11.0 (Note 6)	4.0/10.6 (43%)	+7/-1.0	4.7/9.6 (Note 6)	6.1/7.6	7.5/5.6	8.9/3.6
Perform.	2.6	1.5 (9%)	9.4/15.5 (Note 7)	9.4/16.0 (29%)	+1.0/-7	10.4/15.3 (Note 7)	12.4/13.9	14.4/11.5	16.4/10.1
<p>*End of Year Ideal Positions derived from Examples in CapStone® Team Member Guide © 2016, Chapters 3.1.1 and 12. Note 1: In High end, Position and Age are both important, so launch a New High end Product at Ideal Position for High, Year 1; Note 2: In Traditional, Age is more important than Position, so immediately update existing product to end of Year 1 position; Note 3: In Low end, Age is more important than Position, so do not update existing product until after end of Year 3; Note 4: Launch a new Traditional Product at Ideal Position for Low, Year 7; Let age for 5 years; Migrate to Low end by Year 5; Note 5: Update existing High end product to Ideal Position for Traditional, Year 3; Update in Traditional for Years 3 – 7; Note 6: In Size, Position and Age are both important, so update existing Product to Ideal Position for Years 1-7; Note 7: In Performance, Position is more important than Age, so update existing product to Ideal Position for Years 1-7.</p>									

APPENDICES

APPENDIX 1A
STRATEGY INTEGRATION GUIDE: DIFFERENTIATOR ORIENTATION*

Strategy Integration Guide:	Vision	Research & Development	Marketing	Production	Finance	Performance Measures
Broad Differentiator	Products: Premium, Lasting Stakeholders: Customer, Stockholders, Managers, Employees	Segments: All available Segments Criteria: Position, Age, & Reliability	Promotion & Sales: Aggressive spending in All Segments Pricing: Premium	Capacity: Meet demand; Avoid overtime Automation: Improve margins, but Maintain flexibility	Capital Funding: Stock and Retained earnings; Dividends Leverage: 1.5-2.0	Market Share? Yes Other: Stock Price, ROA, Cumulative Profit
Niche Differentiator	Products: Premium, Higher tech segments Stakeholders: Customer, Stockholders, Managers, Employees	Segments: Higher Tech: High, Size, & Performance segments Criteria: Higher Tech Segments: Position, Age, & Reliability	Promotion & Sales: Aggressive spending in Tech (HSP) segments Pricing: Premium; Harvest non-tech	Capacity: Meet demand; Avoid overtime Automation: Improve margins; Maintain flexibility	Capital Funding: Stock and Retained earnings; Dividends Leverage: 1.5-2.0	Market Share? No Other: ROS, Turnover, ROA
Differentiator with PLC Focus	Products: Main-stream (HTL) segments Stakeholders: Customer, Stock-holder, Managers, Employees	Segments: Two products in each main-stream (HTL) segment Criteria: Position, Age, & Reliability	Promotion & Sales: Aggressive spending in mainstream (HTL) segments Pricing: Premium; Harvest non-mainstream	Capacity: Meet demand; Avoid overtime Automation: Improve margins; Maintain flexibility	Capital Funding: Stock and Retained earnings; Dividends Leverage: 1.5-2.0	Market Share? No Other: Stock Price, ROS, Turnover, ROA
* Derived from CapStone® Team Member Guide @ 2016, Chapter 12.						

APPENDIX 1B
STRATEGY INTEGRATION GUIDE: COST LEADER ORIENTATION*

<u>Strategy Integration Guide:</u>	<u>Vision</u>	<u>Research & Development</u>	<u>Marketing</u>	<u>Production</u>	<u>Finance</u>	<u>Performance Measures</u>
Broad Cost Leader	<p>Products: Low price; Solid value</p> <p>Stakeholders: Bondholders, Customers, Stockholders, Managers</p>	<p>Segments: Maintain & develop products in All Segments</p> <p>Criteria: Try to update, but high automation</p>	<p>Promotion & Sales: Moderate spending</p> <p>Pricing: Below industry average prices</p>	<p>Capacity: Prefer Overtime to capacity expansion</p> <p>Automation: High automation in lower tech Segments</p>	<p>Capital Funding: Prefer LT bonds</p> <p>Leverage: 2.0-3.0</p>	<p>Market Share? Yes</p> <p>Other: Stock Price, ROE, Cumulative Profit</p>
Niche Cost Leader	<p>Products: Value in Non-tech (TL) segments.</p> <p>Stakeholders: Bondholders, Customers, Stockholders, Managers</p>	<p>Segments: Only non-tech (TL) Segments</p> <p>Criteria: Saturate non-tech segments</p>	<p>Promotion & Sales: Moderate spending; Exit tech segments</p> <p>Pricing: Price below average</p>	<p>Capacity: Prefer Overtime to Capacity Expansion</p> <p>Automation: High automation</p>	<p>Capital Funding: Prefer LT bonds</p> <p>Leverage: 2.0-3.0</p>	<p>Market Share? No</p> <p>Other: ROS, Stock Price, ROE</p>
Cost Leader with PLC Focus	<p>Products: Value in Mainstream (HTL) segments.</p> <p>Stakeholders: Bondholders, Stockholders, Customers, Managers</p>	<p>Segments: New High tech product every two years; Drift back to lower tech (TL) segments</p> <p>Criteria: Steady stream of products</p>	<p>Promotion & Sales: Moderate; Reduce as exit non-mainstream segments</p> <p>Pricing: Price high as exit tech segments; Price as market bears</p>	<p>Capacity: Sell off capacity as exit non-mainstream segments</p> <p>Automation: High automation</p>	<p>Capital Funding: LT bonds</p> <p>Leverage: 2.0-3.0</p>	<p>Market Share? No</p> <p>Other: Stock Price, ROE, ROS</p>
* Derived from CapStone® Team Member Guide @ 2016, Chapter 12.						