

ASSESSING BRAND PORTFOLIO NORMATIVE CONSISTENCY & TRENDS WITH THE NORMATIVE POSITION OF BRANDS & TRENDS PACKAGE

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ABSTRACT

The Online Normative Position of Brands & Trends (NPB & Trends) Package is used in Strategic Market Planning (SMP) to assess the consistency of each strategic business unit (SBU) relative to its normative position at the end of each year of operation, and the trends in normative consistency over the course of competition. Based on an analysis of the strength and trends in their own brand portfolio and the brand portfolios of their competitors displayed on the Growth Share Matrix, participants check the position of each SBU on the Growth Gain Matrix relative to its normative position. Corrective action is taken, if necessary, to improve their own trends in normative consistency over the course of competition. Insights are derived about competitor's strategies by evaluating the normative consistency and trends of competitor brand portfolios. Based on their analysis of their own and competitor brand portfolios, the SMP is adjusted to optimize the performance of the overall brand portfolio while maintaining cash in balance. Based on reviewer feedback, an online survey of participants at the end of the Fall 2011 semester revealed that the NPB & Trends Package is easy to use, helpful in understanding normative consistency, and analyzing the brand portfolio. Participants indicated that the NPB & Trends Package adds substantial value to their Strategic Market Planning and Marketing Strategy learning experience.

INTRODUCTION

The Normative Position of Brands & Trends (NPB & Trends) Package is a decision support system that enables competing participant teams in the marketing simulation COMPETE (Faria, 2006) to assess the consistency of each SBU in their own brand portfolio and the brand portfolios of their competitors relative to its normative position. SBUs are specific product offerings in specific regions that have specific target markets with specific needs and purchase motivations, a specific set of strategies, facing a specific set of competitors with specific competing strategies.

The Excel-based NPB & Trends Package automatically extracts relevant data via external links from the Excel-version of the COMPETE simulation results. The Excel-version of the simulation results are generated by the in-

structor/administrator from the original dos-text based COMPETE simulation results. Later, the Excel-version of the simulation results are uploaded to the COMPETE Online Decision Entry System (CODES) repository for subsequent access by competing participant teams. Only relevant data used in the calculation of the relative market share (RMS), industry growth rate (IGR), brand growth rate (BGR), SBU Sales Revenue (SSR), Maximum Sustainable Growth Rate (MSGR), and Weighted Average Growth Rate (WAGR) that are used to generate the Boston Consulting Group (BCG) Growth Share Matrix (GSM) and Growth Gain Matrix (GGM) are extracted from the simulation results. This decision support package saves substantial time needed to identify and enter the relevant data and reduces the potential for data entry error.

DECISION SUPPORT SYSTEMS

Several scholars have commented on the value of including decision support software/systems in computer simulations (Keys & Biggs, 1990; Teach, 1990; Gold & Pray, 1990, Wolfe & Gregg, 1989). In addition, the literature is replete with references to the use and impact of decision support systems with computer simulations (Affisco & Chanin, 1989, 1990; Burns & Bush, 1991; Cannon et al., 1993; Fritzsche et al., 1987; Grove et al., 1986; Halpin, 2006; Honaiser & Sauaia, 2006; Markulis & Strang, 1985; Mitri et al., 1998; Muhs & Callen, 1984; Nulsen et al., 1993, 1994; Palia, 1989, 1991; Peach, 1996; Schellenberger, 1983; Shane & Bailes, 1986; Sherrell et al., 1986; Wingender & Wurster, 1987; Woodruff, 1992).

Decision support systems (DSSs) are defined as ...a collection of data, systems, tools, and techniques with supporting software and hardware by which an organization gathers and interprets relevant information from business and environment and turns it into a basis for... action (Little, 1979; Burns & Bush, 1991). In addition, they are defined as computer-based information systems that support the process of structuring problems, evaluating alternatives, and selecting actions for more effective management (Forgionne, 1988). Further, they are described as the hardware and software that permit decision-makers to deal with a specific set of related

problems by providing tools that amplify a manager's judgment (Sprague, 1980).

DSSs used with business simulations yield several benefits. These include greater depth of understanding of simulation activity with resulting increase in planning (Keys et al., 1986), in-depth understanding of quantitative techniques as students visualize the results of their applications, sensitivity to weaknesses in techniques used, and experience in capitalizing on their strengths (Fritzsche et al., 1987). Other benefits include minimization of paperwork and errors, error-free graphical representation of output, a competitive tool with increasing value as simulation progresses, and potential for participants to create their own DSSs (Burns & Bush, 1991). In addition, DSSs enhance understanding of complex business relationships and provide additional value over time (Halpin, 2006). Further, DSSs provide realism, relevance, literacy, flexibility and opportunity for refinement (Sherrell et al., 1986).

Some authors contend that combining an active student generated database in the form of a simulation game with a DSS will result in improved decision making, lead to improved pro-active rather than re-active strategic planning, and result in improved simulation game performance and enhanced learning (Muhs & Callen, 1984). Others have reported no support for the premise that DSS usage improves small group decision making effectiveness (Affisco & Chanin, 1989), and that DSS usage to support manufacturing function decisions resulted in decreased manufacturing costs and increased "earnings/cost of goods sold" ratio in the second year of play (Affisco & Chanin, 1990).

Given the inconsistent findings with regard to the efficacy of DSSs reported in the literature, does DSS usage increase decision effectiveness and/or enhance learning? One scholar notes that while the DSS assists the decision maker, it does not make decisions, nor can it substitute for intelligent analysis and synthesis (Schellenberger, 1983). In addition, as with other computer-based or experiential learning techniques, the effectiveness of DSSs or the decisions made are less important than the insights they generate. The level of insight generated depends heavily on the clear explanation of the purpose, significance, assumptions, usage, and limitations of the DSS and underlying concepts applied, by the instructor. In addition, the level of insight generated depends heavily on the debriefing process used by the instructor to crystallize student learning (Cannon et al., 1993).

The primary purpose of this paper is to present this new user-centered learning tool that helps to prepare students for strategic market planning and marketing decision-making responsibilities in their future careers. The objective of this decision support package is to provide participant teams the opportunity to apply integrated strategic

market planning. An online survey is used to evaluate the NPB & Trends Package usage experience, and the value-added to the overall learning experience.

MARKETING STRATEGY

Marketing managers are charged with the responsibility of planning, organizing, implementing, and controlling marketing plans and programs that are designed to achieve a specific set of objectives (Bagozzi et al, 1998; Churchill & Peter, 1995; Dyer & Horman, 1991; Kotler, 2003; Kotler, 1988; Kotler & Keller, 2007; Lehman & Winer, 1988; Lilien, 1993; Lilien & Rangaswamy, 2003; McCarthy & Perreault, 1984; McCarthy & Perreault, 1987; Perreault & McCarthy, 1996).

First, marketing managers identify opportunities and threats in the external environment. They analyze the major customer segments, strategic competitor groupings, and salient market and environmental trends. Major customer segments are identified and their needs, purchase motivations, unmet needs are analyzed. Major strategic competitor groups are identified and their performance, image, objectives, strategies and weaknesses are analyzed. The size, growth, profitability, entry barriers, cost structure, distribution system, trends, and key success factors as well as emerging submarkets in the relevant product market are investigated. Relevant trends in the social-cultural, technological, economic, legal, political and other non-controllable external environments are studied. This external analysis is used to identify opportunities, threats, trends and strategic uncertainties.

Next, marketing managers analyze their own firm's performance on such dimensions as profitability, sales, shareholder value analysis, customer satisfaction, product quality, brand associations, relative cost, new products, employee capability and performance. In addition, they study their own strategic problems, constraints, strengths, weaknesses and liabilities. This internal analysis is used to identify their own strengths, weaknesses, liabilities, problems, constraints and uncertainties.

Then, marketing managers (a) identify strategic alternatives with regard to product market investment strategies, customer value proposition, assets, competencies, and synergies, and functional strategies and programs, (b) select a strategy, (c) implement an operating plan, and (d) periodically review and adapt strategies.

Based on the above analysis of the opportunities and threats in the external environment and an assessment of the firm's own strengths and weaknesses, marketing managers generate a vision, define a mission, establish specific goals, and formulate a strategy in order to achieve the mission. Strategies used include differentiation strategy, low-cost strategy, focus strategy, preemptive move, and synergy. An offering can be differentiated based on performance, quality, prestige, features, service backup, reliabil-

ity, and/or convenience. A low-cost strategy involves the creation of a sustainable cost advantage through high market share, favorable access to raw materials, and/or state-of-the-art manufacturing equipment. A focus or niche strategy seeks to establish and maintain dominance in a narrow product line. It is central to the creation of a sustainable competitive advantage. The preemptive move strategy generates an asset or competency, forms the basis of a sustainable competitive advantage and inhibits competitors. Finally, synergy can be achieved through sharing sales force or office space, and reduces cost or investment needed (Aaker, 2011).

In performing their responsibilities, marketing managers are faced with scarce resources (discretionary marketing dollars) and unlimited wants to allocate these limited resources across individual SBUs in their brand portfolio in order to achieve their objectives. Consequently, they need to allocate the scarce resources at their disposal both effectively and efficiently. The efficient allocation of scarce marketing resources in order to optimize the overall performance of a brand portfolio is the heart of strategic market planning.

STRATEGIC MARKET PLANNING

Strategic market planning is a complex problem for multi-product, multimarket companies. These firms may have numerous products serving several markets with differing potentials. Some products may be in a dominant position relative to competitors, while others may be in a weaker position. Each product will have its own strategy, and may face several competitive products having their own marketing strategies. Some products may be profitable while others may need cash to finance growth or to fight competition.

Faced with this complex situation, the organization must allocate its limited resources among these products in order to optimize its overall performance (Abell & Hammond, 1979). In order to optimize the overall performance of its portfolio of products, the organization first monitors and analyzes the performance of each of its strategic business units (products). This analysis is conducted by the firm in order to decide which strategic business units to build, maintain, harvest, and divest. One of the best known and widely used models for this purpose is the Boston Consulting Group Product Portfolio Analysis model (Kotler, 1988).

The product portfolio analysis model developed by the Boston Consulting Group assigns strategic roles for each product based on the product's market growth rate and market share relative to competitors. These individual roles are then integrated into a strategy for the whole portfolio of products, taking into consideration the product portfolios of the main competitors. The objective of the firm, when using the product portfolio approach, is to opti-

mize the performance of the entire portfolio of products, while maintaining cash flow in balance. Differences in growth potential, relative market share and hence cash flow potential unique to each product are identified. This analysis helps to determine which products represent investment opportunities, which products should supply investment funds, and which products should be candidates for elimination.

The growth share matrix (GSM) and the growth gain matrix (GGM) are used to display the relevant information about the firm's portfolio of products. These displays help to reduce the inherent complexity of the problem to manageable proportions. The heart of product portfolio analysis involves the creation and interpretation of the GSM and GGM displays for the firm and its main competitors. Based upon GSM data, each firm's strategic business units (products) are classified into four categories – "Cash Cows," "Dogs," "Problem Children," and "Stars" (Abell & Hammond, 1979; Day, 1986).

The Product Portfolio Analysis package enables an organization to generate GSMs and GGMs for their own and competing firms. These matrices are used in strategic market planning. Static, comparative static and dynamic analysis of the product portfolios of the firm and its main competitors can be performed with the use of the revised package. Based on these displays, the organization can (1) check for internal balance in the brand portfolio, (2) look for trends, (3) evaluate competition, (4) consider other factors not captured in the portfolio display, and (5) develop alternative "target" portfolios along with associated strategies for achieving them and (6) check financial balance (Palia, 1991, 1995, 1996, 2002, 2010).

The SMP NPB & Trends Package enables the organization to check the position of each SBU on the GGM relative to its normative position. If necessary, corrective action is taken to improve trends in normative consistency over the course of competition. Insights are derived about competitor's strategies by evaluating the normative consistency and trends of competitor brand portfolios. Based on their analysis of their own and competitor brand portfolios, the SMP can be adjusted to optimize the performance of the overall brand portfolio while maintaining cash in balance.

THE MARKETING SIMULATION COMPETE

COMPETE (Faria, 2006) is a marketing simulation designed to provide students with marketing strategy development and decision-making experience. Competing student teams are placed in a complex, dynamic, and uncertain environment. The participants experience the excitement and uncertainty of competitive events and are motivated to be active seekers of knowledge. They learn the need for and usefulness of mastering an underlying set of decision-

making principles.

Competing student teams plan, implement, and control a marketing program for three high-tech products in three regions Region 1 (R1), Region 2 (R2) and Region 3 (R3) within the United States. These three products are a Total Spectrum Television (TST), a Computerized DVD/Video Editor (CVE) and a Safe Shot Laser (SSL). The features and benefits of each product and the characteristics of consumers in each region are described in the student manual. Based on a marketing opportunity analysis, a mission statement is generated, specific and measurable company goals are set, and marketing strategies are formulated to achieve these goals. Constant monitoring and analysis of their own and competitive performance helps the teams better understand their markets and improve their decisions.

Each decision period (quarter), the competing teams make a total of 74 marketing decisions with regard to marketing their three brands in the three regional markets. These decisions include nine pricing decisions, nine shipment decisions, three sales force size decisions, nine sales force time allocation decisions, one sales force salary decision, one sales force commission decision, twenty-seven advertising media decisions, nine advertising content decisions, three quality-improvement R&D decisions, and three cost-reduction R&D decisions. Successful planning, implementation, and control of their respective marketing programs require that each company constantly monitor trends in its own and competitive decision variables and resulting performance. The teams use the COMPETE Online Decision Entry System (CODES) (Palia & Mak, 2001; Palia et al., 2000) to enter their decisions and retrieve their results. These result files in Excel format are subsequently downloaded and used to update the NPB & Trends package.

NORMATIVE POSITION OF BRANDS & TRENDS PACKAGE

The web-based Normative Position of Brands & Trends Package Version 2.0 is accessible online to competing participant teams in the marketing simulation COMPETE. The Normative Position of Brands & Trends Package Version 2.0 is a zipped folder "NPB & Trends.zip" which consists of an Excel workbook "NPB & Trends.xls" (with external links to each of x.xls COMPETE output files) and x.xls Excel version of sample COMPETE output for all specified periods "x". This NPB & Trends.xls workbook consists of five worksheets: (a) NPB by Year, (b) NPB by SBU, (c) Coordinates, (d) Profitability, and (e) Ratios.

First, the Ratios worksheet (see Figure 1) consists of external links to the quarterly COMPETE output files. This worksheet extracts the earnings per share (EPS) and sales volume (in \$) for each company from the quarterly results for the first twelve quarters (three years) of operation. Based on the extracted EPS and sales volume, this worksheet calculates the return on total assets (ROTA) – a measure of how well the firm is managing its assets to generate profit, net profit margin (NPM) – a measure of how profitable the sales are, and sales-to-assets turnover (SATO) – a measure of how well the firm is using its assets to generate sales, for each company during each quarterly period of operation. The total assets are approximated as the common stock plus the current retained income during each quarterly period of operation, since the short-term notes payable of competitors is unknown. The approximate total assets at the end of each year of operation are

Figure 1
Ratios Worksheet

Earnings per Share					Number of Shares	Earnings (Net Profit After Tax) (in \$'000s)					Original Retained Income (in \$'000s)	Current Retained Income (in \$'000s)					Common Stock (in \$'000s)	Total Assets (Approximate) (in \$'000s)				
Company						Company						Company						Company				
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5			
\$ 0.91	\$ 1.35	\$ 0.54	\$ 1.06	\$ -	2,000,000	\$ 1,820	\$ 2,700	\$ 1,080	\$ 2,120	\$ -	\$ 12,820	\$ 13,700	\$ 12,080	\$ 13,120	\$ 11,000	\$ 40,000	\$ 52,820	\$ 53,700	\$ 52,080	\$ 53,120	\$ 51,000	
\$ 0.45	\$ 0.83	\$ 0.44	\$ 1.16	\$ -	2,000,000	\$ 900	\$ 1,660	\$ 880	\$ 2,320	\$ -	\$ 13,720	\$ 15,360	\$ 12,960	\$ 15,440	\$ 11,000	\$ 40,000	\$ 53,720	\$ 55,360	\$ 52,960	\$ 55,440	\$ 51,000	
\$ 1.52	\$ 0.95	\$ 1.34	\$ 0.78	\$ -	2,000,000	\$ 3,040	\$ 1,900	\$ 2,680	\$ 1,560	\$ -	\$ 16,760	\$ 17,260	\$ 15,640	\$ 17,000	\$ 11,000	\$ 40,000	\$ 56,760	\$ 57,260	\$ 55,640	\$ 57,000	\$ 51,000	
\$ 2.29	\$ 1.32	\$ 2.01	\$ 2.16	\$ -	2,000,000	\$ 4,580	\$ 2,640	\$ 4,020	\$ 4,320	\$ -	\$ 21,340	\$ 19,900	\$ 19,660	\$ 21,320	\$ 11,000	\$ 40,000	\$ 61,340	\$ 59,900	\$ 59,660	\$ 61,320	\$ 51,000	
\$ 0.93	\$ 0.19	\$ 0.57	\$ 1.02	\$ -	2,000,000	\$ 1,860	\$ 380	\$ 1,140	\$ 2,040	\$ -	\$ 23,200	\$ 20,280	\$ 20,800	\$ 23,360	\$ 11,000	\$ 40,000	\$ 63,200	\$ 60,280	\$ 60,800	\$ 63,360	\$ 51,000	
\$ 0.46	\$ 0.01	\$ 0.38	\$ 0.31	\$ -	2,000,000	\$ 920	\$ 20	\$ 760	\$ 620	\$ -	\$ 24,120	\$ 20,300	\$ 21,560	\$ 23,980	\$ 11,000	\$ 40,000	\$ 64,120	\$ 60,300	\$ 61,560	\$ 63,980	\$ 51,000	
\$ 0.71	\$ 0.72	\$ 0.69	\$ 0.55	\$ -	2,000,000	\$ 1,420	\$ 1,440	\$ 1,380	\$ 1,100	\$ -	\$ 25,540	\$ 21,740	\$ 22,940	\$ 25,080	\$ 11,000	\$ 40,000	\$ 65,540	\$ 61,740	\$ 62,940	\$ 65,080	\$ 51,000	
\$ 1.42	\$ 1.53	\$ 1.58	\$ 0.01	\$ -	2,000,000	\$ 2,840	\$ 3,060	\$ 3,160	\$ 20	\$ -	\$ 28,380	\$ 24,800	\$ 26,100	\$ 25,100	\$ 11,000	\$ 40,000	\$ 68,380	\$ 64,800	\$ 66,100	\$ 65,100	\$ 51,000	
\$ 0.30	\$ 0.23	\$ 0.61	\$ (3.37)	\$ -	2,000,000	\$ 600	\$ 460	\$ 1,220	\$ (6,740)	\$ -	\$ 28,980	\$ 25,260	\$ 27,320	\$ 18,360	\$ 11,000	\$ 40,000	\$ 68,980	\$ 65,260	\$ 67,320	\$ 58,360	\$ 51,000	
\$ (0.47)	\$ (0.14)	\$ 0.29	\$ (1.39)	\$ -	2,000,000	\$ (940)	\$ (280)	\$ 580	\$ (2,780)	\$ -	\$ 28,040	\$ 24,980	\$ 27,900	\$ 15,580	\$ 11,000	\$ 40,000	\$ 68,040	\$ 64,980	\$ 67,900	\$ 55,580	\$ 51,000	
\$ 0.35	\$ 0.38	\$ 0.71	\$ (1.23)	\$ -	2,000,000	\$ 700	\$ 760	\$ 1,420	\$ (2,460)	\$ -	\$ 28,740	\$ 25,740	\$ 29,320	\$ 13,120	\$ 11,000	\$ 40,000	\$ 68,740	\$ 65,740	\$ 69,320	\$ 53,120	\$ 51,000	
\$ 1.61	\$ 1.00	\$ 1.97	\$ (0.22)	\$ -	2,000,000	\$ 3,220	\$ 2,000	\$ 3,940	\$ (640)	\$ -	\$ 31,960	\$ 27,740	\$ 33,260	\$ 12,480	\$ 11,000	\$ 40,000	\$ 71,960	\$ 67,740	\$ 73,260	\$ 52,480	\$ 51,000	

Sales (in '000s)					Period	Net Profit Margin					Period	Sales to Asset Turnover (Approximate)					Period	Return on Total Assets (Approximate)				
Company						Company						Company						Company				
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5			
\$38,500	\$34,700	\$44,100	\$38,400	\$ -	1	4.73%	7.78%	2.45%	5.52%	#DIV/0!	1	0.73	0.65	0.85	0.72	-	1	3.45%	5.03%	2.07%	3.99%	0.00%
\$35,600	\$30,000	\$38,600	\$33,500	\$ -	2	2.53%	5.53%	2.28%	6.93%	#DIV/0!	2	0.66	0.54	0.73	0.60	-	2	1.68%	3.00%	1.66%	4.18%	0.00%
\$50,200	\$36,900	\$56,400	\$41,300	\$ -	3	6.06%	5.15%	4.75%	3.78%	#DIV/0!	3	0.88	0.64	1.01	0.72	-	3	5.38%	3.32%	4.82%	2.74%	0.00%
\$60,500	\$52,200	\$61,100	\$52,100	\$ -	4	7.57%	5.06%	4.96%	8.29%	#DIV/0!	4	0.99	0.87	1.36	0.85	-	4	7.47%	4.41%	6.74%	7.05%	0.00%
\$37,800	\$38,600	\$52,000	\$35,600	\$ -	5	4.92%	0.98%	2.19%	5.73%	#DIV/0!	5	0.60	0.64	0.86	0.56	-	5	2.94%	0.63%	1.88%	3.22%	0.00%
\$33,800	\$40,100	\$43,500	\$29,600	\$ -	6	2.72%	0.05%	1.75%	2.09%	#DIV/0!	6	0.53	0.67	0.71	0.46	-	6	1.43%	0.03%	1.23%	0.97%	0.00%
\$44,900	\$55,100	\$61,900	\$37,700	\$ -	7	3.16%	2.61%	2.23%	2.92%	#DIV/0!	7	0.69	0.89	0.98	0.58	-	7	2.17%	2.33%	2.19%	1.69%	0.00%
\$59,500	\$70,700	\$85,000	\$51,200	\$ -	8	4.77%	4.33%	3.72%	0.04%	#DIV/0!	8	0.87	1.09	1.29	0.79	-	8	4.15%	4.72%	4.78%	0.03%	0.00%
\$44,900	\$47,100	\$53,300	\$35,900	\$ -	9	1.34%	0.98%	2.29%	-18.77%	#DIV/0!	9	0.65	0.72	0.79	0.62	-	9	0.87%	0.70%	1.81%	-11.55%	0.00%
\$43,200	\$42,200	\$43,400	\$32,300	\$ -	10	-2.18%	-0.66%	1.34%	-8.61%	#DIV/0!	10	0.63	0.65	0.64	0.58	-	10	-1.38%	-0.43%	0.85%	-5.00%	0.00%
\$59,100	\$56,900	\$60,000	\$45,100	\$ -	11	1.18%	1.34%	2.37%	-5.45%	#DIV/0!	11	0.86	0.87	0.87	0.85	-	11	1.02%	1.16%	2.05%	-4.63%	0.00%
\$75,300	\$74,100	\$82,000	\$56,200	\$ -	12	4.28%	2.70%	4.80%	-1.14%	#DIV/0!	12	1.05	1.09	1.12	1.07	-	12	4.47%	2.95%	5.38%	-1.22%	0.00%

used by the Profitability worksheet to calculate the approximate annual return on total assets (ROTA).

Second, the Profitability worksheet (see Figure 2) consists of external links to the quarterly COMPETE output files. This worksheet extracts the annual earnings per share (EPS) and cumulative earnings per share (EPS) at the end of each year of operation (from the period 4, 8, and 12 quarterly COMPETE output files). Based on the extracted EPS, this worksheet computes the annual net profit after tax and the cumulative annual profit of each company. This worksheet also has internal links to the Ratios worksheet. Based on the extracted and computed results, the Profitability worksheet calculates the approximate annual return on total assets (ROTA) for each company by dividing the computed annual net profit after tax by the approximate total assets at the end of each year of operation extracted from the Profitability worksheet.

Third, the Coordinates worksheet consists of external links to the quarterly COMPETE output files. This worksheet extracts the quarterly sales in units (see Figure 3) and price in \$s (see Figure 4) for each SBU (each product in each region) during each decision period for each company from the quarterly results for the first twelve quarters (three years) of operation. Based on the extracted quarterly sales (in units), this worksheet calculates the brand growth rate (BGR) for each SBU for each company, the industry growth rate (IGR) for each

SBU during the Year 1-2 and Year 2-3 periods, and the relative market share (RMS) of each SBU for each company. The RMS indicates the degree of dominance of a specific SBU and is determined by dividing the sales (in units) of a specific SBU by the sales (in units) of the strongest competitor.

The Coordinates worksheet also calculates the SBU sales revenue (SSR) for each SBU for each year for each company based on the quarterly sales (in units) and price (in \$s) extracted from the COMPETE output files. In addition, this worksheet calculates the weighted average growth rate (WAGR) of all nine SBUs by weighting each SBU's BGR with its SSR. Finally, this worksheet calculates the maximum sustainable growth rate MSGR (Abell & Hammond 1979) for each company for each year of operation, based on the annual ROTA extracted from the Profitability worksheet.

Fourth, the NPB by SBU worksheet (see Figure 5) consists of internal links to the Coordinates worksheet. This worksheet extracts the RMS, IGR, BGR, and SSR for each SBU for each company for the year 1-2 and year 2-3 periods from the Coordinates worksheet. In addition, the worksheet extracts the MSGR and WAGR for each company for the year 1-2 and year 2-3 periods from the Coordinates worksheet. The data in the NPB by SBU worksheet are organized by SBU by year for each company. This facilitates analysis of trends (comparative static analysis) in the brand portfolio.

Figure 2
Profitability Worksheet

Company	Net Profit After Tax		Total Assets (approx.)	ROTA (approx.)
	Year 1	Cumulative	Year 1	Year 1
Company 1	\$ 10,340,000.00	\$ 10,340,000.00	\$ 61,340,000.00	16.86%
Company 2	\$ 8,900,000.00	\$ 8,900,000.00	\$ 59,900,000.00	14.86%
Company 3	\$ 8,640,000.00	\$ 8,640,000.00	\$ 59,660,000.00	14.48%
Company 4	\$ 10,320,000.00	\$ 10,320,000.00	\$ 61,320,000.00	16.83%
Company 5	\$ -	\$ -	\$ 51,000,000.00	0.00%
Company	Year 2	Cumulative	Year 2	Year 2
Company 1	\$ 7,040,000.00	\$ 17,380,000.00	\$ 68,380,000.00	10.30%
Company 2	\$ 4,900,000.00	\$ 13,780,000.00	\$ 64,800,000.00	7.56%
Company 3	\$ 6,440,000.00	\$ 15,080,000.00	\$ 66,100,000.00	9.74%
Company 4	\$ 3,760,000.00	\$ 14,080,000.00	\$ 65,100,000.00	5.78%
Company 5	\$ -	\$ -	\$ 51,000,000.00	0.00%
Company	Year 3	Cumulative	Year 3	Year 3
Company 1	\$ 3,580,000.00	\$ 20,960,000.00	\$ 71,960,000.00	4.97%
Company 2	\$ 2,940,000.00	\$ 16,720,000.00	\$ 67,740,000.00	4.34%
Company 3	\$ 7,160,000.00	\$ 22,240,000.00	\$ 73,260,000.00	9.77%
Company 4	\$ (12,620,000.00)	\$ 1,460,000.00	\$ 52,480,000.00	-24.05%
Company 5	\$ -	\$ -	\$ 51,000,000.00	0.00%

Figure 3
Coordinates Worksheet – Quarterly Sales (in Units)

Quarterly Sales (in Units)									
Company 1	TST - Reg 1	TST - Reg 2	TST - Reg 3	CVE - Reg 1	CVE - Reg 2	CVE - Reg 3	SSL - Reg 1	SSL - Reg 2	SSL - Reg 3
Period 1	1,456	1,400	978	7,863	8,845	6,360	73,754	79,400	64,861
Period 2	555	681	448	13,997	15,056	11,100	67,955	71,960	60,602
Period 3	1,006	1,308	788	23,627	25,219	19,634	44,153	46,214	40,742
Period 4	1,997	2,784	1,827	7,887	10,805	6,996	133,073	140,654	114,840
Period 5	1,294	1,758	1,199	5,000	6,695	4,878	81,965	88,147	70,175
Period 6	567	699	480	9,503	14,533	11,764	65,499	76,916	64,513
Period 7	959	977	773	18,395	27,352	20,036	28,917	34,226	30,614
Period 8	1,882	2,380	1,762	12,114	18,351	12,519	98,185	117,040	99,969
Period 9	1,449	1,804	1,645	8,628	11,415	6,073	83,467	110,533	93,330
Period 10	723	721	701	14,714	22,766	13,714	75,730	100,823	99,497
Period 11	1,038	1,201	982	23,495	36,376	26,220	45,856	76,272	84,780
Period 12	2,122	3,269	2,750	11,690	23,928	12,344	116,973	143,508	175,000
Company 2	TST - Reg 1	TST - Reg 2	TST - Reg 3	CVE - Reg 1	CVE - Reg 2	CVE - Reg 3	SSL - Reg 1	SSL - Reg 2	SSL - Reg 3
Period 1	1,190	1,131	1,049	8,552	9,101	5,609	76,156	63,885	44,316
Period 2	577	515	522	12,529	13,599	8,881	55,252	50,965	36,020
Period 3	933	854	741	14,294	16,416	12,076	48,545	45,896	43,464
Period 4	1,900	1,408	1,218	14,663	17,085	12,770	83,873	85,058	88,505
Period 5	1,281	1,335	1,121	10,304	11,965	8,483	64,454	66,836	57,235
Period 6	719	757	649	16,842	17,544	13,120	75,456	80,230	77,752
Period 7	1,208	1,433	1,139	23,207	24,846	17,763	76,554	81,838	84,920
Period 8	1,932	2,271	1,788	18,493	22,103	15,951	144,265	159,980	152,026
Period 9	1,360	1,696	1,373	11,600	15,593	9,877	80,736	101,030	92,889
Period 10	700	900	800	13,989	21,273	13,227	69,307	98,026	88,292
Period 11	1,282	1,818	1,365	17,303	29,355	18,731	71,992	87,213	79,043
Period 12	1,898	2,511	2,136	16,139	27,026	18,626	125,209	169,832	153,487
Company 3	TST - Reg 1	TST - Reg 2	TST - Reg 3	CVE - Reg 1	CVE - Reg 2	CVE - Reg 3	SSL - Reg 1	SSL - Reg 2	SSL - Reg 3
Period 1	1,500	1,400	1,058	10,100	13,985	8,989	104,139	115,652	79,455
Period 2	800	700	542	11,350	17,159	9,787	98,656	108,415	71,253
Period 3	1,358	1,390	1,198	20,047	26,971	17,685	90,191	96,272	61,291
Period 4	2,484	2,525	2,264	19,944	23,405	17,089	179,462	192,887	120,490
Period 5	1,630	1,707	1,437	11,646	17,258	11,700	100,435	115,182	75,213
Period 6	736	878	669	14,263	22,217	14,725	86,303	100,969	57,105
Period 7	1,359	1,674	1,319	19,317	35,446	20,533	80,678	104,761	65,593
Period 8	2,583	3,088	2,626	17,984	29,735	18,891	144,809	211,032	115,002
Period 9	1,388	1,871	1,887	10,505	20,122	10,041	91,037	111,765	74,881
Period 10	575	897	826	12,896	25,929	13,656	75,904	92,268	61,576
Period 11	1,106	1,514	1,371	18,672	39,295	20,773	61,849	83,345	55,425
Period 12	2,059	2,778	2,837	15,468	34,068	18,060	118,199	170,114	122,307
Company 4	TST - Reg 1	TST - Reg 2	TST - Reg 3	CVE - Reg 1	CVE - Reg 2	CVE - Reg 3	SSL - Reg 1	SSL - Reg 2	SSL - Reg 3
Period 1	1,300	1,440	1,043	8,720	7,345	6,849	86,636	82,563	71,011
Period 2	678	760	498	11,576	10,964	9,976	76,714	73,078	64,391
Period 3	1,165	1,200	795	13,683	16,461	11,369	64,933	70,922	54,109
Period 4	1,646	1,814	1,310	11,640	14,718	10,606	97,448	98,633	82,527
Period 5	1,183	1,347	944	7,094	7,131	6,862	71,851	73,249	70,812
Period 6	601	739	548	8,286	10,966	7,987	64,002	65,059	56,503
Period 7	993	1,500	946	9,768	11,674	13,028	56,630	65,558	37,586
Period 8	1,708	2,670	1,637	7,693	9,493	12,310	87,231	94,709	79,698
Period 9	1,326	2,030	538	6,000	6,498	16,907	51,929	79,128	30,220
Period 10	647	1,200	449	9,389	7,714	20,291	50,000	74,917	21,220
Period 11	1,043	2,175	1,212	13,074	10,093	23,600	46,166	77,980	17,034
Period 12	1,816	3,700	1,280	13,007	4,143	22,864	78,067	146,128	2,400
Company 5	TST - Reg 1	TST - Reg 2	TST - Reg 3	CVE - Reg 1	CVE - Reg 2	CVE - Reg 3	SSL - Reg 1	SSL - Reg 2	SSL - Reg 3
Period 1	0	0	0	0	0	0	0	0	0
Period 2	0	0	0	0	0	0	0	0	0
Period 3	0	0	0	0	0	0	0	0	0
Period 4	0	0	0	0	0	0	0	0	0
Period 5	0	0	0	0	0	0	0	0	0
Period 6	0	0	0	0	0	0	0	0	0
Period 7	0	0	0	0	0	0	0	0	0
Period 8	0	0	0	0	0	0	0	0	0
Period 9	0	0	0	0	0	0	0	0	0
Period 10	0	0	0	0	0	0	0	0	0
Period 11	0	0	0	0	0	0	0	0	0
Period 12	0	0	0	0	0	0	0	0	0

Figure 4
Coordinates Worksheet - Price

Price (in \$)										
Company 1	TST - Reg 1	TST - Reg 2	TST - Reg 3	CVE - Reg 1	CVE - Reg 2	CVE - Reg 3	SSL - Reg 1	SSL - Reg 2	SSL - Reg 3	
Period 1	\$ 4,500.00	\$ 4,200.00	\$ 4,500.00	\$ 450.00	\$ 420.00	\$ 450.00	\$ 54.00	\$ 50.00	\$ 54.00	
Period 2	\$ 4,500.00	\$ 4,200.00	\$ 4,500.00	\$ 450.00	\$ 420.00	\$ 450.00	\$ 54.00	\$ 50.00	\$ 54.00	
Period 3	\$ 4,400.00	\$ 4,100.00	\$ 4,400.00	\$ 450.00	\$ 420.00	\$ 450.00	\$ 53.00	\$ 50.00	\$ 53.00	
Period 4	\$ 4,450.00	\$ 4,150.00	\$ 4,450.00	\$ 455.00	\$ 425.00	\$ 450.00	\$ 54.00	\$ 51.00	\$ 54.00	
Period 5	\$ 4,400.00	\$ 4,150.00	\$ 4,400.00	\$ 455.00	\$ 425.00	\$ 435.00	\$ 53.00	\$ 50.00	\$ 52.00	
Period 6	\$ 4,400.00	\$ 4,150.00	\$ 4,400.00	\$ 455.00	\$ 425.00	\$ 435.00	\$ 53.00	\$ 50.00	\$ 52.00	
Period 7	\$ 4,400.00	\$ 4,150.00	\$ 4,400.00	\$ 450.00	\$ 420.00	\$ 435.00	\$ 52.00	\$ 49.00	\$ 51.00	
Period 8	\$ 4,350.00	\$ 4,120.00	\$ 4,350.00	\$ 440.00	\$ 415.00	\$ 430.00	\$ 51.00	\$ 48.00	\$ 50.00	
Period 9	\$ 4,300.00	\$ 4,100.00	\$ 4,200.00	\$ 425.00	\$ 410.00	\$ 410.00	\$ 47.00	\$ 47.00	\$ 47.00	
Period 10	\$ 4,400.00	\$ 4,100.00	\$ 4,200.00	\$ 425.00	\$ 410.00	\$ 410.00	\$ 47.00	\$ 47.00	\$ 47.00	
Period 11	\$ 4,500.00	\$ 4,100.00	\$ 4,250.00	\$ 435.00	\$ 410.00	\$ 410.00	\$ 47.00	\$ 46.00	\$ 46.00	
Period 12	\$ 4,600.00	\$ 4,125.00	\$ 4,250.00	\$ 435.00	\$ 410.00	\$ 410.00	\$ 47.00	\$ 47.00	\$ 47.00	
Company 2	TST - Reg 1	TST - Reg 2	TST - Reg 3	CVE - Reg 1	CVE - Reg 2	CVE - Reg 3	SSL - Reg 1	SSL - Reg 2	SSL - Reg 3	
Period 1	\$ 4,500.00	\$ 4,200.00	\$ 4,500.00	\$ 450.00	\$ 420.00	\$ 450.00	\$ 54.00	\$ 50.00	\$ 54.00	
Period 2	\$ 4,556.00	\$ 4,250.00	\$ 4,556.00	\$ 450.00	\$ 420.00	\$ 450.00	\$ 54.00	\$ 50.00	\$ 54.00	
Period 3	\$ 4,556.00	\$ 4,250.00	\$ 4,556.00	\$ 450.00	\$ 420.00	\$ 435.00	\$ 54.00	\$ 50.00	\$ 50.00	
Period 4	\$ 4,432.00	\$ 4,432.00	\$ 4,432.00	\$ 445.00	\$ 420.00	\$ 435.00	\$ 50.00	\$ 50.00	\$ 50.00	
Period 5	\$ 4,430.00	\$ 4,100.00	\$ 4,200.00	\$ 445.00	\$ 420.00	\$ 435.00	\$ 50.00	\$ 50.00	\$ 50.00	
Period 6	\$ 4,300.00	\$ 4,100.00	\$ 4,200.00	\$ 430.00	\$ 415.00	\$ 415.00	\$ 48.00	\$ 48.00	\$ 48.00	
Period 7	\$ 4,300.00	\$ 4,100.00	\$ 4,200.00	\$ 430.00	\$ 415.00	\$ 415.00	\$ 48.00	\$ 48.00	\$ 48.00	
Period 8	\$ 4,300.00	\$ 4,100.00	\$ 4,200.00	\$ 430.00	\$ 410.00	\$ 415.00	\$ 48.00	\$ 48.00	\$ 48.00	
Period 9	\$ 4,300.00	\$ 4,100.00	\$ 4,200.00	\$ 430.00	\$ 410.00	\$ 408.00	\$ 48.00	\$ 47.00	\$ 48.00	
Period 10	\$ 4,300.00	\$ 4,100.00	\$ 4,200.00	\$ 430.00	\$ 404.00	\$ 408.00	\$ 47.00	\$ 47.00	\$ 48.00	
Period 11	\$ 4,300.00	\$ 4,100.00	\$ 4,200.00	\$ 430.00	\$ 404.00	\$ 408.00	\$ 47.00	\$ 47.00	\$ 48.00	
Period 12	\$ 4,300.00	\$ 4,100.00	\$ 4,200.00	\$ 430.00	\$ 405.00	\$ 405.00	\$ 47.00	\$ 47.00	\$ 48.00	
Company 3	TST - Reg 1	TST - Reg 2	TST - Reg 3	CVE - Reg 1	CVE - Reg 2	CVE - Reg 3	SSL - Reg 1	SSL - Reg 2	SSL - Reg 3	
Period 1	\$ 4,080.00	\$ 3,900.00	\$ 3,910.00	\$ 440.00	\$ 410.00	\$ 420.00	\$ 49.00	\$ 47.00	\$ 49.00	
Period 2	\$ 4,200.00	\$ 4,000.00	\$ 4,100.00	\$ 440.00	\$ 410.00	\$ 430.00	\$ 51.00	\$ 49.00	\$ 51.00	
Period 3	\$ 4,350.00	\$ 4,150.00	\$ 4,250.00	\$ 440.00	\$ 410.00	\$ 420.00	\$ 51.00	\$ 49.00	\$ 51.00	
Period 4	\$ 4,350.00	\$ 4,150.00	\$ 4,250.00	\$ 440.00	\$ 410.00	\$ 420.00	\$ 51.00	\$ 49.00	\$ 51.00	
Period 5	\$ 4,350.00	\$ 4,150.00	\$ 4,250.00	\$ 440.00	\$ 410.00	\$ 420.00	\$ 51.00	\$ 49.00	\$ 51.00	
Period 6	\$ 4,350.00	\$ 4,150.00	\$ 4,250.00	\$ 440.00	\$ 410.00	\$ 420.00	\$ 51.00	\$ 49.00	\$ 51.00	
Period 7	\$ 4,300.00	\$ 4,100.00	\$ 4,200.00	\$ 440.00	\$ 410.00	\$ 420.00	\$ 49.00	\$ 47.00	\$ 48.00	
Period 8	\$ 4,300.00	\$ 4,100.00	\$ 4,200.00	\$ 430.00	\$ 410.00	\$ 410.00	\$ 49.00	\$ 47.00	\$ 48.00	
Period 9	\$ 4,700.00	\$ 4,100.00	\$ 4,200.00	\$ 430.00	\$ 410.00	\$ 410.00	\$ 60.00	\$ 47.00	\$ 48.00	
Period 10	\$ 4,700.00	\$ 4,100.00	\$ 4,200.00	\$ 430.00	\$ 410.00	\$ 410.00	\$ 60.00	\$ 47.00	\$ 48.00	
Period 11	\$ 4,700.00	\$ 4,100.00	\$ 4,200.00	\$ 430.00	\$ 410.00	\$ 410.00	\$ 60.00	\$ 47.00	\$ 48.00	
Period 12	\$ 4,700.00	\$ 4,100.00	\$ 4,200.00	\$ 430.00	\$ 410.00	\$ 410.00	\$ 60.00	\$ 47.00	\$ 48.00	
Company 4	TST - Reg 1	TST - Reg 2	TST - Reg 3	CVE - Reg 1	CVE - Reg 2	CVE - Reg 3	SSL - Reg 1	SSL - Reg 2	SSL - Reg 3	
Period 1	\$ 4,300.00	\$ 4,100.00	\$ 4,200.00	\$ 450.00	\$ 430.00	\$ 440.00	\$ 53.00	\$ 50.00	\$ 52.00	
Period 2	\$ 4,300.00	\$ 4,100.00	\$ 4,300.00	\$ 450.00	\$ 430.00	\$ 430.00	\$ 53.00	\$ 50.00	\$ 52.00	
Period 3	\$ 4,300.00	\$ 4,100.00	\$ 4,300.00	\$ 450.00	\$ 430.00	\$ 440.00	\$ 53.00	\$ 50.00	\$ 52.00	
Period 4	\$ 4,400.00	\$ 4,300.00	\$ 4,360.00	\$ 470.00	\$ 442.00	\$ 440.00	\$ 55.00	\$ 52.00	\$ 51.00	
Period 5	\$ 4,400.00	\$ 4,250.00	\$ 4,380.00	\$ 460.00	\$ 436.00	\$ 440.00	\$ 52.00	\$ 51.00	\$ 52.00	
Period 6	\$ 4,400.00	\$ 4,125.00	\$ 4,380.00	\$ 460.00	\$ 420.00	\$ 440.00	\$ 52.00	\$ 50.00	\$ 52.00	
Period 7	\$ 4,400.00	\$ 4,125.00	\$ 4,380.00	\$ 460.00	\$ 415.00	\$ 435.00	\$ 52.00	\$ 48.00	\$ 50.00	
Period 8	\$ 4,390.00	\$ 4,150.00	\$ 4,250.00	\$ 455.00	\$ 425.00	\$ 425.00	\$ 51.00	\$ 48.00	\$ 49.00	
Period 9	\$ 4,360.00	\$ 4,050.00	\$ 4,190.00	\$ 440.00	\$ 405.00	\$ 405.00	\$ 49.00	\$ 45.00	\$ 47.00	
Period 10	\$ 4,600.00	\$ 4,150.00	\$ 4,190.00	\$ 440.00	\$ 415.00	\$ 405.00	\$ 50.00	\$ 45.00	\$ 47.00	
Period 11	\$ 4,650.00	\$ 4,150.00	\$ 4,250.00	\$ 435.00	\$ 415.00	\$ 404.00	\$ 48.00	\$ 46.00	\$ 46.00	
Period 12	\$ 4,600.00	\$ 4,150.00	\$ 4,250.00	\$ 430.00	\$ 430.00	\$ 404.00	\$ 46.00	\$ 46.00	\$ 46.00	
Company 5	TST - Reg 1	TST - Reg 2	TST - Reg 3	CVE - Reg 1	CVE - Reg 2	CVE - Reg 3	SSL - Reg 1	SSL - Reg 2	SSL - Reg 3	
Period 1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Period 2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Period 3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Period 4	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Period 5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Period 6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Period 7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Period 8	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Period 9	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Period 10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Period 11	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Period 12	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	

Fifth, the NPB by Year worksheet (see Figure 6) consists of internal links to the Coordinates worksheet. This worksheet extracts the RMS, IGR, BGR, and SSR for each SBU for each company for the year 1-2 and year 2-3 periods from the Coordinates worksheet. In addition, the worksheet extracts the MSGR and WAGR for each company for the year 1-2 and year 2-3 periods from the Coordinates worksheet. The data in the NPB by Year worksheet are sorted by year by SBU for each company. This facilitates analysis of the brand portfolio (static analysis) in the year 1-2 or year 2-3 period.

The relevant data are extracted from the COMPETE Results Excel workbook x.xls to the NPB & Trends workbook as indicated in the Data Extraction Tables for the Ratios and Profitability Worksheets (see Figure 7), and the Coordinates Worksheets (see Figures 8 and 9). In each of the Data Extraction Tables, the Excel worksheet (tab), page number in the Excel-version of the COMPETE results printout, and cell references for each account are shown in the COMPETE Results Workbook table (on the right). The corresponding cell references for each account are shown in the NPB & Trends workbook table (on the left) in the Data Extraction Tables.

For instance, in the Data Extraction Table for the Ratios and Profitability worksheets (see Figure 7), the Earnings per Share for Company 1 in Period 1 in cell B9 on the Ratios worksheet in Figure 1 is extracted from cell E9 in the “Earnings per Share By Time Period” table on the “EPS, Mkt%, SF Activity” worksheet of the COMPETE results workbook 1.xls. Similarly, the Net Profit After Tax for Company 1 in Year 1 in cell B6 on the “Profitability” worksheet in Figure 2 is extracted from cell F9 in the “Earnings Per Share By Time Period” table on the “EPS, Mkt%, SF Activity” worksheet of the COMPETE results workbook.

In addition, in the Data Extraction Table for the Coordinates worksheet – Sales in units (see Figure 8), the Company 1 TST – Region 1 Period 1 Sales (in Units) in cell B113 on the Coordinates worksheet – Quarterly Sales (in Units) in Figure 3 is extracted from cell D10 in the “Market Share By Product By Company For Region 1” table on the “Market Share” worksheet of the COMPETE results workbook 1.xls. Similarly, the Company 2 TST – Region 1 Period 1 Sales (in Units) in cell B128 on the Coordinates worksheet – Quarterly Sales (in Units) in Figure 3 is extracted from cell D11 in the “Market Share By Product By Company For Region 1” table on the “Market Share” worksheet of the COMPETE results workbook 1.xls.

Further, in the Data Extraction Table for the Coordinates worksheet - Price (see Figure 9), the Company 1 TST – Region 1 Period 1 Price in cell N113 on the Coordinates worksheet - Price in Figure 4 is extracted from cell D32 in the “Actual Price By Product By Region By Company” table on the “Forecast, Prices” worksheet of the COMPETE results workbook 1.xls. Similarly, the Company 2 TST – Region 1 Period 1 Price in cell N126 on the Coordinates worksheet – Price in Figure 4 is extracted from cell D33 in

the “Actual Price By Product By Region By Company” table on the “Forecast, Prices” worksheet of the COMPETE results workbook 1.xls.

In summary, the Ratios worksheet (see Figure 1) calculates the Total Assets (except for Short Term Notes Payable), ROTA, NPM, and SATO for each company by period based on the extracted EPS and Sales data. The Profitability worksheet (see Figure 2) calculates the approximate ROTA for each company by year based on the extracted Net Profit After Tax and Total Assets data. The Coordinates worksheet – Quarterly Sales in Units (see Figures 3) calculates the RMS, IGR, and BGR for each SBU based on the extracted Sales in Units data by SBU by Company. In addition, the Coordinates worksheet calculates the SSR for each SBU based on the extracted Sales in Units (see Figure 3) and Price (see Figure 4) data by SBU by Company. Further, the Coordinates worksheet - Quarterly Sales in Units (see Figure 3) calculates the WAGR for each company by year based on the Sales in Units data by SBU by Company. Finally, the Coordinates worksheet calculates the MSGR for each company by year based on the ROTA calculated in the Profitability worksheet from the extracted Net Profit After Tax and Total Assets (approximate) calculated by the Ratios worksheet.

The NPB by SBU (see Figure 5) and NPB by Year (see Figure 6) worksheets consolidate and present the RMS, IGR, BGR, MSGR, WAGR and SSR (extracted from the Coordinates, Profitability, and Ratios worksheets) for each company by SBU and by Year respectively. The use of external links ensures relevant data are extracted from relevant sources (statements) in the simulation results and precludes data entry error. Cell comments clarify variables extracted from the COMPETE results to the Coordinates worksheets (see Figures 10 and 11).

NORMATIVE POSITION OF BRANDS & TRENDS PACKAGE USE

The Normative Position of Brands & Trends Package is used by competing participant teams in Strategic Market Planning. This package is used together with the Interactive Online Boston Consulting Group (BCG) Matrix Graphics Package (Palia et al., 2002).

The BCG Matrix Graphics Package is used to generate the BCG Growth Share Matrix (GSM) and Growth Gain Matrix (GGM) displays (see Figure 12) for each company (team) based on its performance. GSM and GGM displays are generated at the end of the second and third year of operations and permit the participant teams to conduct static, comparative static, and dynamic analyses of their own brand portfolio and the brand portfolios of their main competitors. By superimposing the display at the end of the second year of operations on the display at the end of the third (current) year, the participant teams can determine the trajectories (direction and degree of movement) of each of their brands. Competitor brand trajectories can also

Figure 5
NPB by SBU Worksheet (for Companies 1 & 2)

Normative Position of the Brands + Trends															
Company 1															
SBU	Year	GSM				Position		Consistency		GGM			GSM Trend	GGM Trend	SSR
		RMS	IGR	SBU Typology	Recommended Strategy	Normative	Actual	C / NC	Trend	BGR	MSGR	WAGR			
TST - 1	1-2	0.75	0.44%	H?	BS (O)	G	L	NC		-6.22%	10.30%	-1.74%			\$20,594,700.00
TST - 1	2-3	1.02	-0.50%	H*	HS	H	H	C	NC ==> C	13.40%	4.97%	32.91%	H? ==> H*	L ==> H	\$23,844,100.00
TST - 2	1-2	0.79	18.32%							-5.82%					\$24,056,700.00
TST - 2	2-3	0.77	19.32%						==>	20.31%					\$28,761,225.00
TST - 3	1-2	0.70	16.94%							4.28%					\$18,453,500.00
TST - 3	2-3	0.88	16.36%						==>	44.23%					\$25,714,200.00
CVE - 1	1-2	0.65	-0.27%							-15.67%					\$20,206,775.00
CVE - 1	2-3	0.99	3.17%						==>	30.03%					\$25,225,825.00
CVE - 2	1-2	0.64	16.26%							11.69%					\$28,125,405.00
CVE - 2	2-3	0.79	16.81%						==>	41.17%					\$38,738,850.00
CVE - 3	1-2	0.75	19.78%							11.58%					\$21,338,100.00
CVE - 3	2-3	0.70	25.86%						==>	18.61%					\$23,923,910.00
SSL - 1	1-2	0.67	-3.89%							-13.91%					\$14,326,711.00
SSL - 1	2-3	0.93	-6.39%						==>	17.29%					\$15,135,222.00
SSL - 2	1-2	0.59	7.96%							-6.47%					\$15,548,144.00
SSL - 2	2-3	0.94	12.19%						==>	36.29%					\$20,187,120.00
SSL - 3	1-2	0.71	8.82%							-5.61%					\$13,563,540.00
SSL - 3	2-3	1.09	4.74%						==>	70.62%					\$21,187,749.00

Legend:

SBU Typology	Recommended Strategy	GGM Position	Consistency
H* = Healthy Star	BS (O) = Build Share on Offense	G = Gainer	C = Consistent
S* = Sick Star	BS (D) = Build Share on Defense	L = Loser	NC = Not consistent
H? = Healthy Problem Child	HS = Hold Share	H = Holder	
S? = Sick Problem Child	H = Harvest		
H\$ = Healthy Cash Cow	D/W = Divest / Withdraw		
S\$ = Sick Cash Cow			
HX = Healthy Dog			
SX = Sick Dog			

For example:

If TST-1, Year 1-2 RMS = 0.95 and IGR = 12.4%, then SBU Typology = H? and Recommended Strategy is BS (O)

Based on BS (O) strategy, normative position of TST-1 on GGM should be G.

However, if actual position of TST-1 on GGM is a L, then the brand TST-1 is not consistent with its normative position.

Normative Position of the Brands + Trends															
Company 2															
SBU	Year	GSM				Position		Consistency		GGM			GSM Trend	GGM Trend	SSR
		RMS	IGR	SBU Typology	Recommended Strategy	Normative	Actual	C / NC	Trend	BGR	MSGR	WAGR			
TST - 1	1-2	0.81	0.44%	H?	BS (O)	G	L	NC		11.74%	7.56%	40.81%			\$22,268,530.00
TST - 1	2-3	0.98	-0.50%	H*	HS	H	H	C	NC ==> C	1.95%	4.34%	10.54%	H? ==> H*	L ==> H	\$22,532,000.00
TST - 2	1-2	0.79	18.32%							48.31%					\$23,763,600.00
TST - 2	2-3	0.76	19.32%						==>	19.48%					\$28,392,500.00
TST - 3	1-2	0.78	16.94%							33.06%					\$19,727,400.00
TST - 3	2-3	0.82	16.36%						==>	20.80%					\$23,830,800.00
CVE - 1	1-2	1.09	-0.27%							37.59%					\$29,758,340.00
CVE - 1	2-3	1.01	3.17%						==>	-14.26%					\$25,383,330.00
CVE - 2	1-2	0.73	16.26%							36.04%					\$31,679,380.00
CVE - 2	2-3	0.78	16.81%						==>	21.96%					\$37,792,372.00
CVE - 3	1-2	0.84	19.78%							40.63%					\$23,126,215.00
CVE - 3	2-3	0.72	25.86%						==>	9.30%					\$24,612,210.00
SSL - 1	1-2	0.88	-3.89%							36.73%					\$17,443,900.00
SSL - 1	2-3	1.00	-6.39%						==>	-3.74%					\$16,401,204.00
SSL - 2	1-2	0.79	7.96%							58.21%					\$18,800,104.00
SSL - 2	2-3	1.00	12.19%						==>	17.28%					\$21,436,747.00
SSL - 3	1-2	1.19	8.82%							75.19%					\$17,967,254.00
SSL - 3	2-3	0.91	4.74%						==>	11.23%					\$19,858,128.00

Legend:

SBU Typology	Recommended Strategy	GGM Position	Consistency
H* = Healthy Star	BS (O) = Build Share on Offense	G = Gainer	C = Consistent
S* = Sick Star	BS (D) = Build Share on Defense	L = Loser	NC = Not consistent
H? = Healthy Problem Child	HS = Hold Share	H = Holder	
S? = Sick Problem Child	H = Harvest		
H\$ = Healthy Cash Cow	D/W = Divest / Withdraw		
S\$ = Sick Cash Cow			
HX = Healthy Dog			
SX = Sick Dog			

For example:

If TST-1, Year 1-2 RMS = 0.95 and IGR = 12.4%, then SBU Typology = H? and Recommended Strategy is BS (O)

Based on BS (O) strategy, normative position of TST-1 on GGM should be G.

However, if actual position of TST-1 on GGM is a L, then the brand TST-1 is not consistent with its normative position.

Figure 6
NPB by Year Worksheet (for Companies 1 & 2)

Normative Position of the Brands + Trends															
Company 1															
SBU	Year	GSM				Position		Consistency			GGM			SSR	
		RMS	IGR	SBU Typology	Recommended Strategy	Normative	Actual	C / NC	Trend	BGR	MSGR	WAGR	GSM Trend		GGM Trend
TST - 1	1-2	0.75	0.44%	H?	BS (O)	G	L	NC		-6.22%	10.30%	-1.74%			\$20,594,700.00
TST - 2	1-2	0.79	18.32%							-5.82%					\$24,056,700.00
TST - 3	1-2	0.70	16.94%							4.28%					\$18,453,500.00
CVE - 1	1-2	0.65	-0.27%							-15.67%					\$20,206,775.00
CVE - 2	1-2	0.64	16.26%							11.69%					\$28,125,405.00
CVE - 3	1-2	0.75	19.78%							11.58%					\$21,338,100.00
SSL - 1	1-2	0.67	-3.89%							-13.91%					\$14,326,711.00
SSL - 2	1-2	0.59	7.96%							-6.47%					\$15,548,144.00
SSL - 3	1-2	0.71	8.82%							-5.61%					\$13,563,540.00
TST - 1	2-3	1.02	-0.50%	H*	HS	H	H	C	NC ==> C	13.40%	4.97%	32.91%	H? ==> H*	L ==> H	\$23,844,100.00
TST - 2	2-3	0.77	19.32%						==>	20.31%			==>	==>	\$28,761,225.00
TST - 3	2-3	0.88	16.36%						==>	44.23%			==>	==>	\$25,714,200.00
CVE - 1	2-3	0.99	3.17%						==>	30.03%			==>	==>	\$25,225,825.00
CVE - 2	2-3	0.79	16.81%						==>	41.17%			==>	==>	\$38,738,850.00
CVE - 3	2-3	0.70	25.86%						==>	18.61%			==>	==>	\$23,923,910.00
SSL - 1	2-3	0.93	-6.39%						==>	17.29%			==>	==>	\$15,135,222.00
SSL - 2	2-3	0.94	12.19%						==>	36.29%			==>	==>	\$20,187,120.00
SSL - 3	2-3	1.09	4.74%						==>	70.62%			==>	==>	\$21,187,749.00

Legend:

SBU Typology	Recommended Strategy	GGM Position	Consistency
H* = Healthy Star	BS (O) = Build Share on Offense	G = Gainer	C = Consistent
S* = Sick Star	BS (D) = Build Share on Defense	L = Loser	NC = Not consistent
H? = Healthy Problem Child	HS = Hold Share	H = Holder	
S? = Sick Problem Child	H = Harvest		
H\$ = Healthy Cash Cow	D/W = Divest / Withdraw		
S\$ = Sick Cash Cow			
HX = Healthy Dog			
SX = Sick Dog			

For example:

If TST-1, Year 1-2 RMS = 0.95 and IGR = 12.4%, then SBU Typology = H? and Recommended Strategy is BS (O)

Based on BS (O) strategy, normative position of TST-1 on GGM should be G.

However, if actual position of TST-1 on GGM is a L, then the brand TST-1 is not consistent with its normative position.

Normative Position of the Brands + Trends															
Company 2															
SBU	Year	GSM				Position		Consistency			GGM			SSR	
		RMS	IGR	SBU Typology	Recommended Strategy	Normative	Actual	C / NC	Trend	BGR	MSGR	WAGR	GSM Trend		GGM Trend
TST - 1	1-2	0.81	0.44%	H?	BS (O)	G	L	NC		11.74%	7.56%	40.81%			\$22,268,530.00
TST - 2	1-2	0.79	18.32%							48.31%					\$23,763,600.00
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SSL - 3	1-2	1.19	8.82%							75.19%					\$17,967,254.00
TST - 1	2-3	0.98	-0.50%	H*	HS	H	H	C	NC ==> C	1.95%	4.34%	10.54%	H? ==> H*	L ==> H	\$22,532,000.00
TST - 2	2-3	0.76	19.32%						==>	19.48%			==>	==>	\$28,392,500.00
TST - 3	2-3	0.82	16.36%						==>	20.80%			==>	==>	\$23,830,800.00
CVE - 1	2-3	1.01	3.17%						==>	-14.26%			==>	==>	\$25,383,330.00
CVE - 2	2-3	0.78	16.81%						==>	21.96%			==>	==>	\$37,792,372.00
CVE - 3	2-3	0.72	25.86%						==>	9.30%			==>	==>	\$24,612,210.00
SSL - 1	2-3	1.00	-6.39%						==>	-3.74%			==>	==>	\$16,401,204.00
SSL - 2	2-3	1.00	12.19%						==>	17.28%			==>	==>	\$21,436,747.00
SSL - 3	2-3	0.91	4.74%						==>	11.23%			==>	==>	\$19,858,128.00

Legend:

SBU Typology	Recommended Strategy	GGM Position	Consistency
H* = Healthy Star	BS (O) = Build Share on Offense	G = Gainer	C = Consistent
S* = Sick Star	BS (D) = Build Share on Defense	L = Loser	NC = Not consistent
H? = Healthy Problem Child	HS = Hold Share	H = Holder	
S? = Sick Problem Child	H = Harvest		
H\$ = Healthy Cash Cow	D/W = Divest / Withdraw		
S\$ = Sick Cash Cow			
HX = Healthy Dog			
SX = Sick Dog			

For example:

If TST-1, Year 1-2 RMS = 0.95 and IGR = 12.4%, then SBU Typology = H? and Recommended Strategy is BS (O)

Based on BS (O) strategy, normative position of TST-1 on GGM should be G.

However, if actual position of TST-1 on GGM is a L, then the brand TST-1 is not consistent with its normative position.

Figure 7
Data Extraction Table – Ratios & Profitability Worksheets

Data Extraction from COMPETE Results Workbook.xls To NPB & Trends Workbook						
Ratios & Profitability Worksheets						
COMPETE NPB & Trends Workbook			COMPETE Results Workbook x.xls (x = Period Number)			
Account	Cell Ref.		Worksheet (Tab)	Page #	Account	Cell Ref.
Ratios Worksheet (Tab)						
	Period 1					
Earnings per Share Company 1 Period 1	B9	from ==>	EPS, Mkt%, SF Activity	8	Company 1 EPS By Time Period	E9
Earnings per Share Company 2 Period 1	C9	from ==>	EPS, Mkt%, SF Activity	8	Company 2 EPS By Time Period	E10
Earnings per Share Company 3 Period 1	D9	from ==>	EPS, Mkt%, SF Activity	8	Company 3 EPS By Time Period	E11
Earnings per Share Company 4 Period 1	E9	from ==>	EPS, Mkt%, SF Activity	8	Company 4 EPS By Time Period	E12
Earnings per Share Company 5 Period 1	F9	from ==>	EPS, Mkt%, SF Activity	8	Company 5 EPS By Time Period	E13
Sales (In '000s) Company 1 Period 1	B26	from ==>	Quality, Dollar Sales	14	Company 1 Dollar Sales * 1000	G29
Sales (In '000s) Company 2 Period 1	C26	from ==>	Quality, Dollar Sales	14	Company 2 Dollar Sales * 1000	G30
Sales (In '000s) Company 3 Period 1	D26	from ==>	Quality, Dollar Sales	14	Company 3 Dollar Sales * 1000	G31
Sales (In '000s) Company 4 Period 1	E26	from ==>	Quality, Dollar Sales	14	Company 4 Dollar Sales * 1000	G32
Sales (In '000s) Company 5 Period 1	F26	from ==>	Quality, Dollar Sales	14	Company 5 Dollar Sales * 1000	G33
Profitability Worksheet (Tab)						
Net Profit After Tax Company 1 Year 1	B6	from ==>	EPS, Mkt%, SF Activity	8	Period 4 Company 1 EPS for Year	F9
Net Profit After Tax Company 2 Year 1	B7	from ==>	EPS, Mkt%, SF Activity	8	Period 4 Company 2 EPS for Year	F10
Net Profit After Tax Company 3 Year 1	B8	from ==>	EPS, Mkt%, SF Activity	8	Period 4 Company 3 EPS for Year	F11
Net Profit After Tax Company 4 Year 1	B9	from ==>	EPS, Mkt%, SF Activity	8	Period 4 Company 4 EPS for Year	F12
Net Profit After Tax Company 5 Year 1	B10	from ==>	EPS, Mkt%, SF Activity	8	Period 4 Company 5 EPS for Year	F13
Net Profit After Tax Company 1 Cumulative	C6	from ==>	EPS, Mkt%, SF Activity	8	Period 4 Company 1 EPS for Game	G9
Net Profit After Tax Company 2 Cumulative	C7	from ==>	EPS, Mkt%, SF Activity	8	Period 4 Company 2 EPS for Game	G10
Net Profit After Tax Company 3 Cumulative	C8	from ==>	EPS, Mkt%, SF Activity	8	Period 4 Company 3 EPS for Game	G11
Net Profit After Tax Company 4 Cumulative	C9	from ==>	EPS, Mkt%, SF Activity	8	Period 4 Company 4 EPS for Game	G12
Net Profit After Tax Company 5 Cumulative	C10	from ==>	EPS, Mkt%, SF Activity	8	Period 4 Company 5 EPS for Game	G13
Net Profit After Tax Company 1 Year 2	B14	from ==>	EPS, Mkt%, SF Activity	8	Period 8 Company 1 EPS for Year	F9
Net Profit After Tax Company 2 Year 2	B15	from ==>	EPS, Mkt%, SF Activity	8	Period 8 Company 2 EPS for Year	F10
Net Profit After Tax Company 3 Year 2	B16	from ==>	EPS, Mkt%, SF Activity	8	Period 8 Company 3 EPS for Year	F11
Net Profit After Tax Company 4 Year 2	B17	from ==>	EPS, Mkt%, SF Activity	8	Period 8 Company 4 EPS for Year	F12
Net Profit After Tax Company 5 Year 2	B18	from ==>	EPS, Mkt%, SF Activity	8	Period 8 Company 5 EPS for Year	F13
Net Profit After Tax Company 1 Cumulative	C14	from ==>	EPS, Mkt%, SF Activity	8	Period 8 Company 1 EPS for Game	G9
Net Profit After Tax Company 2 Cumulative	C15	from ==>	EPS, Mkt%, SF Activity	8	Period 8 Company 2 EPS for Game	G10
Net Profit After Tax Company 3 Cumulative	C16	from ==>	EPS, Mkt%, SF Activity	8	Period 8 Company 3 EPS for Game	G11
Net Profit After Tax Company 4 Cumulative	C17	from ==>	EPS, Mkt%, SF Activity	8	Period 8 Company 4 EPS for Game	G12
Net Profit After Tax Company 5 Cumulative	C18	from ==>	EPS, Mkt%, SF Activity	8	Period 8 Company 5 EPS for Game	G13
Net Profit After Tax Company 1 Year 3	B22	from ==>	EPS, Mkt%, SF Activity	8	Period 12 Company 1 EPS for Year	F9
Net Profit After Tax Company 2 Year 3	B23	from ==>	EPS, Mkt%, SF Activity	8	Period 12 Company 2 EPS for Year	F10
Net Profit After Tax Company 3 Year 3	B24	from ==>	EPS, Mkt%, SF Activity	8	Period 12 Company 3 EPS for Year	F11
Net Profit After Tax Company 4 Year 3	B25	from ==>	EPS, Mkt%, SF Activity	8	Period 12 Company 4 EPS for Year	F12
Net Profit After Tax Company 5 Year 3	B26	from ==>	EPS, Mkt%, SF Activity	8	Period 12 Company 5 EPS for Year	F13
Net Profit After Tax Company 1 Cumulative	C22	from ==>	EPS, Mkt%, SF Activity	8	Period 12 Company 1 EPS for Game	G9
Net Profit After Tax Company 2 Cumulative	C23	from ==>	EPS, Mkt%, SF Activity	8	Period 12 Company 2 EPS for Game	G10
Net Profit After Tax Company 3 Cumulative	C24	from ==>	EPS, Mkt%, SF Activity	8	Period 12 Company 3 EPS for Game	G11
Net Profit After Tax Company 4 Cumulative	C25	from ==>	EPS, Mkt%, SF Activity	8	Period 12 Company 4 EPS for Game	G12
Net Profit After Tax Company 5 Cumulative	C26	from ==>	EPS, Mkt%, SF Activity	8	Period 12 Company 5 EPS for Game	G13

Figure 9
Data Extraction Table – Coordinates Worksheet – Price

Data Extraction from COMPETE Results Workbook.xls To NPB & Trends Workbook						
Coordinates Worksheet						
COMPETE NPB & Trends Workbook			COMPETE Results Workbook x.xls (x = Period Number)			
Account	Cell Ref.		Worksheet (Tab)	Page #	Account	Cell Ref.
Coordinates Worksheet (Tab)						
Company 1 TST - Reg 1 Period 1 Price	N113	from ==>	Forecast, Prices	13	Company 1 TST - Region 1 Price	D32
Company 1 TST - Reg 2 Period 1 Price	O113	from ==>	Forecast, Prices	13	Company 1 TST - Region 2 Price	G32
Company 1 TST - Reg 3 Period 1 Price	P113	from ==>	Forecast, Prices	13	Company 1 TST - Region 3 Price	J32
Company 1 CVE - Reg 1 Period 1 Price	Q113	from ==>	Forecast, Prices	13	Company 1 CVE - Region 1 Price	E32
Company 1 CVE - Reg 2 Period 1 Price	R113	from ==>	Forecast, Prices	13	Company 1 CVE - Region 2 Price	H32
Company 1 CVE - Reg 3 Period 1 Price	S113	from ==>	Forecast, Prices	13	Company 1 CVE - Region 3 Price	K32
Company 1 SSL - Reg 1 Period 1 Price	T113	from ==>	Forecast, Prices	13	Company 1 SSL - Region 1 Price	F32
Company 1 SSL - Reg 2 Period 1 Price	U113	from ==>	Forecast, Prices	13	Company 1 SSL - Region 2 Price	I32
Company 1 SSL - Reg 3 Period 1 Price	V113	from ==>	Forecast, Prices	13	Company 1 SSL - Region 3 Price	L32
Company 2 TST - Reg 1 Period 1 Price	N128	from ==>	Forecast, Prices	13	Company 2 TST - Region 1 Price	D33
Company 2 TST - Reg 2 Period 1 Price	O128	from ==>	Forecast, Prices	13	Company 2 TST - Region 2 Price	G33
Company 2 TST - Reg 3 Period 1 Price	P128	from ==>	Forecast, Prices	13	Company 2 TST - Region 3 Price	J33
Company 2 CVE - Reg 1 Period 1 Price	Q128	from ==>	Forecast, Prices	13	Company 2 CVE - Region 1 Price	E33
Company 2 CVE - Reg 2 Period 1 Price	R128	from ==>	Forecast, Prices	13	Company 2 CVE - Region 2 Price	H33
Company 2 CVE - Reg 3 Period 1 Price	S128	from ==>	Forecast, Prices	13	Company 2 CVE - Region 3 Price	K33
Company 2 SSL - Reg 1 Period 1 Price	T128	from ==>	Forecast, Prices	13	Company 2 SSL - Region 1 Price	F33
Company 2 SSL - Reg 2 Period 1 Price	U128	from ==>	Forecast, Prices	13	Company 2 SSL - Region 2 Price	I33
Company 2 SSL - Reg 3 Period 1 Price	V128	from ==>	Forecast, Prices	13	Company 2 SSL - Region 3 Price	L33
Company 3 TST - Reg 1 Period 1 Price	N143	from ==>	Forecast, Prices	13	Company 3 TST - Region 1 Price	D34
Company 3 TST - Reg 2 Period 1 Price	O143	from ==>	Forecast, Prices	13	Company 3 TST - Region 2 Price	G34
Company 3 TST - Reg 3 Period 1 Price	P143	from ==>	Forecast, Prices	13	Company 3 TST - Region 3 Price	J34
Company 3 CVE - Reg 1 Period 1 Price	Q143	from ==>	Forecast, Prices	13	Company 3 CVE - Region 1 Price	E34
Company 3 CVE - Reg 2 Period 1 Price	R143	from ==>	Forecast, Prices	13	Company 3 CVE - Region 2 Price	H34
Company 3 CVE - Reg 3 Period 1 Price	S143	from ==>	Forecast, Prices	13	Company 3 CVE - Region 3 Price	K34
Company 3 SSL - Reg 1 Period 1 Price	T143	from ==>	Forecast, Prices	13	Company 3 SSL - Region 1 Price	F34
Company 3 SSL - Reg 2 Period 1 Price	U143	from ==>	Forecast, Prices	13	Company 3 SSL - Region 2 Price	I34
Company 3 SSL - Reg 3 Period 1 Price	V143	from ==>	Forecast, Prices	13	Company 3 SSL - Region 3 Price	L34
Company 4 TST - Reg 1 Period 1 Price	N158	from ==>	Forecast, Prices	13	Company 4 TST - Region 1 Price	D35
Company 4 TST - Reg 2 Period 1 Price	O158	from ==>	Forecast, Prices	13	Company 4 TST - Region 2 Price	G35
Company 4 TST - Reg 3 Period 1 Price	P158	from ==>	Forecast, Prices	13	Company 4 TST - Region 3 Price	J35
Company 4 CVE - Reg 1 Period 1 Price	Q158	from ==>	Forecast, Prices	13	Company 4 CVE - Region 1 Price	E35
Company 4 CVE - Reg 2 Period 1 Price	R158	from ==>	Forecast, Prices	13	Company 4 CVE - Region 2 Price	H35
Company 4 CVE - Reg 3 Period 1 Price	S158	from ==>	Forecast, Prices	13	Company 4 CVE - Region 3 Price	K35
Company 4 SSL - Reg 1 Period 1 Price	T158	from ==>	Forecast, Prices	13	Company 4 SSL - Region 1 Price	F35
Company 4 SSL - Reg 2 Period 1 Price	U158	from ==>	Forecast, Prices	13	Company 4 SSL - Region 2 Price	I35
Company 4 SSL - Reg 3 Period 1 Price	V158	from ==>	Forecast, Prices	13	Company 4 SSL - Region 3 Price	L35
Company 5 TST - Reg 1 Period 1 Price	N173	from ==>	Forecast, Prices	13	Company 5 TST - Region 1 Price	D36
Company 5 TST - Reg 2 Period 1 Price	O173	from ==>	Forecast, Prices	13	Company 5 TST - Region 2 Price	G36
Company 5 TST - Reg 3 Period 1 Price	P173	from ==>	Forecast, Prices	13	Company 5 TST - Region 3 Price	J36
Company 5 CVE - Reg 1 Period 1 Price	Q173	from ==>	Forecast, Prices	13	Company 5 CVE - Region 1 Price	E36
Company 5 CVE - Reg 2 Period 1 Price	R173	from ==>	Forecast, Prices	13	Company 5 CVE - Region 2 Price	H36
Company 5 CVE - Reg 3 Period 1 Price	S173	from ==>	Forecast, Prices	13	Company 5 CVE - Region 3 Price	K36
Company 5 SSL - Reg 1 Period 1 Price	T173	from ==>	Forecast, Prices	13	Company 5 SSL - Region 1 Price	F36
Company 5 SSL - Reg 2 Period 1 Price	U173	from ==>	Forecast, Prices	13	Company 5 SSL - Region 2 Price	I36
Company 5 SSL - Reg 3 Period 1 Price	V173	from ==>	Forecast, Prices	13	Company 5 SSL - Region 3 Price	L36

Figure 10
Coordinates Worksheet – Quarterly Sales With Cell Comments (in Units)

Quarterly Sales (in Units)									
Company 1	TST - Reg 1		CVE - Reg 1	CVE - Reg 2	CVE - Reg 3	SSL - Reg 1	SSL - Reg 2	SSL - Reg 3	
Period 1	1,456	Author: TST Region 1 Unit Sales extracted from Unit Sales by Product by Region Table for Period 1.	7,863	8,845	6,360	73,754	79,400	64,861	
Period 2	555		13,997	15,056	11,100	67,955	71,960	60,602	
Period 3	1,006		23,627	25,219	19,634	44,153	46,214	40,742	
Period 4	1,997		7,887			133,073	140,654	114,840	
Period 5	1,294	1,758	1,199	5,000	Author: CVE Region 1 Unit Sales extracted from Unit Sales by Product by Region Table for Period 5.	81,965	88,147	70,175	
Period 6	567	699	480	9,503		65,499	76,916	64,513	
Period 7	959	977	773	18,395		28,917	34,226	30,614	
Period 8	1,882	2,380	1,762	12,114		98,185			Author: SSL Region 1 Unit Sales extracted from Unit Sales by Product by Region Table for Period 9.
Period 9	1,449	1,804	1,645	8,628	11,415	6,073	83,467		
Period 10	723	721	701	14,714	22,766	13,714	75,730		
Period 11	1,038	1,201	982	23,495	36,376	26,220	45,856		
Period 12	2,122	3,269	2,750	11,690	23,928	12,344	116,973		
Company 2	TST - Reg 1		CVE - Reg 1	CVE - Reg 2	CVE - Reg 3	SSL - Reg 1	SSL - Reg 2	SSL - Reg 3	
Period 1	1,190	Author: TST Region 1 Unit Sales extracted from Unit Sales by Product by Region Table for Period 1.	8,552	9,101	5,609	76,156	63,885	44,316	
Period 2	577		12,529	13,599	8,881	55,252	50,965	36,020	
Period 3	933		14,294	16,416	12,076	48,545	45,896	43,464	
Period 4	1,900		14,663			83,873	85,058	88,505	
Period 5	1,281	1,335	1,121	10,304	Author: CVE Region 1 Unit Sales extracted from Unit Sales by Product by Region Table for Period 5.	64,454	66,836	57,235	
Period 6	719	757	649	16,842		75,456	80,230	77,752	
Period 7	1,208	1,433	1,139	23,207		76,554	81,838	84,920	
Period 8	1,932	2,271	1,788	18,493		144,265			Author: SSL Region 1 Unit Sales extracted from Unit Sales by Product by Region Table for Period 9.
Period 9	1,360	1,696	1,373	11,600	15,593	9,877	80,736		
Period 10	700	900	800	13,989	21,273	13,227	69,307		
Period 11	1,282	1,818	1,365	17,303	29,355	18,731	71,992		
Period 12	1,898	2,511	2,136	16,139	27,026	18,626	125,209		
Company 3	TST - Reg 1		CVE - Reg 1	CVE - Reg 2	CVE - Reg 3	SSL - Reg 1	SSL - Reg 2	SSL - Reg 3	
Period 1	1,500	Author: TST Region 1 Unit Sales extracted from Unit Sales by Product by Region Table for Period 1.	10,100	13,985	8,989	104,139	115,652	79,455	
Period 2	800		11,350	17,159	9,787	98,656	108,415	71,253	
Period 3	1,358		20,047	26,971	17,685	90,191	96,272	61,291	
Period 4	2,484		19,944			179,462	192,887	120,490	
Period 5	1,630	1,707	1,437	11,646	Author: CVE Region 1 Unit Sales extracted from Unit Sales by Product by Region Table for Period 5.	100,435	115,182	75,213	
Period 6	736	878	669	14,263		86,303	100,969	57,105	
Period 7	1,359	1,674	1,319	19,317		80,678	104,761	65,593	
Period 8	2,583	3,088	2,626	17,984		144,809			Author: SSL Region 1 Unit Sales extracted from Unit Sales by Product by Region Table for Period 9.
Period 9	1,388	1,871	1,887	10,505	20,122	10,041	91,037		
Period 10	575	897	826	12,896	25,929	13,656	75,904		
Period 11	1,106	1,514	1,371	18,672	39,295	20,773	61,849		
Period 12	2,059	2,778	2,837	15,468	34,068	18,060	118,199		
Company 4	TST - Reg 1		CVE - Reg 1	CVE - Reg 2	CVE - Reg 3	SSL - Reg 1	SSL - Reg 2	SSL - Reg 3	
Period 1	1,300	Author: TST Region 1 Unit Sales extracted from Unit Sales by Product by Region Table for Period 1.	8,720	7,345	6,849	86,636	82,563	71,011	
Period 2	678		11,576	10,964	9,976	76,714	73,078	64,391	
Period 3	1,165		13,683	16,461	11,369	64,933	70,922	54,109	
Period 4	1,646		11,640			97,448	98,633	82,527	
Period 5	1,183	1,347	944	7,094	Author: CVE Region 1 Unit Sales extracted from Unit Sales by Product by Region Table for Period 5.	71,851	73,249	70,812	
Period 6	601	739	548	8,286		64,002	65,059	56,503	
Period 7	993	1,500	946	9,768		56,630	65,558	37,586	
Period 8	1,708	2,670	1,637	7,693		87,231			Author: SSL Region 1 Unit Sales extracted from Unit Sales by Product by Region Table for Period 9.
Period 9	1,326	2,030	538	6,000	6,498	16,907	51,929		
Period 10	647	1,200	449	9,389	7,714	20,291	50,000		
Period 11	1,043	2,175	1,212	13,074	10,093	23,600	46,166		
Period 12	1,816	3,700	1,280	13,007	4,143	22,864	78,067		
Company 5	TST - Reg 1		CVE - Reg 1	CVE - Reg 2	CVE - Reg 3	SSL - Reg 1	SSL - Reg 2	SSL - Reg 3	
Period 1	0	Author: TST Region 1 Unit Sales extracted from Unit Sales by Product by Region Table for Period 1.	0	0	0	0	0	0	
Period 2	0		0	0	0	0	0	0	
Period 3	0		0	0	0	0	0	0	
Period 4	0		0			0	0	0	
Period 5	0	0	0	0	Author: CVE Region 1 Unit Sales extracted from Unit Sales by Product by Region Table for Period 5.	0	0	0	
Period 6	0	0	0	0		0	0	0	
Period 7	0	0	0	0		0	0	0	
Period 8	0	0	0	0		0	0	0	
Period 9	0	0	0	0	0	0	0	0	Author: SSL Region 1 Unit Sales extracted from Unit Sales by Product by Region Table for Period 9.
Period 10	0	0	0	0	0	0	0	0	
Period 11	0	0	0	0	0	0	0	0	
Period 12	0	0	0	0	0	0	0	0	

Figure 11
Coordinates Worksheet – Price With Cell Comments

Price (in \$)									
Company 1	TST - Reg 1	Author:		CVE - Reg 1	CVE - Reg 2	CVE - Reg 3	SSL - Reg 1	SSL - Reg 2	SSL - Reg 3
Period 1	\$ 4,500.00	TST Region 1 Price extracted from	\$ 450.00	\$ 420.00	\$ 450.00	\$ 54.00	\$ 50.00	\$ 54.00	
Period 2	\$ 4,500.00	Actual Price By Product By Region	\$ 450.00	\$ 420.00	\$ 450.00	\$ 54.00	\$ 50.00	\$ 54.00	
Period 3	\$ 4,400.00	By Company Table for Period 1.	\$ 450.00	\$ 420.00	\$ 450.00	\$ 53.00	\$ 50.00	\$ 53.00	
Period 4	\$ 4,450.00		\$ 455.00	\$ 430.00	\$ 455.00	\$ 54.00	\$ 51.00	\$ 54.00	
Period 5	\$ 4,400.00		\$ 455.00	\$ 430.00	\$ 455.00	\$ 53.00	\$ 50.00	\$ 52.00	
Period 6	\$ 4,400.00		\$ 455.00	\$ 430.00	\$ 455.00	\$ 53.00	\$ 50.00	\$ 52.00	
Period 7	\$ 4,400.00		\$ 450.00	\$ 410.00	\$ 450.00	\$ 52.00	\$ 49.00	\$ 51.00	
Period 8	\$ 4,350.00		\$ 440.00	\$ 415.00	\$ 430.00	\$ 51.00	\$ 49.00	\$ 50.00	
Period 9	\$ 4,300.00		\$ 425.00	\$ 410.00	\$ 410.00	\$ 47.00	\$ 47.00	\$ 47.00	
Period 10	\$ 4,400.00		\$ 425.00	\$ 410.00	\$ 410.00	\$ 47.00	\$ 47.00	\$ 47.00	
Period 11	\$ 4,500.00		\$ 435.00	\$ 410.00	\$ 410.00	\$ 47.00	\$ 47.00	\$ 47.00	
Period 12	\$ 4,600.00		\$ 435.00	\$ 410.00	\$ 410.00	\$ 47.00	\$ 47.00	\$ 47.00	
Company 2	TST - Reg 1	Author:		CVE - Reg 1	CVE - Reg 2	CVE - Reg 3	SSL - Reg 1	SSL - Reg 2	SSL - Reg 3
Period 1	\$ 4,500.00	TST Region 1 Price extracted from	\$ 450.00	\$ 420.00	\$ 450.00	\$ 54.00	\$ 50.00	\$ 54.00	
Period 2	\$ 4,556.00	Actual Price By Product By Region	\$ 450.00	\$ 420.00	\$ 450.00	\$ 54.00	\$ 50.00	\$ 54.00	
Period 3	\$ 4,556.00	By Company Table for Period 1.	\$ 450.00	\$ 420.00	\$ 435.00	\$ 54.00	\$ 50.00	\$ 50.00	
Period 4	\$ 4,432.00		\$ 445.00	\$ 430.00	\$ 430.00	\$ 50.00	\$ 50.00	\$ 50.00	
Period 5	\$ 4,430.00		\$ 445.00	\$ 430.00	\$ 430.00	\$ 50.00	\$ 50.00	\$ 50.00	
Period 6	\$ 4,300.00		\$ 430.00	\$ 430.00	\$ 430.00	\$ 48.00	\$ 48.00	\$ 48.00	
Period 7	\$ 4,300.00		\$ 430.00	\$ 430.00	\$ 430.00	\$ 48.00	\$ 48.00	\$ 48.00	
Period 8	\$ 4,300.00		\$ 430.00	\$ 410.00	\$ 415.00	\$ 48.00	\$ 48.00	\$ 48.00	
Period 9	\$ 4,300.00		\$ 430.00	\$ 410.00	\$ 408.00	\$ 48.00	\$ 47.00	\$ 47.00	
Period 10	\$ 4,300.00		\$ 430.00	\$ 404.00	\$ 408.00	\$ 47.00	\$ 47.00	\$ 47.00	
Period 11	\$ 4,300.00		\$ 430.00	\$ 404.00	\$ 408.00	\$ 47.00	\$ 47.00	\$ 47.00	
Period 12	\$ 4,300.00		\$ 430.00	\$ 405.00	\$ 405.00	\$ 47.00	\$ 47.00	\$ 48.00	
Company 3	TST - Reg 1	Author:		CVE - Reg 1	CVE - Reg 2	CVE - Reg 3	SSL - Reg 1	SSL - Reg 2	SSL - Reg 3
Period 1	\$ 4,000.00	TST Region 1 Price extracted from	\$ 410.00	\$ 440.00	\$ 410.00	\$ 420.00	\$ 49.00	\$ 47.00	\$ 49.00
Period 2	\$ 4,200.00	Actual Price By Product By Region	\$ 410.00	\$ 440.00	\$ 410.00	\$ 430.00	\$ 51.00	\$ 49.00	\$ 51.00
Period 3	\$ 4,300.00	By Company Table for Period 1.	\$ 425.00	\$ 440.00	\$ 410.00	\$ 420.00	\$ 51.00	\$ 49.00	\$ 51.00
Period 4	\$ 4,350.00		\$ 440.00	\$ 440.00	\$ 425.00	\$ 440.00	\$ 51.00	\$ 49.00	\$ 51.00
Period 5	\$ 4,350.00		\$ 440.00	\$ 440.00	\$ 425.00	\$ 440.00	\$ 51.00	\$ 49.00	\$ 51.00
Period 6	\$ 4,350.00		\$ 440.00	\$ 440.00	\$ 425.00	\$ 440.00	\$ 51.00	\$ 49.00	\$ 51.00
Period 7	\$ 4,300.00		\$ 440.00	\$ 420.00	\$ 420.00	\$ 440.00	\$ 49.00	\$ 47.00	\$ 48.00
Period 8	\$ 4,300.00		\$ 430.00	\$ 410.00	\$ 410.00	\$ 410.00	\$ 49.00	\$ 47.00	\$ 48.00
Period 9	\$ 4,700.00		\$ 430.00	\$ 410.00	\$ 410.00	\$ 410.00	\$ 60.00	\$ 47.00	\$ 48.00
Period 10	\$ 4,700.00		\$ 430.00	\$ 410.00	\$ 410.00	\$ 410.00	\$ 60.00	\$ 47.00	\$ 48.00
Period 11	\$ 4,700.00		\$ 430.00	\$ 410.00	\$ 410.00	\$ 410.00	\$ 60.00	\$ 47.00	\$ 48.00
Period 12	\$ 4,700.00		\$ 430.00	\$ 410.00	\$ 410.00	\$ 410.00	\$ 60.00	\$ 47.00	\$ 48.00
Company 4	TST - Reg 1	Author:		CVE - Reg 1	CVE - Reg 2	CVE - Reg 3	SSL - Reg 1	SSL - Reg 2	SSL - Reg 3
Period 1	\$ 4,300.00	TST Region 1 Price extracted from	\$ 450.00	\$ 430.00	\$ 440.00	\$ 53.00	\$ 50.00	\$ 52.00	
Period 2	\$ 4,300.00	Actual Price By Product By Region	\$ 450.00	\$ 430.00	\$ 430.00	\$ 53.00	\$ 50.00	\$ 52.00	
Period 3	\$ 4,300.00	By Company Table for Period 1.	\$ 450.00	\$ 430.00	\$ 440.00	\$ 53.00	\$ 50.00	\$ 52.00	
Period 4	\$ 4,400.00		\$ 470.00	\$ 430.00	\$ 430.00	\$ 55.00	\$ 52.00	\$ 51.00	
Period 5	\$ 4,400.00		\$ 460.00	\$ 425.00	\$ 425.00	\$ 52.00	\$ 51.00	\$ 52.00	
Period 6	\$ 4,400.00		\$ 460.00	\$ 425.00	\$ 425.00	\$ 52.00	\$ 50.00	\$ 52.00	
Period 7	\$ 4,400.00		\$ 460.00	\$ 425.00	\$ 425.00	\$ 52.00	\$ 48.00	\$ 50.00	
Period 8	\$ 4,390.00		\$ 455.00	\$ 425.00	\$ 425.00	\$ 51.00	\$ 49.00	\$ 49.00	
Period 9	\$ 4,360.00		\$ 440.00	\$ 405.00	\$ 405.00	\$ 49.00	\$ 47.00	\$ 47.00	
Period 10	\$ 4,600.00		\$ 440.00	\$ 415.00	\$ 405.00	\$ 50.00	\$ 47.00	\$ 47.00	
Period 11	\$ 4,650.00		\$ 435.00	\$ 415.00	\$ 404.00	\$ 48.00	\$ 46.00	\$ 46.00	
Period 12	\$ 4,600.00		\$ 430.00	\$ 430.00	\$ 404.00	\$ 46.00	\$ 46.00	\$ 46.00	
Company 5	TST - Reg 1	Author:		CVE - Reg 1	CVE - Reg 2	CVE - Reg 3	SSL - Reg 1	SSL - Reg 2	SSL - Reg 3
Period 1	\$ -	TST Region 1 Price extracted from	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Period 2	\$ -	Actual Price By Product By Region	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Period 3	\$ -	By Company Table for Period 1.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Period 4	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Period 5	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Period 6	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Period 7	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Period 8	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Period 9	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Period 10	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Period 11	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Period 12	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

be generated and analyzed.

Based on these BCG GSM and GGM displays, the competing participant teams can (1) check for internal balance in their brand portfolios, (2) look for trends, (3) evaluate competition, (4) consider factors not captured in the portfolio display, (5) develop possible "target" portfolios along with associated strategies for achieving them, and (6) check for financial balance (Palia, 2010).

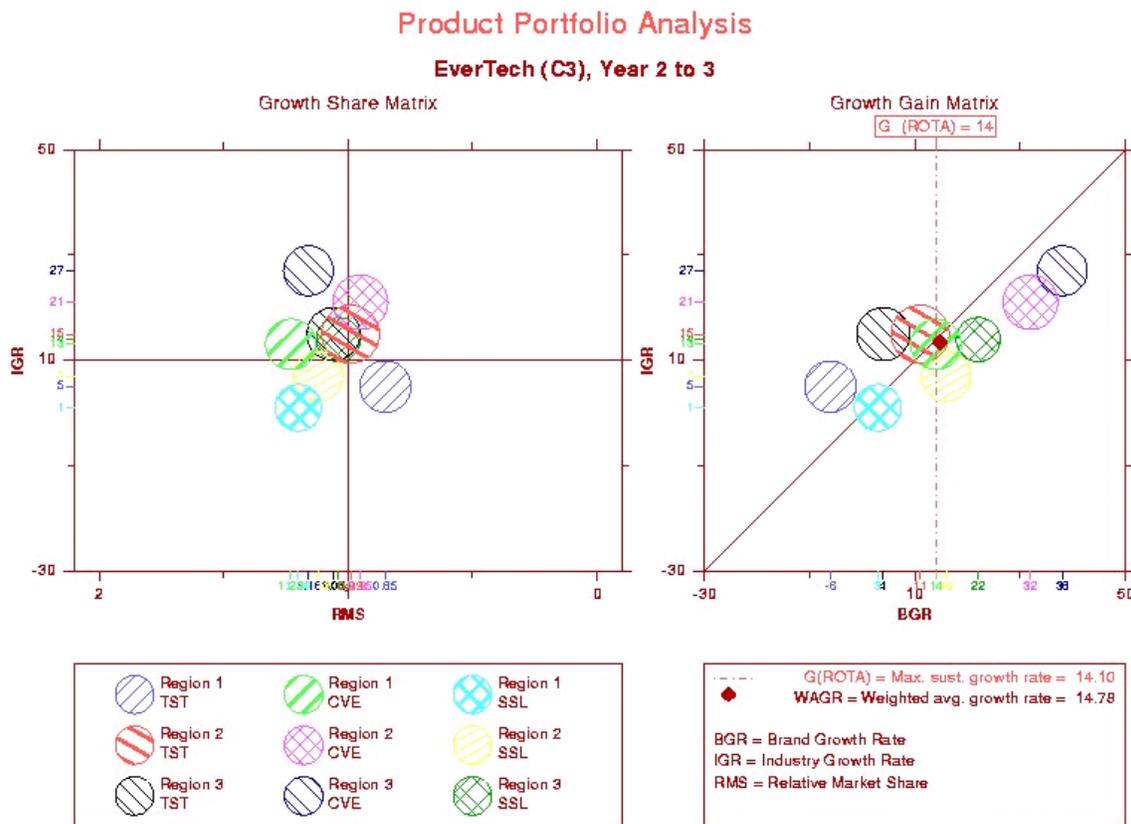
Checking for internal balance includes an assessment of the strength of their own SBU portfolio. A strong diversified portfolio consists of the majority of brands being leaders with an RMS greater than 1x, the presence of at least one large healthy cash cow, a few large healthy stars (future cash cows), and small healthy problem children and dogs. In addition, the weighted average growth rate (WAGR) of the nine SBUs, depicted by a diamond on the GGM, should be just less than or equal to the maximum sustainable growth rate (MSGR) depicted by a vertical line on the GGM. When the WAGR is less than or equal to the MSGR, this implies that the firm is not overextending its resources. Further, the actual position (Gainer / Loser) of each

SBU on the GGM is checked for consistency with its normative position indicated by the recommended strategy for that SBU based on its position on the GSM. Tentative ideas for improving the internal balance should result from this analysis.

Looking for trends involves superimposing the Year 1-2 GSM and GGM display on the current Year 2-3 GSM and GGM display to reveal the direction and rate of movement of each SBU. Positive and negative trends in RMS, IGR, BGR, SSR, and WAGR relative to MSGR are assessed. In addition, the trend in consistency between the actual position of each SBU on the GGM and its normative position indicated by the recommended strategy from Year 1-2 to Year 2-3 is assessed. Some tentative ideas for improving upon the current trends in the SBU portfolio should result from this analysis.

When evaluating competition, the GSM and GGM displays are generated for each of the firm's major competitors. Even though these GSM and GGM displays in the real world may not be as reliable for one's own firm, they will display the best information availa-

Figure 12
BCG Growth Share Matrix & Growth Gain Matrix Graphic Display



ble about competitors. Each competitors GSM and GGM displays are carefully studied to determine what each is doing. Are their strategies coherent? Which are their “cash cows,” “stars,” “problem children,” and “dogs?” How close is each competitor’s WAGR to its MSGR? Are the actual positions of their SBUs consistent with their normative positions on the GGM. Useful insights and potential weaknesses of each competitor can be revealed. Too much emphasis on one SBU may drain their resources and leave them vulnerable to market share-gaining strategies on other SBUs by another firm.

The Normative Position of Brands & Trends packages is used in the above three steps to assess whether each SBU in a brand portfolio is consistent with its normative position on the GGM. The actual position of the SBU is determined by its performance, and indicates whether the brand is a Gainer (BGR is greater than IGR), Holder (BGR is equal to IGR), or Loser (BGR is less than IGR). The normative (ideal) position of the SBU on the GGM is determined by the recommended strategy (Build Share, Hold Share, Harvest, or Divest/Withdraw) which in turn is based on the SBU position on the GSM (Cash Cow, Star, Problem Child, or Dog).

NORMATIVE POSITION OF BRANDS & TRENDS PACKAGE PROCESS

First, the participant teams download and unzip the Normative Position of Brands.zip folder. Next, they login to CODES and download, rename and save the Excel version of results for all twelve periods (quarters) “x” in the unzipped “C:\Normative Position of Brands” directory. Then, they update the NPB & Trends.xls workbook with team data. For instance, to update the NPB & Trends worksheet with team data, they first open the unzipped Normative Position of Brands.zip folder, then open the NPB & Trends.xls workbook, and finally click “Update file” in the pop-up menu that appears.

First, the EPS and Sales (in \$’000s) for each company for each period are extracted from the ‘Earnings Per Share By Time Period’ table on the ‘EPS, Mkt%, SF Activity’ page, and from the ‘Dollar Sales By Region By Company (in Millions)’ table on the ‘Quality, Dollar Sales’ page respectively, of the Excel version of the COMPETE results for the first twelve periods (quarters) of operation. Next, the Unit Sales by Product by Region for each Company for each period is extracted from the ‘Market Share By Product By Company For Region 1,’ ‘Market Share By Product By Company for Region 2,’ and ‘Market Share By Product By Company For Region 3’ tables on the ‘Market Share’ page of Excel version of the COMPETE results for the twelve periods (quarters) of operation. Finally, the price for each SBU for each company for each period is extracted from

the ‘Actual Price By Product By Region By Company’ table on the ‘Forecast, Prices’ page of Excel version of the COMPETE results for the twelve periods (quarters) of operation.

The ‘NPB by SBU’ and ‘NPB by Year’ worksheets present the RMS, IGR, BGR, and SSR for each SBU for each company for each period and the MSGR and WAGR for each company for each period computed in the ‘Ratios,’ ‘Profitability,’ and ‘Coordinates’ worksheets from the extracted data. The use of external links ensures relevant data are extracted from relevant sources (statements) in the simulation results and precludes data entry error. Cell comments (see Figures 10 & 11) clarify variables, cell formulae and functions used. Color-coded cells specify where data are extracted.

The NPB by SBU (see Figure 5) and NPB by Year (see Figure 6) worksheets consolidate and present the RMS, IGR, BGR, MSGR, WAGR and SSR (extracted from the Coordinates, Profitability, and Ratios worksheets) for each company by SBU and by Year respectively. Based on the RMS and IGR, the SBU typology and the recommended strategy are entered for each SBU as depicted on the Growth Share Matrix (GSM). Based on the recommended strategy, the Normative Position of each SBU is entered and compared with the Actual Position of the same SBU on the Growth Gain Matrix. For instance, a brand with an RMS of 0.95 and an IGR of 15% is classified as a Healthy Problem Child (H?). The recommended strategy is to Build Share on Offense {BS(O)}. Consequently, the Normative Position of this SBU is a Gainer on the Growth Gain Matrix (GGM), implying that the BGR is greater than the IGR. If the Actual Position of this SBU on the GGM is a Loser, as the BGR is less than the IGR, then this SBU is not consistent with its normative position.

The normative position of each SBU is evaluated when Checking the Internal Balance of the brand portfolio, when Looking for Trends from one year to the next, and when Evaluating Competitor brand portfolios. Tentative ideas for improvement in the internal balance and trends of the brand portfolio are generated. Next, the normative position of each SBU in the brand portfolio is assessed, and the trends in normative position of the SBUs from one year to the next are evaluated. In addition, an identical procedure is used to assess the internal balance and trends in the brand portfolios of each competitor. Useful insights and potential weaknesses of competition can be revealed.

STRENGTHS AND LIMITATIONS

The Normative Position of Brands & Trends Package is used in Strategic Market Planning to assess the consistency of each SBU in a brand portfolio relative to its normative position on the GGM. This package is used to assess the normative consistency of each SBU when the user checks the internal balance of the SBU portfolio, looks

for trends in SBU trajectories, and/or evaluates the SBU portfolios of major competitors.

Positive anecdotal student feedback was received during Spring and Fall 2011 semesters. Some undergraduate students reported that the decision support packages were very useful and helpful. They indicated that the automatic extraction feature saved a lot of time that would otherwise be necessary to identify, enter and compute the necessary figures. They hoped that it would continue to be used in the future as it definitely made a difference. Other students indicated that they did not make full use of the DSS.

The analysis has some limitations. First, the total assets of competitors are approximated as the common stock plus the current retained income during each quarterly period of operation, since the short-term notes payable of competitors is unknown. The approximate total assets at the end of each year of operation are used by the Profitability worksheet to calculate the approximate annual return on total assets (ROTA). Second the MSGR calculation is affected as there is no long-term debt or dividends in the COMPETE simulation. These shortcomings exist in the real world where accurate, timely and relevant information on competitor brand portfolios is not always available. Yet, an analysis of competitor brand performance, even though the information may be approximate, is critical to the development of a strategic market plan.

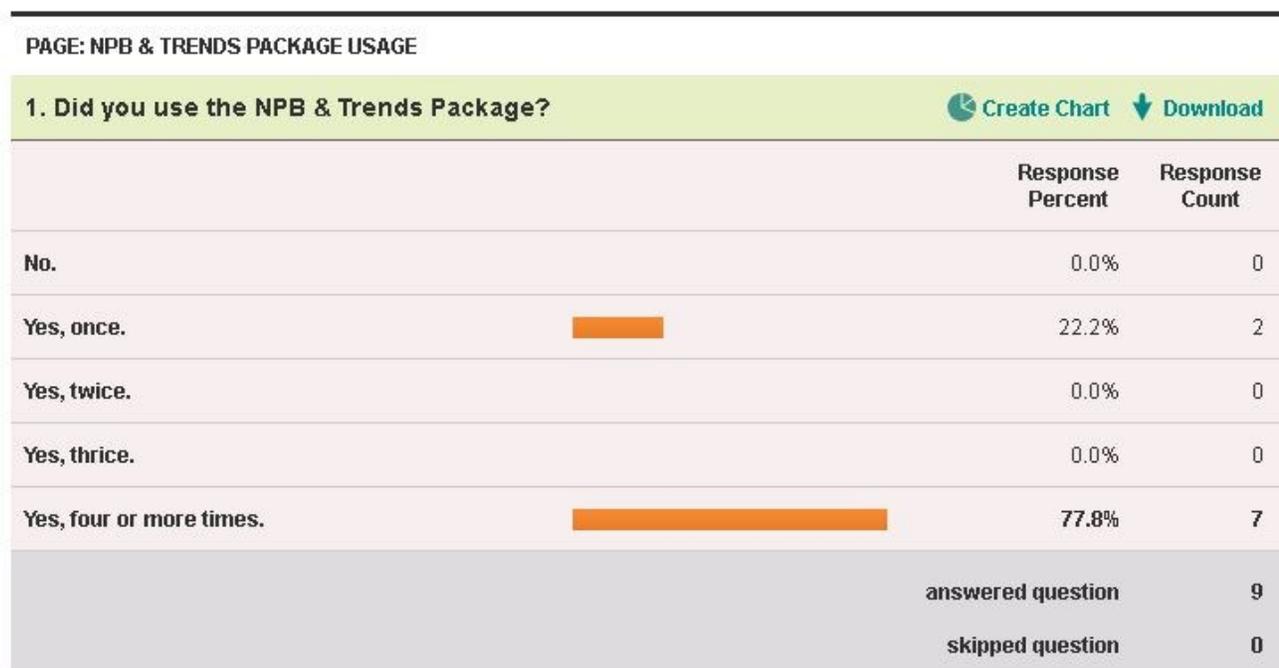
Admittedly, integrated strategic market planning is a complex iterative task that requires considerable effort, judgment and experience. The user needs to (a) monitor the performance of their SBU portfolio as well as the SBU

portfolios of their major competitors over several years, (b) calculate the relative market share (RMS), industry growth rates (IGR), SBU Sales Revenue (SSR), brand growth rates (BGR), weighted average growth rates (WAGR) and maximum sustainable growth rate (MSGR), (c) generate the Growth Share Matrix (GSM) and Growth Gain Matrix (GGM) visual displays, (d) interpret and analyze these displays on a sustained basis, (e) formulate an integrated strategic market plan, and (f) accurately project performance results and expenses incurred.

Despite these limitations, the Normative Position of Brands & Trends Package is a simple yet powerful web-based user-centered learning tool that extracts relevant data from the simulation results, precludes data entry error, and saves considerable time involved in identifying and entering relevant data. Yet, in order to maximize learning about Strategic Market Planning, and actualize the potential of the Normative Position of Brands & Trends Package, the instructor needs to (a) explain the purpose, significance, assumptions, usage, and limitations of this DSS package, (b) require inclusion of a sample analysis in a team report and/or presentation, and (c) test students on their understanding of the underlying concepts at the end of the semester.

In the final analysis, use of the Normative Position of Brands & Trends Package and integrated strategic market planning can help to optimize the overall performance of the brand portfolio while maintaining cash in balance and thereby justify the considerable effort and time involved.

Figure 13
Survey Responses – Package Usage



USER FEEDBACK

An online survey was used to assess participant usage and learning experience of the Normative Position of Brands & Trends package at the end of the Fall 2012 semester. This online survey consisted of ten questions that assessed (a) package usage and usefulness in identifying normative consistency of brands, (b) package impact on awareness and learning about the normative consistency of brands and the strategic market planning process, (c) package attributes, (d) package usage time, (e) package usage experience, and (f) value added to the course learning experience by the package, simulation, decision support systems, and concepts covered using five-point Likert and/or rating scales.

Nine students (53%) of the 17 participants in the course completed the online survey. Seven (7) of these 9 students (77.8%) used the package four or more times. The remaining 2 students (22.2%) used the package once (see Figure 13). All 9 students agreed (3 strongly agreed and 6 agreed) that the package helped them to identify SBUs (brands) that were inconsistent with their normative position (recommended strategy) on the GGM (see Figure 14).

In addition, 7 students agreed that the package prompted them to understand the reasons why the SBU position on the GGM was inconsistent with its normative position (3 students strongly agreed (33.3%), 4 students agreed

(44.4%), and the remaining 2 students were neutral (22.2%) (see Figure 15). Further, 8 students agreed that the package helped to identify competitor SBUS that were inconsistent with their normative position on the GGM (3 students strongly agreed, 5 students agreed, and one student skipped the question) (see Figure 16).

Students rated the degree to which the NPB & Trends Package improved their awareness of (a) the normative consistency of their brand positions, (b) the underlying reasons, (c) the normative consistency of competitor brands, and (d) the strategic market planning process using a five-point rating scale from 1- Strongly Disagree to 5 - Strongly Agree. The average ratings of 8 students on improved awareness and learning are (a) 4.38 for SBU Normative Consistency, (b) 3.50 for potential reasons for inconsistency, (c) 4.25 for Competitor SBU Normative Consistency, and (d) 3.88 for Strategic Market Planning Process (see Figure 17).

Next, students rated various attributes of the NPB & Trends Package using a five-point rating scale from 1 – Very Poor to 5 – Very Good. The average ratings of the 8 respondents to this question on rating the attributes of the NPB & Trends Package are 4.38 on Access (Online), 4.50 on Availability (24/7), 4.25 on Flexibility (any team), 4.38 on Auto-extract feature (no data entry), 4.25 on Cell comments (explanatory), 4.25 on Detailed results (by SBU by period), 4.13 on Summary overview (by SBU/Year), 3.88 on Ease of use, and 4.00 on Usage time (see Figure 18).

Figure 14
Survey Responses – Normative Consistency Identification

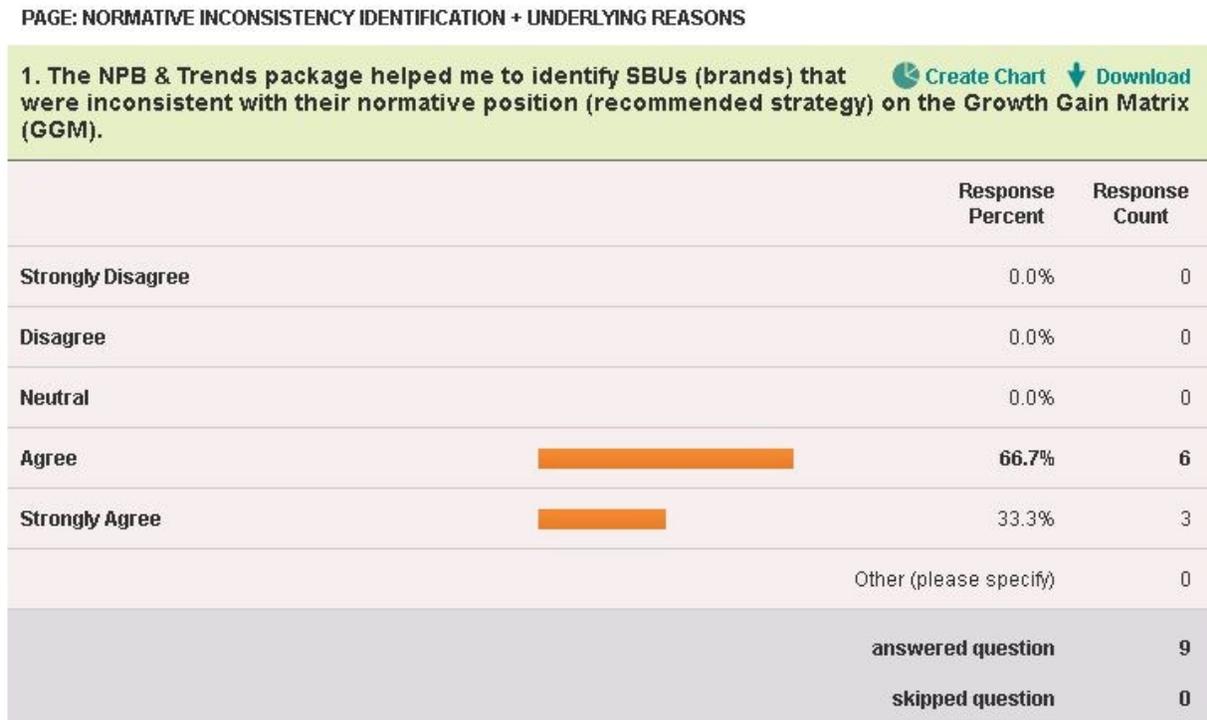
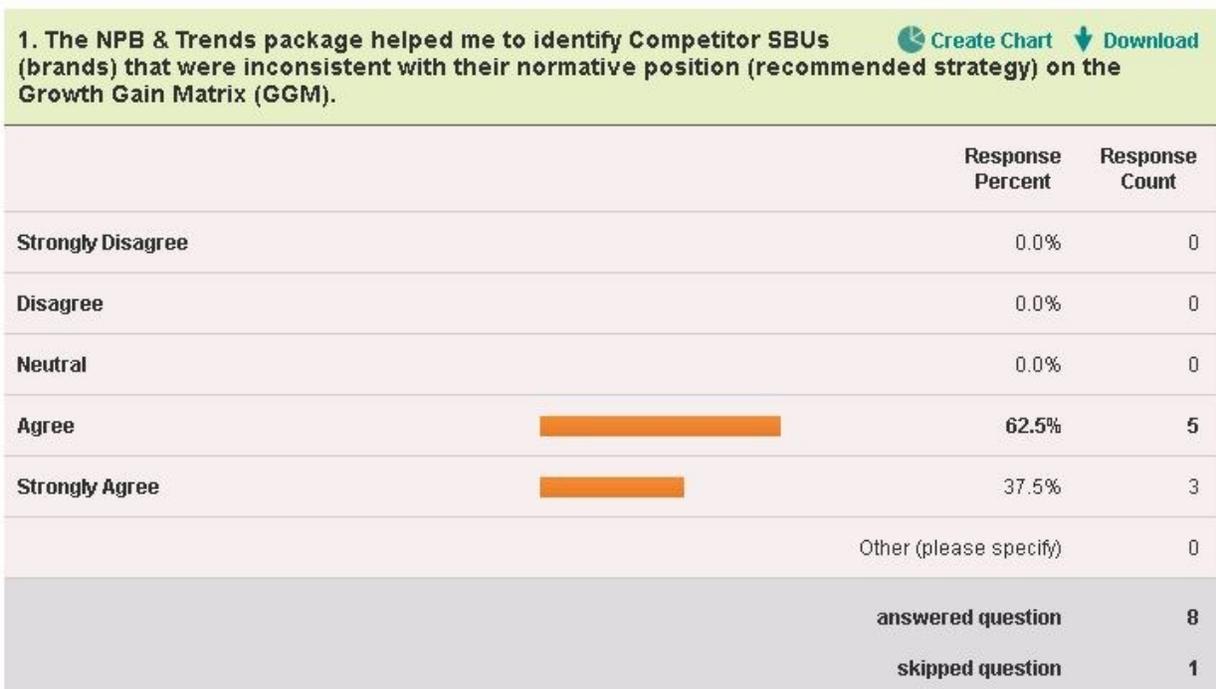


Figure 15
Survey Responses – Normative Consistency Understanding



Figure 16
Survey Responses – Normative Consistency Inferences

PAGE: COMPETITOR NORMATIVE CONSISTENCY IDENTIFICATION + INFERENCES



The majority of the 8 respondents reported that downloading the package took 1 minute or less, downloading the simulation results (Excel format) took 2 to 5 minutes, updating the package with the simulation results took 1 minute or less, and analyzing the results took 16 or more minutes (see Figure 19).

Participants commented on their NPB & Trends Package usage experience and suggest improvements. One student “liked the usage and the ease of the auto extracts.” Another student commented “It (the package) really helped me to understand how our brands were really positioned, and their movements from year to year.” A third student commented “very easy to use and very helpful. A more clear explanation on the cells would have been helpful.” Yet another student commented “the NPB & Trends Package was incredibly useful, in interpreting the data and could serve as a great tool to not only understand consistency with the Normative Position, but also in analyzing the GGM” (see Figure 20).

Then, students rated the value added to their strategic market planning learning experience by various factors such as topic coverage, in-class demo, “Hands-On” ses-

sions, and Online access using a five-point rating scale from 1 – No value added to 5 – Significant value added. The average ratings of the 8 respondents on the value added to their strategic market planning learning experience are 3.63 on Topic Coverage, 3.63 on In-Class demo, 3.63 on “Hands On” sessions, and 4.38 on Online access (see Figure 21).

Finally, participants rated the value added to the Marketing Strategy learning experience by the NPB & Trends Package, the marketing simulation COMPETE, marketing DSS packages, Online PPM Graphics Package, Online PPA Graphics Package, and Online Course Handouts Repository using a five-point rating scale from 1 – No value added to 5 – Significant value added. The average ratings of the 8 respondents on the value added to their Marketing Strategy learning experience are 4.13 on NPB & Trends Package, 4.00 on the marketing simulation COMPETE, 3.13 on marketing DSS packages, 4.00 on Online PPM Graphics Package, 4.00 on Online PPA Graphics Package, and 3.00 on Online Course Handouts Repository (see Figure 22).

In summary, the participants reported a positive usage, awareness, understanding, usage time and learning experi-

Figure 17
Survey Responses – Awareness & Learning

PAGE: SBU (BRAND) PORTFOLIO ANALYSIS AWARENESS & LEARNING

1. The NPB & Trends Package improved my awareness of the normative consistency of our brand positions, the underlying reasons, the normative consistency of competitor brands, and the strategic market planning process. [Create Chart](#) [Download](#)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Rating Average	Response Count
Our SBU (Brand) Normative Consistency	0.0% (0)	0.0% (0)	0.0% (0)	62.5% (5)	37.5% (3)	4.38	8
Potential reasons for Inconsistency	0.0% (0)	25.0% (2)	25.0% (2)	25.0% (2)	25.0% (2)	3.50	8
Competitor SBU (Brand) Normative Consistency	0.0% (0)	0.0% (0)	0.0% (0)	75.0% (6)	25.0% (2)	4.25	8
Potential Inconsistency implications and inferences	0.0% (0)	25.0% (2)	12.5% (1)	50.0% (4)	12.5% (1)	3.50	8
Strategic Market Planning Process	0.0% (0)	12.5% (1)	25.0% (2)	25.0% (2)	37.5% (3)	3.88	8
					Other (please specify)		0
					answered question		8
					skipped question		1

Figure 18
Survey Responses – Normative Consistency Package Attributes

PAGE: NPB & TRENDS PACKAGE USAGE EXPERIENCE

1. Rate the following attributes of the NPB & Trends Package:						Create Chart	Download
	Very Poor	Poor	Average	Good	Very Good	Rating Average	Response Count
Access (Online)	0.0% (0)	0.0% (0)	0.0% (0)	62.5% (5)	37.5% (3)	4.38	8
Availability (24/7)	0.0% (0)	0.0% (0)	0.0% (0)	50.0% (4)	50.0% (4)	4.50	8
Flexibility (any team)	0.0% (0)	0.0% (0)	12.5% (1)	50.0% (4)	37.5% (3)	4.25	8
Auto-extract feature (no data entry)	0.0% (0)	0.0% (0)	0.0% (0)	62.5% (5)	37.5% (3)	4.38	8
Cell comments (explanatory)	0.0% (0)	0.0% (0)	0.0% (0)	75.0% (6)	25.0% (2)	4.25	8
Detailed results (by SBU by period)	0.0% (0)	0.0% (0)	12.5% (1)	50.0% (4)	37.5% (3)	4.25	8
Summary overview (by SBU/Year)	0.0% (0)	0.0% (0)	0.0% (0)	87.5% (7)	12.5% (1)	4.13	8
Ease of use	0.0% (0)	0.0% (0)	25.0% (2)	62.5% (5)	12.5% (1)	3.88	8
Usage time	0.0% (0)	0.0% (0)	25.0% (2)	50.0% (4)	25.0% (2)	4.00	8
					Other (please specify) Show Responses		1
					answered question		8
					skipped question		1

Figure 19
Survey Responses – Normative Consistency Package Usage Time

2. How long did it take to use the NPB & Trends Package?						Create Chart Download
	1 minute or less	2 to 5 mins.	6 to 10 mins.	11 to 15 mins.	16 or more mins.	Response Count
Download Package	75.0% (6)	12.5% (1)	0.0% (0)	12.5% (1)	0.0% (0)	8
Download Results	25.0% (2)	75.0% (6)	0.0% (0)	0.0% (0)	0.0% (0)	8
Update Package	62.5% (5)	12.5% (1)	12.5% (1)	0.0% (0)	12.5% (1)	8
Analyze Results	0.0% (0)	25.0% (2)	0.0% (0)	25.0% (2)	50.0% (4)	8
				Other (please specify)		0
				answered question		8
				skipped question		1

Figure 20
Survey Responses – Normative Consistency Package Comments

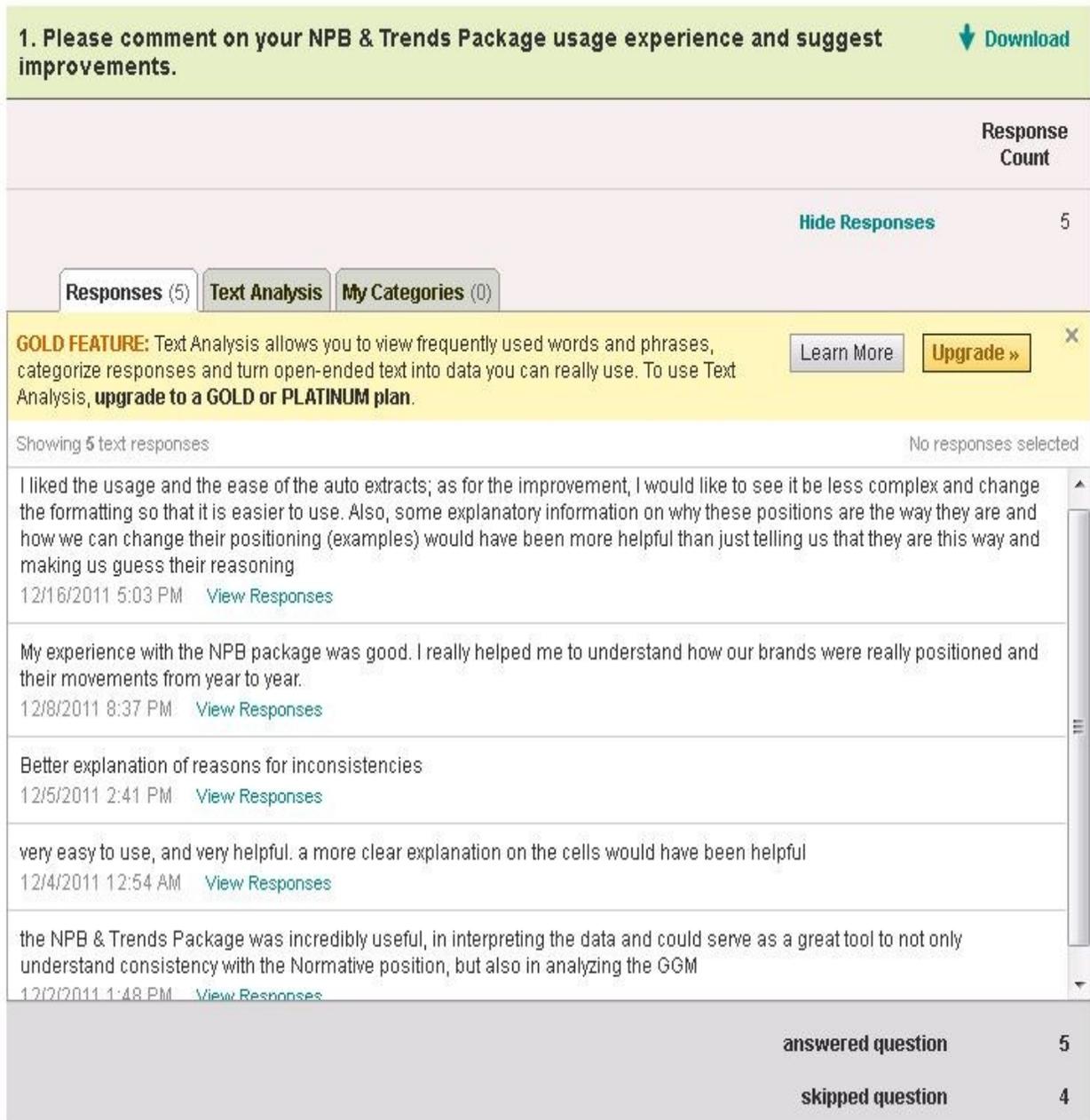


Figure 21
Survey Responses – Strategic Market Planning Learning Experience

PAGE: MARKETING COURSE LEARNING EXPERIENCE

1. Rate the value added to your strategic market planning learning experience by the following factors:							Create Chart	Download
	No value added	Some value added	Moderate value added	Substantial value added	Significant value added	Rating Average	Response Count	
Topic coverage	0.0% (0)	25.0% (2)	12.5% (1)	37.5% (3)	25.0% (2)	3.63	8	
In-class demo	0.0% (0)	12.5% (1)	37.5% (3)	25.0% (2)	25.0% (2)	3.63	8	
"Hands On" sessions	0.0% (0)	12.5% (1)	37.5% (3)	25.0% (2)	25.0% (2)	3.63	8	
Online access	0.0% (0)	0.0% (0)	12.5% (1)	37.5% (3)	50.0% (4)	4.38	8	
					Other (please specify)		0	
					answered question		8	
					skipped question		1	

ence with the NPB & Trends Package. They appreciated the Access, Availability, Flexibility, Auto-extract, detailed results, summary overview, ease of use and minimal usage time attributes of the package. They “liked the usage and ease of the auto extracts,” “enhanced understanding of the position of the SBUs and their movement from year to year,” and commented that the package was “very easy to use and very helpful,” and that “it is a great tool to not only understand consistency with the Normative Position, but also in analyzing the GGM.” They felt that the Topic coverage, In-class demo, “Hands On” sessions, and Online access features added substantial value to the strategic market planning learning experience. In addition, they reported that the NPB & Trends Package, the marketing simulation COMPETE, marketing DSS packages, and Online PPM and PPA Graphics Packages as well as the Online Course Handouts Repository added value to the Marketing Strategy learning experience.

CONCLUSION

The Normative Position of Brands & Trends Package is a user-centered learning tool that helps to prepare students for strategic market planning and marketing decision-making responsibilities in their future careers. The package enables users to apply strategic market planning. They use

this package to assess the consistency of the actual position of each SBU in a brand portfolio on the Growth Gain Matrix (GGM) with its normative position. This normative position is based on the recommended strategy derived from the position of the SBU on the Growth Share Matrix (GSM). Participants use this package as they check the internal balance of their SBU portfolio, look for trends, and evaluate competitors during the strategic market planning process. Participants apply integrated strategic market planning in order to optimize the performance of their brand portfolio while maintaining cash in balance. This online Normative Position of Brands & Trends Package facilitates the integration of computers, the Internet and the World Wide Web into the marketing curriculum.

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Figure 22
Survey Responses – Marketing Strategy Learning Experience

2. Rate the value added to the Marketing Strategy/Management learning experience by the following factors: Create Chart Download							
	No value added	Some value added	Moderate value added	Substantial value added	Significant value added	Rating Average	Response Count
NPB & Trends Package	0.0% (0)	12.5% (1)	12.5% (1)	25.0% (2)	50.0% (4)	4.13	8
Marketing Simulation COMPETE	0.0% (0)	12.5% (1)	25.0% (2)	12.5% (1)	50.0% (4)	4.00	8
Marketing Decision Support Packages	0.0% (0)	25.0% (2)	37.5% (3)	37.5% (3)	0.0% (0)	3.13	8
Online PPM Graphics Package	0.0% (0)	12.5% (1)	12.5% (1)	37.5% (3)	37.5% (3)	4.00	8
Online PPA Graphics Package	0.0% (0)	12.5% (1)	12.5% (1)	37.5% (3)	37.5% (3)	4.00	8
Online Course Handouts Repository	12.5% (1)	25.0% (2)	25.0% (2)	25.0% (2)	12.5% (1)	3.00	8
					Other (please specify) Show Responses		1
					answered question		8
					skipped question		1

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