Teaching Note for Case 2.1

GENICON: A SURGICAL STRIKE INTO EMERGING MARKETS

Allen H. Kupetz, Adam Tindall and Gary Haberland wrote this teaching note as an aid to instructors in the classroom use of the case Genicon: A Surgical Strike into Emerging Markets, No. 9B10M041. This teaching note should not be used in any way that would prejudice the future use of the case.

SYNOPSIS

A critical question facing a company that wants to grow its business internationally is where it should go next. One company facing that decision is GENICON, a U.S.-based firm that manufactures and distributes medical instruments for laparoscopic surgeries. Although the minimally invasive surgery (MIS) device market in the United States has long been the largest in the world, international markets are anticipated to grow at a much faster rate than the U.S. market for the foreseeable future. Unlike many companies of its size, GENICON is already doing 85 per cent of its business in almost 30 countries and other markets (e.g. Puerto Rico) outside the continental United States, and most of that revenue comes from the top 10 international markets. Much of the lowest-hanging international fruit has already been harvested.

This case describes the challenges facing Gary Haberland, the president and founder of GENICON, as the company decides which market to enter next. His instincts suggest that one or more of these four rapidly emerging markets — Brazil, China, India or Russia — offer the best growth and revenue potential, but the capital investment and risk associated with entering a new market is high for a firm the size of GENICON.

TEACHING OBJECTIVES

This case is appropriate for use in an international business course to introduce market selection strategy. It provides a practical example for students to take quantitative (e.g. per cent of GDP spent on health care and demand for medical devices) and less empirical data (e.g. corruption perception, ease of doing business, Hofstede's cultural dimensions) to rank a short list of potential new markets. It can also be used in courses on international marketing, entrepreneurship and business strategy. The case can help achieve these objectives as it does the following:

- Allows students to understand how "instinct," "management preference" and other non-numeric factors can influence the decision-making process of entrepreneurs with a track record of successfully picking new markets;

- Encourages students to discuss the primary problems confronting companies — even those with considerable international experience — in balancing quantitative and non-quantitative data;
- Provides an illustrative example of a company experienced in developed markets venturing out into some of the fastest-growing developing markets;
- Fosters discussion regarding the unique challenges facing a small, entrepreneurial company in terms of international market selection.

STUDY QUESTIONS

1. Evaluate the market potential of each of the four countries using comparable metrics. Which country makes the most sense from a purely quantitative perspective? Which variables are most important in your decision?
2. Evaluate the market potential of each of the four countries using non-numeric data, such as ease of doing business, corruption and culture. Which country makes the most sense from less empirical data? Does any previous international experience you have — business or travel — influence your decision?
3. Combining data and management instincts, what country is the best fit for GENICON's products, business model, distribution strategy and future revenue opportunities into similar countries?

IN-CLASS EXERCISE I

Tell the students they have been hired by GENICON as consultants on a market selection project to identify a list of countries that GENICON might consider entering. The first step is to do a generic PEST analysis of what qualities an ideal country might have. Across the top of the white board write "P-E-S-T," where the respective columns represent the political, economic, social/cultural and technological elements of a PEST analysis. Ask the students to call out factors: the instructor can write them in the appropriate column (see Exhibit TN-1.)

IN-CLASS EXERCISE II

Tell the students they have been hired by Disney as consultants to identify where it should build its next theme park. Start with Disney's possible historic decision-making process. Ask the students: why did Disney choose Anaheim, California as the location for the first park? (Proximity to corporate headquarters, weather, transportation infrastructure, etc.) Then Orlando, Florida.? (Geographic diversity from California to capture more revenue from those living east of the Mississippi, in Europe and Latin America; weather; availability of land, etc.) Then Tokyo? (Second-largest global economy, large population center, current engagement with the Disney brand, transportation infrastructure, etc.) Then Paris? (Centralized European location; financial incentives from the government, etc.) Then Hong Kong? (Many of the advantages of being in China without all of the risk, transportation infrastructure, weather, etc.) Then Shanghai? (Large population center, first major western theme park in China, partnership with the governments, etc.)

After establishing why Disney chooses locations, ask the students to call out possible new venues and write them on the board in columns according to their continents. Get a list of 10 to 15 and start a discussion, trying to come up with the top three to recommend to Disney. Why can some be eliminated? India has a huge population, for example, but poor transportation infrastructure. Would Brazil be better than Argentina because it is wealthier, or would a park in a Spanish-speaking country draw more regional tourism? Is Australia too far away to attract tourists, with too small a domestic market to be profitable? Universal

Studios is already in Singapore — does that make Singapore a good or bad choice, given that the two parks compete head-to-head in the Los Angeles area and Orlando. What about the weather in Russia? Could Prague work to capture revenue from Eastern Europe much as Orlando did for the eastern United States?

CLASS DISCUSSION AND ANALYSIS

1. Evaluate the market potential of each of the four countries using comparable metrics. Which country makes the most sense from a purely quantitative perspective? Which variables are most important in your decision?

A good source for industry-specific objective data that is almost always available at no cost is the U.S. Commercial Service.[1] In the case of medical devices, data was available (see Exhibit TN-2). Using this data, coupled with less industry-specific data such as population, gross domestic product (GDP), per capita GDP and GDP growth rate, China wins every category except per capita GDP; however, if one looks at some of China's largest cities and treats them as countries for statistical purposes, per capita GDP of those cities place them in an acceptable position even for per capita calculations. India is the clear second with its large and growing population. India's wealth is more concentrated geographically than China's, making distribution easier in some respects. Brazil is a strong third with its larger population compared to Russia, more diverse economy and positive trend line for medical devices.

2. Evaluate the market potential of each of the four countries using non-numeric data, such as ease of doing business, corruption and culture. Which country makes the most sense from less empirical data? Does any previous international experience you have — business or travel — influence your decision? What is the impact of GENICON's size and entrepreneurial spirit in market selection?

a. Ease of doing business:

> [E]conomies are ranked on their ease of doing business, from 1—183, with first place being the best. A high ranking on the ease of doing business index means the regulatory environment is conducive to the operation of business. This index averages the country's percentile rankings on 10 topics, made up of a variety of indicators, giving equal weight to each topic.[2]

According to the *Doing Business 2010* report, covering the period June 2008 through May 2009, the four countries received the following rankings: China is 89, Russia is 120, Brazil is 129 and India is 133.

b. Corruption: Encourage students to visit Transparency International's website[3] and review the methodology and results of its Corruption Perceptions Index (see Exhibit TN-3).

c. Culture: Encourage students to visit Itim International's website[4] to understand the five "Hofstede Dimensions" and compare the data to the United States and to each other (see Exhibit TN-4).

[1] The U.S. Commercial Service website, www.trade.gov/cs/services.asp, accessed February 23, 2010.
[2] Doing Business website, www.doingbusiness.org/EconomyRankings/, accessed February 23, 2010.
[3] Transparency International's website, www.transparency.org/policy_research/surveys_indices/cpi/2009, accessed February 23, 2010.
[4] www.geert-hofstede.com, accessed February 23, 2010.

Hofstede paints with a broad brush; obviously GENICON's distributors, partners and customers are not all going to fit into the same cultural band. Of note, however, is the Uncertainty Avoidance Index (UAI) and Long-Term Orientation (LTO). The relatively lower UAI scores for China and India can be a signal of the kind of entrepreneurship that a small company like GENICON can tap into. The high LTO numbers for China, India and Brazil can be a signal that your partners will work with you to build a sustainable business without being overly focused on near-term profits.

d. GENICON's size and entrepreneurial spirit: Large companies often have marketing staff — or the resources to hire outside consultants — to answer the question, "Where do we go next?" An example might be Disney, first opening a theme park near Los Angeles, then Orlando, Tokyo, Paris, Hong Kong and most recently Shanghai. The hundreds of millions of dollars needed to open a theme park require the highest level or research and analysis. This data-centric approach is sometimes called "fact-based consulting," a term that McKinsey & Company[5] uses. Disney does not risk bankruptcy every time it opens a new theme park, but failure would have profound consequences nonetheless.

   GENICON's costs to enter a new market are much less — the case notes Haberland's estimate of $70,000 — but the consequences of failure are similar in a relative financial way. Disney has a long and well-established approval process. GENICON has the strength of being a committee of one in terms of choosing new markets: this allows for decisions to be made quickly if new opportunities arise. Obviously, the weakness is that there is less time for as much due diligence on potential opportunities and partners as might otherwise be desirable.

3. Combining data and management instincts, what country is the best fit for GENICON's products, business model, distribution strategy and future revenue opportunities into similar countries?

Japan is the second largest market (after the United States) for medical devices, but has one of the most lengthy registration processes in the world. The sheer size of the market dictates that GENICON enter it through a well-connected distributor. The proximity of Mexico and the fact that GENICON has experience in Spanish-speaking markets makes it attractive, and Germany is one of wealthiest and most populous nations that GENICON has yet to target. Management plans to do so in 2010.

Students may find it interesting to compare what they *thought* would be a good country to enter and what the data from the tools indicate. Their research may reinforce their perceived notions or weaken their previous conceptions.

WHAT HAPPENED

For the four developing countries highlighted in the case, GENICON went into Brazil first and has seen solid success as of the fourth quarter of 2009. GENICON entered India in late 2009, as this case was being written, with a focus on the wealthier states in the south of the country. An earlier effort focused on Mumbai was not successful. The 14-month registration process in China should be complete by the fourth quarter of 2010. Early research indicated that wealthy Chinese do not want Chinese-made surgical devices used on them, so GENICON thinks this market is promising. The Russian registration process was not transparent and GENICON felt it could not get through the process without violating the letter and the

[5] *McKinsey & Company is a management consulting firm.*

spirit of the U.S. Foreign Corrupt Practices Act. GENICON has no plans to enter the Russian market in the near future.

FURTHER READINGS

For additional reading on Hofstede and/or cultural intelligence:

Geert Hofstede, “The Cultural Relativity of Organizational Practices and Theories,” Journal of International Business Studies, Fall 1983, p. 75-89.

Laurence Prusak and Barry Camson, “How Cultures Filter Knowledge and What Can Be Done About It,” Working Knowledge Research Report, Babson Executive Education, March 2006, www.unclutteredcom.com/portfolio_materials/HowCulturesFilterKnowledge.pdf, accessed February 23, 2010.

Exhibit TN-1

SAMPLE PEST ANALYSIS

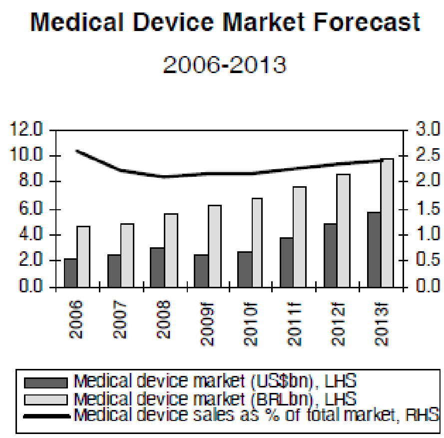
Political	Economic	Social	Technological
IPR protection	Favorable:	Education level	Sophistication
Single-use compliance for medical devices	- Currency risk - Inflation forecast	Attitude toward health care	Existing local products
Favorable taxes	- GDP growth forecast	Role of physicians in society	Local medical device manufacturing capability
Favorable tariffs	- Consumer confidence		
Government's role - in health care - in medical device acquisition	High disposable income High discretionary spending Strong existing medical device distributors	Life expectancy Attitude toward foreign medical devices	

Note: IPR = Intellectual Property Rights, GDP = Gross Domestic Product.

Exhibit TN-2

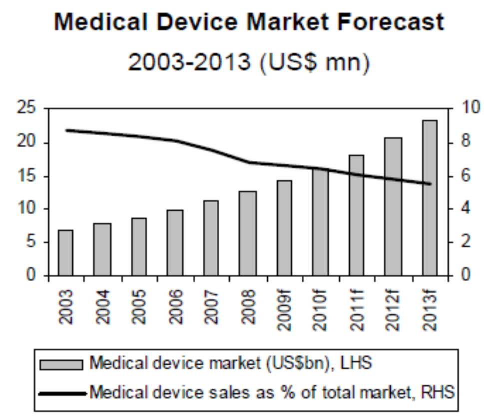
MEDICAL DEVICE MARKET FORECASTS

Brazil



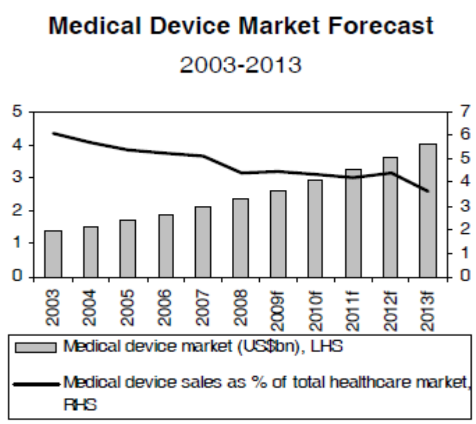
f = forecast. Source: BMI, ABIMED, WHO, US Commercial Service

China



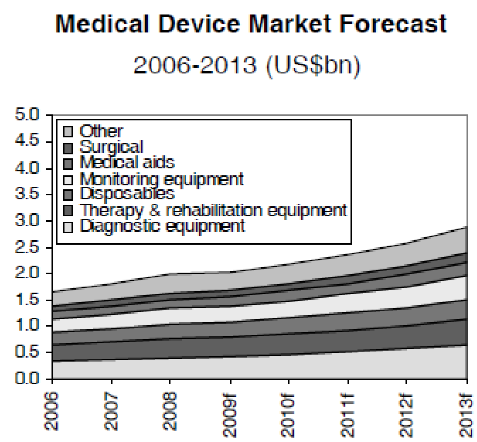
f = forecast. China Association for Medical Devices Industry (CAMDI), State Food and Drug Association (SFDA), China Customs, BMI

India



f = forecast. Source: Association of Medical Devices and Suppliers of India (AMDSI), The Associated Chambers of Commerce and Industry of India (Assocham), Central Drugs Standard Control Organization (CDSCO), BMI

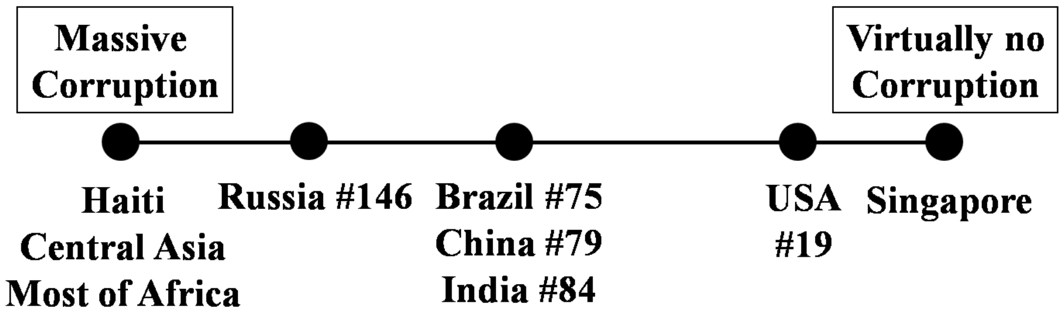
Russia



f = forecast. Source: BMI, DSM, RMBC, WHO, US Foreign & Commercial Service

Exhibit TN-3

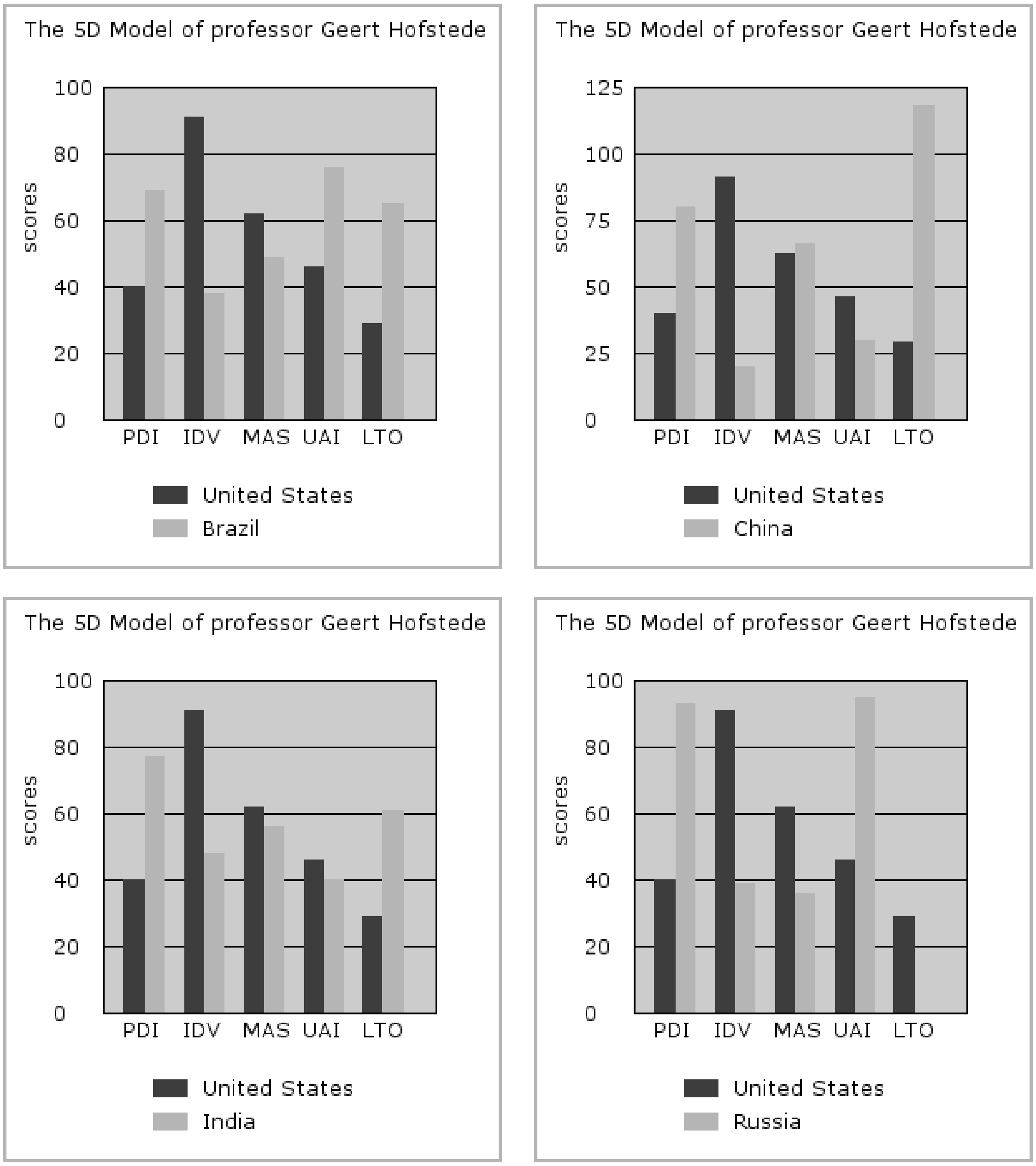
CORRUPTION PERCEPTIONS INDEX RESULTS



Source: Corruption Perceptions Index 2009, <u>*Transparency International*</u>*, www.transparency.org/policy_research/surveys_indices/cpi/2009, accessed February 23, 2010.*

EXHIBIT TN-4

HOFSTEDE'S CULTURAL DIMENSIONS



Note: PDI = Power Distance Index, IDV = Individualism, MAS = Masculinity, UAI = Uncertainty Avoidance Index, LTO = Long-Term Orientation.

Teaching Note for Case 2.2

HYUNDAICARD'S MARKETING STRATEGY

Chan Soo Park and Ronald D. Camp II wrote this teaching note as an aid to instructors in the classroom use of the case HyundaiCard's Marketing Strategy, No. 9B09A028. This teaching note should not be used in any way that would prejudice the future use of the case.

CASE SYNOPSIS

This case study discusses HyundaiCard's successful strategy in the competitive credit card industry of South Korea. It provides insights as to how a market follower in an industry can overcome disadvantages and successfully position itself as a market leader.

When HyundaiCard entered into the credit card industry in 1999 as a market follower, its brand image was very weak compared to leading card brands such as Samsung, LG (Shinhan) and Kookmin Card. HyundaiCard aggressively pursued a premium brand image that was focused on marketing strategies based on customer needs, innovative products, and the integration of online and offline customers. Although Hyundai was very successful with its Hyundai M Card, the company's performance had not progressed further. HyundaiCard suffered from a minimal customer count (i.e. number of cards distributed) and had difficulty relating its creative business model to the strong personas of leading players in the credit card industry. HyundaiCard desperately needed a differentiated marketing strategy in order to build its strong image beyond that of a young, niche company. The aggressive eCRM strategy and customer segmentation were the outcome of this endeavor. HyundaiCard's innovative marketing efforts and its eCRM strategy backed the rise of one of the top credit card companies in the Korean credit card industry.

This case presents the customer segmentation and eCRM strategy of HyundaiCard, which the company utilized as a marketing differentiation tool, thus becoming the leading player in the credit card industry. The South Korean credit card industry, HyundaiCard's marketing activities, performance and key issues are discussed.

TEACHING OBJECTIVES AND ISSUES

This case is suitable for an undergraduate or MBA course in marketing management, international marketing, Asia-Pacific marketing or strategic marketing. The two key issues in this case are how HyundaiCard can become a leading player in the South Korean credit card market, and an evaluation of the marketing strategies of HyundaiCard.

The teaching objectives for the case are:

1. To familiarize students with the credit card business environment in South Korea.
2. To allow students to examine and evaluate the effectiveness of HyundaiCard's marketing strategies.
3. To allow students to grapple with the decision as to whether HyundaiCard should enter the foreign market in the immediate future or delay the decision. If the decision is to go ahead, then students can examine the various possible entry strategies to the foreign market.

TEACHING STRATEGY

This case is best used in a class discussion, as it tends to invoke a certain degree of excitement in the classroom. The instructor begins by asking if anyone in the classroom has visited South Korea recently and then allows a couple of students to share their experiences and observations for a few minutes before the instructor begins the case discussion. Some students may have certain images of South Korea due to their knowledge of the Korean War, the 1988 Olympic Games, North Korea's nuclear weapons, etc.

The instructor should move the discussion progressively from (1) the company overview to (2) the industry overview to (3) the analysis of strategic challenges of HyundaiCard to (4) the analysis of HyundaiCard's marketing strategies. At times, the class may encounter difficulties with analysis due to a lack of some areas of information. The students can be asked to carry out Internet research to explore as much as they can regarding the Korean market and credit card market.

ASSIGNMENT QUESTIONS

1. Analyze the credit card industry in the South Korean market. What are the attractive and unattractive aspects of the market at this time?
2. Define and give examples of the following terms: a market leader, market follower, market niche.
3. What strategy contributed to the marketing success of HyundaiCard in the competitive credit card industry?
4. What is the concept of customer segmentation strategy? Why do financial service companies such as HyundaiCard need customer segmentation? What are the important features that influence customers' lifestyles in the credit card industry?
5. What future strategy do you recommend for HyundaiCard?

CASE ANALYSIS

1. Analysis of the Credit Card Market

The average South Korean cardholder had at least four credit cards in 2002. According to the Bank of Korea (BOK), Korea ranked 34th in per capita income in the world, but ranked third in per capita credit card spending. Credit card usage amounted to approximately 40 per cent of private final consumption. South Korea is one of the world's most dynamic countries for credit card use. Porter's five forces model can be used to examine the attractive and unattractive aspects of the market.

<u>Intensity of Rivalry among the Industry Competitors</u>

The rivalry among competitors is the central force contributing to industry attractiveness. The credit card industry exhibits high growth, low relative fixed cost, and a wide variety of differentiating capabilities. Eventually, health profitability opportunities will more than likely become available to most credit card companies in the industry. The Korean credit card market was characterized by rapid growth and intensified competition. There are opportunities for everyone involved.

Threat of New Entrants

Immense efforts are being made by the major Korean banks to set up specialized credit companies. The major Korean banks have built up unmatched brand images, as they have a huge amount of local knowledge, and most importantly, they have millions of existing customers (i.e. bank account holders or debit card users) who can be converted into credit card holders.

Foreign players are going to conduct their business in the market. However, despite their strong brand power and huge sources of capital, foreign companies have their own weaknesses, such as comparative disadvantages in their information systems and a lack of expertise in managing a huge number of customers.

Threat of Substitute Products

It is not only the firms participating in the industry and the potential newcomers that are central forces in determining industry attractiveness. Firms offering substitutes that can replace the industry products and services should be added. Some Koreans tend to use the debit card, which is already prevalent, as a tool of payment just as consumers in European countries and Japan do. However, the Korean government aims to boost its economy by encouraging domestic consumption through the use of credit cards.

Bargaining Power of Suppliers and Buyers

Porter’s wording, “bargaining power of suppliers and buyers,” suggests there is a threat imposed on the industry by an excessive use of power on the part of the aforementioned two agents. Buyers are the most important constituency for a firm. They are to be treated not as rivals, but as the depositories of a long-lasting relationship. The bargaining power of buyers is high in South Korea due to the ease with which one is issued a credit card. There are two major suppliers in a credit card market. The first is the source of capital and second is licensors such as VISA and MasterCard.

Overall, the attractive aspects of the market are: (a) the credit card market is currently immense, (b) there is healthy infrastructure for credit card companies, and (c) the entry barriers for the market are high. The unattractive aspects of the market are: (a) competition is intense and there are many competitors, (b) the business environment, including the legal framework, is uncertain, and (c) the potential growth is low, given that in the past years, the market has increased tenfold from the beginning of the 1990s to 2002 and the market is expected to slow over the next few years.

2. Market Follower, Market Leader and Market Nicher

The three types of positioning strategy are market leader, market follower and market nicher. We examine how the organization takes position in the market, ranging from market leader through to market nicher (see Exhibit TN-1). In discussing how best to formulate a market position, we suggest classifying competitive positions along a spectrum from market leader to market nicher.

A market follower is a marketer whose product or brand did not get to market first or who does not maintain a dominant market share. It is difficult for a follower to take market share from a leader (see Exhibit TN-2). For example, Xerox, Sony and EMI led their markets for many years, and their brands represented the standard for those products as perceived by consumers. Followers need to discover the leader's weak spot in order to compete successfully. The Avis "we try harder" campaign exemplified the marketing strategy of a market follower; Avis established a competitive advantage by directly addressing a weakness of the leader.

3. HyundaiCard Strategy

HyundaiCard is coping with the global economic turmoil by turning a crisis into an opportunity. Despite the severe global economic crisis, HyundaiCard earned high operational results and maintained sound asset quality. We can examine HyundaiCard by focusing on various areas. Differentiated marketing strategies have been prime movers behind the high growth.

a. The innovative marketing strategy

The essence of HyundaiCard's marketing operations is "customized services for individual credit card holders." Through one-to-one customer administration and the company's unique marketing strategy, customer value was enhanced further.

The aggressive marketing activities added to the brand power of the "HyundaiCard" name propelled the domestic market share to more than 10 per cent. This result was derived from customer segmentation analysis and diverse marketing strategies. Thus, HyundaiCard's marketing strategy, an in-depth understanding of Korean consumers and a strong base of existing auto loan customers, which provides an excellent opportunity for cross-selling, separates the company from the crowded and competitive credit card environment. Through the finance shop, HyundaiCard exposed customers to its brand more easily and effectively.

b. Risk management and global standards of transparency

Risk management is essential. The survival of business entities is dependent upon how they manage their risks. HyundaiCard was equipped with effective customer relation management (CRM), efficient collection management, in-depth credit evaluation systems, and customized financial services that fully reflected customers' needs and risks. HyundaiCard should heed what credit card customers want and what facilitates customer convenience.

HyundaiCard saw high revenue and operational income on the back of its proactive risk management. HyundaiCard's delinquency ratio was 0.7 per cent, well below the industry average of 3.43 per cent.

HyundaiCard is also committed to meeting global standards of transparency in its management and corporate governance. HyundaiCard reduced its corporate risk and increased its stability through its partnership with GE Consumer Finance.

c. Successful alliance with GE Money

A company's competitive advantage can be boosted exponentially with strong international alliances. The firm's good performance is the result of forming a successful strategic capital alliance with GE Money. The world-famous Hyundai and Kia Motor Group is the largest shareholder and GE Consumer Finance became the second major shareholder after acquiring a 43 per cent equity in the company in 2005. The strength of the two companies created great synergy. GE got the Hyundai brand, and HyundaiCard got GE's strong risk management and expanded its sales network in domestic and overseas markets, backed by the strength of these global enterprises. The alliance brought GE's global reputation and proven competency in risk management as well as sophisticated analytical tools to understand the consumer better.

4. Analysis of Customer Segmentation Strategy

The concept of segmentation was originally related to economic theory, stating that competition is imperfect and that either the lack of homogeneity or close similarity among products is quite evident. The purpose of the HyundaiCard customer segmentation strategy is to rate customers by their lifestyle and attractiveness. Product development, delivery channels, marketing budgets, sales efforts, information systems and service levels are all geared to customer profitability.

The marketing segmentation strategy enabled HyundaiCard to capture a 10 per cent share of the domestic market. HyundaiCard, in order to provide different customized services for future customer segments, provided Alphabet Cards (M, S, W, etc.), and personalized contents and services. In the bloated credit card market, HyundaiCard singled out its targets for profitable marketing and new card promotions, leaving competitors unprepared to respond. With innovative ideas for delivering customized services to their customers, Hyundai steadily grew into a market leader in South Korea.

The conventional wisdom in financial companies today is that the majority of a financial company's customers are unprofitable or, at best, marginally profitable. Segmenting customers according to profitability shows only a small percentage of customers generate all the credit card profits. HyundaiCard utilized customer information as the foundation of its marketing plan and developed diverse credit card products according to its customers' needs. In addition, it designed special management strategies focused on customers who had superb credit ratings (see Exhibits TN-3 and TN-4).

5. Future- oriented Strategy

HyundaiCard has to set three initiatives to ensure sustainable growth and to be the market leader in the South Korean credit card industry. First, HyundaiCard should reinforce creativity with innovative marketing initiatives by continuing to propel HyundaiCard marketing programs such as alphabet marketing, finance shops, Super Concert, etc. to outperform its competitors.

Secondly, HyundaiCard should strengthen profitability even further by eliminating potential loss through scientific risk management and amplifying high-profit assets based on elaborate risk gauges.

Thirdly, HyundaiCard planned to expand its business territory into U.S., European and Chinese markets in order to be positioned like well-known global brands Coca-Cola, Wal-Mart, and Google. In each market, HyundaiCard should also study the different lifestyles of customers to find business opportunities.

WHAT HAPPENED

As a latecomer to the industry, HyundaiCard had to settle for a fourth-place trailing behind behemoths Kookmin Card, Shinhan (LG) Card and Samsung Card. Just three to four years ago, Samsung Card's assets (an aggregate sum of cash services and credit card loans) doubled HyundaiCard's. However, HyundaiCard slowly began catching up with Samsung Card beginning in 2008. HyundaiCard scored its first victory over the third biggest credit card company, Samsung Card, in the second quarter of 2009 to signal a seismic shift in the top tier of the credit card industry.

Numerous private corporations and universities are researching and benchmarking HyundaiCard's marketing capabilities and strategies. Notably, the management personnel of "GE Money Asia" visited HyundaiCard to benchmark its marketing strategies.

In February 2009, four GE executives spent two days in Korea meeting with HyundaiCard's management to learn Hyundai's marketing strategy and determine a formula for successful partnerships. The Korean operations are models for GE's marketing strategies. Korea has become a destination for GE management-training groups because HyundaiCard in Korea is among GE's most profitable businesses.

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Exhibit TN-1

TITLE

Market Leaders	In the majority of industries there is one firm generally recognized as the market leader. It typically has the largest market share by virtue of its pricing, promotion intensity, the rate of new product introductions and distribution coverage. Its dominance typically provides the benchmark for other companies in the industry.
Market Followers	Firms with a slightly smaller market share can adopt the market follower position. The market follower may choose to adopt an aggressive stance and attack the market leader in an attempt to gain shares and perhaps dominance or it may adopt a less aggressive stance in order to maintain the status quo.
Market Nichers	Every industry has small firms that survive and often prosper by choosing to specialize in parts of the industry too limited in size for larger firms but still having the potential to be of real interest. By concentrating their efforts in this way, market nichers can build a specialist market knowledge and avoid expensive head-on fights with larger companies.

Source: Gilligan and Wilson, Strategic Marketing Planning, 2003.

Exhibit TN-2

EXAMPLES OF MARKET LEADERS AND MARKET FOLLOWERS

Products	Leaders	Followers	The Winner
X-Ray Scanner	EMI	General Electric	Follower
Office PC	Xerox	IBM	Follower
Jet Airliner	De Haviland (Comet)	Boeing (707)	Follower
VCRs	Ampex/Sony	Matsushita	Follower
Diet Cola	R.C. Cola	Coca-Cola	Follower
Pocket Calculator	Bowmar	Texas Instruments	Follower
Microwave Oven	Raytheon	Samsung	Follower
Video Game Player	Atari	Nintendo/Sega	Follower

Source: R. Grant, Contemporary Strategy Analysis, 1998.

Exhibit TN-3

EXAMPLE OF PROFITABILITY SEGMENTATION OF CUSTOMERS

	% of Customers	% of Profit	Lifestyle Segmentation	HyundaiCard Segmentation
A Customers	10	128	More enjoyable shopping	HyundaiCard S
B Customers	22	10		
C Customers	68	-38		
Total	100	100		

Exhibit TN-4

VARIABLES IN THE LIFESTYLE SEGMENTATION

Interests & Opinions	Society; politics; job and milieu; personal success factors; company; environment; religion; future; family; friendship; responsibility; aspirations; attitude towards personal problems; saving; innovation; fashion
Leisure Activities	DIY (do-it-yourself); sports; cinema; cultural activities; visits to beautiful places; joining social and religious associations; board games; night life; shopping; reading; music; TV programs; radio programs

Teaching Note for Case 2.3

TERRACYCLE INC.

CASE SYNOPSIS

It was January 2006, and Betsy Cotton, chief financial officer (CFO) of TerraCycle Inc., in Trenton, New Jersey, U.S.A., was considering the company's future opportunities. TerraCycle's main product, All Purpose Plant Food, an all-natural fertilizer that could be used to foster growth in plants, had been successful. By alternating the formula of the fertilizer, two different product formulas were being considered: an orchid product and an African violet product. Cotton planned to first assess TerraCycle's historical performance and then project potential financial results for the two new products before determining the most appropriate course of action.

TEACHING OBJECTIVES

This case is best positioned as a comprehensive case that wraps up a number of the concepts learned in an introductory managerial accounting course. It can also be used as a test point.

For a proper case analysis, students will be expected to complete the following:
1. A marketing analysis
2. A corporate size-up
3. Consumer analysis
4. Competitor analysis
5. A statement of cash flows and interpretation
6. Ratios calculations and analysis
7. Differential analysis for each alternative
8. Income statement and balance sheet projections and interpretation

SUGGESTED ASSIGNMENT QUESTIONS

As Betsy Cotton, do whatever analysis and make whatever recommendations you deem appropriate for TerraCycle Inc.

OR

1. Outline TerraCycle's goals and objectives.
2. What are the specific decisions to be made?
3. Analyse TerraCycle's strengths and weaknesses. How do these capabilities affect the decision to be made?
4. Perform a consumer analysis. Does TerraCycle face any consumer issues?
5. Do a size-up of the industry and identify TerraCycle's competition.
6. Prepare and analyse the company's statement of cash flows for the year ended December 31, 2005.
7. Prepare and analyse the relevant ratios for TerraCycle for fiscal 2004 and 2005.
8. Qualitatively assess the two new product formula offerings.
9. Prepare a differential analysis for each new product offering.
10. What would be the benefits and drawbacks of a "push" versus a "pull" marketing strategy?
11. Develop a promotion plan for TerraCycle, identifying the message to be conveyed and some creative ways to promote the company.
12. Assess the company's likelihood of receiving financing through debt versus equity.
13. Prepare a projected income statement and balance sheet for TerraCycle for the year ended December 31, 2006. What does this tell you?

SUGGESTED TEACHING STRATEGY

This case can be taught over two 80-minute classes.

First Class

Instructors may wish to start class by asking whether any students enjoy gardening or growing plants. For those who do, ask whether they use any plant food and, if so, how they choose from among the different products available. Instructors may also wish to ask how many students have heard of TerraCycle's All Natural Plant Food and then ask how many have heard of Miracle-Gro. It should quickly become apparent that Miracle-Gro has tremendous brand-name recognition, even by many non-gardeners, but far fewer people, if any, have heard of TerraCycle.

After this brief introduction, students should identify their role in this case and the decisions to be made, along with the goals and objectives TerraCycle has for its products and operations (should be related to the decisions to be made). Discussion should then shift to the company's strengths and weaknesses and the implications for the decisions. Instructors may want to emphasize that analysing these corporate capabilities is essential in gaining a full understanding of the company in order to make the appropriate decision.

Next, a brief consumer analysis can take place. Since TerraCycle is selling its product to retailers and not to the end consumers, consumer analysis is not a large focus of the case. The retailers will have all the negotiating power when dealing with TerraCycle.
The competitive analysis should begin with a discussion of the industry itself and then should move to a discussion of the strengths and weaknesses of the two key competitors identified in the case and what implications these have for TerraCycle. As an indirect competitor, some consideration should also be given to the do-it-yourself composters since this group will have an impact upon TerraCycle's decision.

TerraCycle's financial size-up should entail the preparation and analysis of a statement of cash flows (SCF) for the year ended December 31, 2005. The SCF can be used to highlight key areas of concern. This can be followed by a ratio analysis of key ratios to provide some insight on how to deal with these concerns.

Second Class

In the second class, discussion can move to the analysis of the alternatives. First, students may need some guidance through the analysis of the primary decision of whether to launch the two new product formulas, African violet and orchid plant food. This analysis is best started with a qualitative analysis of the benefits and drawbacks of this decision followed with a quantitative analysis, including a differential analysis of each alternative. Once completed, students should arrive at a decision of whether or not to go ahead with the two new products.

Students can then present their promotion plan, outlining the benefits and drawbacks of a push versus a pull marketing strategy for TerraCycle, as well as the message that TerraCycle should try to convey in its advertising and some creative advertising ideas.

Next, instructors should discuss the issue of debt versus equity financing for TerraCycle. This discussion should focus on the likelihood of TerraCycle obtaining either of these forms of financing.

Finally, some help may be needed to guide students through the preparation of the projected income statement and balance sheet.

ANALYSIS

Role

Students are to assume the role of Betsy Cotton, CFO of TerraCycle Inc. No information is given about Cotton's qualifications or background; however, students should recognize that as the company's CFO, Cotton will have some decision-making autonomy and likely needs only the company's CEO to approve her decisions.

Decision

The primary decision is whether TerraCycle should go ahead and launch the two new product formulas, the African violet plant food and the orchid plant food.

Some secondary decisions also must be made. One is the development of a promotion plan, specifically outlining the benefits and drawbacks of a push versus a pull marketing strategy for TerraCycle, the message to be conveyed and some creative methods of advertising. The second is whether to seek financing through debt versus equity, the benefits and drawbacks of each, and the likelihood that TerraCycle would receive debt or equity financing should it be required.

Goals and Objectives

TerraCycle, like any other for-profit business, has goals of maximizing profitability, achieving growth for the future, managing cash flow to achieve sustainability and reaching economies of scale in order to reduce costs in the long term. Other goals identified in the case include expanding the product line and maximizing the return on any promotional spending. For TerraCycle, the goal of aiding the environment and replenishing natural resources through the operations of the business was key and was more important than all the financial goals.

Corporate Capabilities

Although still firmly in its early growth phase, TerraCycle possesses a number of strengths. First, TerraCycle has been able to raise a considerable amount of financing through equity. Perhaps the company can use these skills to generate additional financing through equity in the future, should it be needed. Second, the company has received a great deal of positive press coverage, giving it instant credibility for little cost and a forum to educate consumers about the benefits of its All Natural Plant Food product.

Third, the company has also proven itself to be ready and willing to try new things; thus the company will not be stagnant, and opportunities for improvement will surely be considered and, if the potential results warrant it, acted upon. The company's small size lends itself to being more responsive (more so than its larger competitors) when it comes to decision-making.

Fourth, TerraCycle has a noble and low-cost method to collect the product's packaging, the pop bottles, through the bottle brigade program. This program helps community charities while providing a supply of pop bottles for packaging at a very low cost of $0.05 per bottle. The production process is also established, so costly mistakes are unlikely.

Fifth, TerraCycle is possibly the first ever eco-capitalist corporation. Its environmental focus fits perfectly with the current environmental trend in North America and provides an appealing selling point when promoting products to the end-users.

Finally, the company has a proven ability to form partnerships with large organizations, such as Princeton University and Rutgers University, and to sell to large organizations such as Wal-Mart and Home Depot. This is an important point since it is always a concern that small companies will be unable to meet the challenge of dealing with and selling to large organizations. TerraCycle has already done it.

TerraCycle is not without its weaknesses. The major drawback lies in the company's limited product lines compared to its competitors. With fewer product lines, TerraCycle will have less visibility on retailers' shelves and, thus, less negotiating power with these retailers. The negotiating power with retailers is even further reduced based on TerraCycle's relatively small size (financially and employee base) compared to its competition.

TerraCycle will likely have limited access to future financing. Its current high level of equity will likely lead to limited additional equity financing, and debt financing is unlikely until the company becomes more established.

TerraCycle has yet to achieve economies of scale, resulting in significant fixed costs and net losses. Profitability will need to be resolved quickly in order for the company to continue as a going concern.

The production process is long (i.e. approximately 33 days). TerraCycle's ability to meet customer orders could be challenged if large unexpected orders should arise.

Consumer Analysis

Students should recognize that based on TerraCycle's small size, it is unlikely that the company can target the end-consumer directly, due to the lack of a distribution network and resources. Instead, the company will have to rely on retailers for distribution of its products.

Based on TerraCycle's size relative to its (retailer) customers, the company has little negotiating power and will really be at the mercy of these (retailer) customers. Currently, TerraCycle is heavily dependent on a couple of larger customers, i.e., Wal-Mart and Home Depot. These two companies represented 88 per cent of TerraCycle's 2005 sales, and dealing with these two companies will be critical to TerraCycle's success. Wal-Mart, in particular, is notorious for applying pressure to its suppliers to meet terms that are more favourable to Wal-Mart. TerraCycle has already offered products to meet the specific requests of another customer. Although not mentioned, this customer was likely Wal-Mart or Home Depot. TerraCycle will need to work hard to develop brand name recognition with the end consumer in order to improve its standing for negotiations with the retailers.

The upside of selling to such large retailers is that once the products have been proven, with such a large number of stores across North America, TerraCycle will have access to a very large distribution channel. The risk, however, will be that the size of these customers will likely mean very large orders and stiff penalties if delivery dates are missed. Drastic increases in order quantities could quickly extend beyond TerraCycle's production capacity.

Competitive Analysis

The following charts provide a summary of the pros and cons for the industry itself and then for TerraCycle's two major competitors and the do-it-yourself composters.

<u>Industry</u>

PROS	CONS
• TerraCycle's small size, relative to the rest of the competition, may allow it to avoid detection by the competition while in the early stages of development. • With relatively few environmentally friendly products in this industry, TerraCycle may have a first mover advantage.	• With such a diverse and competitive industry, competition will always exist, and TerraCycle could have difficulty anticipating the competition and its reaction in the market place. • An environmentally friendly product is relatively new to this industry, resulting in the need to educate consumers.

<u>Scotts Miracle-Gro</u>

PROS	CONS
• The main product offered, Miracle-Gro, is neither environmentally friendly nor all natural; consequently, TerraCycle may be able to target a different customer segment of the gardening market.	• Scotts' product, Miracle-Gro, is established as the No. 1 product in the industry so customer loyalty may prevent end consumers from trying new and unproven products. • Scotts will have access to large amounts of financing and other resources to ensure its success in this industry.

<u>Spectrum Brands</u>

PROS	CONS
• Spectrum Brands' main product line, Peters Professional, is neither environmentally friendly nor all natural so, again, TerraCycle may appeal to a different segment of the market. • Since the Garden Safe line is not well known, TerraCycle could move into the market and establish itself before Spectrum Brands can react.	• Similar to Scotts, Spectrum Brands is a large multinational company with access to significant financing and other resources. • Spectrum Brands Garden Safe line is very similar to TerraCycle's line of products and may compete directly.

<u>Do-it-yourself Composters</u>

PROS	CONS
• These individuals are interested in helping the environment, making them more interested in products like those offered by TerraCycle.	• These individuals have less need for fertilizers in general, reducing the need for the products offered by TerraCycle.

Given the above analysis, Spectrum Brands' Garden Safe line likely represents the most direct competition for TerraCycle. With the little support Spectrum Brands has provided for its Garden Safe line, TerraCycle may be able to capitalize.

With the power and reputation of Miracle-Gro in the market, Scotts will also represent competition for TerraCycle. Not having the same environmental focus as TerraCycle's products, Miracle-Gro will not represent direct competition, but it will be strong, indirect competition.

Statement of Cash Flows

A number of concerns arise from the statement of cash flows (see Exhibit TN-1 and Exhibit TN-2). First, it is evident that TerraCycle is financing current operations with long-term financing and is thus not matching short-term uses with short-term sources. The long-term financing is primarily from the issuance of Series B preferred shares. This financing approach has long-term implications since some control of

TerraCycle will have been relinquished. As well, the company may be limited in its future ability to obtain financing through equity.

Second, the changes in the working capital accounts are among the largest changes on the statement of cash flows. Inventory and accounts receivable represent the largest uses of cash, excluding the net loss, and accounts payable represents one of the largest sources of cash. This may have been predicted, given the poor management mentioned in the case, but it is still a concern. For example, suppliers will allow TerraCycle to stretch its accounts payable only so far, and using them as a source of financing (cash flow) may lead to a deterioration of TerraCycle's business relationships with its suppliers.

Finally, minimal investment has been made in net long-term assets. This is puzzling, given that TerraCycle is in a growth phase, when companies usually spend significant amounts on new assets. Another explanation may be that the assets purchased in TerraCycle's early stages of the business have large enough capacities to meet current needs. Although no large purchases for the upcoming year are mentioned in the case, it is highly likely that there will be substantial purchases of long-term assets in the next few years.

Ratio Analysis

Rationale

The statement of cash flows analysis points to the examination of a few ratios. Since the company is financing operations through share issuances, the debt to equity ratio and interest coverage should be calculated in order to assess future financing options. The large changes in the working capital accounts signal a review of the aging ratios and their sustainability.

Other ratios should include some key growth ratios since the company is in its growth phase. The current and acid test ratios would provide insight to the concerns about cash flow. Finally, a vertical analysis may highlight areas of concern about overall company profitability.

Implications

In all cases, TerraCycle's ratios are worse than those of the industry (see Exhibit TN-3); however, astute students will note that all TerraCycle's ratios, excluding the aging ratios, did improve from 2004 to 2005.

The company's debt to equity ratio is lower than the industry ratio, indicating that TerraCycle has a greater proportion of equity versus debt than other companies. This makes sense since other companies in the industry are more established and, as a result, have more access to debt financing than TerraCycle has. This ratio is also affected by the large negative retained earnings. Instructors may want to ask students to look at the debt level relative to the stock level. By doing this, it can be seen that TerraCycle is almost completely equity-financed. As has been noted, TerraCycle is still in the growth phase and likely has little access to debt financing, given its financial position and limited assets against which to borrow.

The interest coverage ratio is negative because of the net losses being incurred by the company, but there is improvement in this ratio from 2004 to 2005. The company is still not at a point in time to access debt financing; however, if financial performance continues to improve, this may become a possibility.

All the aging ratios are well above those of the industry. Some of this can be explained by the poor management noted in the case, but the aging of these accounts will need to be corrected sooner rather than later. Based on the company's projections, it appears that a concerted effort will be made to more effectively control these accounts.

The growth ratios show sales growing at a faster rate than that of expenses. The fact that sales are growing faster than cost of goods sold is a very positive sign since it is an indication that TerraCycle is improving its efficiency and may be closer to reaching economies of scale. Sales growing faster than operating expenses may also be a positive sign; however, this is partially due to operating expenses being much larger than sales in terms of dollar value in 2004. Over time, these operating expenses should begin to stabilize since a large number of them are fixed expenses.

TerraCycle's current and acid test ratios are above the industry results for these ratios and are in line with the industry's major competitors, Scotts and Spectrum Brands — a very good sign.

The vertical analysis for TerraCycle indicates some problem areas, but still provides positive signs of improvement. Cost of goods sold is larger than sales; however, the improvement from 2004 to 2005 indicates that TerraCycle is becoming more efficient. Salaries and commissions are by far the largest operating expense and are larger than sales in both 2004 and 2005, but again, there is an improvement from 2004 to 2005, which is a positive sign that these costs are beginning to stabilize. Finally, year over year, most of the other operating expenses are improving as a percentage of sales from 2004 to 2005 which, again, is a positive sign, pointing to more efficiency.

New Product Formulations — Qualitative Analysis

The chart below summarizes the qualitative analysis for the new products:

PROS	CONS
• Since TerraCycle is approaching economies of scale, any additional production will likely further improve these economies. • The new products allow TerraCycle to expand its product line, allowing it the ability to compete more effectively with other manufacturers like Scotts and Spectrum Brands. • Research and development costs have already been incurred, and no additional costs are expected. • No other large costs are anticipated for these two new products, making most costs variable, which will reduce overall risk. • Since the two new products are very similar to the current All Natural Plant Food, TerraCycle has some knowledge and experience with this product and market.	• Sales results expected for these new products are highly unpredictable, as evidenced by the range in expected sales levels. • Since the research and development costs have already been incurred, if these new products are not pursued, this spending will have gone to waste. • Very little funding is available for promotion, reducing TerraCycle's ability to advertise the products and to educate the customers on their benefits.

New Product Formulations — Quantitative Analysis

The results of the differential analysis (see Exhibit TN-4, Exhibit TN-5 and Exhibit TN-6) show that positive results can be achieved in the short term. Over time, as efficiencies increase, costs should decrease and the new products should become even more profitable. Although not incredibly substantial, the new products would provide TerraCycle with additional annual cash flows and would help towards the goal of managing cash flows.

Implications

The returns provided by the two new products are substantial under both scenarios and would help with the company's overall profitability. At approximately three years, the payback period is a little long, especially considering the only real investments are in working capital. The size of the investments in the working capital accounts may be a concern because they will likely put additional strain on TerraCycle's cash resources. Considering that the research and development costs have already been spent, with any positive result, it is difficult to argue that the company should not go ahead.

Promotion Plan

Push versus Pull Strategy

Students should conclude that it would be difficult for TerraCycle to implement a successful pull strategy. This strategy would require expensive promotional costs aimed at the end consumer in order to create product awareness and to educate these consumers on the product and its benefits. TerraCycle does not have (nor could it raise) the money needed to implement such a strategy.

A push strategy would allow TerraCycle to focus on its buyers, the retailers. With the negotiating power the retailers have, it is likely that TerraCycle will have to offer discounted prices and/or special offers in order to satisfy them. Implementing a push strategy makes financial and qualitative sense for TerraCycle.

Promotional Message

TerraCycle's promotion to end consumers should continue to focus heavily on the environmentally friendly nature of its products and on the company's eco-capitalism since this will likely resonate with those end consumers who are most likely to use TerraCycle's products. TerraCycle may want to focus on the fact that it is a new and emerging company since this may help to garner some support amongst potential consumers, increasing the likelihood of a sale.

When promoting to retailers, TerraCycle should focus on past successes since these retailers will likely want to offer only those products they know have future potential. In order to accomplish this, TerraCycle could focus on the awards it has won as well as on its other successes.

If TerraCycle decides to expand the customer base and put more focus on retailers other than Wal-Mart and Home Depot, the company may want to publicize that its products are being sold by these two companies, which may convince other retailers that they too should offer TerraCycle's products.

Creative Promotions

TerraCycle should continue to take advantage of positive press coverage whenever possible. This type of coverage is a low- or no-cost promotion alternative with a high impact since it provides the company with credibility and helps to educate its end users.

Point-of-purchase displays would also be a good option at a relatively low cost. The products need to be packaged for shipping so the packaging can also serve as point-of-purchase displays (providing a return for not much additional cost).

Decision

New Products Decision

The financial projections for the two new products, under both high and low scenarios, support the decision to proceed and begin to sell the two new product formulations. This will also increase production, allowing TerraCycle to get that much closer to reaching economies of scale. These products diversify the product lines and may appeal to a wider segment of end consumers.

Financing Decision — Debt Versus Equity

As a new and emerging company with large past losses, it is highly unlikely that TerraCycle would receive debt financing. Even if this financing could be obtained, it would likely be at a very high cost, with a large number of restrictions that may hinder the company's ability to react in as timely a fashion, as it can currently, since consideration will need to be given to the reaction of these new creditors.

Additional equity financing will also be difficult to obtain based on the company's past large losses and poor cash flow. TerraCycle may be able to attract investors who have a higher risk tolerance and who are more interested in the growth potential of the company rather than in its past results. Nevertheless, these investors will likely want a higher return for this risk. Additionally, further equity will require a decrease in the proportionate ownership of the company for the current owners. Current owners will have to give up more control of the company and they will have to be careful not to lose majority control of the company.

Projected Income Statement

At first glance, with a net loss higher than that of fiscal 2005, the results for the projected income statement (see Exhibit TN-7) do not look good for TerraCycle. There are, however, positive signs. First, TerraCycle is able to generate a positive gross profit for the first time, and there is also a relatively large gross profit of $484,182 under the high sales scenario. This is a sign that the growth is having a positive impact.

Unfortunately, the improvement in the gross profit is overshadowed by the increased operating expenses. Over time, due to their relatively fixed nature, once sales have grown, TerraCycle should begin to generate positive net income.

Projected Balance Sheet

Based on the projected balance sheet (see Exhibit TN-8), and assuming financing is achieved through the issuance of additional Series B preferred shares, TerraCycle will need close to $1 million in additional funding. (This figure could be reduced if the expected level of cash on hand were reduced, leaving a need for approximately $850,000 in financing.) Given the large amount of shares already outstanding and the poor profitability experienced to date, there should be some concern about whether TerraCycle can actually raise this financing. On the other hand, the company has a past success of raising funds through the issuance of shares and it exhibits positive signs of growth. Regardless, students should sense that access to financing will dry up at some point. Even if TerraCycle is able to obtain the needed financing one more time, company results will have to begin to improve quickly, or TerraCycle will begin to have very serious cash flow problems with bankruptcy not far behind.

WHAT HAPPENED

TerraCycle decided to launch the two new product formulas, the African violet plant food and the orchid plant food. Both products sold well; however, the actual sales results for the products were somewhat different than projected. Retailers initially purchased more of the African violet product since they believed that it would sell the best, with initial purchases totalling 15,000 bottles of the orchid plant food and 55,000 bottles of the African violet plant food.

In actuality, since the end consumer responded more favourably to the orchid product, it sold more quickly than the African violet plant food (although it was selling well). As a result, the retailers began to purchase equal quantities of both products. TerraCycle was pleased with the sales achieved for both products.

Additional financing was obviously needed to sustain the business and allow it to grow. Over the course of fiscal 2006, TerraCycle issued additional Series B preferred shares to both internal and external investors and generated an additional $1.6 million of financing for the company.

Subsequent to the writing of this case, TerraCycle sold a variety of other products in addition to the African violet and orchid plant foods in order to expand its available product lines. Some of the new products offered included two new plant food products: tomato plant food and tropical plant food. TerraCycle also introduced two outdoor fertilizer concentrates: garden concentrate and lawn concentrate. These concentrates included an attachment to the garden hose for disbursing the product in its proper proportions. Other products introduced included potting mix (a mixture of compost), worm excrement fertilizer and other organic waste, seed starter (a tray of separate compartments filled with pure TerraCycle fertilizer) and deer repellent (an all natural product used to prevent deer from eating garden plants). TerraCycle also had future plans to sell other products including three new plant foods: rose plant food, herb plant food and cactus plant food. These new products continued to be packaged in waste, including pop bottles and other recycled containers.

TerraCycle's products continued to be offered at a variety of retailers; however, Wal-Mart and Home Depot still represented the largest purchasers. The margins offered by TerraCycle's products were similar to those offered by competing products. With limited financing available, funding for promotion remained tight. As a result, TerraCycle continued to take advantage of means of free advertising such as press reports. In-store displays were also used as a low-cost means of promotion.

TerraCycle's financial results improved greatly in fiscal 2006. Sales increased to $1.5 million based on the sales of all the new products, including the African violet and orchid plant foods and the other products mentioned above. With this increase in sales, TerraCycle did begin to experience economies of scale and was able to generate a positive gross profit of approximately $550,000 for the first time. Despite the increase in sales and positive gross profit, TerraCycle still experienced a net loss for fiscal 2006 of approximately $1 million. This net loss was a result of the high operating costs of approximately $1.5 million, an increase of less than $500,000 from fiscal 2005 (far lower than the increase experienced in sales). Of these operating costs, salaries and consulting fees totalled approximately $1 million. Due to the mainly fixed nature of these costs, there was a belief that eventually TerraCycle would begin to reach economies of scale; however, with the increase in staff over fiscal 2006, this point had yet to be reached.

TerraCycle was excited about the opportunities and potential for the future. With a steady stream of its new lines of products being introduced and the promising results that had been achieved to date, there was a sense among everyone involved that TerraCycle continued to have great future potential. Financing for future growth continued to be a concern, but with the past success and promising expansion alternatives, the company was confident that additional funds could be raised.

In the spring of 2007, TerraCycle was sued in U.S. federal court by Scotts Miracle-Gro for, among other things, making claims that TerraCycle's product is more effective than Miracle-Gro and for allegedly using packaging similar to that of Miracle-Gro. Upon being sued, TerraCycle began to receive a great deal of press, and even sympathy and public support, as it was seen that the largest player in the industry, Scotts Miracle-Gro, was unfairly trying to force a much smaller company out of the market. This additional publicity resulted in additional revenues, with sales increasing by 122% within five weeks of the lawsuit having been filed.

Part of the public opinion was a result of a website that TerraCycle developed entitled, suedbyscotts.com. On the website, TerraCycle used a tongue and cheek David versus Goliath style comparison of the two companies. Comparisons included the fact that Scotts earned total sales of $2.7 billion as compared to TerraCycle's $1.5 million and Scotts earned profit of $132.7 million as compared to zero profit for TerraCycle. The comparisons also extended to the two CEO's, claiming Scotts CEO was a "former jet pilot, son of multi-millionaire Miracle-Gro founder" and TerraCycles CEO was a "25 year-old Hungarian-born refugee college drop-out". Company perks for the CEO of Scotts included personal use of a company jet versus an unlimited supply of free worm poop for the CEO of TerraCycle. The lawsuit was settled a couple of months later with TerraCycle agreeing to alter the colour of the packaging, to stop making claims that the TerraCycle product achieved better results, and to take down the suedbyscotts.com website.

Exhibit TN-1

STATEMENT OF CASH FLOWS
For the year ending December 31, 2005
(all numbers are in U.S. dollars)

OPERATING ACTIVITIES		
Net income		$ (1,061,628)
Add: Amortization		30,766
		(1,030,862)
CHANGES IN CURRENT ACCOUNTS		
Accounts receivable	$ (247,130)	
Inventory	(340,375)	
Prepaid expenses	25,225	
Accounts payable	175,455	
Salaries payable	48,927	
Insurance payable	5,798	
		(332,100)
Net cash flow from operations		(1,362,962)
FINANCING ACTIVITIES		
Due from shareholder	(75,000)	
Demand loan	149,988	
Common stock	—	
Series A preferred stock	—	
Series B preferred stock	1,400,000	
Dividends declared	—	
Net cash flow from financing activities		1,474,988
INVESTING ACTIVITIES		
Net long-term asset purchases (see Exhibit TN-4)		(75,038)
Net cash flow		36,988
Beginning cash		83,941
Ending cash		$ 120,929

Exhibit TN-2

NET LONG-TERM ASSET PURCHASES

Net Long-term Assets

87,549	Opening balance
Amortization	30,766
56,783	Trial balance
$\boxed{75,038}$	Net long-term asset purchases
131,821	Ending balance

Exhibit TN-3

OTHER RATIOS FOR TERRACYCLE INC.

	2005	2004	Industry 2005
Current ratio	2.0×	3.6×	1.2×
Acid test ratio	1.0×	1.5×	0.6×
Age of accounts receivable (days)	208.7	70.9	30.0
Age of inventory (days)	311.6	195.7	65.0
Age of accounts payable (days)	168.4	126.1	24.0
Debt to stock	0.2	0.0[1]	Unknown
Debt to equity	0.7	0.3	1.9
Interest coverage	(57.3)	(447.3)	3.4
Fixed asset turnover	4.9×	1.6×	10.0×
Total long-term asset turnover	3.5×	1.2×	Unknown
Total asset turnover	0.4×	0.3×	24.×
Return on assets	(101.3%)	(223.5%)	Unknown
Return on equity	(177.0%)	(281.8%)	Unknown

Growth ratios (2004-05):

Sales	341.9%
Cost of goods sold	224.8%
Operating expenses	49.9%
Net income after tax	(44.1%)

[1] *Rounded. Actual result is negligible.*

Exhibit TN-4

DIFFERENTIAL ANALYSIS — AFRICAN VIOLET AND ORCHID
For the year ending December 31, 2006
(all numbers are in U.S. dollars)

		Per Unit	High Sales 110,000		Low Sales 30,000	
INFLOWS						
Sales		$2.84	$ 312,400		$ 85,200	
Total inflows				$ 312,400		$ 85,200
OUTFLOWS						
Expense allocations (not different)			$ —		$ —	
Promotions		N/A	20,000		5,000	
Bottles		0.35	38,500		10,500	
Safety cap (African Violet)	50%	0.07	3,850		1,050	
Spray head (Orchid)	50%	0.27	14,850		4,050	
Labor costs		0.85	93,500		25,500	
Brewing costs ($1.97 ÷ 128 × 20)		0.31	34,100[1]		9,300[1]	
Packaging		0.40	44,000		12,000	
Labels:						
African Violet (50% of total sales)						
English (70% of African Violet)	35%	$0.15	5,775		1,575	
English/French (30% of African Violet)	15%	0.44	7,260		1,980	
Orchid (50% of total sales)						
English (50% of Orchid)	25%	$0.44	12,100		3,300	
English/French (50% of Orchid)	25%	0.44	12,100		3,300	
Total outflows				286,035		77,555
Net cash flow				$ 26,365		$ 7,645
Investments:[1]						
Research & development (sunk costs)			$ —		$ —	
Accounts receivable		70.9 days	61,525		16,780	
Inventory		85.0 days	62,814[2]		17,131[1]	
Accounts payable		64.0 days	(47,295)[1]		(12,899)[1]	
Total investments				$ 77,044		$ 21,012
Return on investment				**34.2%**		**36.4%**
Payback (years)				**2.9**		**2.7**

[1] Results may differ slightly if the numbers are left in the calculator during the calculation, rather than rounding at the end of each step. The difference is negligible and will not impact the overall implications or analysis.
[2] Calculated using cost of goods sold (with analysis).

Exhibit TN-5

PROJECTED WORKING CAPITAL CALCULATIONS

ACCOUNTS RECEIVABLE INVESTMENT

Accounts receivable	=	Sales[1] × # days/360 days
High sales	=	\$312,400 × 70.9/360
	=	\$61,525
Low sales	=	\$85,200 × 70.9/360
	=	\$16,780

INVENTORY INVESTMENT

Inventory	=	Cost of goods sold × # days/360 days
High sales	=	(\$286,035 – \$20,000) × 85.0/360
	=	\$62,814
Low sales	=	(\$77,555 – \$5,000) × 85.0/360
	=	\$17,131

ACCOUNTS PAYABLE INVESTMENT

Accounts payable	=	Cost of goods sold × # days/360 days
High sales	=	(\$286,035 – \$20,000) × 64.0 /360
	=	\$47,295
Low sales	=	(\$77,555 – \$5,000) × 64.0/360
	=	\$12,899

[1] *All sales are made on credit.*

Exhibit TN-6

BREAKEVEN CALCULATIONS

	High Sales		Low Sales	
Weighted Average Variable Cost:				
African Violet:				
English:				
Variable cost	$2.13		$2.13	
Proportion of sales	35%		35%	
Weighted average variable cost		$ 0.75		$ 0.75
English/French:				
Variable cost	2.42		2.42	
Proportion of sales	15%		15%	
Weighted average variable cost		0.36		0.36
Orchid:				
English:				
Variable cost	2.62		2.62	
Proportion of sales	25%		25%	
Weighted average variable cost		0.66		0.66
English/French:				
Variable cost	2.62		2.62	
Proportion of sales	25%		25%	
Weighted average variable cost		0.66		0.66
Weighted average variable cost		$ 2.42		$ 2.42
Selling price		2.84		2.84
Unit contribution		$ 0.42		$ 0.42
Contribution margin		14.8%		14.8%
Fixed costs:				
Promotion		$ 20,000		$ 5,000
Breakeven units		47,450		11,862
Breakeven sales dollars		$ 134,758		$ 33,689

Exhibit TN-7

PROJECTED INCOME STATEMENT
For the year ending December 31, 2006
(all numbers are in U.S. dollars)

Assumption: Selling the African Violet and Orchid Plant Food Formulas

	High Sales		Low Sales	
REVENUE				
Sales				
Existing products (170.95% increase)	$ 1,250,907		$ 1,250,907	
New products (from differential)	312,400		85,200	
Total sales		**$ 1,563,307**		**$ 1,336,107**
Cost of goods sold:				
Existing products (65% of sales)	813,089		813,089	
New products (from differential)	266,035		72,555	
Total cost of goods sold		**1,079,124**		**885,644**
Gross profit		**$ 484,182**		**$ 450,462**
OPERATING EXPENSES				
Existing products (49.9% increase)	$ 1,552,825		$ 1,552,825	
Promo — New products (from differential)	20,000		5,000	
Total operating expenses		**1,572,825**		**1,557,825**
Net income before tax		**(1,088,642)**		**$ (1,107,362)**
Income tax[1]		**—**		**—**
Net Income After Tax		**$ (1,088,642)**		**$ (1,107,362)**

[1] *If students have a net income before tax, income tax should be calculated at 25% of the net income before tax.*

Exhibit TN-8

PROJECTED BALANCE SHEET
As at December 31, 2006
(all numbers are in U.S. dollars)

Assumption: Pursuing the African Violet and Orchid Plant Food Formulas

	High Sales		Low Sales	
ASSETS				
Current assets:				
Cash (same as last year)	$ 120,929		$ 120,929	
Accounts receivable	307,678		262,962	
Due from shareholder	—		—	
Inventory	254,793		209,110	
Prepaid expenses	45,900		45,900	
Total current assets		$ 729,300		$ 638,901
Long-term assets:				
Fixed assets	199,422		199,422	
Less: Accum. amort., Fixed assets	(85,880)		(85,880)	
Net fixed assets		113,542		113,542
Patents & trademarks	42,059		42,059	
Less: Accum. Amort., Patents & trademarks	(6,315)		(6,315)	
Net patents and trademarks		35,744		35,744
Total long-term assets		149,286		149,286
Total Assets		$ 878,586		$ 788,187
LIABILITIES & SHAREHOLDERS' EQUITY				
Liabilities				
Current liabilities:				
Accounts payable	$ 191,844		157,448	
Salaries payable	48,927		48,927	
Insurance payable	—		—	
Demand loan	149,988		149,988	
Total current liabilities		$ 390,759		$ 356,363
Shareholders' Equity:				
Common stock	292,011		292,011	
Series A preferred stock	1,117,000		1,117,000	
Series B preferred stock	1,500,000		1,500,000	
Series B preferred stock — new issue (plug)	976,731		939,449	
Retained earnings	(3,397,916)		(3,416,636)	
Total shareholders' equity		487,827		431,824
Total Liabilities & Shareholders' Equity		$ 878,586		$ 788,187

Exhibit TN-9

ALTERNATIVE SOLUTION[1]
PROJECTED INCOME STATEMENT
For the year ending December 31, 2006
(all numbers are in U.S. dollars)

Assumption: Pursuing the African Violet and Orchid Plant Food Formulas

	High Sales		Low Sales	
REVENUE				
Sales				
Existing products (170.95% increase)	$ 1,250,881		$ 1,250,881	
New products (from differential)	312,400		85,200	
Total sales		**$ 1,563,281**		**$ 1,336,081**
Cost of goods sold:				
Existing products (65% of sales)	813,073		813,073	
New products (from differential)	266,035		72,555	
Total cost of goods sold		**1,079,108**		**885,628**
Gross profit		**$ 484,172**		**$ 450,453**
OPERATING EXPENSES				
Existing products (49.9% increase)	$ 1,552,618		$ 1,552,618	
Promo — New products (from differential)	20,000		5,000	
Total operating expenses		**1,572,618**		**1,557,618**
Net income before tax		**(1,088,446)**		**$ (1,107,165)**
Income tax		**—**		**—**
Net Income After Tax		**$ (1,088,446)**		**$ (1,107,165)**

[1] *Based on revenue growth rounded to one decimal.*

Exhibit TN-10

ALTERNATIVE SOLUTION[12]
PROJECTED BALANCE SHEET
As at December 31, 2006
(all numbers are in U.S. dollars)

Assumption: Pursuing the African Violet and Orchid Plant Food Formulas

	High Sales		Low Sales	
ASSETS				
Current assets:				
Cash (same as last year)	$ 120,929		$ 120,929	
Accounts receivable (70.9 days)	307,879		263,134	
Due from shareholder	–		–	
Inventory (85 days)	254,789		209,107	
Prepaid expenses	45,900		45,900	
Total current assets		$ 729,49		$ 639,070
Long-term assets:				
Fixed assets	199,422		199,422	
Less: Accum. amort., Fixed assets	(85,880)		(85,880)	
Net fixed assets		113,54		113,542
Patents & trademarks	42,059		42,059	
Less: A/A., Patents & trademarks	(6,315)		(6,315)	
Net patents and trademarks		35,74		35,744
Total long-term assets		149,28		149,286
Total Assets		$ 878,78		$ 788,356
LIABILITIES & SHAREHOLDERS' EQUITY				
Liabilities				
Current liabilities:				
Accounts payable (64 days)	$ 191,841		157,445	
Salaries & commissions payable	48,927		48,927	
Insurance payable	–		–	
Demand loan	149,988		149,988	
Total current liabilities		$ 390,75		$ 356,360
Shareholders' Equity:				
Common stock	292,011		292,011	
Series A preferred stock	1,117,000		1,117,000	
Series B preferred stock	1,500,000		1,500,000	
Series B pref. stock — new issue (plug)	976,932		939,621	
Retained earnings	(3,397,916)		(3,416,636)	
Total shareholders' equity		488,02		431,996
Total Liabilities & Shareholders' Equity		$ 878,78		$ 788,356

[12] *Based on revenue growth rounded to one decimal.*