Duke University
The Fuqua School *of* Business

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What is Consulting?

To many MBA students, it may appear that the world of career opportunities consists largely of three areas: investment banking, marketing, and consulting. A fourth category, "other", usually refers to a management position in a specific industry or a unique entrepreneurial opportunity. Only after experiencing a term or two of courses and the travails of the summer internship search process do many people develop a better sense for the broad palette of post-MBA opportunities. At this point, it becomes clear that the possibilities are far more diverse than the original and commonly accepted logic might have indicated. Nevertheless, many people choose to pursue one of the "big three", and at the top ten US business schools, the consulting profession draws roughly 30% of all graduates.

Consulting Trends at Fuqua

Each year at Fuqua, approximately half of the student body initially expresses interest in a consulting career, while roughly one-fifth accept summer internship positions in the consulting industry and one quarter decide to enter the industry on a full-time basis following graduation. What is it about consulting that draws such interest? Is there a clear definition of the consultant role and of the industry as a whole? Perhaps more importantly, what are people's expectations, and are they fulfilled?

What Do Consultants Deliver?

To better understand what consultants deliver to their clients, it is useful to consider parallels to the investment banking industry. Banking offers both tangible and intangible services, such as capital issuances and fairness opinions, respectively. Like investment banking, consulting is a service, performed on a contractual basis on behalf of a specific client. From the client's perspective, consultants represent a team of industry experts that work closely with the internal management to develop a business applications concept.

It is often helpful to visualize the consulting industry as a spectrum of various services offered to clients. Consulting services can range from an abstract strategy formulation to the physical installation of computer equipment or software. There are also many intermediate levels of advisory services that fall between the two extremes.

Strategy Consulting

At the strategic end of the services spectrum, consulting is often a purely information-based activity, yielding only a series of presentation papers as the physical result. These ideas represent the culmination of weeks or months of work in concert with the client. The physical documents delivered at each phase of the project represent the blueprints for a strategic idea path and possible outcomes of each different path.

Implementation Consulting

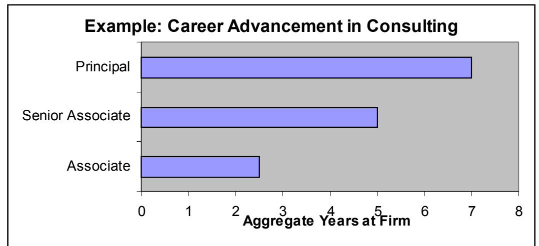
While such strategy projects typically lack a physical end product, implementation projects might conclude with the delivery of a new production system or a new software offering advanced functionality.

The Consulting Product – An Oxymoron?

There are various terms used to describe the product of a consulting project. "Value creation" or "value added" are commonly used concepts representing the net result of the work performed. Namely, a quantifiable value which the advisory work or implementation has imparted to the client organization. Value can be defined in terms of increased financial margins or growth rates, increased sales or profits in absolute terms, cost savings, jobs that have been spared or eliminated, or potential problems that have been alleviated or mitigated. Less precise measures of value include enhanced consumer awareness, increased value of goodwill, or improved processes for activities that are difficult to meaningfully quantify (e.g. efficiency improvements in administrative activities and research/development cycles). How value is measured for a given project is often jointly determined by the client and consulting team, and can vary widely depending on the nature of the project, client, and industry.

The Engagements & Career Path

The work that consultants perform takes the form of discrete projects generally called "engagements". Typically, a senior officer of the firm is responsible for the client and has an oversight role on the project team. This individual's role is to represent the firm's relationship with the client. As an officer, he/she is generally responsible for several client relationships and therefore multiple engagements. Junior staff members handle the specific details of each project. Depending on the unique work approach of each consulting firm, junior staff may be responsible for one or two projects concurrently. As shown in the accompanying illustration, a typical post-



Source: Booz·Allen & Hamilton, Inc.

MBA level rank order starts with a "associate", moves to "senior associate" and "principal" at the post-MBA intermediate level, and ends with "vice president" or "partner" at the senior level.

Different firms may use slightly different titles to distinguish their seniority structure. Some firms require an individual to eventually focus on a particular industry segment, and there are often separate post-MBA recruiting channels for such specialized experts. Other firms maintain what is known as a "generalist" approach, whereby individuals do not maintain a particular industry affiliation and broadly apply their talents across a wider variety of projects.

Choosing the Consulting Industry and a Role Within It

What Forms Does Consulting Take?

Although most people typically associate consulting with the advisory work performed by the traditional firms that call themselves management consultancies, the job can take many forms. For example, an employee of a company in virtually any industry can serve as an internal consultant, working on discrete projects that improve process efficiency. Within firms which specialize in management consulting, specific roles can be differentiated by industry practice area or type of advisory work performed. Some broad categories defining forms of consulting are internal, external, implementation, strategy, operations, and management.

While it is usually possible to distinguish such differences, it is worthwhile noting that using such categories to draw conclusions about the consulting profession does not always make practical sense. There is often significant overlap between categories, and all categories are critically important to the value chain in the consulting and client industries.

Why Consulting – Pros & Cons

With a clearer picture of what consultants are and how they interact with their clients, we can now turn to the question of why people want to become consultants. Here are a few reasons commonly cited by MBA students:

Ability to develop a broad perspective of industries and players, contact with multiple levels of client organizations, finite project-oriented work assignments, access to highly intelligent and motivated thinkers as colleagues and clients, excitement of frequent travel, and above-average compensation levels commensurate with above-average travel requirements and levels of responsibility.

Consulting engagements can involve any possible level of management within a client organization, ranging from the executive team to shop floor workers in a company's production facility. In some cases, a single project will require that the consultant interface with both management and production employees simultaneously. This variety in the level and nature of client contact is one of the attractive attributes of the consulting industry. Variety naturally comes in other forms as well. Clients can be in the public or private sector, engagements can span industries or consultants can work in tandem with investment bankers to structure new types of corporate entities. In each case, the nature of the work can range from optimizing existing processes to introducing concepts never before attempted in industry. These projects can take the form of purely quantitative or purely qualitative work, but usually lie somewhere between the extremes. Taken together, these factors help the consultant to quickly develop a broad perspective of the dynamics that characterize an industry. The lessons learned from one industry often have applicability to situations encountered in other industries as well, so that the consultant can benefit in future projects from learning and applying patterns which he/she has observed from prior experience.

The excitement of direct involvement in high-level decisions affecting business processes and strategies can often be tempered by the intense demands required of consultants. Work hours are typically much longer than those considered normal in most industries, and generally range from 60-80 hours per week, with a general average of 65 hours. Consultants are often required to travel extensively, since clients may conduct their business operations across a wide geographic area. In some cases, consultants who are specialized in a particular field may find that their employer requires their services in other of the firm's offices elsewhere in the country, or even outside the country.

In choosing a consulting firm and a specialty area within the firm, MBA students should take into consideration these and other lifestyle issues. Above-average compensation levels do not come without a cost, which is measured in personal time sacrificed and "wear and tear" from frequent travel. As such, many consulting careers last between two and five years, after which the individual moves into what may be viewed as a more stable occupation. This causes the turnover rate among consultants to approach 25% at some firms.[1]

Gauging the Culture of Consulting Firms

Although consulting firms are frequently in competition for the same clients and projects, the cultural attributes of the individual firms can differ radically from one another. Much of the cultural flavor of a firm can be traced back to how the firm sees itself fitting in to the broader industry spectrum.

At one extreme of the spectrum, "pure strategy" firms specialize in delivering macro-level solutions pertaining to corporate restructuring and new approaches to competing. Since many of the solutions generated have not been attempted before, and because the decision making process occurs at the executive management level, these firms often view their consulting services as being more valuable than those of implementation-oriented firms.

Firms offering services that span the broad spectrum of implementation to strategy generally view themselves as capable of offering clients the broadest and most comprehensive services possible. Accenture and A.T. Kearney, for example, each offer strategic-level consulting and information technology consulting/implementation services, and serve as outsource partners for business technology applications. With clients increasingly demanding strategies that clearly deliver measurable results, firms specializing in a combination of strategy formulation and implementation have positioned themselves well to take advantage of this market shift.

In recent years, there have been various attempts by firms operating at opposing ends of the service spectrum to expand their focus towards the center. Firms that previously have solely functioned as strategy formulators have either developed internal implementation resources or have contracted with dedicated outsource partners who provide such services following the initial consulting engagement. Firms that have traditionally performed primarily implementation-oriented services have been developing strategic assets in order to develop macro-level ideas that it can then work to implement. To the extent that clients increasingly demand a single partner for all consulting services, it is reasonable to expect that this convergence trend will continue.

In addition to specialty focus along the services spectrum, historical tradition has much to do with how a firm views itself. A newer firm may be more attracted to technology-oriented clientele, for example, and may proudly extol the virtues of having a nimble, youthful and dynamic organizational culture. More established firms might see themselves as representing a longstanding tradition of conservatism and methodical, sound advice spanning all major industries. The various ways in which firms perceive themselves influence their internal culture and interpersonal relations among employees. Traditional, conservative consulting firms often have a hierarchical rank structure that regulates activities of consultants at different levels of seniority. A recently graduated MBA student expecting to immediately take on project leadership in such a firm may therefore be disappointed if the first year's tasks consist largely of performing project research. At the other extreme, clients which expect seasoned consultants and associate age with experience may shy away from firms which offer new post-MBA employees quick leaps up the seniority ladder. In selecting an employer among consulting firms, it is useful to inform oneself about the internal dynamics of the firm and how clients view the firm.

The Role of Geography

Geography plays an important role in building and projecting the expertise of consulting firms, as well as in shaping the professional experience of the consultants employed. US firms are increasingly expanding from their domestic base in order to develop competencies in foreign markets. An overseas presence may take the form of a single representative office in a country, an office, which serves multiple countries in a region as a "hub", or a full-service office that locally provides all of the firm's resources for clients in a given foreign location.

For the consulting professional, firms with an overseas presence offer an opportunity to take advantage of access to global informational resources when conducting research for project assignments. It is often possible for a consultant to simply contact a colleague in a foreign branch of the firm to inquire as to local market conditions, and larger firms typically have research centers in major international locations to perform this function as well. The proliferation of multinational corporations has created client base, which may require consulting services that can only be delivered by a firm able to tap into resources that span different geographical locations. Depending on an individual's career goals, a consulting firm with global reach might offer a superior level of access to such multinational opportunities. Of course, firms that specialize in the US domestic market often derive benefit from their niche expertise, so the absence of an international presence is not necessarily an indicator of an uncompetitive firm or a poor career opportunity for consultants.

Firms typically maintain a separate recruiting process for their international practices. Prior to the first interview, MBA students wishing to interview for international positions are usually forced to make a decision for either a US or overseas office. Students opting for an international assignment will find that subsequent interviews are then conducted with representatives of the corresponding region or country. Since firms typically view the summer internship process as a proxy for the MBA student's full-time position upon graduation, students who do not intend to work overseas following graduation may have difficulty convincing recruiters to extend a summer internship opportunity at a non-US location.

For non-US citizens studying in US MBA programs, international locations may be the only possibility for placement in either the summer internship recruiting process or for full-time positions. These policies differ between firms and can change each year, so students should inquiring about the international recruiting practices of individual firms. As an option, international students may find it possible to negotiate a summer internship assignment in a US office, followed by the offer of a full-time assignment in an international office in the following recruiting season. Such an arrangement has the advantage of introducing the consulting intern to US business practices, which he/she can then transfer to a foreign consulting market on a full-time basis later.

Following initial placement in either a US or international location, consultants generally have significant freedom to choose new locations after having worked for some period of time in their initial location. Such assignments can be either in the form of a complete reassignment, which includes moving one's household overseas, to a project-oriented assignment, which generally involves a temporary move that only lasts for the duration of a project (usually 3-12 months). Some firms have such programs already codified in their human resources policies, while consultants at other firms may need to structure such opportunities on an individual basis in accordance with their desired career paths.

The MBA Summer Internship Experience

The summer internship experience offers the MBA student the opportunity to develop an understanding of the consulting industry, client interaction, the unique lifestyle demands of consulting, and the individual culture of a particular firm. In a brief span of only ten to twelve weeks, the intern can get exposure to one or more projects or industries, discover how clients interact with consultants in general and the one firm in particular, and most importantly, assess how the firm performs its work in comparison to the often glowing descriptions of work style which often characterize consulting firm recruiting functions. After an entire summer, a more accurate picture of the internal workings of the firm replaces recruiting propaganda.

The summer projects may be in a single industry, or may span multiple industries and clients. Often, the intern will join a project already in progress, in which case he/she will be required to rapidly learn the project developments preceding his/her arrival. It is important for the intern to anticipate needing to rapidly absorb large quantities of information in a very short period of time. Although MBA case studies provide some flavor of this experience, an actual consulting engagement is typically far less structured at the outset and doesn't have the advantage of a finite quantity of readily digestible, accurate, and complete supporting data as seen in classroom case studies. In some cases, the client has become accustomed to the existing team and may prefer that new consultants not be added in a full-scale capacity. Unfortunately this can lead to the intern not being granted a comprehensive experience in all aspects of the engagement workload.

The degree of involvement that an individual has in a project will differ between firms. Even within the same firm, the level of involvement may differ between practice areas and project teams. Often, these differences are predicated on the cultural structure of the firm, but the individual personality characteristics within a given firm can also be important in determining the roles, which a summer intern is able to play in the client engagement. To avoid unfortunate situations of mismatched personalities, interns should attempt to become involved with two projects during the course of the summer experience. Additionally, it is critical that the student take advantage of the firm's mentoring program during the summer. Generally, firms will assign mentors, but the risk exists that these programs are less structured in reality than the firm might be willing to concede. A strong relationship with one's mentor ensures that communications channels remain open and that the summer experience has a positive outcome for both the intern and the firm.

Some Areas On Which To Focus During The Internship

Time Management
- Establishing and maintaining a reputation for timely, accurate work within the team, irrespective of the task assigned
- Learning to live by the "80/20 Rule".

Assessing the Fit
- Determining whether your work style is aligned with that of the firm
- Comparing your project experience with that of your fellow summer interns and with recently hired full-time MBA-level consultants

Mentoring
- Establishing and building the formal mentor relationship
- Developing informal mentor relationships

Client Focus
- Developing insight into client needs and learning to focus on these needs
- Consistently strive to understand how you come across in informal dialogue with your team and in formal presentations to clients

Defining the Industry

The consulting industry can be viewed across a variety of dimensions. Two in particular are especially well suited as means of evaluating the industry on the basis of individual firms:
- Firms which compete in the consulting marketplace
- Competencies / specialties of consulting firms

The first dimension includes all firms which formally define their primary business as consulting. These are generally the traditional service firms, which provide consulting services along with accounting, tax, and audit services, as well as specialized consulting firms targeting information technology, project implementation, process change, operations improvements, or "pure strategy" considerations only.

The second dimension offers the most valuable benchmark for assessing how firms position themselves against each other and how they view themselves as serving their clients. It is often useful to visualize the universe of consulting firms at various points along a spectrum. While a few firms attempt to serve clients along all points of the spectrum, it is far more common that a firm exhibits a dominant specialty which places it more strongly in one area than in another. From left to right along the spectrum, these specialty areas are as follows:
- Information Systems focus
- Operations focus
- Strategic/Operations focus
- Strategic focus

Firms which specialize in Information Systems consulting include not only the traditional "big 5" advisory services firms, but also a host of non-traditional consulting entities with a technical focus. Such consultants typically have a technical orientation, either in high technology, manufacturing, or finance. Some examples are SAP, Oracle, and IBM.

Firms take different views on the nature of their client service niche. A full-service firm, such as Accenture, positions itself to serve all client needs along the range of possible advisory and implementation services. Each project is viewed as a potential source of repeat business for both the originating as well as the other competency areas within the firm. A project originating in the firm's strategic advisory group might be handed off to an implementation-focused group following the initial diagnostic and recommendation phase. Once the implementation group has given life to the strategy group's recommendations, the firm may suggest that the client retain the firm to administer the process which has just been created or refined. Such engagements can lead to outsourcing opportunities for the firm, and permit Accenture to offer a complete "life cycle" of advisory and operational services for clients.

In contrast, a "pure strategy" firm such as McKinsey will often identify strategic recommendations for clients without directly offering implementation services or administration of systems and processes. Instead, the firm will frequently contract with third-party providers of such services on behalf of the client, achieving a similar effect to that which is embedded within Accenture's organizational model. In both cases, the client not only receives the recommendation, but experiences the consulting firm's implementation, and is thereby able to judge the accuracy and efficacy of the advisory work. While such examples illustrate a complete life cycle process from idea to inception, many consulting engagements terminate after the strategic recommendation phase. Factors which cause clients to forgo using the original consultants as implementers are: high price of consulting services, belief that resources internal to the client are sufficient to implement recommendations, and political considerations within the client organization.

Another important point of distinction is that consulting firms often exhibit different internal cultures and levels of competency across their worldwide locations. International offices of consulting firms often reflect the local social and business culture of their host countries or regions, which may create internal barriers between employees from offices in different countries. It is equally important to note that clients also reflect these cultural differences, by exhibiting business attitudes and practices unique to their home markets. Consultants can increasingly expect to be placed in an overseas assignment at some point in their careers, making it worthwhile to anticipate cultural distinctions far in advance of their projects commencing. Additionally, firms often market themselves as offering a seamless network of services between their offices worldwide. These interrelationships between offices may actually consist more of co-marketing arrangements than of substance-based resource sharing capabilities. Individuals interested in this aspect of global consulting should consider investigating how different firms interact with their worldwide locations.

Most US consulting firms are active in all major world markets, and generally compete under their own brand names. In some cases, firms must reincorporate in foreign markets and use slightly modified names, but generally are discernable as affiliates of their US parent organization. Despite a global market presence, however, most firms exhibit inconsistencies across their worldwide offices. These inconsistencies include:

- Market share and growth rates
- Client base
- Reputation among clients
- Brand recognition within market

- Competency in specific industry groups
- Receptivity to foreign employees
- Pay and benefits packages

MBA students interested in working in international locations should be cognizant of these differences. The opinion which one forms of a firm based on an interview in the US, for example, may not be representative of the work environment which that individual may experience in a foreign location of the same firm.

The Nature of the Work

What does a consultant actually do? The field of consulting is primarily an advisory service. In cases of operations or technically focused engagements, this advisory work can extend into actual implementation of the recommendations proposed. An individual consultant's responsibilities may range from structuring a particular aspect of a client's overall strategy formulation to temporarily substituting for an employee of the client organization. The nature of the engagement is always predicated on the notion of customer service. Consultants who keep this tenet in mind will be better able to anticipate and adapt to unconventional or extreme situations which may develop based on client requests.

Client interaction can range from intense client contact during the entire work week, including weekends, to infrequent client contact that might occur in person or by electronic means. These two extremes can be regarded as "the project from hell" and the "who is the client?" project, respectively. Firms generally attempt to avoid the former scenario, which is often associated with systems implementation projects, but even the "pure strategy" firms are not immune to such situations when client requirements demand intensive interaction under tight time constraints. To establish a standard of work/life balance, most firms have adopted a policy limiting time at the client site to 3-4 days per week, leaving weekends off-limits to client work. A typical workweek thus becomes:

Monday: fly to the client site in the morning
Monday through Thursday: work at the client site and in the hotel room at night
Thursday: return to the home city in the evening
Friday: work at the firm office, catching up on voice mail, e-mail, physical mail and performing client-related tasks remotely

As a post-MBA recruit, the new consultant joins the ranks of the professional postgraduate staff. Typically, individuals at this level will have a mix of responsibilities spanning one or two projects. Routine tasks might include hypothesis formulation, project/process management, conducting fact-finding interviews with clients and third parties relevant to the project at hand, and light to moderate research. Time management is a key factor at this stage, as well as later stages. As a general practice, approaching tasks with "the 80/20 rule" permits an optimal utilization of time available. The basis of this rule is that 80 percent of the solution comes from 20 percent of the inputs. In other words, efficient consultants focus on a small number of key drivers, main points, or data sources to generate outcomes that are largely complete. Striving for absolute perfection simply takes too long, and often is not necessary to achieve the same end effect. Instead, focusing on the highlights will often achieve a superior result with significant time savings.

Over time, consultants will gradually move into positions of greater responsibility. A good barometer of this is the degree of direct contact with clients, and the degree of project leadership one is permitted to exhibit during the client relationship. Newly hired consultants should gauge the balance of project leadership with project "membership" (i.e. just being a contributor on a team), and note how or if this changes over time. Armed with an MBA degree, consultant tasks should be weighted more heavily towards formulating ideas than conducting research. An imbalance in this area might indicate a project team leader who unfairly hoards project responsibilities, or a firm culture in which delegating responsibility exists more in word than in deed. These issues have significant implications for career advancement and professional skills development.

Consultants who progress beyond the initial post-MBA phase will become increasingly involved with the marketing aspects of the profession. By the third postgraduate year in a firm, the consultant becomes involved with "selling business". This may involve as much as 25% of a consultant's time on average at this stage of his/her career. By the time the consultant reaches the senior manager or principal level, marketing may demand as much as 50% of his/her time.

The Consulting Lifestyle

One of the biggest complaints is the consulting lifestyle. The "typical work week" outlined in the prior section offers a general idea of what one is likely to encounter once on the job. To manage professional demands from both the client and the firm with one's personal life commitments, the consultant must become adept at effectively balancing work hours with personal time. This is often best achieved by a process called "multi-tasking", whereby one breaks up the work week or work day into discrete blocks of personal and professional time. Managing your personal and work time will never be more important than it is when you are a consultant.

Many firms in the industry don't insist upon consultants working fixed hours in a fixed location, and the advent of electronic communications tools allows people to work virtually anywhere that has access to electricity and a phone line. Consequently, many consultants are able to work from home, or perform personal tasks via computer while on the road. To optimize one's efficiency at multi-tasking, one can migrate certain commonly performed tasks to electronic media (switching to an online bank, for example, to process payments electronically in lieu of writing paper checks). Additionally, consultants can split the work day between personal and professional tasks, as long as time-sensitive client/firm requirements are completed at the appropriate time. While these efforts to reshuffle one's personal life do ease some of the tension caused by a fast-paced consulting career, it is also necessary to maintain a certain degree of human interaction with colleagues at the firm. Consulting firms generally shun the traditional corporate custom of "face time" (being seen in the workplace, especially in front of senior colleagues, in order to convey the appearance of dedication to the organization), but there often remains some implicit bias towards being noticed by senior consultants. Individuals must judge how to handle these implicit "rules of the game" based on their own understanding of firm and office dynamics. This concept can be characterized as balancing flexible work hours with "face time".

To overcome the often extreme demands placed upon personal time and quality of life, consulting firms typically offer generous perquisites ("perks") and amenities designed to simplify the manner in which one performs work tasks. Extended vacations, complementary event tickets, ability to choose projects and project managers, first-class travel, unlimited access to office resources and generous compensation packages are typical methods whereby consulting firms attempt to maintain employee satisfaction. In one case, a newly married couple agreed to live separately for two years if their respective employers would permit them to fly to each other's location each weekend. The employers agreed, and the couple worked in locations such as Peru, New York and Los Angeles. Despite these efforts, turnover in the industry remains high, usually averaging 20 - 30 % per year. It is not uncommon for consultants to frequently move between various other consulting firms. Since this practice is so common, it is advisable to never make any enemies within the profession. It is virtually certain that former colleagues will reappear at some later date, or will at least know someone relevant to your career path.

People exiting the industry often do so after two to three years, leaving either to pursue an exciting business opportunity or to enter academia. Often, clients will extend job offers at the close of a routine engagement. This practice has become especially worrisome to consulting firms in the last two years, as Internet startup firms are increasingly luring consultants away from their firms with the promise of equity participation in new, technology-oriented growth industries. Career placement professionals, also known as "headhunters", are also an active part of the landscape. Even new consultants will experience a barrage of headhunter contacts, each with a promise of an alternative and superior opportunity to one's present employment.

Building Your Tool Kit

Just as no client engagement is like another, there is no way to “study” specifics for an interview. Instead, work on developing a coherent thought process, along with a broad understanding of dynamics across specific industries; then seek to bridge the dynamics from one industry to others.

Think about your own personal “case studies” that you have experienced in prior jobs or have heard about from friends and family members. Focus especially on work experiences that allowed you to gain a more thorough understanding of broader organizational issues, or dynamics among industries and competitors.

Next, take this thought process one step further, by developing these ideas exhaustively. Try to completely think through all possible paths that could emanate from any single idea, and sketch these out on paper in the form of a process diagram. Package them into coherent short stories that you can use both for interviews and for your own problem solving. To start, simply think of your resume as a collection of case studies.

Next, focus on getting to know the consulting terminology (buzzwords and concepts) and understanding when to use the them, formulating a structured thought process for case interviews, and applying your own work experiences to create your own "case studies".

Introduce a "formulate hypothesis/test the hypothesis" thought process

Be able to generate and interpret matrices and graphics

Learn to think and communicate in bullet points (this builds clarity in interviews and later in client situations)

While conveying your suggestions, refer to the client

Frameworks can often be symptomatic of a linear thought process, which can be either beneficial or disadvantageous. A linear thought process imparts structure and minimizes the chance of omitting a key issue, but may limit the possibility of creative, abstract thinking. In interviews, it is especially important to avoid referring verbally to a specific framework of which you might be thinking at the time. When brainstorming, try a combination of linear and spatial "thinking modes", using frameworks when necessary to generate creative, abstract, but relevant ideas.

Above all, remember that competency exists not just in what you know. It is also evident by how you package your knowledge and how you present yourself both on and off the job. Subtleties are critical in establishing your credibility and effectiveness with interviewers and ultimately with clients. Focus on maintaining manners, presence, and poise, and developing or refining your listening skills.

Bringing it All Together

Consulting firms often like to sell themselves as do-all organizations. The crucial point here is that on an individual level, it rarely makes sense to attempt to take on and excel at everything. Even within a project team, the tasks are divided between the members, so that tasks do not become excessively burdensome and idea generation isn't confined to one person's style of creativity.

To market yourself most effectively and be most capable in your job, you should work on defining yourself as someone who is capable of fitting in seamlessly to ambiguous situations. Be an aggressive learner, exposing yourself to ideas that span industries. Learn about trends and historical precedents so as to be able to rapidly draw conclusions from current situations facing clients or facing the firm. Become a chameleon, constantly refining your ability to take on whatever color is necessary to thrive in a given situation.

This being said, do not be averse to expressing an interest in a particular niche area if you find that you are developing a focal point of interest. Many firms insist that consultants begin their careers as general practitioners of the trade, but even with this stipulation, it may still be possible to request projects which allow you to develop your understanding of a particular industry or specialty area. The danger of specializing, or specializing too early, is that one runs the risk of sacrificing one of the key benefits which consulting offers people: a broad perspective across industries. Taking lessons and observations from one industry and interpreting them within the context of another industry can often offer valuable insights which might otherwise remain undiscovered. Individuals must be able to balance the benefits of wide exposure to multiple industries with the attraction of specializing in a favored area of interest.

Approaching the Firms

Contacts Are Key

The importance of contacts and networking cannot be overstated, particularly when firms are preparing their closed interview lists. The idea is to gain a competitive advantage by becoming more than just a name at the top of a resume. Recruiters are more likely to place you on their closed interview list if they recognize your name as that of someone who made a strong first impression and followed up with additional communication that was polite, thoughtful, and not oppressive.

As you meet representatives from the various firms at presentations, career fairs, symposia, etc., carefully establish relationships with specific individuals who are representing the firms. Selectively collect business cards and keep in touch with the individuals who you deem most likely to assist you with your job search. Thank you notes, e-mail messages, telephone calls and cover letters are all good ways to maintain contact. Don't hesitate to discretely ask to schedule informational interviews during breaks or summer vacation. Feel free to cold-call alumni to ask about their experiences with their firm; typically the individual will be flattered, and at worst she may say she doesn't have time to speak with you that day. The important thing is to "get on the individual's radar screen," make a strong first impression and express your sincere interest in the firm. Almost without exception, these individuals have been through an identical job search experience earlier in their careers, and as a result, they understand your current situation and motivations. In any case, build relationships selectively and avoid using the word "networking." A small dose of subtle professionalism will go a long way as you begin to establish your reputation in the consulting industry.

What Firms Seek in a Candidate

Different firms look for various characteristics in a candidate. Some common themes are ability to work in teams, problem-solving ability, ability to generate ideas/options/hypotheses, analytical skills, results-orientation, ability to think in a structured manner (within and beyond frameworks), positive, "can-do" attitude, and ability to pass "the airport test".

Prior to the interview, write down some examples of how you have demonstrated each of these characteristics in a professional setting. Rehearse your stories, and be sure to keep them crisp. Once in the interview, try to determine which two or three of these characteristics are most important to the interviewer and tell the appropriate stories.

So…tell me about yourself!

As interview season approaches, be sure to be able to deliver a clear, concise answer to the "tell me about yourself" question. This question may also come disguised as the "walk me through your resume" question. In any case, the key here is to make your story brief (2-3 minutes) yet interesting, allowing the interviewer the opportunity to ask for additional detail at points where he/she may wish to hear more. Be sure to hit the high points, typically starting with your undergraduate education. Interviewers like to understand how you think, so it is also important to provide insights into why you made certain key decisions.

Know what you want

Unfortunately, the job search is less like choosing from a menu, and more like asking your mother-in-law for a specific flavor of ice cream. It is therefore important to know what you want. Indeed, interviewers will often ask "why us?" or "why consulting?" Have a logical story; practice it and be able to sell it. And remember to "be careful what you wish for" – you just might get it! This particularly applies with respect to location, as during the first-round interview firms will often ask where you want to work.

The Elevator Test

Oftentimes recruiters will use the following setup in asking candidates to summarize a case discussion:

"OK. You've been working on this case for several weeks now. It is Friday afternoon and you are leaving the client's office for the weekend. The elevator stops on your floor, and as the door opens you notice there is only one other person inside – the client's CEO. The executive greets you and asks you to summarize the work you have been doing for his company (at $450/hour!) for the past several weeks. You have as much time to explain as it takes to reach the ground floor – typically less than one minute. Go."

A couple of key points in structuring your response:

Be concise/avoid going into too much detail
Lay out the framework of your analysis (Thus far we have considered X,Y & Z)
Highlight key findings (We have discovered A, B & C)
Summarize recommendations (At this point it seems as if the appropriate course of action would be to…)

The elevator test may not necessarily have to do with consulting topics. The idea is simply to test your ability to talk about anything (your own personal interests, professional experiences, etc.) in a concise, engaging manner.

Alternatives to the consulting internship

It is important to note that consulting internships are very hard to come by. This is due largely to the fact that it is quite difficult to identify an interesting, discrete task that the summer intern can complete in ten to twelve weeks. Do not worry if you are unable to secure an internship with your "dream firm" – you will have another chance in the fall. Rather than sulk, follow-up with the interviewer and ask how you can improve your chances of receiving a full-time offer of employment. Build additional relationships with professionals currently working at the firm, and be sure to express your interest to Fuqua colleagues who work at the firm for the summer. You will be surprised to see how often recruiters ask summer interns and new hires for their opinions on their Fuqua colleagues.

You may also find it substantially easier to secure a summer internship in consulting through an independent job search. Reach out to the firms who do not recruit on campus. Send cover letters and follow-up with a phone call. Use alumni databases from Fuqua *and* your undergraduate institutions, social fraternities/sororities, etc. Visit the firms over winter break, and build the relationships you'll need to secure the right internship. Your initiative will be greatly appreciated, and you won't have to compete head-to-head with as many bright candidates.

In the event that you are unable to land a consulting internship altogether, rest assured that this does not mean the end of your consulting career. There are many other ways to build your resume and improve your chances of obtaining a full-time consulting position. The important thing is to have a back up plan and know how to package the experience so as to properly position yourself for the full-time recruiting process. This means that, in addition to your consulting internship search, you should identify and pursue five to ten opportunities in a function and industry that interest you – marketing, finance and operations are all fair game. Ideally, the summer internship should revolve around a project-specific assignment, culminating in a deliverable and a presentation. The idea is to mimic the consulting internship *within* a specific company – preferably in an industry to which you later wish to consult. Properly executed, this additional experience should only serve to strengthen your candidacy for full-time consulting positions.

Some final thoughts

The consulting industry is small – very small. It is therefore important that you not make enemies. With turnover in the industry presently running at 25% per annum, there is always the distinct possibility that the person who interviewed you at Firm X will be your supervisor on your first day of work at Firm Y. Maintain professional courtesy at all times – with colleagues and clients alike. Believe it or not, a recent Fuqua graduate once made an unprofessional comment to a client during his summer internship. The remark not only cost him his job, but also his on-campus recruiting privileges and his professional reputation. The moral of the story? Behave!

Further Informational Resources

Many additional resources are available to assist you in your consulting job search. The following list is not meant to be exhaustive, rather it should provide some good leads as you continue to enhance your understanding of specific firms and the industry and profession as a whole.

Consulting firm web sites
Wet Feet Press (www.wetfeet.com)
Vault Reports (www.vault.com)
Harvard Business School Press (www.hbsp.harvard.edu)
One Source Business Browser (www.onesource.com)
Hoovers (www.hooversonline.com)
Management-oriented Books
Consultants News
Management-oriented Periodicals
California Business Review (Haas School of Business)
Harvard Business Review
Sloan Business Review

Fuqua Courses that Support a Consulting Career

The following is a list of electives suggested for students planning to pursue a career in general management consulting. Please note that these are only suggestions – you should customize your own course selection to your individual needs and goals.

Finance/Accounting
Corporate Finance (BA351)
Financial Statement Analysis (BA441)
Corporate Restructuring (BA455)

Marketing
Market Intelligence (BA361)
Marketing Planning (BA491)
Advanced Marketing Strategy (BA468)

Strategy
Corporate Strategy (BA430)
Competitive Analysis (BA431)

Management
Strategic Human Resource Management (BA424)
Management of Professional Services (BA491)

Operations
Supply Chain Management (BA491)
Manufacturing Strategy (BA471)

Statistics and Decision Sciences
Economic Models for Consulting Practices (BA406)
Statistical Forecasting (BA411)
Decision Analysis (BA410)

Appendix A - Case Cheat Sheet

Company Economics Type Questions

These questions tend to start with a story about a company whose historical profit relationships have recently changed. The question for you is to figure out why. A lot of times, these questions will eventually lead to an analysis of the competitors and customers in the market. For example, you may break down the economics and discover that prices are dropping, which should lead you to explore whether that is a function of competition (supply) or demand.

One simple way to start these questions is to lay out the following equation, then break it down into the appropriate level of detail:

Revenues – Costs = Profit
OR
Revenues – Variable Costs = Gross Margin

Revenues = Units x Price
Changes/problems in units or price can be analyzed using:

- Competition / Substitutions
- Internal Factors
- Demand issues
- Channel issues (who does our client sell to directly, and has this relationship changed?)
- Quality (reduced quality = lower price and/or lower units)
- New Technology

Variable Costs =
- Labor
  - Union/nonunion
  - Wages rising?
- Materials
  - Quality of materials
  - Price of materials
  - Availability/substitution of materials
- Overhead
  - Depreciation
- Power
  - Supervisory salaries
  - Maintenance
- Distribution costs
  - Shipping
  - Sales commissions (this one seems to pop up a lot)

Fixed Costs =
Ask if any one time costs/unusual expenses first
Plant/equipment (annual amortization/depreciation only, since that's the only way buying plant affects income)
Management (General & Administrative "G&A")

When finishing a company economics case, it's vital to summarize, focusing on a solution or action plan for fixing the problem—unless the interviewer explicitly says not to. The plan should include the consultant or company's next steps, which should be logically sound and economically feasible.

Strategy Type Questions

The most typical strategic questions center on whether or not a new market is appropriate for a client. Sometimes, the focus is on the theoretical analysis of whether or not to enter; other times, the key is to focus on practical methods of entering a market. Often, these are combined into one case, where the first part is spent analyzing a market and the second part is devoted to developing a specific entry strategy.

Two approaches:

"Four Cs" for exploring the theory behind a strategy
Customer
Segment every time (See segmentation sheet)
Cannibalization issues
Competition
Barriers to entry
Number and strength of competitors
Market share
Quality
Types of companies in market
Is competition for end users or for players in the channel?
Company
Costs of new project
Ease of changing to new project/strategy
Channels (in 90% of my cases, this turned out to be a key factor)
What do we use
What could we use
What do others use
Costs/benefits of different channels

AND / OR

Practical Ways to Enter New Market/Industry
Start from scratch
Time to market?
Can we grow the capabilities we need?
License/partner with another company or joint venture ("JV")
Partnership issues
Conflicting goals
Cultures

Logistics
Merge
Cultures
What are potential synergies?
Acquire
Do we have enough money/debt capacity?

Segmentation:

In many cases, you will need to break down the market.

First, determine who the actual customer is & if the customer is the end user or the channel.

If it is an individual consumer discuss segmentation through:
Demographics, Age, Gender, Sex
Economics
Education
Race
Religion
Region
Urban/rural
Pattern of Use
Daily/regularly
Sporadically
Loyalty issues
Sources/channels received from (always consider direct selling in some way)
Type of Use
Attitude toward product

If it is a business or channel
Use
Pattern of use / ordering behavior
Channels (direct?)
Size of company
Importance of our product / service—loyalty and dependence issues

Business Operations Questions

These are very similar to the cases in the core ops classes. If the firm you are interviewing with does a lot of ops-type work, you will almost definitely get one of these. The key is to refresh your memory on the major concepts of operations, such as cycle times, newsvendor theory, etc. You are not likely to be asked specific formulas, but having a working knowledge will be very helpful. Since each ops problem is different, there aren't any general frameworks to use. The following routine may be helpful, though.

Isolate main problem

Apply a framework, using ops theory and common sense

Think action

Behavioral Questions

Most cases also include a few minutes of behavioral questions. You should be prepared to answer the following:

Academic Section

Why grad school?
Why Fuqua?
Are you satisfied with your experience?
What activity outside class has been most rewarding?
What has been your best class at Fuqua and why?
What has been your worst class at Fuqua and why?
Tell me about (activity/achievements on resume)?
Where have you demonstrated leadership at Fuqua?

Work Experience Section

Why did you pick (previous career)?
Why did you pick (previous employer)?
Would you change your decision now?
What was the best part about working for (previous employer)?
What was the worst part about working for (previous employer)?
What specific duty did you like best at (previous employer)?
What specific duty did you like least at (previous employer)?

Other Section

Where do you see yourself in five/ten/twenty years?
What qualities do you think a leader needs?
Tell me about yourself. (2-3 minutes) Born, raised, college, work, why interviewing with them.
What can you offer us? (Relate to job)
What are your strengths? (3 or 4 relevant ones)
What are your weaknesses/limitations? Make sure it's fixable.
What do you know about our company?
Please give your definition of a consultant.
Why us?
How long before you make a meaningful contribution?
What would make you a good manager?

Interview Intangibles

By way of summarizing, here are a few intangible factors to consider in an interview.:

- Make eye contact when you are talking.
- Except for the occasional "stress" interview, interviewers are generally trying to help you. If they give you a hint, follow it, or give a really good reason why you aren't.
- Hints from interviewers are not always explicit. The more you can read reactions and body language, the better off you are. Treat it like a first date, when you're trying your best to pick up on hints and innuendoes. Listen.
- Look happy and relaxed, especially when you aren't.
- Express genuine curiosity in the case. Interviewers love to see intellectual curiosity, especially when the case they are giving is something from their own experience. After the case is "officially" over, ask how the project turned out.
- Keep the energy level high; the interviewer is probably half asleep and bored out of her mind.
- Write everything down. When you are writing down the list of things you will discuss, write it big enough so the interviewer can see it. Refer to your notes often to stay on track.
- If it becomes clear that you have gone down a road that isn't helping you, it is acceptable to gracefully admit this, briefly explain why, and backtrack. The interviewer does not want to hear excuses. Do not become defensive, especially in a "stress" interview where the interviewer is purposely being unhelpful to test you.
- Smile.

Appendix B - Tips for Consulting Behavioral Interviews

By John Mack, Fuqua School of Business, Class of 2000

Research the Company and Industry
Website
Fuqua alumni
Recent press releases & current events
Career Services Office materials

Customize the Message
Focus on key competencies

Research your Interviewer
Obtain a biographical summary on the interviewer prior to the interview, if possible
Scan the biography, look for interesting or experiences you have in common
Develop questions pertaining to the interviewer's experiences and relating them to your own experiences or goals

Tips:
If you're uncomfortable, so is the interviewer
Build rapport with the interviewer; this needn't be work-related

"Tell me about yourself" question:
prepare an answer
concise
hit key points
have a short & slightly longer version
don't ramble: make points and stop

Structure: SITUATION / ACTION / RESULTS

Focus on & demonstrate KEY COMPETENCIES

Anticipate, structure and rehearse answers to LIKELY SITUATIONAL QUESTIONS

Examples:
Integrity violations you've witnessed
Adverse situations
Inadequate resources
Self-motivation

Cite personal examples from your previous employers, work situations and leadership or team roles in either work or non-work settings.

Selling Yourself

Your self-oriented research will help you identify your **KEY SELLING POINTS**

Balance "I" versus "we" in your answers; don't be too individualistic or too team-oriented; give examples of each in different situations

Package the product
Be concise (don't give extraneous information or ramble on)
Remember to include results of your actions in a specific situation
Tie each answer back to a competency ("…and I think this demonstrates my ability to…")

The "Failure Question"
Prepare standard answers with specific examples
Review your prepared answers for possible "red flags" before using in an interview
Be prepared to turn negatives into positives
"What did you learn?"
"What would you have done differently?"
"How could you apply these lessons?"

Common Questions
"What is your biggest failure?"
"Why consulting?"
"Why us versus another firm?"

The Closing
Feel free to ask questions
Provide a concise summary but don't oversell yourself
Leverage rapport if possible
Exit with confidence

Follow-Up
thank-you note
e-mail may be appropriate (creates an immediate feedback loop; use when timing is critical, e.g. January interviews)
voice mail may also be appropriate
develop a sense for best method(s) based on situation, firm, timing constraints, what competition is doing

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Appendix C - Tips for Consulting Case Interviews

By John Mack, Fuqua School of Business, Class of 2000

Typical Format

Interviewer describes "typical" project to the candidate, then engages in a ***give-and-take*** to reach a conclusion

Interviewer asks the candidate to analyze an experience from his past as a "case"

Interviewer provides the candidate with a brain teaser or puzzle (e.g. "how many tires are sold in America each year?"; "how many cats live in Chicago?")

Which Case Do You Get?

Interviewer may look for "gaps" in your resume and try to fill then using specifics from your resume

Interviewer may probe deeper in areas in which you have expertise

Interviewer may choose inverse of your "comfort zone" in constructing questions:

Quantitative background → qualitative questions

Qualitative background → quantitative questions

Interviewer may give the same case or variants on it to all candidates, all day

Using creativity in answers may break the mold and distinguish your responses

Tip:

Make the communication a 2-way dialogue

Solicit information from interviewer to formulate structure before coming to any conclusions

Discern what pieces of information you need; if interviewer doesn't or can't volunteer details, make and state a set of assumptions and use these to conduct your analysis

Come in with a positive attitude and look forward to being engaged

Look for verbal or non-verbal cues from interviewer indicating that you're headed down the wrong cognitive path

Be prepared to make mid-course corrections

Don't drill down too deeply or provide "microscopic" detail

If you have, extract yourself:

Stop

Ask interviewer if you can redirect your focus back to the salient points

Technique: "I could provide more information in this direction if you think it would be helpful" (allows interviewer to hint whether or not you should continue along current path

Make sure that you answer the question that is posed

If you don't have enough information, state your assumptions (e.g. "well, then let's assume XYZ…")

Technique: restate the question to confirm it before launching into analysis

The Analysis

There are no right answers, but some approaches are more right than others

Use (don't abuse) concept frameworks to help organize your thoughts

Mix and match your concept frameworks to outline your approaches in your head

Outline the top 3-4 paths you will take with your interviewer before you begin
Frameworks will often be transparent to the interviewer; (don't use preformulated frameworks explicitly)
Focus of the case could shift mid-stream; be prepared (e.g. a marketing case could become a finance case)

Appendix D - Top 10 Case Interview Tips
By Josh Rose, Fuqua School of Business, Class of 2001

The following list was adopted from The Vault.com's consulting case book.

1. Take notes
As your interviewer presents your case, be sure to take careful notes on the numbers or other facts given. (Always bring a notepad and a pen to a consulting interview.)

2. Make no assumptions!
As a case interviewee, you should never make any assumptions. Your interviewer will inevitably leave things out of the case presented to you. You should assume the persona of an actual consultant trying to learn about an assignment

3. Ask questions
Your interviewer expects you to ask questions - as many intelligent questions as you need to obtain an accurate picture of the relevant facts in the case. Many inexperienced case interviewees make the error of asking their interviewer too few questions. They may be afraid that they will look ignorant, or not wish to "bother" the interviewer. Remember - not asking questions is a fatal error in a case interview. If you don't know the first thing about the specific market, ask specific questions to allow you to solve the case.

You will often find that your interviewer will direct your line of questioning to a specific area, but you must always be ready to control the conversation in case the interviewer does not direct your reasoning. If you are unsure, simply ask the interviewer. For instance, if you find the interviewer offering little direction as you move through your initial questions, you may wish to ask, "I find the lack of a risk assessment to be a potential showstopper. Might I ask some detailed questions about this?" Or you might say, "Given what you have told me about the situation, I would like to find out more about the client's current relationship with its distribution partner. Would that be OK?" In this way, you take charge of the line of questioning without stepping on the interviewer's role.

4. Listen to the answers you get!
One interviewer warns: "Many candidates get so caught up in asking the perfect questions that they don't listen to the answers they receive. They go through a mental list of all the questions they want to ask, and ignore the response they got. That throws off their reasoning." Make sure you respond to the information you receive.

5. Maintain eye contact
Always maintain direct e ye contact during the case interview. Eye contact is critical when answering case questions - it demonstrates confidence and authority.

6. Take your time
It's perfectly fine to take a minute to think through your answer - in fact, most interviewers find it preferable. On the other hand, while "a minute of deep thinking" is fine, "five minutes is really

overkill. You don't want your interviewer waiting there for five minutes. The case is only supposed to be 15 or 20 minutes."

7. Lay out a road map for your interviewer
After you've selected your approach, tell your interviewer what approach you're going to take. For example, you might say, "First, I'm going to discuss the Mexican and Canadian markets. Second, I'll ask about our entry strategy. Finally, I'm making a recommendation." "One of the most important things consultants have to do is present complex ideas in a lucid manner," explains one interviewer. "That's why you should take time to explain your reasoning. Not only will it impress your interviewer and allow you to confirm any assumption that you're making, but it will allow you to get your own thinking straight."

8. Think out loud
In order to successfully navigate case interviews, you will need to act quickly and confidently. The business case is an opportunity to show the interviewer how you think. Your interviewer wants to know that you can reason in a rapid and logical fashion. As you assess, compile, and analyze the elements presented to you, be sure that you speak aloud and explain your reasoning. This is the only way the interviewer can assess your performance.

9. Present your thinking in a clear, logical manner.
Where useful, use frameworks and business concepts to organize your answer. You should develop a framework for assessing case interview questions which can be applied to different situations.

Beyond this, you may choose any line of questioning or structure that you feel comfortable with. As you practice, you will find yourself developing this framework unconsciously as you attempt to gain clarity over a situation. Capture and package this framework, and have it available by memory (or on paper if you wish) for use at any time.

10. Quickly summarize your conclusions
You have limited time in your case interview to make your point. Be able to summarize your process and conclusions in 1-2 minutes (Elevator Speech)

Appendix E - The Case Interview Process
By Josh Rose, Fuqua School of Business, Class of 2001

The following procedural approach to the case interview was presented by Accenture during a presentations on campus last year. The process of the case interview parallels that of a consulting engagement. First, you are presented with the problem. You than need to understand the problem by asking well-thought out questions. The answers to these question allow you to develop a framework or an approach with which you can analyze the situation. Than you should discuss the analysis or the process you would undertake to analyze the situation. Finally, you summarize your methodology with any recommendation you may have.

1. Listen to Case	2. Clarify Problem	3. Decompose Problem	4. State Hypothesis	5. Test Hypothesis	6. Summarize Findings

Clarify the problem:
Ask clarifying questions
Probe for additional information
Asses the facts
Pause to structure your thinking
Summarize issues for discussion

Decompose Problem;
Identify root cause of the problem
Break problem into component parts

State Hypothesis:
Identify possible solutions
State your assumptions
Choose appropriate framework
Use sketches/tables etc.

Test Hypothesis:
Apply framework
Describe analysis to be applied
Discuss findings and implications as you go along
Probe for concurrence and additional information
Present hypothesis for future testing/discussion

Summarize Findings:
Succinctly review issues covered
Present solution
Present alternative scenarios

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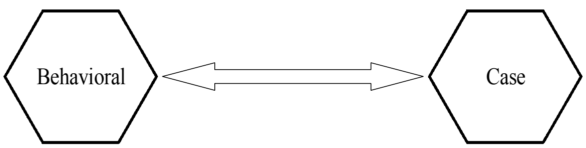
Appendix F - Case Interview Thought Process Framework

By Chad Mikula, Fuqua School of Business, Class of 2000

Overview

Many companies are moving toward case interviewing as a test of functional skills.



• Marketing	• Consulting	• Consulting
• General corporate	• Marketing	• Marketing
• Companies that tend to have less sophisticated recruiting process	• Investment banking	• Investment banking

Note that even in consulting, you will almost always have at least one "fit" or behavioral interview

Key Interview Skills

Consulting tends to be different because of the heavy emphasis on case and analytic skills.

<u>Keys to Case Interviewing Success</u>:

• <u>Structure driven</u> (not any specific structure -- just show that you can organize your thinking -- lay out your approach)

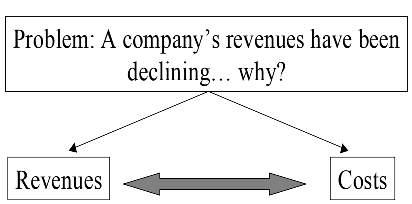
• <u>Analytic nature</u> (can you handle the numbers?)

• <u>Key business insights</u> (do you know anything about general businesses?)

• <u>Ability to "80/20"</u> (don't ramble -- get to the most leveraged areas -- fast)

Bucket Problems

The first basic step in any case interview is to break apart the problem "horizontally".

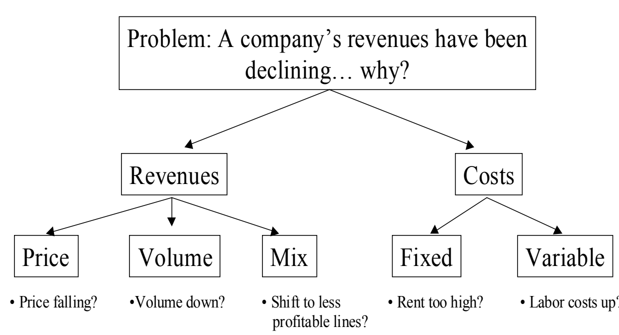


This is basically a logic tree...

The key is to make this first pass "**<u>MECE</u>**" or "**M**utually **E**xclusive and **C**ollectively **E**xhaustive"

Drill Down

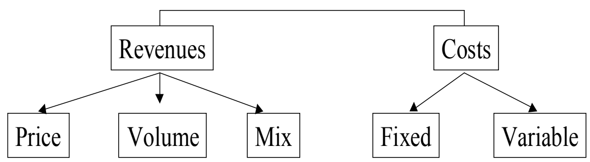
Once you're satisfied that you've listed all of the MECE buckets, you then "drill down" to find root causes.



The key is to figure out what is driving the problem

Drill Down

Frameworks often overlap -- say, for example, you know that prices have been falling...



- Prices ARE falling...

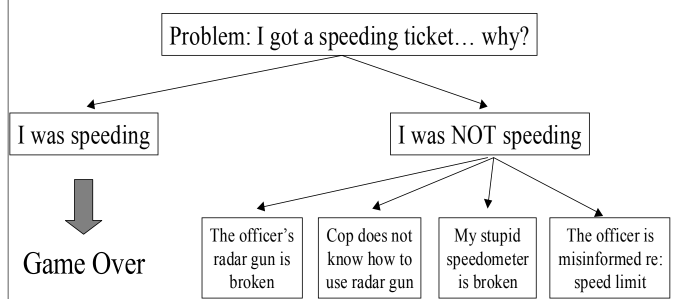
Use Porter's 5 Forces to find out why prices are falling...

- Industry rivalry
- Buyers
- Suppliers
- Substitutes
- Threats of new entrants

What is driving price decline?

An Example

In general, horizontal-then-vertical attacks work on most problems. A random example.

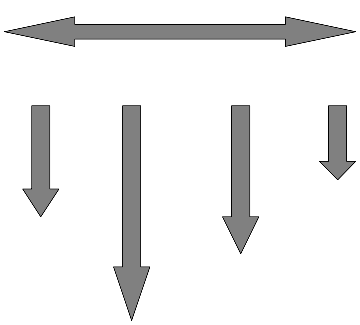


Once you hit on the key bucket, you can investigate further to get at root causes and suggested fixes.

Problem Review

Overall, you pull a problem apart into buckets and find MECE sub-assertions from which to further drill down.

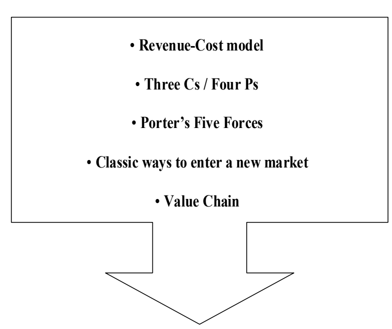
Separate a problem horizontally



Then "drill down" into relevant areas.

Frameworks

Classic frameworks provide a generic structure for you to think about business problems.



They should not be memorized -- it will make your thinking sound artificial.

Duke University
The Fuqua School of Business

Appendix G - Case Interview Frameworks

By John Mack, Fuqua School of Business, Class of 2000

4 Cs

Customer/Channels*
Competition
Cost
Capabilities**

* (1) Include ***intermediary buyers,*** not just end users of the product
(2) What ***decision factors*** do customers use?

** including ***Core Competencies***

SWOT

- Strengths
- Weaknesses
- Opportunities
- Threats

Strengths, Weaknesses — capabilities
Opportunities, Threats — competition

Cost/Benefit Analysis

What are the cost drivers?

COSTS — *Aggregate & unit-level*

Fixed

- admin overhead
- capital eqmt
- rent/lease

Variable

- prod overhead
- resources/raw matls
- energy
- distribution
- advertising

How do they change with:
- ***product mix?***
- ***production volume?***

BENEFITS

Tangibles

- revenue
- market share
- cost savings

Intangibles

- reputation
- value of brand
- market access
- erecting barriers

Market Segmentation

- Delineate market into discrete groups
- match product offering to discrete groups
- segment price structure
- manage brand identity among customer groups
- define a niche and deliver niche-specific products

Product Offering
vs.
supply & demand

Profit Equation

Profit =
Revenue - Cost

Revenue
\- COGS <<Var costs
Gross Margin
\- SG&A <<Fixed costs
Operating Profit
\- Taxes
Net Income

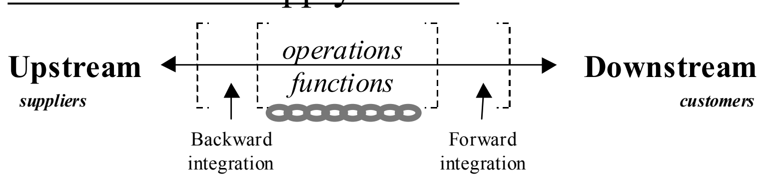
Key Ratios
RONA = Revenue / Net Assets (assets - cash)
ROI = Revenue / Investment in project
ROE = Revenue / Shareholders' Equity
NPV = discounted future cash flows
Inventory Turns = COGS / Avg Inventory

- What are capital requirements and how do they change over time?
- Is necessary capital investment high enough to constitute a barrier to entry?
- Analyse marginal costs (scale costs)

4 Ps

Product
Price
Placement (distribution)
Promotion (marketing)

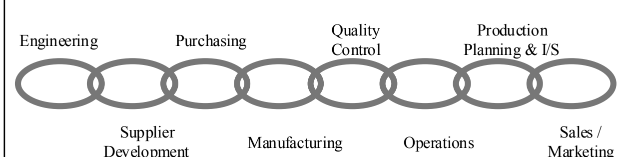
Value Chain / Supply Chain



Vertical integration = absorbing or divesting of upstream or downstream functions

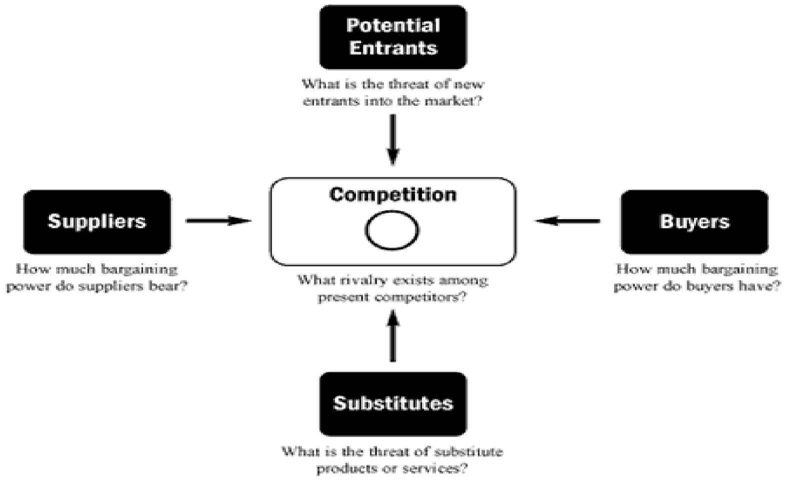
Supply Chain --

Internal Organization Components (Operations Functions)



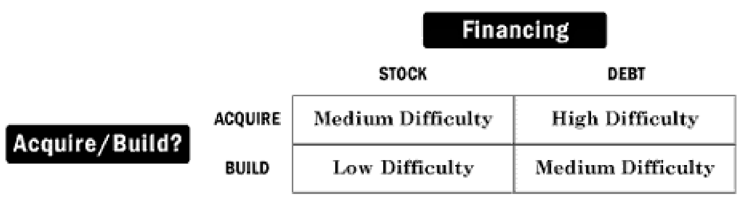
Porters 5 Forces

Widely used framework used to asses the attractiveness of an industry. Usually applied to cases that involved market entry or market exit decisions.



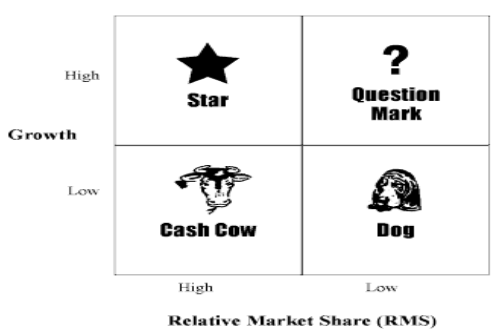
2 x Matrices

A tool widely used in the consulting industry. Provides a simple yet effective to analyze two factors which when combined, produce different outcomes.



BCG Matrix

2 x 2 matrix developed by BCG to evaluate a company's business segments by looking at market share and growth potential.



Appendix H - Buzzwords and Technology Terminology

The consulting industry uses many 'buzzwords.' Following is a basic list that can raise your level of familiarity with consulting terms.

10,000 feet: Very broad analysis of a business situation.

2x2: Pronounced "two by two," this is a favorite consulting tool used to analyze a number of items along two dimensions. It's basically a graph with X and Y axes that cross in the middle, creating four different sectors. You might be asked to produce one of these during your interview.

80/20 rule: Getting 80 percent of the answer will take 20 percent of your time.

Add value: To improve the bottom line.

Airport Test: A test consultants use to assess personality fit in interviews. If I were stuck with this person overnight at O'Hare airport, would I have fun?

Analysis paralysis: The condition of having too much information that it becomes difficult to make a decision.

Bananagram: A graph showing profitability vs. relative market share. It indicates that the higher the market share, the higher the profitability.

Back-of-the-envelope: Quick analysis.

Bandwidth: The capacity to take in new information.

Barriers to entry: Characteristics of a company or industry that make it difficult for new competitors to succeed.

Benchmarking: Measuring a value or practice or other business measure (such as costs) against other companies in the industry. For example, a software firm might hire a consulting firm to do a benchmark study on how much other firms are spending on customer service.

Beta: Measure of a stock's volatility.

Blank slide: Initial sketch of paper for a slide to be used in a consulting case presentation.

Bottleneck: The point in a process that slows it down or prevents it from moving forward

Brainteaser: A type of consulting interview question in which the applicant is asked to tackle a logic problem.

Brand: Sum of how consumers perceive a company, its products and services, and its image.

BTO (build-to-order): the manufacturing of goods only when and specialized according to an order from a customer; Also, BTF: build-to-forecast, BTR: build-to-replenish

Burn rate: The rate at which a company expends capital before it generates positive cash flow.

Business Process Reengineering (BPR): BPR is the process of reviewing a client's business processes, eliminating unneeded or 'non-value added' tasks, and then implementing the leaner, more efficient processes.

Business Design: Here's a consultant's definition: "For a company, it's not about growing your top line, it's about growing your bottom line." (The bottom line is profits.) "Business design is about what you do, how you gear up the troops. It has everything to do with whom you hire and what they do. It's your channel, your product, how you execute your offering."

Case/Project Team: Team that works on a consulting project for a client. Usually composed of one partner (or director), one consultant or two or more analysts (although this varies with the size and complexity of the case).

Change Management: One of the services provided by consulting firms, in which the firm helps a company cope with a period of significant change (such as a merger, downsizing or restructuring).

Consultancy: A typical European name for what is called a 'consulting firm' in the U.S.' though the term has picked up currency in the U.S.

Convergence: Consulting services in telecommunications (cable, wireless, wireline, and Internet companies), computers, and media—or "converging" industries, where the Internet, the telephone, the TV, and the PC all become one.

Core Competencies: Areas in which a company excels.

Cost-Benefit Analysis: A technique used to quantify the tangible and intangible upsides and downsides of a project.

Critical Path: It's time for some Operations Management theory. Every business is made up of a series of tasks. Some of these tasks are related to the maintenance of the process or administrative issues. If you eliminate these non-meaningful tasks, you are left with the core set of tasks that must occur in order for the process to produce the desired result. This is the critical path. In everyday consulting language, it is used to refer to only those work tasks that are the most important at the time.

Deliverables: The final product or solution you give (deliver) to the client.

Drilldown: Asking questions to gather more detail about a situation.

Drivers: The key variables of analysis that have the greatest impact.

Engagement/Project/Study/Case/Job: These are all different ways in which the firms refer to a specific project. Interviewers often note which term you use-just to see whether you've read the company literature. Using the wrong word is not an automatic ding, but you'll impress your interviewer if you get it right.

Exit strategy: A way out of a business situation, whether good or bad.

Experience Curve: The principle that a company's cost declines as its production increases. One assumption usually employed by consultants is that a company's costs decline by roughly 25 percent for every doubling in production.

Four Ps: Elements of marketing strategy: Price, Promotion, Place, Product

Framework: Basically, a framework is any kind of structure you can use to look at a problem. It can be as simple as, "The company's problems stem from both internal and external factors." Or it can be something more MBA-ish, like Porter's Five Forces. Consultants love frameworks, and the more you use them (up to a point), the more analytical you'll sound.

Fume date: Date a company will run out of cash reserves.

Globalization: The process of expanding a market or a business to adapt to multi-country, multi-consumer economics.

Glocal: Business strategy for being both global and local at the same time.

Guesstimate: Another example of a consulting interview question. Guesstimates require applicants to make an educated estimate of something using basic calculations.

Guerilla marketing: An unconventional marketing strategy

Growth: About two years ago, most firms shifted their focus from reengineering-which often-meant downsizing-to growth. Because it's more of a forward-looking, positive-sounding, revenue-generating concept, it may outlast reengineering in the consulting lexicon.

High-level View: This refers to describing a situation in general terms or as an overview of a situation.

Holding cost: Cost of holding unsold inventory.

Hurdle rate: A company's cost of capital.

Implementation: The process by which a consulting firm ensures that the advice it gives to a client company is enacted.

Inflection point: A dramatic change in a key variable such as a company's valuation due to a particular cause or event.

Integrated Supply Chain: This refers to a company's efficient and lean network with its suppliers, distributors and customers.

IPO, Initial Public Offering: Term for the first sale of publicly tradable shares by a company that has previously been privately owned. Referred to as "going public".

Knowledge Management: This is the means by which a company collects, stores, distributes and share knowledge. It is aimed at capturing every piece of information where it is generated and making it available for sharing where applicable.

LBO, Leveraged Buy-out: Acquisition in which a large part of the purchase price is financed and the remaining equity is held by a small group of investors.

Liquidity event: An event (generally an IPO, buyout or merger) that allows investors to convert their holdings into cash

Low-hanging fruit: Obvious opportunities that are easy to leverage.

Marketing myopia: Strategic error in judgment regarding the nature of an industry or a market.

Market share: Percentage of total category sales a brand generates.

Mass Customization: the selling of highly individual products by on a mass scale.

MBO, Managed Buy-out: LBO where the acquiring group us ked by the firm's management.

McJob: A low-paying position: often in the services industry.

MDPS (multi-disciplinary practices): the trend of American services firms offering accounting, consulting, and legal advice under one corporate umbrella

Mindshare: Percentage of available attention dedicated to an idea.

Net net: Income after deducting all expenses, including insurance and maintenance costs.

NPV, Net Present Value: Used both in its literal sense (the current value of future earnings), and colloquially to describe something or someone that will make a lot of money (i.e., "that's a high-NPV idea").

Number cruncher: Someone who excels at analysis; tends to refer more to an executor than a strategic thinker.

Offline: Outside of a class or meeting.

On the Beach: Not a bad place to be. In consulting it refers to any period of time during which you aren't staffed to a project. Although you won't necessarily see any sunshine here, you also won't have to be anyplace in particular, so there's a chance you'll be able to leave the office early, do your laundry, pay your bills, and maybe even see your honey!

One-off: On a one-time or case-by-case basis.

Operations: Operations refers to all the day-to-day tasks associated with the running of a company. In a manufacturing company, this includes the buying and processing of raw materials as well as the sales and distribution of the final products. Many consulting firms do a big business providing operations advice. At the simplest level, this just means that they help clients run their businesses better.

Opportunity costs: The cost of not pursuing a given project.

Out-of-the-box: A new way of looking at a problem

OTC, Over the counter: Informal market that does not involve a securities exchange. Specifically used to refer to the NASDAQ dealer market for common stocks.

Outliers: Pieces of information so different from the rest of the data that you disregard them.

Outsourcing: In an effort to reduce overhead expenses, lots of companies these days are turning to outsiders to provide many of the functions and services traditionally done in-house. Popular candidates for outsourcing include accounting services, marketing, communications, payroll management, and data processing. Some consulting firms provide these services; others just recommend that their clients seek them out.

Pay-for-Performance: Increasingly, billing based on performance rather than strictly hours is becoming a popular way to compensate consultants.

P/E Ratio: Share price divided by earnings per share.

Presentation: In the traditional consulting project, the presentation was the means by which a consulting firm shared all its insights and recommendations with client companies. The top management team from the client would assemble in a boardroom, and a partner or case team manager would spin through dozens of overhead slides displaying all the analysis they had completed. Although the standard overhead slide show is now considered a bit sterile, it's still a popular drill at most firms.

Pro forma: The presentation of hypothetical financial information based on certain assumptions; often used in business plans.

Process List: A list of all the processes of the company that are going to be analyzed in the scope of the project.

Proposal: The document by which the consulting company explains and prices the services it is planning to offer to the client. If the client accepts the proposal, a contract or job arrangement letter is signed.

Rightsize: Also 'downsize,' this is just a friendlier term for restructuring the elements of a company. This is most often used in reference to headcount reductions but can apply to other elements such as plants, processes, technology or office locations.

Risk/Reward trade-off: The idea that there is a proportional relationship between the level of risk and the potential reward.

Run the numbers: To perform a thorough quantitative analysis

Scalable: Used to describe an application or a business model that can adapt to an infinite number of customers

Service Line: Companies have different service lines to tackle different business problems. Examples of service lines could be operations, strategy, change management, human capital management, etc. Some companies are organized in terms of service lines.

Share of voice: The portion of total media within a category that a brand generates; also share of market (percentage of total category sales a brand generates) and share of wallet (amount of consumer's budget allocated to a product).

Shareholder Value Analysis: The goal of many companies is to enhance their value to shareholders-and they engage lots of consulting firms to help them do it. There are all manner of ways—proprietary and not—to analyze shareholder value.

Six Sigma: A popular corporate process for identifying and measuring defects in a product in order to eliminate them.

Stakeholder: A critical person who has a stake in the outcome of a particular situation. Usually, the stakeholders in a project are the shareholders, creditors and/or employees.

Strategic imperative: Requirement for success

Sunk cost: Money or effort expended in the past that should be ignored when assessing the current situation.

SWOT Analysis: A type of analytical exercise evaluating the company's, or project's, Strength, Weakness, Opportunity, Threat.

Synergy: The effective combination of two or more actions or projects.

Take Away: Key points of a meeting or analysis.

Time value of money: The notion that money today is worth more than money tomorrow.

Top line: Initial analysis of an issue or information.

Total Quality Management (TQM): Derived from the Edward Demming method of management; a process of continuous improvement in order to boost customer satisfaction.

Upside: Potential benefits of a business transaction.

Value Added: An enhancement to a product or service that increases its value to the consumer.

Value Chain Analysis: An analysis of all the processes that go into a product, from the gathering of raw materials needed to make the product to the delivery of the final product to the customer. Optimally, each stage adds value to the product.

Value Migration: The flow of economic and shareholder value away from obsolete business models to new, more effective designs.

Value proposition: Core service or value that compels the customer or client to respond to your product or service.

Valuation: A way to assess the current value of a business; may be accomplished by analyzing projected future cash flows or looking at the value of comparable companies.

Viral: A descriptive method by which ideas are spread from one user to another like a virus.

Virtual Office/Hoteling: Consultants move around so much that in some firms they are not assigned permanent offices. Each week, they must call up the office nearest them to request a desk.

Work Plan: A time schedule for completing a consulting engagement.

White-Space Opportunity: A moneymaking opportunity in an area you aren't set up to make money in. Think of it as an unbridged gap between what you do and what others do, or an untapped source of growth.

Writing a Deck: Preparing slides for presentations to clients.

eCommerce and Technology Terminology

3G, third-generation networks – Generic term for the forthcoming generation of mobile wireless communication systems.

Agent: Software designed to find and process information automatically, especially across a network.

Aggregator/Exchanges/Broker - eBusiness model features include :
- Buyer aggregators :combining purchases for more buying power
- Seller aggregator : communities of merchants
- Provide in-depth information
- Greater breadth & depth of product
Example : www.priceline.com

Applet - A small Java program that can be embedded in an HTML page. Applets differ from full-fledged Java applications in that they are not allowed to access certain resources on the local computer, such as files and serial devices (modems, printers, etc.), and are prohibited from communicating with most other computers across a network. The current rule is that an applet can only make an Internet connection to the computer from which the applet was sent.

ARPA, Advanced Research Projects Agency - Creators of ARPANet, the network that became the basis for the Internet. It was funded mainly by U.S. military sources and consisted of a number of individual computers connected by leased lines and using a packet-switching scheme.

ASP, Application Service Provider - An application service provider (ASP) is a company that offers individuals or enterprises access over the Internet to application programs and related services that would otherwise have to be located in their own personal or enterprise computers. Early applications tend to be generalized and include:
- Remote access serving for the users of an enterprise
- An off-premises local area network (LAN) to which mobile users can be connected, with a common file server
- Specialized applications that would be expensive to install and maintain within your own company or on your own computer.

Avatar - A software generated figure or form taken by a participant in an online world, such as a cartoon character.

B2B, Business to Business - Commerce conducted over the internet. May be classified in two ways:
1.Infrastructure - Auctions solution software, Content management software and web based commerce enablers
2. Markets - Web sites where buyers and sellers come together to communicate, exchange ideas, advertise, bid in auctions, conduct transactions and co-ordinate inventory and fulfillment.
Benefits:
Cuts the cost of purchasing by eliminating the time consuming processes that precede purchase orders
Aids in managing supplier/trading partner relationships by improving the efficiency of activities that influence them
Streamlines logistics and inventory

B2C, Business to consumer - Electronic commerce comprises commercial transactions, involving both organizations and individuals. From the technical point of view e-commerce is the processing and transmission of digitized data. E-commerce decreases the distance between producers and consumers. Consumers can make their purchase without entering a traditional shop.

Backbone - A high-speed line or series of connections that forms a large pathway within a network. The term is relative to the size of network it is serving. A backbone in a small network would probably be much smaller than many non-backbone lines in a large network.

Bandwidth - A measure of the range of frequencies occupied by a data signal across a communications channel. The greater the range of frequencies, the more data and thus information can be transmitted. The term is normally used to refer to the actual amount of information a communication connection can carry. Amount of data sent through a connection. Usually measured in bits-per-second. A full page of English text is about 16,000 bits. A fast modem can move about 15,000 bits in one second. Full-motion full-screen video would require roughly 10,000,000 bits-per-second, depending on compression.

Banner - An ad on a web page that is usually “hot-linked” to the advertisers site.

Bit - A bit is the smallest unit of data in a computer. A bit has a single binary value, either 0 or 1. Although computers usually provide instructions that can test and manipulate bits, they generally are designed to store data and execute instructions in bit multiples called bytes. In most computer systems, there are eight bits in a byte.

Blocking software - Programs that prevent access to parts of the Internet deemed to be objectionable, sometimes called censorware or filtering software.

Blowfish - A strong encryption algorithm.

Bluetooth - A computing and telecommunications industry specification that describes how mobile phones, computers, and personal digital assistants (PDAs) can easily interconnect with each other and with home and business phones and computers using a short-range wireless connection. Using this technology, users of cellular phones, pagers, and personal digital assistants such as the PalmPilot will be able to buy a three-in-one phone that can double as a portable phone at home or in the office, get quickly synchronized with information in a desktop or notebook computer, initiate the sending or receiving of a fax, initiate a print-out, and, in general, have all mobile and fixed computer devices be totally coordinated.

Broadband - A form of data transmission in which several parallel channels pass along a single cable or wire allowing a considerable amount of information to be conveyed, such as video. Generally defined as bandwidth over 2Mbps.

Browser - Software for viewing web pages.

Burn rate - The rate at which a new company or venture spends its capital while waiting for profitability.

CDMA, Code Division Multiple Access – A wireless telephone transmission technology that spreads digitized data across the entire bandwidth of a channel.

CGI, Common Gateway Interface – A set of rules that describe how a Web Server communicates with another piece of software on the same machine, and how the other piece of software (the "CGI program") talks to the web server. Any piece of software can be a CGI program if it handles input and output according to the CGI standard. Usually a CGI program is a small program that takes data from a web server and does something with it, like putting the content of a form into an e-mail message, or turning the data into a database query.

Churn – The percentage of participants that leave a service each month (ex. cancellations of wireless plans)

Clicks and Mortar - A company with roots and assets in the old economy that also exploits the of the Internet to expand and streamline its business.

Clickstream - A record of the clicks made as web users travel within and between sites.

Clickthrough - Sometimes referred to as "ad click rate" this is the percentage of adverts a user clicks on, or chooses to view. Low is 1-2%, high is over 15%. A portal's ability to integrate adverts intelligently can increase this metric.

Client - A software program that is used to contact and obtain data from a Server software program on another computer, often across a great distance. Each Client program is designed to work with one or more specific kinds of Server programs, and each Server requires a specific kind of Client. A Web Browser is a specific kind of Client.

Content - The information of a website or other source. Can take the form of text, sound, video, animation and numerical information.

Convergence - The coming together of disparate technologies, such as Internet services, television, cable and telephone.

Cookie - The most common meaning of "Cookie" on the Internet refers to a piece of information sent by a Web Server to a Web Browser that the Browser software is expected to save and to send back to the Server whenever the browser makes additional requests from the Server. Depending on the type of Cookie used, and the Browser's settings, the Browser may accept or not accept the Cookie, and may save the Cookie for either a short time or a long time. Cookies might contain information such as login or registration information, online "shopping cart" information, user preferences, etc. Cookies do not read your hard drive and send your life story to the CIA, but they can be used to gather more information about a user than would be possible without them.

Copyleft – A software-licensing scheme in which programs can be modified, redistributed, or even sold with the proviso that anyone who does so also passes on the freedom to make further changes.

Crawler – A program that visits web pages and reads their contents, usually on behalf of a search engine responding to a request.

Data mining - A set of techniques for sifting through huge amounts of information held in databases, with the aim of discerning useful trends, facts, or associations.

Database – A computerized filing system forming the core of most corporate computing systems.

DHTML, Dynamic Hypertext Mark-up Language – Term for the combination of advanced HTML features, style sheets and scripting.

Digital Revolution – An expression coined by Wired magazine to describe the transformation being wrought by technology in all aspects of our lives.

Digital Signature – A device that uniquely identifies the sender of an electronic message or document, based on public key cryptography.

Disintermediation - The concept of traditional intermediaries being replaced through direct buyer and seller exchanges.

Distributed computing – Combining the power of the processors of networked computers, working together collaboratively, to perform large of difficult tasks.

Domain Name - The unique name that identifies an Internet site. Domain Names always have 2 or more parts, separated by dots. The part on the left is the most specific, and the part on the right is the most general.

DSL, Digital Subscriber Line – Services designed to improve bandwidth connections over ordinary copper phone lines.

Dwelltime - The time a website visitor can be persuaded to spend looking at advertisements, closely related to the site's stickiness.

EDI, Electronic Data Interchange - Used in electronic commerce for the exchange of information such as purchase orders, acknowledgements, invoices, and other routine business documents electronically

eCommerce – The buying and selling of goods and services on the Internet.

Encryption – The conversion of a message or data file into a form that cannot be understood by unauthorized readers.

eTailing - Business to Consumer online retailing as typified by Amazon & Dell. Features include electronic storefronts, customer self service, mass customization, dynamic customized catalogues and customized pricing.

Extramercial - A type of advertisement seen on web pages which scrolls down the right-hand side of a page in response to a click on a button.

Extranet - When a company throws open its internal network or intranet to selected business partners, the intranet becomes an extranet. Suppliers, distributors, and other authorized users can now connect to the company's network over the internet or through private networks. Once inside, they can view data the company makes available.

Filter – A program that examines a message for specified criteria and then processes it accordingly.

Firewall - A filter between a corporate network and the internet that keeps the corporate network secure from intruders, but allows authenticated corporate user uninhibited access.

FTP, File Transfer Protocol – A standard way for computers on the Internet to exchange files.

Gateway - The technical meaning is a hardware or software set-up that translates between two dissimilar protocols, for example Prodigy has a gateway that translates between its internal, proprietary e-mail format and Internet e-mail format. Another, sloppier meaning of gateway is to describe any mechanism for providing access to another system, e.g. AOL might be called a gateway to the Internet.

Groupware - Software that helps people work together more productively and share knowledge more efficiently.

Hits - Hits are the number of requests from a Web browser for a single item from a Web server. Measuring hits can be misleading because a Web page can contain more than one file, and a hit can represent a request for a missing document, a complex search request, or request to display a graphic. Because each graphic element is a separate file on a page, a page with four graphics would count as five hits, one for each graphic and one for the Hypertext Markup Language (HTML) file. Using this scenario, a page may have 10,000 hits, but only 1,000 visits.

Home Page – The page that acts as a front door to everything else on a website.

HTML, Hyper Text Markup Language - The computer language or code used to create hypertext documents. HTML tags describe the structure of various kinds of documents typically found on the World Wide Web. These tags describe how the page will look when opened with a Web Browser that interprets (translates) HTML code.

HTTP, Hypertext Transfer Protocol - The set of rules for exchanging files (text, graphic images, sound, video, and other multimedia files) on the World Wide Web. Relative to the TCP/IP suite of protocols (which are the basis for information exchange on the Internet), HTTP is an application protocol.

Hypertext - Presentation format for information in which text, sounds, images, and actions are linked together, and refers to any text available on the World Wide Web that contains links to other documents. The term ‘hyper’ denotes how the text is not limited to the traditional ‘linear’ format. Using hypertext allows users to link in a non-linear fashion, and lets them follow their own interests, needs, or train of thought.

ICQ – Messaging software that lets people communicate in real time.

IMAP, Internet Message Access Protocol – Standard way of retrieving e-mail from a server.

Impression - A single instance of the display of a specific web page or, more commonly, a banner advertisement.

Intermediation - Intermediation is centered around the facilitation of business transactions between buyers and sellers. Examples include brokerage, real estate and leasing. Increasingly traditional intermediaries are being replaced or eliminated through direct buyer and seller exchanges. The term disintermediation refers to this phenomenon. However, new intermediaries are being formed such as electronic payment services, Internet Service Providers and Portals for selling products and services.

Infomediary - Provides specialized information on behalf of producers of goods and services and their potential customers. Infomediaries can be both B2B and B2C orientated, they typically requires membership and exist in Industry specific variations. Infomediaries are similar to the portal concept, yet they provide fulfillment.
Example: www.autobytel.com

Internet Open Trading Protocol – A protocol designed to standardize electronic payment transactions on the Internet.

Internet Telephony – Techniques for transmitting voice and fax over the Internet.

Intranet - An intranet is a subset of the Internet used internally by a company or organisation. Unlike the Internet, intranets are private and accessible only from within the organisation. Prior to Internet technology, most corporations relied on proprietary hardware and software systems to network computers. Now, Internet technology allows for internal communication, where information is stored on company servers and accessed through a Web browser. In essence, an intranet is a miniature Internet using many of the same features, such as individual home pages, newsgroups, and e-mail.

IPO, Initial Public Offering - Term for the first sale of publicly tradable shares by a company that has previously been privately owned. Referred to as “going public”.

ISDN, Integrated Services Digital Network - A way to move more data over existing regular phone lines. ISDN is rapidly becoming available to much of the USA and in most markets it is priced very comparably to standard analogue phone circuits. It can provide speeds of roughly 128,000 bits-per-second over regular phone lines. In practice, most people will be limited to 56,000 or 64,000 bits-per-second.

ISP, Internet Service Provider - A company that provides individuals and other companies access to the Internet and other related services such as Web site building and hosting. An ISP has the equipment and the telecommunication line access required to have points of presence (cf. POP) on the Internet for the geographic area served. The larger ISPs have their own high-speed leased lines so that they are less dependent on the telecommunication providers and can provide better service to their customers. Among the largest US based ISPs are AT&T WorldNet, IBM Global Network, MCI, Netcom, UUNet, and PSINet.

Java - A network-oriented programming language invented by Sun Microsystems that is specifically designed for writing programs that can be safely downloaded to your computer through the Internet and immediately run without fear of viruses or other harm to your computer or files. Using small Java programs (called "Applets"), Web pages can include functions such as animations, calculators, and other fancy tricks.

JPEG, Joint Photographic Expert Group - Most commonly mentioned as a format for image files. JPEG format is preferred to the GIF format for photographic images as opposed to line art or simple logo art.

Key – A string of data used to decode an encrypted message.

Killer app – Software that creates the market for a promising technology, such as e-mail.

KM Portals, Knowledge Management Portals - Providing personal access from a single point to multiple sources of information on a corporate intranet.

LAN, Local Area Network - A computer network limited to the immediate area, usually the same building or floor of a building.

Linux – A powerful, freely available computer operating system. Created by Linus Torvalds, the system has evolved from the efforts of hundreds of programmers working collaboratively in the open source spirit.

M-commerce – Mobile commerce, predicted to be the next wave of E-commerce, includes any kind of information transfer or transaction that can be initiated from a mobile phone or other portable information appliance device.

Moore's Law – Principle established in 1975 by Gordon Moore, co-founder of Intel, stating that the circuit density or capacity of semiconductor chips double every 18 months.

MP3 – A format for recording near CD-quality music, compressing music into less than 10% of the space if recorded in a standard format.

Multicasting – The transmission of messages from a single sender to many recipients.

Network externalities – An economic term describing the effect that new members of a network have on the existing ones. Thus, the Internet becomes more useful as the number of people connecting to it increase.

Online Catalogs - eBusiness model, features include Global customer access, huge selection of products, Limited stockouts, Potential for lower prices, Home/Work Delivery. Example: www.amazon.com

Open Source – Concept that the development and distribution of software evolves faster and becomes more stable as more people work on it.

PDA, Personal Digital Assistant – A handheld electronic device that helps people manage information

PDF, Portable Document Format – A file created by Adobe's Acrobat software designed for distributing documents electronically, containing original fonts, graphics, and other design elements that faithfully record the layout of the original.

Ping - A small program used to check for the presence and response time of a remote computer, used for testing Internet connections.

POP, Point-of-Presence - Means a city or location where a network can be connected to, often with dial up phone lines. So if an Internet company says they will soon have a POP in Belgrade, it means that they will soon have a local phone number in Belgrade and/or a place where leased lines can connect to their network.

Portal - Usually used as a marketing term to described a Web site that is or is intended to be the first place people see when using the Web. Typically a "Portal site" has a catalogue of web sites, a search engine, or both. A Portal site may also offer email and other service to entice people to use that site as their main "point of entry" (hence "portal") to the Web. Portals are designed to be the "front door" through which a user accesses all sorts of information on the Internet by way of organized links to relevant web sites. Information categories typically include shopping, browse, classified ads, read current news, get weather/stock updates, etc.

Proxy Server - A computer that controls traffic between a LAN and the Internet.

Push Media – Content that is delivered automatically, rather than waiting for someone to come and get it.

Remailer – Internet site that allows people to send anonymous e-mail.

Router - A special-purpose computer (or software package) that handles the connection between 2 or more networks. Routers spend all their time looking at the destination addresses of the packets passing through them and deciding which route to send them on.

Search engine – Software that finds things on the Internet, usually a dedicated website.

Server - A computer, or a software package, that provides a specific kind of service to client software running on other computers. The term can refer to a particular piece of software, such as a WWW server, or to the machine on which the software is running, e.g. our mail server is down today, that's why e-mail isn't getting out. A single server machine could have several different server software packages running on it, thus providing many different servers to clients on the network.

Server farm – A group of computers configured as servers gathered together in a single location.

Spam – Junk email.

Start-up – A new business venture, especially in the high-technology area.

Stickiness – A valued but generally unmeasurable quality of a website that keeps its visitors hanging around or encourages them to come back often. High stickiness is attractive to advertisers.

Streaming media – Audio, video, and other content sequences that can be played as they arrive.

Switch – A network device that moves data traffic between networks.

T1/T3 – A digital telecommunications system developed by Bell Labs commonly used to provide bandwidth to businesses.

TCP/IP - Transmission Control Protocol / Internet Protocol. The language that governs the communication between all computers on the Internet. A programmed set of instructions that dictate how packets of information are sent across multiple networks.

Trojan Horse – A malicious program or piece of code contained within an apparently harmless program.

UNIX - A computer operating system (the basic software running on a computer, underneath things like word processors and spreadsheets). UNIX is designed to be used by many people at the same time and has TCP/IP built-in. It is the most common operating system for servers on the Internet.

URL, Universal Resource Locator - The address for a site, directory, or file on the World Wide Web. URL is also a convention that web browsers use for locating files and other remote services. Related term: IP Address

Viral Marketing - Refers to a form of online marketing where the customer passes on information to other potential customers, instead of you contacting them directly: think of it as "word of mouth" marketing for the Internet. Common strategies include encouraging users to send digital postcards and articles from your website to friends.

Virus – A self-replication piece of software designed to cause damage to computers or inconvenience to their users.

Vortal - A Web site that provides a gateway or portal to information related to a particular industry, such as health care, insurance, automobiles, or food manufacturing. (A vertical industry is one that is focused on a relatively narrow range of goods and services, whereas a horizontal industry is one that aims to produce a wide range of goods and services. Because most industry tends to specialize, most industry tends to be vertical.) Vortals are also seen as likely business-to-business communities - for example, small business people with home offices might be attracted to a comprehensive vortal that provided ideas and product information related to setting up and maintaining the home office. By whatever name, Web sites that promise to give the user a single place to communicate with and about a single industry are predicted to become big businesses themselves. An early leader is publicly-traded VerticalNet, a company that uses the same content format and design for a number of vortal sites.

VPN, Virtual Private Network – A network in which some of the parts are connected using the public Internet, but the data sent across the Internet is encrypted, so the entire network is "virtually" private. A typical example would be a company network where there are two offices in different cities. Using the Internet the two offices merge their networks into one network, but encrypt traffic that uses the Internet link

WAN, Wide Area Network - Any Internet or network that covers an area larger than a single building or campus. See also LAN

WAP, Wireless Application Protocol – A specification for a set of communication protocols to standardize the way that wireless devices, such as cellular telephones and radio transceivers, can be used for Internet access, including e-mail, the World Wide Web, newsgroups, and Internet Relay Chat (IRC) While Internet access has been possible in the past, different manufacturers have used different technologies. In the future, devices and service systems that use WAP will be able to inter- operate. WAP was conceived by four companies: Ericsson, Motorola, Nokia, and Unwired Planet (which is now Phone.com).

Webcam – A camera hooked up to the Internet showing regularly updated pictures of the subject in focus.

XML, Extensible Mark-up Language - A way of describing and sharing data on networks. In contrast to HTML, XML's tags describe the content of a page in terms of the type of data it contains rather than the way the data should look.

Zip - A popular type of compression, used to shrink files before transmission across a network or storage on a disk.

Appendix I – Useful Abbreviations

3G	Third-generation networks
ABC	Activity Based Costing
APR	Annual Percentage Rate
APV	Adjusted Present Value
ASP	Application Service Provider
B2B	Business to Business
B2C	Business to Consumer
BATNA	Best Alternative to a Negotiated Agreement
bp	Basis point
CAPM	Capital Asset Pricing Model
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CIO	Chief Information Officer
COO	Chief Operating Officer
CPR	Continuous Replenishment Program
DHTML	Dynamic Hypertext Mark-up Language
DSL	Digital Subscriber Line
EBIT	Earnings before interest and taxes
EDI	Electronic Data Interchange
ESOP	Employee Stock Ownership Plan
EVA	Economic Value Added
EVC	Economic Value to Customers
FABV	Features, Advantages, Benefits and Values approach
FTP	File Transfer Protocol
GAAP	Generally Accepted Accounting Principles
GATT	General Agreement of Tariffs and Trade
HTML	Hyper Text Markup Language
IPO	Initial Public Offering
IRR	Internal Rate of Return
ISP	Internet Service Provider
LAN	Local Area Network
LBO	Leveraged Buy-out
LIBOR	London Interbank Offered Rate
LP	Linear Programming
MAM	Major Account Management
MBO	Management Buy-out
MIS	Management Information System
MIS	Marketing Information System
MRO	Maintenance, Repair and Operations materials
MRP	Materials Requirement Planning
NPV	Net Present Value
OOC	Out-of-cash
OSP	Online Service Provider
OTC	Over the counter

PDA	Personal Digital Assistant
PDF	Portable Document Format
PLC	Product Life Cycle
POP	Point of Purchase
PVGO	Present Value of Growth Opportunities
QIPS	Quality Improvement Programs
R&D	Research and Development
REIT	Real Estate Investment Trust
ROI	Return on Investment
SBIC	Small Business Investment Company
SEC	Security and Exchange Commission
STP	Segmenting, Targeting, Positioning
SWOT	Strength, Weakness, Opportunity, Threat
TCS	Total Customer Satisfaction
TQM	Total Quality Management
URL	Universal Resource Locator
VAR	Value-at-Risk model
VPN	Virtual Private Network
WACC	Weighted Average Cost of Capital
WAN	Wide Area Network
WAP	Wireless Application Protocol

A Powerful Case

You're a utilities company in a small town and you're having trouble getting your customers to pay on time. What do you do?

First of all, you'll need to know what kind of company you are. Electric? Gas? Phone?
Could it be that you are based in a small, rural area where customers turn to their wood-burning stoves for heat and cooking power instead of gas? Have your customers adopted cell phones en masse and are now neglecting their regular phone bills? You won't know until you pin down the problem - and then you can determine a solution for the company's woes.

Some questions you should ask:

- Where are we based?
- What is the composition of our customer base?
- What percentage of our customers are not paying on time?
- How much money do we lose from slow payers?
- How many of those slow payers never pay?
- Is there a certain segment of the population that is not paying?
- Is the area in a recession or slump that affects the ability of customers to pay their bills?
- How late are the payments of the slow payers? What is the impact on your accounts receivable?
- What do we currently do to motivate slow payers to pay their bills?
- Are there any government or state regulations that will affect our actions?
- At what point do we currently cut off slow payers? (Perhaps the company is so slow to do so that customers are taking advantage of the company. Or, if the town is small enough, it's possible that there are employees who refuse to cut off power to their friends and family.)
- Can you require credit card payments?
- Can you use a collection agency?

After you've determined the nature of the problem, you can make a recommendation on how to solve it. You may have more than one problem. Perhaps your small town is home to a university, and students move frequently and often neglect their last utilities bills. (Can you work out an arrangement with the university that denies diplomas or registration to students that neglect their bills? Should you start asking for second and third addresses and contact numbers? Perhaps requiring a deposit from students to turn on power?) At the same time, your company may need to start charging higher late fees to other customers who are simply taking advantage of the six months of forgiveness your utility gives.

Agricultural Equipment Manufacturing

Your client is a large agricultural equipment manufacturer. Their primary product line, farming tractors, is losing money. What questions would you ask of your client to help them solve their profitability problem?

Approach:

- How many direct competitors are there in the market? (Two direct competitors).
- What is your client's market share relative to their competitors? (your client has 40% of the market, competitor #1: 30%, competitor #2: 15%, with the remaining 15% belonging to many small manufacturers.)
- What are the market share trends in the industry? (Five years ago, your client had 60% of the market, competitor #l, 15%, and competitor #2, 10%. Obviously, your client has lost significant market share to its two competitors over the last few years.)
- Do all three competitors sell to the same customers? (Yes)
- How is your product priced relative to your competitors? (Your client's product is priced higher than the others.)
- Has this always been the case? (Yes)
- Are the products the same? (Essentially yes, they all have the same basic features. However, tractors are not commodity items and a few differences do exist.)
- What are the differences that allow you to charge a premium for your product? (Your client has a strong reputation/image of quality in the market and the market has always been willing to pay a premium for that reputation because it meant they would last longer and need less maintenance. This can be critical for some farmers because they cannot afford to have a piece of equipment break down at a critical time.)
- Are sales revenues down? (Yes) Are sales quantities down? (Yes)
- Is the price down? (No, prices are up) Are all costs the same? (No, costs are up.)
- Have fixed costs increased? (No)
- Has there been any change to variable costs? (Yes, variable costs have gone up out of sight, and the client has no answer as to why material prices have gone up so staggeringly.)
- Do you manufacture your tractor or just assemble it? (Primarily an assembly operation.) Have finished part prices have gone up? (Yes)
- Have the raw material prices for your suppliers increased? (I don't believe so)
- Have labor costs increased for your supplier? (No)
- Have you changed suppliers? (No)
- Why are your suppliers charging you higher prices for the same products? (Well, they're not, the prices have increased as a result of our product improvement efforts. We've tightened tolerances and improved the durability of our component parts.)
- Why do you make these improvements? (Because we strive to continue to sell the best tractors in the world.)
- Are your customers willing to pay for these product improvements? (What do you mean?)
- Are your customers willing to pay a marginal price which will cover your cost of implementing these improvements? (I don't know, I guess we assume that they will...)

It turns out that prices have been raised to cover the costs of these improvements, but customers do not value these improvements unless they are essentially free. This has resulted in a drop in sales. The client needs to incorporate a cost/benefit analysis procedure into its product improvement process. In addition, the client should evaluate their marketing plans to ensure their customers are aware of these product improvements and understand the value of these improvements. Before discontinuing their product improvement process, the client needs to evaluate their competitors current R&D and product improvement position.

Airline Expansion

A major airline is considering acquiring an existing route from Tokyo to New York from another airline. The airline currently flies from Tokyo to LA and LA to New York. How can it determine if the route is a good idea?

Approach:
Profitability analysis is likely the best approach. Simply determine if revenue less costs equals a positive profit. Then, analyze the factors that go into revenue and the factors that comprise cost to come to a conclusion. In addition, you may want to analyze the return on investment (ROI) of the additional route.

Revenues will be determined by occupancy rates and expected prices. Both of these will be determined by expected demand, the competitive environment and the extent to which our client could win over passengers from competitors.

Operating costs will depend on expected fuel costs, incremental costs for landing rights, staff, equipment, additional marketing to advertise new route, etc. It is also very important to estimate the cost of cannibalization on existing Tokyo-LA, LA-New York routes. And, last but not least, it is important to note that losing passengers to cannibalization is better than losing them to competitors.

Airline Industry

The airline industry is characterized by low returns and stiff competition. In the early years after deregulation. discount, carriers like People Express sprang up. Years later the discounters have gone out of' business. In a price-competitive industry, why is it that the higher cost carriers were able to survive and the low cost carriers were not?

Approach:
These are some of the basic issues to be flushed out:

- Characteristics of discounters. Low fares, limited service.
- Characteristics of major carriers. Higher fares but better coverage and service.
- Hub systems channeling traffic.
- Competitive moves by majors.
- Customers & segmentation of customers: Leisure traveler cares about price, business traveler cares about service and frequency of flights.
- Innovative use of information technology for yield management and differential pricing.

Basically they priced every seat individually based on continuously monitoring of demand & supply. They wooed leisure customers with fares lower than discounts and charged more from business travelers who are indifferent to price but sensitive to service and frequency. They stole the discounters' market and forced them out.

Airplane Manufacturer

You are consulting a CEO of an airplane manufacturer. In the last couple of years, your client has gone from being number one in market share to number two. In addition, another company has announced that it will be entering the business and is presently tooling up its plant. As a consultant, what are the concerns your client might face, what additional information might you want to find out, and what recommendations would you have?

Approach:
You are concerned with three key items:
1. The condition of the airplane manufacturing industry.
2. Why the firm has lost market share.
3. How to prevent the new entrant from stealing market share.

- What is the expected increase in demand of your customers (The airplane industry's demand is a function of travel among two customer segments: business and leisure. Business travelers are primarily insensitive to price and are more sensitive to service and frequency of flights, leisure travelers are very price sensitive. Business travel increases as a result of globalization. Leisure travel increases either with an increase in disposable income or a decrease in airline fare prices.)
- How does your price, service, technology, heritage and safety compare to the competition? (It turns out that the competitor's plane is cheaper to operate because it is more fuel efficient.)
- Is your firm is interested in the manufacture of more fuel efficient planes. (Depends on the future of oil prices. Instead, it may be better to try to compete on the basis of price, safety and service.)

Prevention of a new competitor gaining share: by creating of barriers to entry, launching long term contracts and addressing the high concern, on the part of purchasers, for a proven safety track record.

Aluminum Can Manufacturer

An aluminum can manufacturer has discovered a way to improve its manufacturing process. As a result, its manufacturing cost has been reduced from $0.89 to $0.79 cents. How can the manufacturer best exploit this cost advantage?

Approach:
The firm can either use a penetration strategy or price skimming strategy. Consider the impact of either strategy on the company and its competitors. Also, don’t forget to think about any substitutes for aluminum cans.

- What is your clients market share position? (The client is the leader in its market with a 40% share)
- Who are your clients customers? (The client supplies directly to major beverage manufacturers.) How many players are there in the market? (The number two player in the market has about 30% of the market and the rest is shared by many small competitors.)

- Are there any substitutes to aluminum cans? (Aluminum cans have a lower priced substitute, steel cans, which have inferior printing and stamping characteristics.)
- Who purchases the steel cans? (Steel cans are used by customers who do not want to pay the premium for aluminum cans.)
- How many players are there in the steel can market? (There are numerous players, some with vast resources and a strong backing).

The client should either drop price or reap additional profits. If the client drops prices, other competitors will have to follow since this is a commodity market and not following would mean a quick demise. The lowering of prices might increase the client's market share marginally, but some smaller competitors will have to start exiting the industry and larger competitors will have to start investing to discover the client's cost advantage. At the same time, steel can users will start switching to aluminum cans, thus hurting manufacturers in that market. The resulting growth in the aluminum can market will attract steel can manufacturers to enter it. Since some steel can manufacturers have deep pockets and a strong backing, these new entrants could pose a future threat to our client. In conclusion, it is best to retain prices and generate extra profits. The lower cost advantage may help another day during a price war.

Aluminum Industry

Your client is a leading manufacturer in the Aluminum industry. Because Aluminum is a commodity, relative cost position is the primary source of competitive advantage, and as part of a strategic review you have been asked to construct an industry cost curve (cost/kg of aluminum produces vs. industry supply), for various plant-to-market combinations. Their are five major players in the industry, supplying six major geographic market segments. Your model should be flexible enough to enable various future scenarios to be run.

Approach:
There are many different approaches to solving this case. You need to evaluate each of the following:

- How to estimate competitors cost management? (use financial accounts, direct estimates by client management, or indirect estimates by client management)
- How to simulate the market mechanism? (determine what kind of market structure exists, oligopoly or perfect competition)
- Given perfect competition, how to simulate? (use back of the envelope approach or linear programming approach)

The use of linear programming allows considerable flexibility as well as provides insight into questions such as: is the industry currently efficiently configured, if a new plant is added to the industry, which market segment is most likely to be affected and what will the equilibrium price be in the future?

Auto Manufacturer

Your team is hired by a large U.S. automobile manufacturer (GM). They are interested in your evaluation of their $10B after-market parts business. This business can be segmented into two sets of buyers: dealers authorized to sell GM parts ($8B) and non-dealer merchandisers ($2B). This second group can be subdivided into mass merchandisers and "service" providers. Mass merchandisers are of two types - those which specialize in auto parts (e.g. Auto Zone) and those which sell diverse products including auto parts (e.g. Sears). "Service" providers include Goodyear or Western Auto. GM would like for you to answer two questions: (1) Is there an opportunity to expand this part of the business? (2) How would they go about doing it if they chose to expand?

Approach:

- What are the company economics? (There are tremendous fixed costs in the auto business (including labor). All of GM's parts manufacturing facilities are fully depreciated and they currently have excess capacity.)
- Who are the firms competitors? (While Ford and Chrysler make parts for their own cars, they are not nearly as integrated as GM and tend to focus in specific parts categories. There are hundreds of small parts manufacturers which tend to focus on commodity-like auto parts (e.g. oil filters).)
- What are GM's products? (GM produces a full spectrum of parts classified as either platform-specific or universal.)

Parts and Characteristics

	Platform-specific Parts	Universal Parts
Types of Parts	Body panels, brakes, transmissions, engines	Spark plugs, filters, hoses, batteries
Market Characteristics	Sold through dealers under warranty; high margins/low volume	Sold through many outlets; high turnover; strong competition; slim margins/very high volume
GM Sales	$8B	$2B

- What are the expected market growth rates? (The table below provides the basic facts about each market segment's growth rate.)

Market Segment	Overall Market Growth Rate	Total Market Size
Dealer-authorized	-35% per annum	$40B
Non-dealer		
Mass merchandisers	+65% per annum	$70B
Service providers	+15% per annum	$30B

Conduct a Porter's Five Forces Analysis

- Threat of Entry is minimal for a broad category because the fixed costs are very high. However, a manufacturer could go after a niche play if it were to develop an advantaged cost structure or superior product. Switching costs among consumers is very low.
- Industry Rivalry is important for the mass merchandiser category because margins are slim (meaning price wars are more prevalent). Brand names (e.g. Fram, AC Delco, AutoLite) are important to many consumers.
- Substitute Products are relevant only in the sense that there are many competing products and future technologies such as electric cars could eliminate the need for many types of parts.
- Power of Suppliers is not a significant factor because inputs are commodity raw metal and rubber.

- Power of Buyers is important since there are few mass merchandisers such as Sears or Kmart and they demand full range of products and tremendous volume discounts.

GM's Position: GM may have a cost advantage due to its fully depreciated plants and excess capacity in a fixed-cost environment. Thus its variable costs must be below sales revenue. Also, its brand names are respected and are valuable to merchandisers in maintaining margins. GM's ability to produce a full-range of products is also an advantage. These advantages combined with the high growth rates for the non-dealer merchandisers should motivate GM to expand it business in this segment. GM should use its cost advantage, brand names, and full range of products to go after the most lucrative market - the mass merchandisers

Auto Glass Replacement Company

Your client is an Auto glass replacement manufacturer. Their return on sales (ROS) is low, and they have hired you to help them figure out why and improve it. Windows are manufactured in one central factory and distributed to multiple service centers via a central distribution center. Product is then sold to local repair shops that replace the auto glass. Your client is a service center branch manager.

Approach:
Define Return on sales: ROS = (Sales - Cost) / Sales = (Net Operating Profit) / Sales

How client knows ROS is low? According to cost benchmarking done on all branch service centers, clients ranked in the bottom 25%.

Cost Structure (per unit):
Overhead: 15%
Product: 40%
Labor: 30%
Advertising: 5%
SG&A: 10%

Of the above list, labor is the only component that can be changed (product cost, overhead, etc. are set.)

Labor Cost Structure:
Delivery Drivers: 60%
Receiving: 10%
Management: 10%
Sales: 15%
Maintenance: 5%
Labor associated with distribution is the major component of total labor cost.

How can you quantify relationship between labor cost and sales? (Sales $ / labor hrs)
- Using this measure, what areas could be possible contributors to low Sales $ / labor hrs ratio? (Inefficient delivery route, distribution truck size – large slow versus small and nimble, number of drivers per truck (is a one person job being done by two?), customer density, route congestion, product price and mix.)

Labor appears the major contributor to cost and in turn to the low ROS. Several possible factors were identified and evaluation of these factors will help identify root causes.

Automobile Industry

Your client: one of the big three auto makers in Australia has over the last few years under-performed its competitors as measured by its profitability. All three companies current car models are "badged" Japanese designed cars, i.e. they are products of joint ventures with one of the smaller Japanese auto makers. These cars are then sold both in Japan and Australia, the only difference being the place of manufacture and the model names (i.e. badges). The Japanese market is much bigger than the Australian market. You have been asked to establish why your client has performed poorly relative to the competition.

Approach:
Explore possible reason for under-performance

- dissimilar product for under-performance? (No)
- different market segments? (No)
- poor sales/ distribution? (No)
- inferior product? (No)
- high general expenses (admin, marketing ...)? (No)
- high cost of production? (No)
- Given that the reason is the high cost of production, establish sources of high costs relative to the other auto makers, using management accounts, published financial accounts, data from your American holding company or reverse engineering?

Determine what makes up cost, and the relative importance?

- labor costs? (Not important component. Average with industry)
- raw materials? (Not important component. Average with industry)
- manufacturing overhead? (Not important component. Average with industry)
- design? (Given that design costs are by far the most important component of costs)

Explore the relevance of the Japanese connection?

- Are the terms of out joint venture different from our competitors? (it turns out that the terms are all similar.)
- What are the terms of the joint venture? (Share of design costs pro-rated between the parties based on number of cars sold respectively)
- Does our car cost more to design than our competitors? (No)

Your client sells a similar product, in similar amounts, to similar markets in Australia. Similar design costs (in absolute costs) were incurred by your Japanese partner. The key lies in your discovery that design costs are pro-rated, and a line in the description of the problem that mentioned that your client's partner is one of the smaller auto manufacturers in the huge Japanese market. Thus the design cost defrayed by the Japanese partner's sales in Japan are relatively small, and your clients share thus is significantly larger.

Beverage Company Cost Structure

RC Cola and Coca Cola both compete in the same industry. Their cost structures are vastly different, however. Using Coca Cola as a benchmark, estimate the likely cost structure for RC Cola. In other words, for which costs would RC Cola be higher, for which would they be lower, and why?

Approach:
This is a twist on the standard price/cost case that also questions the interviewee's understanding of the cost items. A possible analysis, line item by line item:

- Cost of goods sold: RC Cola would be higher due to their lesser power in negotiating price breaks from suppliers.
- Distribution: would be higher for RC Cola for two reasons. RC is not distributed in as many outlets as Coca Cola. Therefore, the average truck driver will be driving more miles and spending more time to deliver a truckload of RC that the Coca Cola driver, who will have several stops within an immediate area. Also, the typical order size for RC Cola would be smaller, meaning that more stops would have to be made. In the case of Coca Cola, it is conceivable that one truckload may be delivered to just one customer.
- Sales Costs: could be lower for RC, as there are fewer, but more loyal customers.
- Marketing: is lower for RC Cola as they are not a frequent advertiser like Coca Cola.
- Administration/Overhead: lower for RC Cola, as they are more of a "one-product" company than is Coca Cola.

Cable Television Company

Your client is a small holding company that owns three cable television companies in the Northeast: Rochester, NY, Philadelphia and Stamford, CT. Each of these three companies is profitable, and each has been experiencing steadily growing sales over the past few years. However, the management feels that the Northeast is not the fastest growing area of the country. Therefore, the firm acquired another cable television company in Tucson, Arizona a little over a year ago. Despite every effort of management, the Tucson Company's sales have been stagnant, and the company has been losing money. How would you analyze this situation, and what could be the cause of the poor performance of the Tucson cable company?

Approach:

- What are the relative market sizes of the four cities? (The Tucson area is smaller than Philadelphia, but larger than Rochester and Stamford.)
- What is the market growth rate of the four cities? (Tucson is also growing at 12% per year on average. Philadelphia, Rochester and Stamford are growing at 10%).
- How does per capita income compare between Tucson and the 3 other markets? (Per capita income is higher than in Philadelphia and the same as in Rochester and in Stamford.)
- How do the operating costs of Tucson compare to the other markets? (They are essentially the same.).
- How do the fixed costs compare? (Fixed costs relate to the cable lines, which is a function of physical area covered. Due to the larger service area, Tucson has higher fixed costs.)

- How do the variable costs compare? (Operating costs are composed of variable items: sales staff, maintenance, administration and marketing. Only maintenance cost is higher than the other markets, due to the larger land area serviced.)
- How does the cost of programming compare? (The cost of programming is based on number of subscribers and is equal across the nation.)
- How do the marketing programs compare? (The Tucson Company has attempted marketing efforts, such as free Disney programming for one month, free HBO for one month, free hookup, etc. in the past. These programs have been modeled after the other three markets.)
- What are the relative cable penetration rates? (Cable penetration rates in the three Northeastern markets average 45%. The penetration rate in Tucson is 20%.)
- Has there been any change in the penetration rates over the past few years? (These rates have been steady over the past three years in the Northeast. The penetration rate in Tucson has only risen by 2% in the past three years.)
- Is there a substitute for cable television? (There is only one real substitute for cable television: satellite dishes. However, many communities are enacting legislation that limits the usage of satellite dishes in Tucson. They are also prohibitively expensive for most people.)
- Without a satellite dish or cable TV, how does the reception compare to the NE market? (Television reception is far better in the desert Southwest than in Northeastern cities.)

The real error of management results from their failure to recognize the other “substitute” : no cable television or satellite dish at all. The lower penetration rate is most likely a result of different climate conditions and lower interference in Arizona.

Candy Company

Your company is a rather successful producer of candy. It originally started as a single product line. The production process consists of two basic activities: manufacturing and packaging. The firm has also expanded its sales through product line extensions. Management is concerned that sales are growing but profits are not increasing at the same rate. What can your company do?

Approach: This is a revenue vs. cost exercise. Margins are shrinking.

Find out about the critical components of cost: raw material, labor and fixed cost.
Raw materials are commodities with cyclical prices which have fallen in recent years but are expected to swing up again (this, as you have guessed, makes the problem worse.)
Labor and fixed capital has increased per unit over-proportionally compared with ten years ago. The company's controlling system is still focusing on the manufacturing part of production and the cost explosion occurs in packaging (candy is candy, the product line extension is primarily an issue of different packaging.) Controlling schedules manufacturing which is rather efficient already but not packaging, thus causing slack in labor and fixed capital (small batch sizes, high setup times.)

Possible solutions: reduce product line, introduce controlling/scheduling measures for packaging.

Find out about revenues and are the company's customers (i.e. retailers) willing to accept the reduced product line? (No, there is a concentration of retailers on trade brands. Retailers want new products and high product variety. Retailers demand large introductory discounts for new products. Unfortunately, there is a high failure rate of new products.)

Possible solutions: streamline product line, reduce low margin trade brand production, emphasize pull marketing, reduce introduction rate for new products.

Evaluate the operational aspects: optimal plant location with respect to transportation.
Plant location at (x,y), national was at (xi, yi), demand per country given Di, cost linear with distance, shortest travel di `between (x, y) and (xi, yi) allowed: TC= Sum(xiDI); solution (requires iteration): dTC/dx = dTC/dy =0)

Have the driving forces for fragmentation disappeared? No, the fragmenting factors from the market are still in place. The company has not changed its strategy in the fragmented industry, (dominance makes no sense) but has gained an advantage by operational changes.

Cement Manufacturer Capacity Addition

You are consulting for the number-one producer of cement in Portugal. This company currently has 45% of the market. You feel it could have more, but is running at 100% capacity of their one plant, located near Lisbon, in Southern Portugal. The CEO has asked you to help him decide if they should build another plant or expand the current plant.

Approach:

- What is the cost structure for a cement producer? (The cost structure for cement production is as follows)

  Raw materials: 28%
  Labor and allocated fixed costs: 16%
  Distribution: 26%
  Sales and overhead: 18%
  Pre-tax profit: 12%
- How are the company's selling prices set? (The company's selling prices are set by prevailing market prices in Portugal.)
- Is land available to expand the current factory? (Yes, there is also a suitable site near Porto, about 200 miles to the north.)
- Where are your customers located from your plant? (Approximately 80% of the customers are within 100 miles of the current plant.)
- Who is the raw material supplier and how are supplier prices set? (A government-owned company is the supplier, and prices are set by a yearly contract with the government.)
- Is it possible to add extra shifts at the current plant? The plant is unionized, and extra shifts are not possible.
- How is the cement distributed? (The company owns the trucks, and all products are directly transported to the customers throughout the country. Customers pay for trucking by the mile.)
- Is there a difference in fixed costs if you add capacity or build a new plant? (The fixed cost of plant additions is roughly the same as the cost of a new plant of the same capacity.)

As distribution is the second-largest cost item, it makes sense to minimize distribution costs in choosing the site of the next facility. From the data, it is safe to assume customers that are further away are less inclined to buy due to the increased trucking costs. Therefore, location of the plant in the north may increase sales in the north by reducing delivery costs to these customers.

Chemical Sweetener Manufacturer

Your client manufactures a chemical sweetener used in beverages and other food products. The chemical will come off patent in one year. You have been asked to predict what might happen to the profitability of this product when the product comes off patent.

Approach:

- What is differentiates this product from its competitors? (This is the only product of its kind, in terms of taste and safety (lack of harmful health effects) as proven in lab tests. The brand name of the product has slowly become a common household word.)
- Who are your customers? (The largest two customers (75% of your sales) are two worldwide beverage companies.)
- Is your brand important to your customers? (The companies feature the brand name of your client's chemical on their product, and consider it a sign of quality.)
- What percentage of your customer's costs does your chemical sweetener represent? (the cost of the chemical sweetener represents 1.5% of their total costs.)
- What are the costs to manufacture the product? (extremely low about 20% of the price of the product).
- What are the margins on the product? (Currently, the margins on this chemical are almost 40%.)

While most products that come off patent quickly drop in price (e.g. pharmaceuticals), this product will be able to retain some of its premium due to the strong brand name. Because the major two customers feature the chemical name on their product, and because the chemical represents such a small portion of their total costs, they can be expected to be willing to continue to pay the premium into the future. Therefore, the outlook for the product is good even after the patent expires.

Chewing Gum Market

How would you estimate the size of the annual U.S. chewing gum market? Check your answer for reasonableness.

Approach:

Estimate the number of people who chew gum: of the 300 million population, 15% are between the ages of 10 and 20, the heaviest users, for a total of 45 million. Estimate that these people chew two packs per week, for annual sales of 4,500 million packs. For the other users over age 20, (70% of the 300 million population, or 210 million) estimate a usage rate of one half pack per week, for a total of 5,250 million packs per year. Adding the two figures, estimate the total chewing gum market to be 9,750 million packs per year.

To check for reasonableness, figure the dollar sales that 9,750 million packs represent: at 25 cents per pack, annual sales would be $2.4 billion, a reasonable figure.

Chilled Beverages

You are consulting for the manager of a division of a large consumer products company. Her division produces fruit juices in three forms, all marketed under the same name: chilled (usually, found in the milk section of the supermarket), juice boxes, and frozen concentrate. This division has sales of $600 million per year. The entire company has sales of over $20 billion. The chilled segment represents $120 million in sales per year. While juice boxes and frozen concentrate are profitable, chilled juices are only breaking even in good quarters and losing money in bad quarters. She has received a proposal from upper management to sell the chilled juices business. What would you advise that she do?

Approach:

- What is the chilled beverage market size? ($5 billion dollar industry nationwide.)
- How many players are there in the market? (There are two large players that have 40% and 25% of the market, respectively.)
- What is our client's market share? (12% market share, the third biggest player in the industry.)
- Are the two market leaders profitable? (yes)
- What differentiates our client's spending from the two market leaders? (The two market leaders are able to fund more advertising and more promotion, than your client.)
- What differentiates our client's product from the two market leaders? (The market leaders produce pure orange juice and blends that are based on citrus juices. Your product uses more elaborate blends of juices, usually a base of pear or peach juice (95% of the inputs) flavored with cranberries, bananas, mangoes, etc. (the other 5% of the inputs). Pear and peach juice are about the same price as orange juice, but the other flavorings cost about twice as much.)
- Who is the target market for chilled juices? (The target market for chilled juices is essentially mothers with school age children.)
- What drives purchases of this market segment? (This is a highly price sensitive segment that loves coupons, promotions, etc.)
- Aside from price, what is important to this market segment? (Brand name is important in this market, similar to juice boxes and frozen concentrate, since mothers tend to prefer highly reliable products for their children. However, the brand premium must be in line with other branded products. Therefore, all branded juices tend to sell in the same price range.)
- Where is the chilled juice product line produced and if this product line is sold, is there an alternative use for this manufacturing plant? (One plant in California produces the entire product range, chilled, juice boxes and frozen. It would be difficult to find another use for the plant without a major conversion.)

There are two potential options:

- Sell the chilled juice business. This would, however, affect the juice and frozen concentrate businesses, as there are both advertising and manufacturing synergies.

- Keep the chilled juice business and rework the ingredients and costs. This turns out to be the most feasible option, as evidenced by the success of the competitors

Cigar Bar

I was sitting in one of Chicago's new specialty "Cigar Bars" around the end of August with a friend. It was a Saturday night and the weather was fair. While enjoying one of the bar's finest stogies and sipping a cognac, I asked my friend how much he thought the bar was worth. On the back of an envelope, how would you go about determining the value of this bar?

Approach:

- What is the capacity of the bar? (We arrived at the bar around 8:30pm. There appeared to be 30 customers already there. By 11pm the place had at least 70 customers. I would estimate the maximum capacity to be close to 100.)
- What does the bar sell and what is the average cost of these products? (The bar sells two things: liquor and cigars. The average cost of a cigar is $8 and the average cost of a drink is $7.)
- How is the bar staffed? (There was one bar tender, a waiter and a waitresses. All three were there the entire evening.)
- Where is the bar located? (The bar is located on one of Chicago's trendier streets with a lot of foot traffic.)
- What are the bar's hours? (The bar is open Tuesday thru Sunday from 5 pm until 2 am.)

This is a straight forward valuation. To perform a valuation you must estimate the cash flows from the business and discount them back using an appropriate weighted average cost of capital (WACC).

- Revenues: One way to project revenues is to estimate the number of customers per day or per week and multiply that by the average expenditure of each customer. Keep in mind that Friday's and Saturday's are typically busier than other days and that people tend to be out more during the Summer than in the Winter.
- Costs: There are two components to costs: fixed costs and variable costs. Under fixed costs you might consider: rent, general maintenance, management, insurance, liquor license, and possibly employees. The only real variable cost is the cost of goods sold.
- Valuation: Subtract the costs from the revenues and adjust for taxes. You now have the annual cash flows generated from the bar. How long do you anticipate this bar being around? Cigar bars are a trend. In any case pick some number for the expected life (4-5 years). The discount rate should be a rate representative of WACC's of similar businesses with the same risk. Perhaps 20%. This gives you a value of:

  $$\text{Value} = CF_1/1.2 + CF_2/(1.2)^2 + \ldots + Cf_n/(1.2)^n$$

Concrete Manufacturer

Your client, a concrete manufacturer is considering acquiring a small local firm. What factors should be considered? After considering these factors, would you recommend the acquisition?

Approach:

- Is the target firm profitable? (The target firm is currently profitable, with margins of 5%.)
- What are the client's margins? (15%)
- Why does our client have a higher profit margin than the target firm? (Your client attributes its higher profit margin to economies of scale in trucking and mixing, and a stable labor force.)
- Where do the companies compete? (Both companies compete in the geographical market, the Southeastern U.S.)
- Who are our client's customers? (Your client's customers are large construction firms and contractors generally in the office and commercial building construction business.)
- Who are the target firm's customers? (The smaller firm sells mainly to other small businesses and contractors)
- What is the expected growth of the concrete market? (The smaller customers for concrete are growing, while the major office building construction market is stagnant.)
- How is the target firm positioned in the market place? (The smaller firm has strong contacts with many local customers, and is often the preferred supplier due to their customer responsiveness.)
- How will the client fund the acquisition? (Your client is not able to fund the acquisition internally, but could obtain bank financing at a rate of 10%. Similar acquisitions generally are made for two to three times current sales of the target firm.)

From a financial point of view, the acquisition is not attractive if there are no synergies between the firms. With profit margins of only 5%, the income generated by the smaller firm will not cover the capital charges (interest due to the bank) on the acquisition price. (Acquisition price = 3 x sales. Interest on this amount will be 10% x 3 x sales, or 30% of annual sales. Profits are only 5% of sales. This analysis, of course, ignores the tax shields.) However, if your client were able to use some of its competitive advantages to improve the financial outlook of the target firm, the acquisition would be advisable. It is reasonable to expect that synergies would arise from economies of scale in trucking and mixing, which could raise the profit level of the target firm, and make the acquisition more attractive.

Consulting Firm Strategy

You are the newest member on the management committee of a well known top tier strategy management consulting firm. Eager to be accepted by your more senior peers, you volunteer to study the industry and propose a firm strategy, which you will present to the committee at its next meeting. As you leave the meeting you begin to realize the enormous task to which you've committed yourself.

1. How do you evaluate the consulting environment and determine likely future scenarios?
2. What information do you use in this process? How is this information obtained?
3. What do you believe is most likely to happen in the consulting industry given your present knowledge? How did you arrive at this conclusion?
4. What strategy do you propose to the management committee?

Approach:
This is one of the most difficult types of cases because the answers are completely unknown and will vary substantially depending upon the interviewee's knowledge of the industry. This is also an interesting case since the salience is likely to be high. When information isn't available, develop your own hypotheses. What matters here is the thinking process, not necessarily the answer.

Approach to Question 1.
A good place to begin is to evaluate the industry from a competitive analysis perspective, such as Porter's five forces. The following is an abbreviated analysis.

<u>Rivalry (low to moderate):</u> management consulting is fragmented, with many players each holding relatively small concentration of total market. Firms act as competitive monopolists, and differentiate themselves by specialty, type of customer (Fortune 100 versus Fortune 1000 companies), reputation (McKinsey versus accounting firms), and the resources they employ (top MBAs versus all MBAs). Many companies are relationship driven with their customers, which limits competition and keeps prices high. Top tier firms in particular are able to have high price points.

<u>Potential Entry (moderate):</u> there are no great barriers to entry into consulting; however, few new consulting firms truly compete in the top tier. It's possible new firms would enter if the industry were earning positive economic profits and if they faced certain imitability (e.g. the ability to recreate what the top tier firms do).

<u>Substitutes (moderate):</u> companies can move the consulting process in-house by hiring former consultants and bright MBAs. This occurrence is more likely during tight economic periods.

<u>Buyer Bargaining Power (moderate-high):</u> In the last decade the consulting market has boomed, with supply generally following demand, which lowers buyer power. However, it is appropriate to question effect recession might have on industry. It's possible that demand may decrease as companies quit expanding, which would reduce demand, give buyers more bargaining power, and push prices lower. In addition, with the current change in the economy, many consulting firms are struggling which drives down prices and increases buyer bargaining power.

<u>Supplier Bargaining Power (low-moderate):</u> Major suppliers are the intellectual capital employed by firm (e.g. experienced consultants who bring in sales and new consultants who provide analytic abilities). Must pay market price or risk losing suppliers.

Other interesting points might explore the key success factors in the consulting industry. What differentiates top tier firms from middle ones? Do any firms have specific sustainable competitive advantages? How does the marketing mix differ among firms? Does your firm have any specific core competencies or advantages that set it apart from other companies?

Determining likely future scenarios is more ambiguous. There are at least several key point: what effect does a recession have on consulting firms? Will top tier firms suffer differently from others? How will the mix of products demanded change (e.g. cost-cutting studies rather than market expansion studies)? Will the consulting market continue to expand or suffer a cutback? Or, will certain geographical areas expand (Pacific Rim, Eastern Europe) faster than others? Again, the thought process is more important here than actual answers.

Approach to Question 2.
Information gathering is a key reason companies use consultants. An interviewee should have a decent understanding of business information sources and how information is gathered.

Information can be broken into two groups: secondary and primary. Usually one begins with secondary material, specifically, a complete review of published literature (a "lit search") pertaining to the study (e.g. journal and newspaper articles, investment bank research, specialized studies, books, etc.). This often points towards other good sources (e.g. industry experts, associations, major competitors, government sources, etc.). Hypotheses are often created from the secondary information. Primary research is then used to focus in on the key issues. This research includes telephone interviews, in-person interviews, mailed questionnaires, focus groups, laboratory experiments, etc.

Approach to Question 3.
This answer will depend upon the material covered in the first two. Ask the questions: What trends are likely? What is a positive scenario? A negative one? If you had any information at your disposal, how could you get a better handle on this issue?

Approach to Question 4.
There is no right answer here. However, you can provide some structure. What are the key success factors to succeeding in the industry? Is there any way to achieve sustainable advantage which cannot he duplicated by your competitors? Can you use non-traditional methods to achieve competitive advantage, such as leveraging through technology. Given your firm's competitive strengths and core competencies, what is the best strategic route?

Corn Feed Company

A corn feed company has eight manufacturing plants located in the Midwest. These plants service the entire United States. Their plot in Ohio is in need of refurbishing. The company has four possible options:
1. Refurbish the existing plant
2. Build a larger plant at the current location
3. Build a similar size plant at a new location
4. Build a larger plant at a new location

Which is the best option for this plant?

Approach:
There are two issues to this decision. The plant size and the plant location should be considered separately.

Size of Plant:
First consideration is the demand for the product. Corn feed is a commodity product. Pricing on the product is dependent on current corn prices as opposed to the manufacturing process. There are four main players in the market and our company is the second largest. All four competitors have similar manufacturing processes and similar cost structure. The proposed large plant will not provide economies of scales not currently present a existing plant. The capacity utilization is 65% which is the industry standard. The current customers buy from all four manufacturers in order to guarantee supply. Currently demand is being met and there are no alternative use for corn feed.

Location of Plant:
Transportation cost and perishability are the main issues with location. The transportation cost for the corn stock (raw material) is much higher than the cost of transporting the actual feed. The corn is grown in the Ohio area and the feed is sold to the East Coast. The raw material is perishable where as the corn feed can be stored for any length of time. Cost analysis of the transportation cost of feed versus raw materials should be completed. Included in this analysis would be the percentage of spoilage for longer transportation of corn stock

Based on this analysis, the current plant is located close to the corn fields and this is the best location for the plant from the cost/benefit analysis.

Cosmetic Company In Europe

Eurocos. Inc produces and sells various cosmetics products in several European countries. The company's different brands are well established in the markets. The various products are quite similar in terms of raw material and production. The company has been doing very well in the past, however profits have been shrinking in recent years. The CEO of Eurocos, Inc is thinking about changing his strategy in the industry. He asks you if this is a good idea and what they should do?

Approach:
When profits are shrinking, you need to look at both revenue streams and costs.

- Have total revenues/sales changed? (No, revenues are the same)
- Have total costs changed? (Yes)
- Is it possible to increase sales? (No, we are currently meeting or exceeding demand)
- How many players are there in the market? (There are several small to medium size companies and few big companies owning several brands comprise the market.)
- Does Eurocos produce all of its products in all countries? (Yes)
- What are the transportation costs? (They transportation costs are small).
- What is the structure of the industry? (It is a highly fragmented industry.)
- What are the causes of the fragmentation? (Low entry barriers (small setup costs), high product differentiation, diverse markets: customer needs (language, complexions, etc), global market barriers include tariffs, customs)
- Can Eurocos create economies of scale and learning curves? (Yes)
- Can Eurocos standardize market needs? (No, different markets demand different products)
- Can Eurocos separate the product's commodity aspect from fragmenting aspect? (Yes)

- Is the EU environment changing is a way that will reduce fragmentation? (reduction of tariffs)

If it is not possible to increase sales, recommend minimizing costs to improve profits.

- Create EOS in production (better sourcing, longer runs, quality) or optimize location (interest rates, wages, labor)
- Establish a Learning curve of running a more complex plant and logistics
- Maintain required level of fragmentation but look for standardization opportunities in supply chain (delayed differentiation)
- Reduce total inventory by pooling safety stock at a central location
- Challenges include: a more complex central operation, increased logistic complexity, and transportation costs may increase

Deli Meat Producer

You have been hired by a producer of deli meats to investigate the cause of its recent decline in market share. The client would like an action plan for resolving the cause of this decrease.

Approach:

- What is the company's product? (The firm produces plastic-wrapped packages of sliced deli meats.)
- How are these products priced? (The firm produces products at all price points (generic, midrange, and premium))
- Has the company lost market share in all categories or in one category in particular? (The market share loss is primarily in the premium category.)
- How does their premium product brand compare to their competitors? (The company's deli meats carry a well-known brand label.)
- How are the different categories of products priced? (Products in the premium category carry a higher price and have slightly higher margins.)
- Is a price decrease an option? (Although price decreases will garner market share, the competitors have maintained prices during the recent loss in market share.)
- Where is the product sold? (The product is sold in grocery stores and delis.)
- Has there been any recent change in product placement or incentives which could account for the decrease in market share? (No, a company investigation has shown that grocers have maintained the same amount of shelf facings and space for your product - so the decrease in share was not caused by changes in display or incentives provided to the grocers by competitors).
- Has there been any changed in the company's or the competitors' advertising or marketing efforts during this period of decline? (No, advertising and marketing efforts have been steady and there has been no noticeable change in the competition's efforts.)
- How many competitors are there in this market? (There are three other competitors in the deli meat industry. Each of these competitors has about 20% of the market share; the client has 40% of the market share.)

- Is the market growing? (Yes, overall the market (generic, midrange and premium) is growing.) What distribution channels do the competition use? (The competition uses the same channels).
- Has there been a change in the customers who purchase the premium deli meats? (No)
- Has there been a change in product quality? (Well, a recent survey of the customers indicated a variability in the quality of the product produced by the client. Sometimes the product was better than the competition; sometimes not. This was causing customers to change to the competition.)
- Has there been a recent change in the firm's production process which could impact quality? (The client receives chunk meat in bins which meet a certain average quality measurement. Meat is rated on a scale of 1 to 100 (100 being best). The client is in a long-term contract with a supplier for bins at three quality ratings: 40, 70, and 90. Individual chunks within a bin may vary from this average. The premium deli meats are made from a mix of the three bins with the majority coming from the 90-rated bin. Meat in the 90-rated bin ranges from 80-95 while meat in the 70-rated bin ranges from 55-80. The variability in the quality of the premium product is being driven by the variability within a 90-rated bin.)

To reduce the variability, the client could (1) negotiate with the supplier to narrow the range within a bin or (2) sort the meat within the 90-rated bin at his own facility. The impact of the first proposal will depend on the relationship with the supplier. That is, is the client a major buyer; how much longer is the contract set to run.? The second option will add cost to the production process and reduce margins.

Diapers

You have been retained jointly by Pampers and a federal commission on waste management to estimate the volume percentage of disposable diapers in the total US household garbage.

Approach:
This is strictly a mathematical, number crunching exercise. You need a numerator (diapers) and a denominator (total US household garbage). Let's assume this will be done in pounds. For diapers you could take the total $ sales of disposable diapers and divide by the average price per total unit (box: etc.). Multiply this number by the average weight per unit, yielding the estimate of total diaper weight (numerator). Figures on garbage tonnage (denominator) are probably available in some obscure federal report.

Direct Mail Retailer

You are consulting for a direct mail retailer that sells ladies clothing. Your client's catalog printing and postage costs have just increased to thirty-two cents per catalog. How can your client decide if the new price is acceptable?

Approach:
- What is the average response rate for catalogs mailed (2.5%, in other words, each 100 catalogs mailed results in 2.5 orders place.)
- What is the average order size? ($80).

- What percentage of customers who place an order reorder within six months? (25%).
- What is the profit margin on catalog orders? (15%, excluding mailing costs).

Therefore:

- For each 100 catalogs mailed, printing and postage costs are $32. (100 x 32 cents).
- Each 100 catalogs will result in 2 orders, plus 2 x 25%, or .5 additional reorders, for a total of 2.5 orders placed per 100 catalogs mailed.
- 2.5 orders will result in 2.5 x 80, or $200 in sales. At a profit margin of fifteen percent, these sales will return a total profit of $30.
- The $30 profit is not sufficient to cover the printing and mailing costs of $32. Therefore, the client should reject the printing arrangement at 32 cents per copy.

Distilled Spirits

You are consulting for a major US producer of distilled spirits. Their primary products are a line of mid-priced vodkas and two brands of mid-range rum. Over the past few years, the business has become less and less profitable. What could be causing this?

Approach:

- What is the distribution of sales between the two products? (The split of sales has consistently been 60% vodka and 40% rum over the past few years.)
- How do the selling prices of the two lines compare? (They are essentially the same.)
- Are sales of these two product lines growing? (Overall sales are growing at about 3% to 5% per year, which is the same as the industry average for these product lines.)
- Has there been any change in the production costs? (No, they have remained constant)
- Has there been any change in the advertising or SGA costs? (No, they have remained constant)
- Has there been any change in the distribution costs? (Yes, they have increased significantly)
- Can you describe the distribution of the products? (Yes, the products are sold throughout the country. In 27 states, where alcohol is sold in privately managed supermarkets and liquor stores, shelf space is extremely expensive and trade promotions are critical. The stores in these “open states” are also becoming less and less willing to hold inventory, which is increasing distribution costs by requiring more frequent deliveries. In the other 23 states, liquor is only sold through state regulated liquor stores. Distribution costs in these states is much lower, as there are far fewer outlets to service and there are central warehouses for the state-run stores. Also, advertising of alcohol is much more tightly regulated, and therefore, advertising spending is lower.
- Has there been any change in the volume share being sold in either the “open” or regulated states? (Yes, a greater and greater share of the volume is being sold in the “open” states, with sales in these states increasing at about 10% per year. Sales in the regulated states are actually decreasing.)

Because the regulated states are less expensive to serve, and therefore, more profitable, the fact that they represent a shrinking portion of the total has caused total profits to decline.

Distribution Case

We have been engaged by a major entertainment company to assist them in building a distribution network for home video. They currently contract their distribution through other, more established, entities but the contracts with those companies are expiring and it is unclear whether the new contracts contain favorable terms or not. There is still a chance that our client may continue to distribute their products through a third party. How would you assess whether to build a distribution network or continue the contracts with the third parties?
Approach:

- What are considered the best practices in the industry?
- What are other entertainment companies doing?
- What are the current costs?
- Does the company have the staff and resources to create its own distribution network?
- Of the major entertainment companies that produce video, do most distribute through their own proprietary supply chain or through third parties?
- What is the client's current cost of distribution through its contractual partner(s)?
- Has the client attempted to assess building its own distribution network before retaining us? If so, what were its findings?
- Does the client have a dedicated functional staff assigned to the project? If so what functional areas do they represent?

Through questioning, you've come to decide that staying with a third-party distributor makes the most sense. Now the question is - should the company stay with their current distributor, or choose a new one?

- Who are possible alternative partners? Who uses them?
- Could you characterize the relationship between the client's distribution partner and the client? Is there a possibility of retaliation on the part of the distribution partner if the client severs its ties to this party?
- How many weeks of supply are currently in the distribution partner's pipeline?
- How receptive are the client's accounts to changing distribution partners? Has a value proposition been created to show the client's accounts that a client-owned supply chain would be more efficient, valuable, etc. to the accounts?
- Does the client have any financial interest in the distribution partner that might have to be severed?

Fertilizer

You are hired by a fertilizer manufacturer to help them out of a difficult situation. Fertilizer is a commodity. Their market share and profits are in a decline and they can't figure out what is happening. What are you going to do?

Approach:
Identify the basis of competition in the industry i.e. competition is on a cost basis.

- Who are the major players? (There are four major players in the market including your client).

- How does the competitors' cost position compare to our client's? (It turns out that your client is the high-cost producer).
- How does our client's fixed costs compared to their competitors'? (Same)
- What about variable costs – labor, raw materials, advertising? (Labor and advertising are the same but your client has a higher cost for a key raw material, phosphate)
- What is the client's supplier network for this raw material? (The client has one supplier of the raw material. All other suppliers are locked in contracts with the client's competitors)
- Is it possible for the client to renegotiate the contract with the supplier to reduce the material costs? (The supplier's prices are based on volume purchased. The supplier knows that the client does not have another source for the key material).
- Is it possible for the client to create economies of scale to reduce production costs? (Yes, looks like you could try and explore the possibility of competing on a scale basis.)

Film Processing

The CEO of the largest domestic manufacturer of photo film wants to enter the film developing business. He needs your advice on how to go about evaluation this idea. What would your approach be?

Approach:
This is an industry entry question; look at industry attractiveness with Porter's five forces analysis. Then, think about what part of the marketing mix (4 P's) would be best for film developing. Finally, analyze competitive response.

- Distribution channels are the key factor in this business. Major discount stores sell the service.
- This is a scale economy business in the back-office, so profits are easier with high volume. This makes the business tough to enter.
- This company ended up establishing a "store within a store" concept with Wal-Mart.

French Pizza Market

Pizza Hut has recently entered the home pizza delivery business in Paris. The market for home delivery is currently dominated by Spizza Pizza. Pizza Hut has asked your consulting firm to analyze issues that will determine its likelihood of success in the Parisian Pizza market. First, what information would you need and second, how would you analyze the pizza delivery market?

Approach:

- An estimate of the size of the Parisian home pizza delivery market: This could be obtained by knowing the population of Paris (6 million) and making some educated guesses about factors that determine pizza market size.
- Competitor information on Spizza Pizza: Size of their operations, sales, number of stores, proportion of Paris that they serve, market segments they target and serve, market segments they neglect, products they offer, the consumer prices of their products, the cost structure of their business and their most profitable products.

- The best method of analysis is to start by determining if any part of the market is not well served currently by Spizza. Determine what are the needs of any neglected market, and understand if your client could profitably serve this market.
- Also, try to understand the likely competitive response of Spizza to your client's entry. How will you defend your position if Spizza decides to fight for market share?
- What about other competitors? What would happen if Domino's Pizza enters the market. Is business still as compelling?
- In addition it would be important to understand the growth rate of the home delivery pizza market.

Golf Ball Market Entry

You are visiting a client who sells golf balls in the Japan. Having had no time to do background research, you sit on the plane wondering what is the annual market size for golf balls in the Japan and what factors drive demand. Your plane lands in fifteen minutes. How do you go about answering these questions?

Approach:

- Golf ball sales are driven by end-users.
- The number of end users: take the population of 125 million (population of Japan); estimate what proportion of these people ever learn to play golf (guess 1/5) which reduces the pool to 25 million.
- Now, estimate the frequency of purchase. If the average golfer plays twenty times per year, and requires four balls per time, that's eighty balls per person. Multiply that times the 25 million.
- The estimated market size for golf balls in Japan is 2 billion.

Health Care Costs

You have been appointed to be the Chief of Health Reforms. You discover that kidney dialysis is a major portion of public health care expenditures. What analytical techniques do you use to determine if this cost can be reduced?

Approach:

- Start by looking at the cost half of profitability analysis (Costs = Fixed + Variable). As kidney dialysis is a procedure, rather than a whole industry, it will mostly consists of variable costs, the sum of which is measured by cost per unit .
- Analyze (1) how much it costs per kidney dialysis and (2) how many kidney dialyses occur in the U.S.
- Keep in mind the external factors, such as government regulation or fraud which play a key role in health care costs.
- Analyze the proportion of public versus private health expenditures that are applied to kidney treatment to determine if this expensive treatment is being pushed onto the public health budget by unscrupulous practitioners.
- Compare the incidence of kidney dialysis in the country with other countries. Is ours higher? If so, why.

- Is the incidence of kidney disease higher in the US? If so, can public policy or efforts to increase awareness help reduce it?
- If incidence is indeed higher for the U.S, build a model (regression, perhaps) that will somehow determine the factors that are most related to use of kidney dialysis. Perhaps those who are typically covered by public funds (the poor, the elderly) have a higher incidence of kidney problems.
- Is there room for any type of preventative program for these groups?

Healthcare Company Growth

A large healthcare company has decided it is interested in substantially increasing the size of its operations. Its goal is to double total sales and profits in less than two years. As a consultant brought in to assist them, what would you do? What issues would you consider? What are some likely alternatives for the company?

Approach:
- What is the current scope of operations?
- In what areas of healthcare does the company operate (payor, provider, pharmaceutical company, etc)?
- What is the company's current market share in these areas?
- What plans has the company already considered?
- What is the competitive nature of the industry?
- What would be the effect on sales and profits of reducing prices and margins?
- What potential is there for expansion by acquisition? Do they have the financial capability? Do potential acquisition targets exist? Will the market for acquisitions be competitive?

Naturally, a suitable solution will depend upon the answers to the above questions.

A business can increase profits by 1) increasing sales, 2) increasing prices, or 3) decreasing costs However, if the company's margins are found to be consistent with industry norms, it would seem unlikely that either increasing prices or cutting costs represent feasible methods by which to double sales & profits, particularly if the company is operating in a moderately competitive environment.

This leaves only sales increases, which could be achieved by:
1) Selling more of the current products to current customers
2) Selling new products to current customers
3) Selling current products to new customers
4) Selling new products to new customers

The suitability of these options will again depend on the particular environment. For example, one possible scenario is that only selling new products to new customers via some form of diversification could hope to achieve the company goals. In this case, you should then consider the potential for increasing sales by means of diversification through acquisition or joint venture. The relative benefits of each will depend on financial resources as well as the existence of, and competition for suitable targets.

Ice Cream Parlor

Your client is the owner of a small ice cream parlor and is interested in selling it off. You have been assigned to help him determine the value of his store.

Approach:
Several methods can used to perform this valuation: use NPV method for this case.

You must ask questions to collect all the information required to construct an income statement.

- On average, how many cones are sold per month? (5000)
- What is the average price of a cone? ($2)
- What are the variable costs on per cone basis? (Ice cream: 30¢, Cone: 10¢, Condiments: 10¢)
- What are the fixed costs on per month basis? (Rent: $1200, Utilities: $500, Labor: $1000, Advertising: $200, Contract services: $200)
- What is the gross income? ($4400)
- What is the tax rate? (40%, therefore the taxes paid are $1760)
- What is the net income ($2640)
- Should I consideration depreciation? (No, ignore depreciation)
- What is the expected growth rate over next 4 years? (10%)
- What is the company's debt position? (No debt)
- What is the company's beta? (1.2)
- What is the risk free interest rate? (6%)
- What is the market rate? (11%)
- Should I consider the terminal value? (No, ignore terminal value)

Calculate expected cash flows over next four years: $31680, $34848, $38332, $42166
Calculate appropriate interest rate using CAPM = 0.06 + 1.2 x (0.11 - 0.06) = 0.12
Determine NPV by discounting projected cash flows using determined discount rate

Year	1	2	3	4
Net Monthly Income	$ 2,640	$ 2,904	$ 3,194	$ 3,514
Net Annual Income	$ 31,680	$ 34,848	$ 38,333	$ 42,166
Present value	$ 28,286	$ 27,781	$ 27,285	$ 26,797
Total NPV	$ 110,148			

Information Services Company

You are hired by a library information services company that provides a computerized article search product on CD-ROM. The product allows users in a library to locate articles by keyword search. The company currently has a weak market share of only 10% of all installed units. The company wants to understand (1) why they have such a small market share, (2) what could be done to improve the situation, and (3) where it should focus its resources.

Approach:

- How many competitors are there in the market? (one major competitor and two small competitors)

- What is are competitors' market shares (the single major competitor 50% market share. The client and two other competitors each have 10%; and the remainder is divided among many competitors.)
- How is the market segmented and what is our client's market share for each segment compared to the major competitor? (see table)
- What are the competitive features of these products and what competitive features are important to each segment?? (Competition within the industry focuses on four dimensions: (1) Search Quality, (2) Content, (3) Ease of Use, and (4) Price.) (see table)

Type of Library	# Libraries	Client Market Share	Major Competitor Market Share	Competitive Features
Academic	5000	20%	60%	Search Quality, Content
Research	500	80%	10%	Search Quality, Content
Other	4500	13%	66%	Content, Ease of Use
Public	10000	10%	40%	Content, Ease of Use
Secondary Schools	20000	~0%	10%	Price, Ease of Use

- What is the client's product? (The client sells a CD-ROM based product which is used on a dedicated PC in a library. The product has different versions that are upgraded each year. Each version is marketed to a specific library segment. Libraries are interested in matching the article search to hardboard volumes available within the library.)
- How does the client's product quality compare to the competitors'? (Considered to have the highest quality of article search.)
- How does the client's pricing compare to the competitors'? (The client sells its product at a 25% discount to the major competitor and has the lowest prices in the industry. The pricing and profit schedule for each version are shown below.)

Library	Client Price	Client Profit per Unit	Major Competitor Price
Academic	$2000	>$500	$2667
Public	$1500	$500	$2000
Secondary School	$1000	$100	$1333

- What is the trade off between the different competitive features? (There is a trade-off between ease of use and search quality. A better search requires a more skilled approach to keyword usage and often makes the search more difficult. The client's product is considered to have the highest quality search among the competitors.)
- How are the products produced? (The product is created by programmers who seek to match the product to library volumes. Since the principal input is labor, the type of CD-ROM created can be altered relatively easily.)

The client's product does not match the needs of the large segments of the market leading to weak market share (i.e. the client's high quality of search only appeals to a small segment of the total market)

- The client should reallocate its resources to create products in the larger market segments; ergo products that emphasize content and ease of use over search quality.

The most profitable segment can be identified by using current client prices which should allow it to gain market share (due to the 25% discount to the major competitor) and calculating the maximum market profit. Academic = 5000 x 500= $2.5M; Public = 10000 x 500 = $5.0M; Secondary = 20000 x 100 = $2.0M. Therefore, if we realign our product to emphasize ease of use and content, the potential profit is 4500 x 500 + 10000 x 500 = 7.25M (minimum since profit in academic segment is > $500 per unit).

Insurance Company

An insurance company pays its sales people a base salary of monthly wages and commission of 25% of new policy sales (2% of renewal). Which is the right way to pay the sales agents?

Approach:
This is an organizational behavior scenario. You must define what the "best way is".
- Assume some generic definition like "the manner by which agents are both motivated and equipped to accomplish there tasks in the interests of the organization..." is applicable.

Having set up a definition for the best method review the means to achieve this.
- The only factor determining how much the agents paid is their sales $.
- They are motivated to issue a policy to anyone at as high a price as possible. They are not motivated to give consideration to the riskiness of the insured party.
- The absence of such a consideration would be detrimental to the company in the long run.

A more efficient compensation structure might pay the agent on a sliding scale, depending on how risky (costly) an insured party proves to be.

International Consulting Firm

You are the managing director in a large international consulting firm. Traditional strengths of your firm have been solving strategy and organizational issues. Recently, you have noticed an increasing number of your firm's proposals are being rejected because of a lack of information technology expertise in your firm. So far, your firm's growth has been strong enough that proposals lost have not hurt annual earnings. Nonetheless, you are becoming increasingly concerned about the need to develop the firm's capabilities in information technology. You are asked to consider the following questions:
1) Assuming your concern is valid, what reasons will you provide to other partners about the need to acquire information technology skills?
2) Assuming you are able to convince other partners of the importance of IT expertise, what steps would you take to rapidly build IT capacity in this area?
3) What are the major risks in executing an IT capacity-expansion?

Approach:
What reasons will you provide to other partners about the need to acquire information technology skills?
- Value of IT to clients: discussion topics include the increasing importance of information in business, strategic value of information and information flows, importance of information systems for implementing new organizational structures and management control systems.

- Costs of losing clients to competitors: discussions included the encroachment costs of having clients talking with competitors about IT problems, risk of losing credibility with clients by not being able to solve a problem.

What steps would you take to rapidly build IT capacity in this area? (discuss the pros and cons of each method proposed; impact on firm's current culture, cost to the firm, time needed to build expertise, etc.)

- Various methods to build expertise: buying expertise by acquiring another firm, by raiding IT practices of other firms for a few key consultants, building capacity through recruitment of IT experts and training them to be consultants, building capacity by training current consultants in IT practice skills, establishing a strategic alliance with a IT boutique firm.
- Importance of stimulating client demand as capacity builds through seminars, articles strategic studies in IT areas...

What are the major risks in executing an IT capacity-expansion?

- Depends on the expansion methods discussed, but an important issue is the loss of the firm's focus away from just strategy and organization.
- The difficulty of implementation in IT; rapid technological changes in the IT industry require significant ongoing training and development costs; new practice cultures may be significantly different from current culture, especially if "external experts" are brought into the organization.

Knitting Machine Demand

How would you assess the world demand for knitting machines?

Approach:
The world demand for knitting machines basically depends on the world demand for cloth. Therefore, we need to know how much cloth (measured in square meters, for instance) is being purchased per unit time per inhabitant of the world. In order to refine our appraisal, we may segment the inhabitants of our planet per level of personal wealth. Note that this may not be a linear relationship.

Furthermore, you may need to consider other factors:

- The current level of the ratio: amount of cloth manufactured per working year / number of machines
- The expected usable life of an average machine
- The existence of substitutes for knitting machines and the consequences of this on our expected demand

Local Banking Demand

How would you determine whether a location in New York City holds enough banking demand to warrant opening a branch?

Approach:
Because this is a demand-oriented question, consider a marketing framework, such as the 4 P's.

- The demographics of the area surrounding the prospective branch should be examined.
- Population, business concentration, income levels, etc. should be compared with those of historically successful branches.
- Competitor reactions could easily make this venture unprofitable, so it is essential to anticipate them. These will depend on the importance of the area to competitors (in terms of profit, share, etc.)
- The client will have to match competitors' incentives to customers and should estimate the cost of doing so.
- The client must examine if the new branch would complement their existing competence and strategy (retail or commercial, high growth or high profitability, etc.) and what purpose it would serve.
- If the need focuses on deposits and withdrawals only, maybe a cash machine would suffice.

Logging Company

You are hired by a Canadian logging company to analyze its current operations and provide advice on future operations. The logging industry in Canada is regulated by the government. Land is leased to individual companies by the government. The company is making a lot of money and is unsure why. You have been asked to determine: (1) Why they are making money? (2) Is it sustainable? (3) Is it replicable?

Approach:

- What are the company's products? (The company produces lumber boards of two sizes 2"x4" and 2"x8".)
- How are prices set in the marketplace? (Lumber is a commodity product and as such the company is a price-taker in the market.)
- What is the price of the lease with the government and how does it compare to the company's competitors'? (The government leases tracts of land at a annual price that is set to allow for a 12% profit margin for the entire logging industry. Thus, all tracts of land have the same lease price per acre.)
- How long do the leases last? (99 years and the original lessee has the right of first renewal on the lease.)
- What is the profit structure? (The profit equation for the lumber industry can be written as: Profit per ft^3 = Revenue per ft^3 - Non-land cost per ft^3 - Lease Cost per ft^3)
- What is the company's product mix and how does it compare to its competitors? (The company's product mix is made up of a greater percentage of 2"x8" boards than the "typical" logging company percentage.)
- Does the company have a revenue advantage? (Yes, as margins are higher on 2"x8" boards than on 2"x4" boards, there is a revenue advantage for the company due to its product mix.)
- How do the company's non-land costs compare to their competitors'? (The company has a 5% cost advantage in its "tree-to-dock" production process. There is no significant difference between the distribution costs among the industry firms.)

- Does the production process contribute to the cost advantage? (No, there are no significant economies of scale to the process. The cost advantage is not generated by a better logging process (i.e. better equipment, more skilled laborers) but instead exists because of the exceptional quality of the trees on the particular piece of land that the company leases.)
- Why are the trees better on this plot of land? (The mineral content of the land leads to faster growth of healthier trees which improves both yield and turnover. Healthier trees are straighter and easier to cut, thus reducing costs in each phase of the logging process. These healthier, taller, straighter trees yield more 2"x8" board-feet than is typical and leads to the advantaged product mix.)

The company leases land with a significantly higher quality of trees. This leads to a revenue advantage because more 2"x8" board-feet can be produced per acre of land. Additionally, there is a cost advantage because the higher quality inputs make the logging process easier and increase yields and turnover. Since the leases are for 99 years and renewable, the current situation seems sustainable. Since it is unlikely that another piece of land similar to this one exists or that another firm will give up advantaged land, the situation is not replicable.

<u>Machine Loading Case</u>

A client produces a range of synthetic materials in varying widths and lengths. Each material is used for packaging but differs in physical properties in terms of costs, weight, flexibility, and general performance. Each material can be coated with any one of four or five types of chemical coating which make the materials more or less impervious to heat, light, water, vapor, etc.

All of the machines on which these materials are made are housed in one enormous factory location. Each machine is capable of running any one of the various materials and/or coating combinations. The client does not wish to invest in additional equipment at this time.

The client has asked us what combination of products he should run to increase his plant's profitability. How would you go about determining the optimal mix of potential products on these machines?

Approach:

- What is the competitive landscape of the industry? (The industry is highly fragmented. A variety of small manufacturers supply similar products to provide a range of customers.)
- What is our client's market share and how does it compare to his competitors'? (Our client estimates he has less than 1 percent of the total market. No competitor has more than 3 percent of the total market.)
- What is the cost to manufacture each product? (Each product has a different cost to manufacture dependent on materials used and the manufacturing process.)
- What determines to price for each product? (Each product has a different price dependent on both the client's cost to manufacture as well as the market for the product.)
- What type of products can our client's machinery produce? (Our client's machinery can produce hundreds of different products. Some are unique to meet specific customer requirements while others are used by a wide variety of customer.)

- Who are our client's customers? (Our client's customers are primarily consumers or industrial product manufacturers who use the synthetic materials in packaging their own products.)
- Who are our client's suppliers? (Our client uses primarily commodity products in the manufacturing process. All can be obtained from a number of sources.)

The profit of the plant will be maximized when the most profitable product mix is produced and sold. Discuss the differences for each product in the fixed and variable manufacturing and selling cost and prices, as those must be determined to understand each product's profitability. Also address the market demand for each product (to ensure what is produced can be sold at an acceptable price).

Address the following issues:

- Are there market limitations to the potential production of any one material?
- Is there competition for these products?
- Are there differences in costs in the manufacturing of these materials? For example, do some coatings cost more than others? Do some materials have inherent cost differences?
- Is there flexibility in pricing of these products?
- Are there differences in setup time and cost for various materials or coatings?
- Do these materials move at different speeds through the machines?
- Are the machines truly interchangeable or are some better suited to one product or another?
- Is there unlimited market demand for these products?
- Are there technological displacement or replacement products on the horizon?

Formulate a profit maximization algorithm by maximizing the profit contribution per machine hour.

- Profit contribution is (unit volume) times (unit price minus variable cost).
- Machine-hour capacity is a surrogate for fixed costs per unit of volume. Fixed costs take into account depreciation and standby costs as well as those costs that are independent of the variable costs per pound or ton produced.
- Include recognition of the asset costs and capital implied by that, as well as the income or profit contribution.
- Also, the potential substantial differences in volume produced per machine-hour and/or the price obtainable in the market demand and competitive actions.

Magazine Distribution

A magazine publisher is trying to decide how many magazines she should deliver to each individual distribution outlet in order to maximize profits. She has massive amounts of historical data for sales volumes through these outlets and a well-constructed internal accounting system. How should she go about computing an appropriate number?

Approach:
Without going into a huge Economic Order Quantity quantitative analysis, the best method is to set out and outline analysis and fill in as you go.

- To maximize profits, marginal revenues would be set equal to marginal costs.
- The marginal revenue for a magazine would be its cover price times the probability that it will be sold.
- The probability of sale, with an appropriate confidence interval, could be established in some manner from the historical data.
- The marginal costs could be obtained from the internal accounting data.

Meat Packing Industry

Your client a US firm, owns a meat packing plant in Spain. Over the last few periods profits have steadily declined, despite the fact that sales are growing. You have been hired to figure out why.

Approach:
Porter's five forces are useful.

- Who are your client's suppliers of raw materials? (Numerous independent farmers with little negotiating power against your client.)
- Has there been any recent change in the cost of raw materials? (No)
- Has there been any change in the competitive landscape? (No)
- What is this a local or regional market? (fairly regional)
- Has there been any change in transportation costs? (No)
- Has there been any change in production costs? (No, they have been stable)
- Has there been a change in diet or has a substitute product been introduced? (No)
- Has there been a change in the price of the product? (Yes, your client's margins are being squeezed due to the increasing concentration and buying power of your customers.)

Merger Candidate In Chemical Industry

One major chemical producer has retained your firm to evaluate another major participant in the industry. Both companies are bulk commodity chemical producers. Your firm has been asked to begin our work by analyzing the future prospects of the target company's major product line, a bulk chemical used in the production of plastics.

The essential facts are: Production of this chemical has slowly declined over the last five years and prices have declined rapidly. There are 7 to 8 major producers; the largest producer has a 30 percent share; number two has 20 percent: out target company has 15 percent; the rest is divided among other competitors. The two largest competitors earn a small return; target company is probably at break-even; rest are operating at break-even or loss. The largest competitor has just announced construction plans for a major new plant.

How would you structure an analysis of the target company's future prospects in this product line?

Approach:

- What markets use this chemical, and what has been the nature of growth in these markets? (End-use markets are largely automotive-related.)

- How much overall capacity exists now? (Far too much.)
- What has been relative capacity utilization of competitors in the industry? (60 to 70 percent for last 3 years).
- What are relative cost positions of competitors? (related to size/efficiency age of plant; target company has reasonably "good" position.)
- How rational is pricing? (Prone to self-destructive cuts to gain temporary share points.)
- Are there niche or value-added uses for chemical? (Not really.)
- Does the chemical have a major by-product or is it a by-product? (Not of significance.)
- How often have companies entered/exited, and how expensive is entry/exit? (Entry expensive; exit cheap for most because older plants are fully depreciated.)
- How important is this product line to each of the competitors? (Most producers are diversified.)
- What are the reasons for announced capacity expansion. (It is a bluff to try and get smaller competitors to shut down.)
- Is regulation important? (Yes: all competitors have installed pollution control equipment.)
- What is nature of operational improvements that target company could make? (lots.)
- How is product sold and distributed? (Economies of scale in marketing and transport are critical.)
- Is there synergy between our client and target? (not really.)

Mysterious Audio Cassette Market

Your client is the manufacturer of audio cassettes. They have hired you to figure out why they've been experiencing an alarmingly poor sales year. They want you to figure out the root of the problem, and what to do about it.

Approach:

- What is the current state of the market? (Mature)
- How many major players are there in the market? (5 to 6 major players)
- What is the client's market share? (The client used to have a steady 30% market share, second largest in industry. Now, the firm has a 44% share.)
- What type of products does the client offer? (The client offers a full range of audio cassettes from low bias to high bias/metal.)
- How does the client's product compare to the competitions' (Your client uses the most sophisticated and quality driven cassette manufacturing techniques.)
- How is the product sold? (through the company's sales reps)
- Has there been any change in the company's sales reps? (Yes, the firm has been losing sales reps, yet loyal reps claim that sales are at record high levels for them this year.)
- Who are the company's target consumers? (Firm historically targeted two consumer groups: older, middle income enthusiasts and high school rock `n roll stereophiles.)
- Has there been any change in the client's customer base? (Recently your client has been losing younger target market customers.)
- Has there been any change in the company's retailers? (Firm has traditionally managed its relationship with retailers well. However, the firm has recently lost several major accounts due to its inability to move your customer's (the firm's) products.)

- Has there been an introduction of a substitute product? (Yes, CDs)

The combined market characteristics, recent symptoms and sales decline and increased market share suggest that your competitors are abandoning this market likely due to a new and better substitute technology, CDs. Still, your client's historically flat market share suggests brand loyal customers. Moreover, your older target market is loyal - perhaps less likely to switch to the new technology in the short run. Assuming (1) that your client wants to be a provider of this new technology and (2) has the capacity to manage a primary supplier position in its traditional line of business – short-term, target your older customers as well as new segments less likely to switch over to CD's; for the long-term, consider resource requirements, opportunities and constraints of developing or acquiring the new technology.

Oil Tankers

Your rich uncle has just passed away and left you with 3 small oil tankers. How do you determine how much they are worth?

Approach:
This problem involves the interplay of supply and demand forces to determine the value of the tankers. The nature of tanker supply will be revealed by defining the different tanker types (in layman's terms: small, medium, and large) in the industry and the cost-related prices associated with employing each type. In effect, a step function supply curve results for the industry with each step a different tanker type. Demand for the services of tankers is assumed fairly inelastic due to refinery economics dominating the purchase decision. It will turn out (by carefully creating the supply/demand curves) that at the given level of demand, only large and medium tankers are put into supply. This renders your late uncle's small tankers suitable only for scrap at the present time.

Overseas Construction

An overseas construction firm wants to expand by establishing a presence in a growing U.S. regional market. How should it go about doing this? What factors are critical for its success?

Approach:
- What are the diversifying firm's distinct competitive advantages?
- What is its capacity for funding an acquisition?
- What is the competitive environment like in the proposed region?
- What is the regulatory environment?
- How does this environment differ from the current markets of the diversifying firm?

Diversification could be affected through joint ventures or through acquisition. Which of these two strategies would prove the most suitable depends on the availability of funds and upon the nature of the company's operation in the region.

The success of the venture depends not only upon the means of entry, but also on the existence of a distinct sustainable competitive advantage such as.

- Non-unionized labor, which might help support a low cost production strategy (but for how long?)
- Proprietary technology not available to other companies in the region
- Special expertise in a growth area (such as, for example, hazardous waste)
- Access to distribution channels

Packaging Material Manufacturer

Your client is the largest North American producer of a certain kind of bubble-pack packaging material. Currently, the company has 80% of the market, and has asked your firm to assess the strategic outlook for this company. How would you begin to assess the future for this client, and what type of recommendations could you make?

Approach:
- What are the costs of the product? (20% for polyethylene, a plastic chemical, 35% conversion costs, including allocated fixed costs, labor and energy costs, 10% distribution and storage, and 15% marketing and overhead.)
- What is the gross profit margin? (20%)
- Are there multiple suppliers of polyethylene? (Yes, polyethylene is a commodity chemical.)
- How old is the factory? (30 years old)
- Has the technology been updated over time? (No, the technology used is the same as when the factory opened.)
- What is the client's market share? (The client had 100% of the market until two years ago. Since that time, a localized upstart company has appeared in the Philadelphia / New Jersey market and has captured nearly all of that market.)
- What are the differences between our client and this competitor? (Your client does not have much information about this competitor, but it appears that their factory is extremely efficient. This factory has purchased technology from a German company. They have also been undercutting your client on price.)

The competitor has used their new technology to produce a lower price product. As evidenced in the Philadelphia / New Jersey market, nearly all customers prefer this product to your client's. Therefore, the future is extremely bleak for your client, and they should be advised to respond to the competitive threat, perhaps by updating their own technology.

Permanent Light Bulbs

A small R&D lab in the Swiss Alps has developed a super-durable filament for light bulbs; with this filament, the light bulb will never burn out. The lab is ready to license this product to a light bulb manufacturer. What will be the effect on the light bulb industry?

Approach:
- What is the competitive landscape of the light bulb industry? (The industry is dominated by two multinational producers. There are a several small local players in various regions of the world who produce local brands and some private store brand light bulbs.)

- Is there any difference in the price or distribution channels of the two main players? (No, the two companies sell their products side by side for essentially the same price in similar outlets internationally.)
- Recently have there been any technological innovations in light bulbs? (No).

One outcome is that one of the two major players purchases the technology. If the technology is patented and exclusively licensed, this player may enjoy an advantage for a limited time. If the producer makes enough bulbs at a low enough cost, all customers will eventually switch over to the permanent light bulb, thereby drying up the industry, putting the competitor out of business and greatly reducing their own business.

Another solution is that all of the players obtain some version of this technology. If that were to happen, the price for this product would decline to the normal industry profit level, and customers would shift to the permanent light bulb. Over time, all bulbs would be permanent and the industry volume would greatly decrease, making the industry more competitive and wiping out industry profits.

Piano Tuners

How many piano tuners are there in Chicago?

Approach: This is an estimation case – there is no right answer.
What is the number of households in the Chicago area? (Assume 2 million households.)
Break the income of the households into four quarters (500,000 each). Make an estimate of 20% of highest income quarter have pianos, 10% of second quarter. 5% of third, and 0% of fourth. Estimate how often these pianos are tuned. You can estimate top income quarter tunes their pianos once a year, second quarter once every five years, third quarter once every 10 years.

Income	Population	% w/ Pianos	# of Pianos	Times tuned/yr	Tuning/yr
1st	500,000	20%	100,000	1	100,000
2nd	500,000	10%	50,000	1/5	10,000
3rd	500,000	5%	25,000	1/10	2,500
4th	500,000	0%	0	0	0
		Totals	175,000		112,500

Estimate a piano tuner can tune five pianos a day, 250 days a year, therefore: 112500/250=450 pianos a day to tune 450/5 = 90 pianos tuners needed.

How could you check this? Look in the yellow pages. Would all the piano turners be in there? You can guess half. By the way there are 46 piano tuners listed in the Chicago Yellow pages.

Pipeline Company

You are hired by a large pipeline company to evaluate the current and future potential of the pipeline industry. The pipeline industry sprang up as transportation costs for mineral extraction companies began to escalate. There is currently 20,000 miles of pipeline throughout the U.S.

What information would you want to know about the pipeline industry that could help you plot a strategy for a pipeline company?

Approach:

- What is the industry structure? (There are many pipeline competitors.)
- Is the pipeline market segmented? (Yes, pipeline can be characterized as either common carrier pipelines (~70% of all pipeline miles) which are regulated by the government and proprietary pipelines (~30% of all pipeline miles) which are wholly located on the private property of a firm. Proprietary pipelines are not regulated by the government.).
- Is there any difference in the number of suppliers of common carrier vs. proprietary pipelines? (There are many suppliers of common carrier pipelines.)
- Are there differences in the pipeline products? (Yes, the pipelines carry liquid and gaseous materials such as crude oil, natural gas, methane gas, liquid nitrogen, refined oil products and chemicals.)
- What is the cost structure of pipeline products? (There are exceptionally high fixed costs involved in a pipeline. The variable costs are primarily the electricity to power pumping stations along the pipeline.)
- Does the cost structure differ depending on the type of pipeline? (Yes, there are different cost structures depending on the type of product being moved. Pumping crude oil along the pipeline can cost as much as $2M/month in electricity for a station. Gaseous products require considerably less energy to move.)
- What are the market conditions? (U.S. proven reserves are diminishing and foreign imports are increasing.)
- Is demand steady? (Yes, it is expected that for the next 5-10 years demand will be steady.)
- Is there a difference in the margins for the different products? (Yes, the margins on gaseous products is higher than heavy unrefined products.)
- How does government regulation impact margins? (Margins are greatly affected by common carrier status. Any future environmental regulations will cut even deeper into margins.)
- Can pipeline be used as a storage medium? (Yes, for many firms the product in a pipeline can be a significant portion of its inventory and the volume in line must be considered in production. A large pipeline could be a temporary storage facility..)
- Is it better to make product and sell it now at low prices or wait for prices to increase (e.g. crude oil prices)?
- Does operations have a significant impact on profits? (Yes, to maximize profit one needs an understanding the parameters of pumping -- costs of pumping at less than full capacity; layout of pipeline and pumping stations; products which can share the same pipeline; construction of parallel pipelines.)
- Are there difference in the markets for the different products? (The market for crude oil is very different than the market for specialty chemicals or natural gas. The pipeline manager must aware of these rapidly changing commodity markets to maximize his profit.)

Classic Porter analysis can be used:

- Threat of Entry is low because there are high fixed costs (high initial investment) and pipeline services are essentially a commodity product (commodity markets are slow growth and unattractive)

- Industry Rivalry is strong because there are many competitors and switching costs are low, industry growth is expected to be slow (i.e. market share is important), many competitors use pipeline for in-house uses and only carry other products if capacity is underutilized, there are very high exit barriers (i.e. there is a strategic relationship between refining and piping)
- Substitute Products are many as witnessed by proliferation of tanker cars and tractor trailer rigs for liquid and gaseous materials
- Power of Suppliers is not a significant factor.
- Power of Buyers is not a significant factor because many pipelines are regulated and there are many buyers

Publishing

Your client is the CEO of a publishing company that produces a line of educational magazines as well as a line of women's magazines. Both businesses are profitable but are not growing quickly. He wants to start a third monthly magazine in the US targeted at 30-50 year old men (eg. GQ Magazine). His stated goal is to generate circulation revenues of $10 million in the first year. He has hired you to figure out whether this is possible.

Approach: This is an estimation case. The key here is to clearly define your assumptions, the specific answer is not important as long as you are making reasonable assumptions. Estimate the target customer base, the potential market share and the potential revenues.

- The total US population is approximately 240 million.
- Based on a normal distribution with the average life span of 80 years, approximately 2/3 of the population falls between 30-50 or about 160 million people.
- Approximately 1/2 are male or 80 million.
- Of the 80 million 30-50 year old men in the country, assume that at least 1/2 would read a magazine or 40 million.
- Given the wide range of magazines on the market assume that only 10% of magazine readers would want to read a men's journal or 4 million target customers.
- As a new magazine assume that you can generate a 5% share of the men's magazine market in year one or 240,000 customers.
- Based on what other magazines sell for $2.50-$5.00 assume a cover price of $3/magazine at the news stand and $2/magazine for a subscription.
- Now make some assumptions on how many customers will buy on the news stand versus subscription: assume 50% subscribe (120,000) and 50% buy at the news stand (120,000).

This comes out to monthly revenues of $360,000 + $240,000 or $600,000. For simplicity assume that all target customers buy a magazine every month. This would generate total revenues of $600,000 X 12 or $7.2 million. In this case given the CEO's stated goal of $10 million in circulation revenues, it would not make sense to launch the magazine.

Purified Water

Your client, a corporate cafeteria manager is currently making a decision regarding which purified drinking water option to select. He has three options 1) individual bottled water, 2) fountain water (larger refill containers) or 3) on-site water purification. What should he consider in his decision-making process?

Approach:
- How many customers does he expect? (The number of customers ranges anywhere from 1000 to 3000 patrons per month.)
- What are the costs of a water purification system? (The system has an initial cost of $14400 and a monthly service charge of $200.)
- What is the lifetime of a water purifier? (The manager estimates it is four years.)
- What are the costs of bottled water cost? (Bottle water costs 50 cents each)
- How many bottles are required each day (The number of bottles required varies directly with number of patrons. So if you expect 50 patrons a day, they will consume 50 bottles.)
- How many dispensing systems are required for water fountain option? (2)
- How much does a refill water container cost? ($35 each).
- How often are refills replaced? (Refills will be replaced daily if the restaurant has more than 2,000 patrons per month or every other day if there are less than 2,000 patrons per month.)
- Has he done any customer research to determine what options his customers would prefer? (Customers do not have a preference)

Therefore from an economic standpoint, the option you select will vary with the number of customers. It is necessary to perform a break-even calculation.
- The water purifier: It costs $200 per month, plus an upfront charge of $14,400 that you should depreciate over their lifetime (i.e. an additional $14,000/(4 x 12) per month = $300 per month). Therefore their total cost is approximately $500 per month - and this does not vary with the number of patrons coming into the cafeteria.
- The bottled water option. These vary directly with number of patrons in the cafeteria, at a cost of $0.50 per patron. Therefore with low numbers of customers per month, bottled water will be cheaper than the purifier will. How many patrons would have to come to the cafeteria each month to make the purifier more cost effective? The cost of bottles would have to exceed $500 per month, equating to $500/$0.50 = 1000 patrons per month.
- The drinking fountain option: At less than 2,000 patrons per month, the drinking fountains would cost $35 every other day or $35 x 15 days = $525 per month. This in itself is more costly than both the dryer and the towels option, and with more than 2,000 patrons, it will only look more unfavorable.

Therefore the real economic decision is between bottles and the purifier. At less than 1000 patrons per month (or 2000/30 = 33 patrons per day) you would prefer the bottles. Once the number of patrons increases above this, you'd switch to the purifier option. If manager is unsure of number of customer, perhaps it is best to start off with bottles and switch to purifier once volume increases.

Regional Grocery Store Chain

A regional chain of grocery stores currently receives its stock on a decentralized basis, i.e. each store deals directly with the various suppliers. The president of the chain is wondering whether it would be better if they established a centralized warehouse through which all supplies would be delivered and then disbursed by company trucks. What are the key considerations to making this decision?

Approach:

- Would the savings from bulk purchasing more than compensate for the cost of building and maintaining the warehouse, employing additional personnel and trucks and the opportunity cost of capital tied up in inventory for additional periods
- Do the stores buy similar products? (i.e. do purchasing synergies actually exist?)
- Will delivery frequency to the stores by better or worse? Consider the costs of stockout and the need for fresh produce.
- Will the stores prefer delivery direct from the supplier or from the warehouse? Consider the time tied up in order processing, the flexibility of delivery times and quantities.

The proposed solution would depend upon your interpretation of the trade-offs both financially and organizationally for the two methods of delivery. For you to propose going with the new method, you need to establish not only that it will cost less, but also that all the affected players can be persuaded to buy into it.

Retail Advertising Pricing

You are the new retail advertising manager of a large daily newspaper. This morning you received a call from your boss, the advertising director. He sounded extremely worried about the retail advertising division's performance. Naturally he doesn't explain why, assuming that a hot-shot like you would by now be totally familiar with the status quo! He has to attend a meeting of senior executive convened by the publisher where he will have to defend the advertising department's performance. He also wants to make a big splash by presenting a new "strategic pricing methodology' aimed at achieving "value-based differentiated pricing".

Approach:
Find out corporate profitability objectives and assess gap between annual departmental performance and original targets.

- Has there been any change in revenues over the past few years? (Yes, revenues have gone up steadily over the past few years.)
- Have cost increased over the past few years? (Yes, but costs have not risen significantly.)
- Has there been a change in advertising pricing? (Yes, apparently, corporate pressure to improve bottom-line results has led to steep advertising price increases.)

A classic demand-curve scenario has led to greatly decreased cumulative ad volume, with potentially serious long-term consequences.

- Examine competitor pricing and customer price sensitivity.
- Discuss heterogeneity in advertising customers based on business size, breadth or product line, price-point etc.
- Understand advertising attributes of importance to different segments (e.g. color, size, frequency, discounting etc.).
- Use difference in needs of customers to implement prices based on appropriate advertising service provided.

Satellite Company

A large conglomerate has bought a satellite and has the option of keeping it or selling it today for a profit. The company has hired you to help if figure out what to do.

Approach:

- How much was the satellite acquired for? ($1 million)
- How much can the satellite be sold for today? ($10 million)
- What is the condition of the satellite? (The satellite is in fine working condition.)
- Has the satellite been launched? (No it is still in the box and needs to be launched if company decides to keep.)
- What are the cost associated with launching the satellite? (Total Launch costs are: $5 million for high orbit launch and $1 million for low orbit launch)
- What is the price of satellites available in the market? (There are more satellites available for purchase at $2 million each.)
- Is it possible to lease satellite capacity? (Yes, leasing satellite capacity is a good option but not available in this case.)
- Is there a difference between low orbit and high orbit satellite communication abilities? (Low orbit satellites are used to transmit data from point A to B where the distance between them is in the order of 3000 to 5000 miles (like from coast to coast). These satellites are primarily used by corporations to transmit data in batches. Low orbit signal is subject to high interference, thus it is not used when continuous transmission quality is critical. High orbit satellites are primarily used for continuous transmission (i.e. in real time) where signal quality is critical. Live global television broadcasting is the primary application. High orbit satellite transmission requires a series of satellites capable of passing a signal around the globe. A single satellite will not work for this application.)
- Who are the potential customers for satellite services? (There are two customer segments based on use: data transmission and voice/video transmission. Large corporations use satellites to batch transfer information periodically during the day. The use is short and intermittent allowing for multiple clients. News, broadcasters and telecommunications companies use the satellites for voice/video transmission. They require 24 hour, global satellite coverage limiting the satellite to only 1 client.)

Compare estimated profits associated with the three options.

- Option #1 – sell today. $9 million dollar pre tax profit.
- Option #2 – Operate single satellite offering data transmission service to multiple clients Use NPV analysis to determine PV of future cash flows
- Option #3 – Operate multiple satellite system to offer voice and video transmission. Required increased upfront investment to buy and launce more satellites. Use NPV analysis to determine PV of future cash flows accounting for large initial capital expenditure. Verify that company has or can borrow the capital required for purchase and launch.

Note: As no numbers are available in this case to compute the NPV for options 2 and 3, interviewee should only describe the methodology used to calculate NPV.

Scientific Industry

A manufacturer of scientific instruments is experiencing declining sales in its major product line. Why?

Approach:

- Describe the instrument and what it does. (The instrument Y is able to perform elemental mapping; that is, it is able to determine the specific composition of material placed in the chamber for observation. Y is an accessory for larger and much more expensive instrument X that functions almost exactly like a microscope.)
- What other products does our client manufacture? (They recently began manufacturing X, and also produce an unrelated product.)
- Can these instruments be used separately, and are they ever sold separately? (X can be used by itself, but Y is essentially dependent on X for its operation. As a result, except for replacement sales, Y is rarely sold individually. In fact, X's sales force will frequently recommend that a buyer purchase a certain Y while buying an X. Two years ago, over 30% of our clients sales were generated by a manufacturer of X.)
- What is the current %? (It is currently around 5%)
- Does our product X compete with other manufacturers of X, and particularly the manufacturer that was selling our Y? (Yes, it does compete directly with it, and our client introduced the product about 1 1/2 years ago).
- How does our product compare to other Y's? (Our client's product is regarded as one of the best in the market.)
- Is the market for X and Y growing, shrinking or flat? (Both markets are flat.)
- Who uses X and Y? (There are two basic user groups: industry, primarily semiconductor manufacturers, and academia in research labs.)
- Has there been a recent change in either of these user groups? (Yes, what we've noticed lately is that the specific users in each of these groups, who also happen to be the primary buyers, have become relatively less sophisticated; that is, they are hired just to run the instruments and know less about their technical qualities.)
- Has this changed the buyers relationship with the sales force? (Yes, these buyers have become even more dependent on the sales forces. What has happened is that our client alienated itself from other manufacturers of X at a time when a strong relationship was becoming even more important than it used to be. The buyers are relying more and more on the X sales force, who is typically called well in advance of the Y sales force.)

Therefore, in addition to ruining our relationship with a manufacturer of X by producing our own, we happened to do so at a time when relationships became even more important.

Semiconductors

The domestic semiconductor industry is beleaguered - brutal price competition from the Japanese, accusations of "dumping" against the Japanese etc. Domestic semiconductor manufacturers are clamoring for protection from Washington, and some of the public policy solutions being proposed are things like research consortia sponsored by the government, trade restraints etc. You are a consultant at a major firm. You are concerned that the public policy debate ignores basic issues regarding industry economics and whether the solutions being proposed will solve any problems for your clients. You know that each generation of memory chips lasts only 4 to 5 years. What are some of the factors you will consider while looking at the economics and how might they impact the idea of shared research by US manufacturers?

Approach:

- Are the variable costs a driver in the industry? (No, variable costs are negligible)
- Are the fixed costs drivers in the industry? (Yes, the fixed costs are huge.)
- How much does it cost to be a player in the market? (Huge amount, ~$250M in research and ~$600M in plants.)
- Does this cost increase, decrease or stabilize with each succeeding generation of memory chip? (Increases exponentially)
- How is pricing determined? (Cut-rate, volume-oriented pricing, therefore the marginal cost of an additional chip is minimal)
- Do players need access to huge amounts of capital on a continuous basis to survive for the long term? (Yes)
- Other issues to discuss: the pros/cons/issues of govt. participation in this. Is it feasible? What are the priorities for scarce govt. resources? Will relaxation of anti-trust laws help? Foreigner's access to cheaper capital? Research costs are smaller component. What will shared research accomplish?

Shipping Container Manufacturer

Your client is a manufacturer of large steel shipping containers that are designed to hold up to several tons of material for shipping on ocean liners. The container consists of a steel frame, a steel shell and an insulation and waterproofing material that uses a hazardous chemical. The containers are leased by the company to worldwide shipping companies. Shippers can lease the containers one-way or round-trip. The client has asked you to do an assessment of their strategy. What issues might you examine?

Approach:

- Sales and cost issues: The growth of the shipping container market; your client's share in that market; trends in the leasing terms in the industry; customer power; steel prices; manufacturing costs.
- Market issues: Changes in the worldwide shipping market (e.g. does the growth of an area like Southeast Asia imply many more one-way contracts than round-trip?); growth of the largest customer industries; new technology in shipping containers; customs and trade agreement trends.
- Environmental issues: Production and disposal of the insulation chemicals; costs of handling the chemicals.

Snack Food Company

A large salted snack food company has steadily been losing market share over that past two years, from a high of 20% to the current level of 18%. Profits as a percent of sales, however, have been growing. What could be causing this?

Approach:

- Has there been a change in the size of the total salted snack food market? (Yes, it has grown from $15 billion to $17 billion during these two years)
- Therefore, the client's total dollar sales have actually grown, but they have not kept pace with the market? (Yes)
- Has the client's product line changed over this period? (No)
- Have the client's costs changed over this period? (Yes, see table shown as % of selling price)

Cost	Current	Two Years Ago
Raw Ingredients	28%	26%
Conversion costs	24%	24%
Distribution	8%	9%
Marketing	16%	18%
Sales force	7%	9%
Pre-tax profit	17%	14%

- Why was the sales force cut? (The total sales force was cut to reduce costs, though the same number of outlets is still covered by this sales force.)
- What explains the change in the marketing budget? (The changes come from reduced trade promotions.)
- Where are the products sold? (The products are mostly sold through large grocery store chains and convenience stores.)
- What is the interaction between the sales force and the customer? (The sales force generally visits each customer at least once per quarter.)
- When are promotions typically offered? (Promotions usually occur at the end of each quarter.)
- What impact do promotions have on product placement? (Grocery stores and convenience stores require some type of promotion to grant valuable end of aisle displays or advertising space.)
- Who are the client's main competitors? (The largest competitors are two multinational consumer products companies that feature complete lines of snack foods.)
- What differentiates the competitors from your client? (Their sales forces are regarded as the best in the industry.)
- What is the market share of the competitors? (Together, these two companies have 55% of the market.)

The data show that the greatest change is in the sales force numbers. It turns out that the company went on a cost-cutting spree over the past two years. The sales force was drastically cut and the commission scheme was reworked. The marketing expenditure was also decreased. Most of the reduction came from trade promotions. The product is sold through the same channels as previously: large grocery chains and convenience stores. These channels are traditionally driven by periodic trade promotions. The reduction in trade promotions brought about a loss of shelf space, which has directly led to the decrease in market share. Also, the product line has not changed in the past two years in a product category where new products and line extensions are routine. In addition, the market has been growing, indicating a missed opportunity for new products in the market. Lastly, the increase in profitability has resulted from the lower costs, but may not be sustainable.

Steam Boiler Hoses

Your firm was asked by a diversified manufacturing client to help turn around the steam boiler hose division. This boiler hose division provides boiler hoses for both external customers and the client's boiler division. Boiler hoses are sold both with original equipment and as replacements. There has been increasing price pressure in the industry and your client is third of eight industry participants. The client is no longer profitable. How would you structure an analysis aimed at restoring profitability? Where do you expect to be able to save costs?

Approach:

- What are raw material costs as a % of sales? (70%)
- What are labor costs as a % of sales? (20%)
- What is the cost of distributed overhead as a % of sales? (10%)
- What is SG&A as a % of sales? (15%)
- What is the profit as a % of sales? (-15%)
- What is the raw material? (It is a commodity petrochemical.)
- Are any of the other competitors profitable? (At least two of the other companies in the industry are making moderate profits.)
- How is our product engineering operation wired into the marketplace? (there is little contact between the engineering and marketing/sales organizations)
- What kind of feedback are we receiving form our sales force? (customers are delighted with our hoses, but require all the product features)
- Are there other areas in the company where similar problems exist?
- Is it possible to drop the hose product line? (apparently not possible because hoses are necessary for boiler sales).
- How do the client's raw material prices compare to the competitors'? (same)
- Is it possible to reallocate overhead? (no cash savings and provides little potential)
- Is it possible to reduce SG&A? (standard industry fee paid for independent installers).
- Is it possible to create scale economies? (Yes, the client is big enough to achieve scale production).
- Is it possible for the client to improve production technology? (Yes, but client has a modern plant)
- Is it possible for the client to reduce labor costs? (No, wages rates and productivity are average for the industry)
- What are the raw material purchasing practices? (material are purchased through long term contracts with prices based on the spot market minus a discount).

SW Semiconductors

Your client, SW Semiconductors, is considering adding a new line of semiconductor (the type B), which will be used in new cellular phones and PDA's designed for wireless Internet access. SW currently sells Type A semiconductors to other companies, which then use them to assemble their products. They want you to help them determine whether or not it would be profitable to make the Type B.

Approach
- How much does SW charge manufacturers per Type A chip? ($0.20)
- How much does SW plan to charge manufacturers per Type B chip? ($0.30)
- How much does it cost to make a Type A chip? ($0.12)
- How much will it cost to make a Type B chip? ($0.15)
- How many manufacturing lines does SW in its plant (3 and will not add another.)
- How many chips can each line produce of Type A and Type B chips? (Each line can produce 5 million Type A chips per month, and each should be able to produce the same amount of Type B chips, if converted over to Type B production.)
- Is there adequate demand for chips? (Yes).
- Will SW agree to convert more than one manufacturing line over to Type B production? (No, because they still have significant Type A demand.)

2nd Question: SW management requires that the cost of upgrading the manufacturing line be recovered in two years (before the Type B becomes obsolete), and all Type B chip revenue beyond the cost per chip will go to covering the upgrade until it is paid off. The upgrade will cost $500,000, and will take six months to complete. Assume that the line to be converted will not be able to make Type A chips during the conversion process. How long until the cost is covered? Ignore fixed overhead and taxes.
- $0.30-$0.15=$0.15/chip goes to covering the cost.
- SW will lose 30 million Type A chip sales at $0.08/chip profit, for a total of $2.4 million in lost profits during the upgrade.
- ($0.5 million for the upgrade itself + $2.4 million lost profits)/($0.15/chip)=19.3 million chips. Assume 20 million for simplicity.
- At five million chips/month, it will take about four months to recover the total cost.)

3rd Questions: Ignoring taxes and the time value of money, how much benefit will SW derive from the Type B versus the Type A over the next two years?
- Type A unit profit = $0.08, Type B unit profit = $0.15.
- SW will be able to sell: 5 million chips/month * 18 months of production=90 million chips over two years.
- At an increased profit of $0.07/chip, SW will gross an extra $6.3 million.
- After the total cost of the upgrade ($2.9 million), SW will net $3.4 million, assuming all chips sell, and at the projected price).

4th Question: Since it is apparent that the Type B should be produced, who from SW would you want present at the meeting to discuss these findings?

- A critical part of consulting is actually presenting your findings. It is important to think about what parts of your client's enterprise will be affected by your findings, and try to have a representative from that group there, so that you can get buy-in/resolve problems immediately
- CEO – you need the decision-maker there
- VP R&D/Chief Scientist – you need someone who understands the chips well
- VP sales – you will need to sell the new chips
- CFO/Finance representative – you'll need a large capital expenditure
- COO/VP Ops – you'll need to actually manufacture the new chips

Telecommunications Diversification

A telecommunications company is interested in diversifying into other areas besides telecommunications. They are considering entering the market for electronic home security systems. Would you recommend that they do so?

Approach:
Use an industry attractiveness framework, such as Porter's Five Forces, to determine whether this is a business you want to be in, or at least to determine what kind of returns you can expect to achieve. Then, use the value chain to look at where value is added in the home security business. Finally, once you feel you understand the market, determine if the core competencies of the company are likely to match the demands of the home security markets.

- What type of a company is it? (The company is a holding company.)
- Have they previously attempted to diversify into other markets? (Yes, they have previously made unsuccessful forays into software and into real estate.)
- How would you describe the home security business (It is highly fragmented with the top five players in the industry generating less than 4% of the total industry revenues.)
- Therefore, the industry largely consists of small, regional companies? (Yes)
- What % of all residences currently own an electronic security systems? (10%).
- What is the retail price and margin on the product? (see table)

Item	Retail Price	Cost / Margin
Equipment and Installation	$500 - $1,500	0-10% margin
Monthly Service	$20 / month	$5 / month

- What strengths / competencies of the company are useful in this market? Consider: Installation expertise, operator services, transmission system (phone lines)
- Is the market segmented? (Yes, most systems are purchased for expensive homes and moderate-priced homes)
- Does one segment purchases the majority of home security systems? (Yes, until recently the expensive home segment had been the primary purchaser. However, this market segment is saturated and growth has been slow in recent years. The moderate-priced home segment is growing and is relatively untapped?)
- Are the moderate-priced home owners highly price sensitive? (The price sensitivity is unknown).

The conclusion is that this business is a reasonably good fit for the company, but that more market research needs to be done to assess the growth and profit potential of each segment of the market.

The Startup

You have inherited a start-up software company. How do you estimate market size? On which fronts do you anticipate problems?

Approach:

- How would you evaluate the sincerity, honesty, and integrity of the owner of the business? Do others that they deal with (employees, suppliers, customers) value them as partners or are there character issues?
- Are there any legal actions pending against the business?
- Does the mission of the start-up make sense? Is their business concept sound?
- What is the timeline/progress of development, coding, testing, and production as originally conceived in the business plan? Does it make sense?
- What is the previous track record of each of the principals of the startup?
- What is the plan for producing the product when the code is ready? Is outsourcing stamping, packaging, and shipping an option? Is capacity an issue?
- What is the makeup of the initial seed capital to start the business? Personal assets, small business loan, venture capital funds?
- What is the debt structure like if it exists? Interest rates, due dates, rollover ability, secured assets, etc.?
- Have any patents been applied for? What is their status?
- What has been done to protect the intellectual capital/property associated with the software design?
- Describe the market space the business occupies. Why did the business come into inception?
- What defines dominance in this market? Cost? Economies of scale? Speed to market? Relationships with customers? Where does this business fall against the aforementioned metrics?
- Is the market for this type of product saturated? Is there a particular unfulfilled segment where this product fits or will it be competing against other already established products?
- What is the advertising and promotional activity planned for this product?

Trucking Company

A local haulage company has been experiencing declining revenues over the last couple of years. They are not sure why this is happening and have hired you, the consultant, to help them identify the problem and recommend a solution. You are meeting with the company's Operating Officer for the first time. What would information would you want to know from the client in order to assess the situation?

Approach:

- Has the total market for haulage in this area been decreasing over time? (On the contrary, there has been a flux of new small businesses in the area that have increased the total demand for local haulage.)
- Has there been an entrance of new competitors into the market over the last couple of years? (No. There are 3 haulage companies in this area that have been here for the last 20 years.)
- What about entrance of large non-local competitors into this area? (No. We are focused on the local haulage market. With the increase in small businesses in this area, as mentioned earlier, the haulage market shifted from large industrial to smaller transportations. Large non-local haulers operate in the long distance transportation segment which is different from our.)
- What about your competitors financial position. Have they been experiencing the same difficulties? (No. Our competitor's revenues have actually been improving.)
- Let's go back to customer preference, how would you characterize your customer preferences? (Well, I never really thought about it, what do you think?)
- You mentioned that there has been an shift towards small businesses in this area. Based on this, I suspect that they typically require smaller load sizes. Since the market generally continues to do well, it can be inferred that they require more frequent trips. I assume that pricing has not increased significantly to make up the difference for smaller loads. Furthermore, I think that smaller businesses would value quality and personal service. (these assumptions are correct).
- With this in mind, tell me about your trucking fleet. Have you changed your trucks of recently? (the trucks are old and large, get poor gas mileage in comparison and are not suited well for short frequent trips.)
- How doe your trucks compare to your competitors'? (competitors have upgraded their fleets with new, smaller, gas efficient trucks.)
- What about sales force? (We really don't have much of a sales force.)
- How does the sales force compare to the competitors'? (In contrast, your competitors each have added dedicated sales person to focus on managing customer accounts.)

The crux of the problem is that your fleet is old and expensive to operate. In addition, your competition is focusing on meeting changing customer preferences by building strong relationships. Can you upgrade you fleet and hire new people?

Video Games

The CEO of a large diversified entertainment corporation has asked your firm to examine the operations of a subsidiary of his corporation that manufactures video games. Specifically, he need to know if he should approve a $200 million capital request for tripling the division's capacity. You are a member of the team assigned to this project. Assume you and I are at the first team meeting. What are the critical issues we should plan to examine to determine if the industry is an attractive one for continued investment and why?

Approach:

- What is the division's market share? (The division is third largest manufacturer of hardware in the industry with 10 percent market share.)

- What is the market share of the top two producers? (The top two producers have 40 and 35 percent market share. Remainder is divided by small producers.)
- Who are the divisions customers? (The division sells to broad range of consumers.)
- What are the division's sales? (The division sales have increased rapidly over last year from a relatively small base. Current estimate is annual sales of 500,000 units.)
- What is the total size of the industry? (Current estimate of industry hardware sales is 5,000,000 units annually.)
- Is the industry growing? (Yes, industry growth has been strong though over last few months, but sales growth has slowed.)
- What is the current sales price of the basic unit? ($45/unit)
- What percentage of the parent company's sales does the division represent? (less than 20%)
- What differentiates the top two competitors from the division? (They also develop, manufacture and sell software/games whereas the division sells only licensed, software.)
- What is the industry growth of software (It continues to increase.)
- What is the cost of the hardware? (Division estimates current cost is $30 fully loaded.)
- What impact will the requested expansion have on costs? (Requested expansion should reduce the cost by 5 to 7 percent)
- What impact will the requested expansion have on production? (Requested expansion should triple production of the hardware units).
- Do the top two computers have a cost advantage? (Yes, they are estimated to have a 10 to 15 percent cost advantage currently).
- What drives costs? (assembly components and labor.)
- Who is the initial target market? (young families)
- What percentage of this market has already purchased the video game hardware? (greater than 50%)
- Has a large new user segments have been identified? (No).
- How is the product distributed? (Primarily outlets of distribution are top end electronics stores.)
- Is the division profitable? (Division currently exceeds corporate return requirements; however, margins have recently been falling.)
- How are product standards established? (Hardware standards have been established by the industry leaders.)
- Are the product features consist or do they require frequent improvements? (Product features constantly developed (e.g., new remote joy stick), to appeal to market segments.)
- What is future market potential? What is the continuation of overall industry growth?
- Is the saturation of markets expected?
- Are there substitute products? (Yes, home computers)
- Is there a declining "per capita" usage?
- What is the competitive outlook? Issue areas might included: concentration of market shares; control of retail channels; and R&D capabilities.
- What will be the price/volume relationship in the future?
- What is the capacity expansion is designed to do?
- What is the cost position of the client division relative to that of other competitors?
- What is the reason for poor profit performance of division?

There is a relationship between market penetration and growth in new users which, when combined, yields an industry volume estimate.
There is a shifting mix of product purchases, in this case from hardware (player unit) to software (video cassettes).
Examine buyer behavior in key buyer segments, i.e., "fad" potential of product.
Recognize technology standards are set by industry leaders. In this situation, the division as a secondary player will have to follow these standards.
Recognize that different distribution needs may exist for different products (In this case, hardware versus software).
Discuss the effect capacity additions can have on overall industry price/volume relationships and on industry price levels.

Windmill

You produce a windmill with an accompanying electric generator (generator harnesses the power produced by the windmill). This may cost you $10,000 to manufacture. How much are your customers willing to pay for it?

Approach:
Porter's five forces dictate that industry rivalry/potential substitutes, and supplier/buyer power need to be assessed.

- To narrow it down, let's assume competition, and a demand/supply level far beyond your capacity.
- We must examine other components: The $10,000 cost is irrelevant; you have no idea what this product is worth to anyone.
- Assessing the value of the product's benefits is perhaps the next step.
- The closest substitute to the windmill is probably utility-produced electricity.
- Therefore, inquire how the electrical utilities measure and charge for the electricity they provide, convert the Windmill’s output along these terms and assert a cost/benefit estimation of how much potential customers would be willing to pay for it.
- Other considerations upon which to discount the value might be reliability, maintenance, etc.