

Emerging Companies

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§1 Characteristics of emerging companies

It has become common to refer to technology-based entrepreneurial ventures as prospective “emerging companies” in large part because of their emphasis on, and potential for, high growth in both employment and revenues. While the term “emerging company” is now frequently used, particularly among professional firms and venture capital investors, there is still no widely accepted definition of the term and the characteristics of the firms that might fall within the scope of the definition. One place to begin in developing a working definition of “emerging company” is to recognize that it does not necessarily include every situation where one entrepreneur or a team of entrepreneurs attempts to overcome the trials and challenges that arise during the very earliest stages of conceiving and starting a new business (i.e., the “concept” stage). At a minimum, eligibility for emerging company status requires that the “next great idea” must have left the garage or the laptop in the attic and landed in its own discrete working space with human and financial resources obtained from outside the founder group. This is not necessarily an easy hurdle to overcome and it has been estimated that a large percentage of new firms are driven out of business before they reach their first anniversary.

Not all of the companies that survive the start-up phase would be considered “emerging.” It is instructive to note that the terms “emerging company” and “emerging growth company” are often used interchangeably and this provides an important clue in distinguishing the types of firms that are of interest to us—in order to be an emerging company the resource base and organizational structure of the firm must be suitable for sustained growth and the founders, other senior managers and outside investors must have all targeted growth and expansion as a key goal in the overall strategy of the company. In addition, emerging companies are built on the assumption that the desired growth will come from some new and unforeseen development that totally changes the dynamics of the market in which they are competing—technological breakthroughs, dramatic shifts in the costs associated with satisfying existing consumer needs, identification of new consumer needs and/or sociological or economic changes. It is the job of the managers of the emerging company to embrace and exploit these developments by identifying business opportunities and creating new products or services to take advantage of them.

Emerging companies are often distinguished from the broader set of entrepreneurial activities by focusing on the significant level of “innovation” associated with their business models. Researchers have attempted to identify those firms that have been most successful at innovation, and to describe and explain those business practices that tend to be associated with innovative companies. Presumably a listing of these practices can

provide valuable clues for identifying emerging companies and the factors that are the best predictors of success. A survey of the research results relating to innovation reveals the following:

- Innovative companies have strong leaders that are able to clearly articulate a vision for the business, set targets and create and maintain open relationships with all stakeholders (i.e., customers, investors, suppliers and employees).
- The most innovative companies have extensive knowledge of the marketplace, the needs of customers, and the strengths and weaknesses of their competitors.
- Innovative companies seek and retain extraordinarily qualified personnel, provide them with the proper amount of resources and general direction, and then allow them to make and pursue their own specific strategies for achieving the agreed goals.
- The organizational structure of an innovative company emphasizes integration of multiple disciplines and functions and teamwork, goal sharing, and full and effective communication of goals and objectives throughout the firm.
- Technology is used effectively throughout the company, including small changes in design, production processes and customer services.
- The company strives and plans for continuous and constant innovation, as opposed to isolated new ideas, to improve and enhance products, services and productivity.
- Innovative companies strive for strong brand recognition and rapid introduction of new products and services into the marketplace.
- Innovative companies have systems for collecting information about, and learning from, customers, competitors and unrelated businesses around the world.

The research also identifies some of the most common specific strategies for innovation:

- Frequent implementation of new management techniques;
- Implementation of skill development and education programs for managers and employees;
- Regular introduction of new technologies, generally no less frequently than every three years;
- Constant and systematic benchmarking through regular comparison with the best companies in the industry and elsewhere;
- Significant investment in customer-focused product design and in quality-based manufacturing equipment and processes;
- Regular changes in the organization of work and administration, typically made in conjunction with the introduction of new products and/or technologies;
- Allocation of a significant share of turnover, generally at least 10%, to development and introduction of new products and processes; and
- Collaboration with universities and other research centers to identify technologies which can be converted into profitable products and processes.

It is now generally accepted that innovation is essential to continued productivity and economic growth; however, innovation in the form of uncovering a new technological breakthrough is not necessarily as important as how and when the technology is reduced

to practice and diffused into the marketplace in the form of new or improved products and services. Successful emerging companies realize that the growth that they are pursuing must come through continuous creation, implementation and refinement of innovative business models and that the leaders in emerging markets will be those firms that can innovate—the companies that are successful in creating, acquiring and/or combining technology and other knowledge into new products, services or business processes faster and more efficiently than the competition. Many companies stall out and are unable to break through size and revenue plateaus because they are unable to keep their innovation engines churning. In order to be a successful emerging company a firm must constantly challenge their status quo and seek innovation with respect to its products and services and the processes that are used to add value for customers and other stakeholders.

Whether or not a particular company is “emerging” is sometimes assessed by reference to how the company stands with respect to certain key business and financial characteristics (see Table 1). These characteristics not only test the current and projected financial performance of the company—measured by revenues, sales, profit margin, cash flow, etc.—to determine whether the business has been, and will be, generating steadily increasing revenues at above-average rates, but also examine whether the company has the resources and strategies in place to grow rapidly. The sections that follow identify some of the key characteristics that companies must demonstrate in order to qualify as “emerging”. The choice of topics was based on a wide array of sources including various publications that specialize in coverage of companies that have received support from venture capitalists. In addition, empirical information on the characteristics of emerging companies can be derived from a comprehensive study of the evolution of emerging companies by researchers from the University of Chicago Graduate School of Business that focused on how the characteristics of public companies that were launched with venture capital financing evolved from the date of their early business plan through their initial public offering (“IPO”) and on to mature public status with the release of their third annual report following completion of their IPO.¹

Further information on how companies are classified as “emerging” can be obtained through a variety of publicly available resources. For example, the annual Inc. 500 list published by Inc. magazine identifies the 500 fastest-growing private companies in the United States according to specified criteria. While the magazine does provide profiles of many of the companies and additional information may be available through those firms in any other public resources it may be difficult to learn details of their specific strategies that can be used as guidance by entrepreneurs looking to build their own emerging companies. More information can be obtained with respect to “high growth” companies that have completed their IPO. One resource is Fortune’s annual list of the

¹ See S. Kaplan, B. Sensoy and P. Stromberg. “What are Firms? Evolution from Birth to Public Companies”, University of Chicago Graduate School of Business (2005). Other results from the study provided interesting contributions to identifying the stages of development through which successful emerging companies passed as they completed their IPO and settled into mature public company status. For discussion, see “Managing Growth and Change: A Library of Resources for Sustainable Entrepreneurs” prepared and distributed by the Sustainable Entrepreneurship Project (www.seproject.org).

100 Fastest-Growing Companies, which is compiled based on various measures including market capitalization, stock price, duration of trading history, revenue and net income and compound annual growth in revenue and earnings per share over a three year period. Another source is the annual list of the 200 Best Small Companies published by Forbes magazine although not all of the listed companies would meet the quantitative criteria for “fastest-growing” status.

Table 1
Characteristics of Emerging Companies

This is checklist of commonly-noted characteristics of firms that would fit within the definition of an emerging company. The checklist can be a useful tool in preparing for presentations to potential investors, such as venture capitalists, that are focused on companies that have the potential for high returns on investment over a relatively finite holding period.

- Is the firm engaged in business activities that have combined innovation with extraordinary growth in turnover and employment?
- Is firm involved in the development and commercialization of new and innovative (i.e., emerging) technologies that promise to create entirely new markets or effect a substantial change in the competitive conditions that apply in specific existing markets?
- Does the firm have a distinctive competence in one or more areas that are essential to competitive success in its particular market (e.g., proprietary design technology (e.g., patents and trade secrets), manufacturing know-how, a unique brand, or extraordinary services)?
- Does the firm have core competencies based on human capital and other non-alienable assets such as knowledge and/or business processes?
- Does the firm engage in activities in a market that is expected to grow and expand rapidly in the future?
- Does the firm have a sensible and believable strategy for distributing its products and services within the target market?
- Is the firm involved in the development of relationships or contracts with recognized companies in the industry (i.e., “strategic alliances”) that provide validation of the company’s business model in the marketplace?
- Does the firm have innovative and unique products, processes, or services that can dominate a niche market segment?
- Does the firm have an internal growth strategy that focuses on continuous production of new or upgraded products during the early years of growth and evolution?
- Does the firm have a portfolio of proprietary intellectual property rights, such as patents, and physical assets?
- Are the actual or potential gross margins and/or cash flow generated by the company large enough to permit financing of growth over an extended period of time and produce a favorable return on invested capital?
- Does the firm have a full team of qualified, experienced and credible senior managers?
- Does each member of the management team have experience in the target industrial and an entrepreneurial spirit?

§2 --Business activities

While innovation can, and does regularly, occur in any type of business, there are identifiable types of business activities that have combined innovation with extraordinary growth in turnover and employment, at least when compared to other entrepreneurial

firms. These businesses typically have a technology-based focus in their products, services and processes. In fact, among the industrial classifications characterized as emerging companies are the following: manufacturers of pharmaceuticals, medical and chemical products; manufacturers of computers and other data processing equipment; manufacturers of electrical machinery and apparatus; manufacturers of communications equipment, including radio and television; manufacturers of medical, precision, and optical instruments; and developers and distributors of software and related computer services.

§3 --Technology

The term “emerging company” is most often associated with firms involved in the development and commercialization of new and innovative (i.e., emerging) technologies that promise to create entirely new markets or effect a substantial change in the competitive conditions that apply in specific existing markets. In many instances there is significant uncertainty, often outright skepticism, regarding the scientific and engineering basis for the new technology and it may unclear what benefits and functions will actually be derived from the technology if the initial development work can even be completed. Another complicating factor is that companies will be laboring in areas where there is no consensus on accepted standards.

§4 --Products and services

Consistent with the focus on emerging technologies, emerging companies are expected to have innovative distinctive products, services or processes that can dominate, and often pioneer, a niche market segment. Ideally the company can begin commercialization of its products immediately following completion of development without delays caused by regulatory hurdles; however, biotechnology and life sciences companies certainly fall within the definition of emerging companies even though they generally must wait several years before their products are approved for release to the public. It is also a positive sign if customers must make recurring purchases of the company’s products and services.

§5 --Market

While the initial vision of the benefits and functions of, and corresponding market for products based on, the technologies being developed by an emerging company may be cloudy, eventually the firm must be able to demonstrate the potential to achieve annual revenues of at least \$50 million on a profitable basis within three years after launch and ultimately attain a market valuation in excess of \$1 billion within five years after launch. While the current size of the market is relevant the more important consideration is whether the market is expected to grow and expand rapidly in the future and, in fact, many require that the company be competing in an industry that itself is considered to be “emerging”. A related issue is whether the company has a sensible and believable strategy for distributing its products and services within the target market.

§6 --Origin of business idea

In the University of Chicago study group the two most common sources for the origin of the business idea underlying the new company were ideas developed by the founders from experience with previous employers and academic research. A small group of companies traced their beginnings to a spin-off of, or joint venture with, an existing company. Certain industries, such as biotechnology, were more likely to be grounded in academic research than ideas from previous employment. Other researchers have analyzed the source of business ideas for venture-capital financed companies and other fast growing small businesses such as firms found on the annual list of the 500 fastest growing companies published by Inc. magazine (i.e., the so-called “Inc. 500”). In one instance the researcher found that while companies backed by venture capitalists were more likely to have innovative ideas and a verifiable record of achievement, a high percentage of Inc. 500 companies in a particular year (1989) were launched based on ideas that the founders had identified during the course of their prior employment and elected to replicate or modify to form the basis of their new company. The researcher opined that since the Inc. 500 companies were generally formed and launched with relatively small amounts of advance planning they were more likely than venture capital-financed firm to go through adjustments in their business models as they worked to grow the company and find their niche in the marketplace.²

§7 --Earnings and dividends

Actual or potential gross margins and/or cash flow should be large enough to permit financing of growth over an extended period of time, and produce a favorable return on invested capital. An emerging company is expected to seek and obtain a faster rate of earning growth than the “average” company. For example, if and when the shares of the company are traded in the public markets the target growth rate for earnings should be significantly higher than the Standard & Poor's 500 Stock Index and investors will typically expect earnings growth of at least 15%, but usually 20% or higher, over the next three to five years. Earnings growth, and the attendant rise in share prices, is important to investors since the expectation is that profits will be reinvested in the business to sustain the extraordinary level of earnings growth and thus will not be available to fund more than nominal or occasional cash dividend distributions. When preparing financial projections management should demonstrate an understanding and mastery of the key assumptions upon which the projections are based and must also demonstrate that consideration use been given to potential adverse developments that might trigger a need to quickly shift the strategic business plan.

§8 --Founders’ goals and characteristics

While some firms appear to stumble into the explosive growth associated with being an “emerging company” the general rule is that the pursuit of growth is a path that is

² A. Bhide, *The Origin and the Evolution of New Businesses* (New York, NY: Oxford University Press, 2000), 111.

explicitly chosen during the early stages of the firm's existence. One group of researchers has argued that growth, rather than being an inevitable phase as depicted in many of models of firm evolution, is actually a result of a conscious decision made by the owner/founder/CEO of the firm which is based, in part, on his or her assessment of whether or not he or she will actually be able to manage the anticipated or desired growth of the business.³ The same researchers found evidence that growth-oriented entrepreneurs scored higher on indicators of energy level, risk-taking, social adroitness, autonomy and change than their non-growth oriented counterparts and scored lower on indicators of conformity, interpersonal affect, harm avoidance and succorance. It is not enough, however, to have the psychological traits normally associated with an orientation for growth, since the owner/founder/CEO is not likely to be successful unless he or she is also able to acquire and manage the various resources necessary for the firm to meet its growth targets and objectives, including capital, labor and technology.

§9 --Business strategy

Several researchers have identified similar categories of business strategies that can be used to differentiate new companies. A common methodology uses the following five classifications for business strategies—innovators, enhancers, marketers, technology/marketing hybrids, and cost.⁴ Innovators include firms that compete on the basis of creating and selling novel products for new and undeveloped markets. Enhancers are firms that compete by creating and selling improvements and enhancements to existing products that are already established in developed markets. Marketers compete based on building and maintaining core competencies in marketing, sales and distribution. Technology/marketing hybrids use strategies that combine elements of technology (i.e., innovators and enhancers) and marketers. Cost-focused firms seek competitive differentiation by following strategies of reducing the costs of producing and marketing their products. The sample used by Baron et al. in a study published in 1999 rendered a distribution among 149 firms as follows: innovators (50%), enhancers (19%), marketers (13%), technology/marketing hybrids (12%) and cost (7%).⁵ The smaller sample group of 49 companies used by the researchers in the University of Chicago study showed a similar breakdown: innovators (49%), enhancers (22%), marketers (10%), technology/marketing hybrids (12%) and cost (6%).

§10 --Management

Probably the most important success factor for any business is the presence of qualified, experienced and credible management and this is especially true in the case of emerging companies since they must face and overcome turbulent and challenging conditions as

³ D. Sexton and N. Bowman-Upton, "Validation of a Personality Index: Comparative Psychological Characteristics Analysis of Female Entrepreneurs, Managers, Entrepreneurship Students and Business Students", in R. Ronstadt et al. (Eds.) *Frontiers of Entrepreneurship Research* (Wellesley, MA: Babson College, 1986).

⁴ J. Baron, M. Hannan and M. Burton, "Building the Iron Cage: Determinants of Managerial Intensity in the Early Years of Organizations," *64 American Sociological Review* (1999), 527-47.

⁵ Id.

they move quickly through several growth stages. Ideally, the founder(s) and other senior managers should be experienced in the target industry and each of them must demonstrate a strong entrepreneurial spirit and dedicated focus on the business. In any event, the company must have a management team in place rather than just one person acting as the CEO. The management team must also be able to articulate a clear and aggressive strategic plan for future growth and competitive entry into key market segments. Since early investors seek a high profile exit strategy (i.e., an IPO or acquisition by a public company) the members of the management team must have a good reputation and experience dealing with the challenges of positioning the firm for a major liquidity event when the opportunity arises.

§11 --Point of differentiation

The point of differentiation refers to the factors that companies identify as allowing them to differentiate themselves from their competitors—their unique strategic advantage or “distinctive competence”. Not surprisingly, the most important factor mentioned by the emerging companies in the University of Chicago study group at all points along their path of evolution was a unique product and/or technology. This is similar to other reports that emphasized that venture capitalists, the primary source of funding for the companies in the University of Chicago study group, predominantly look for and invest in new businesses based on proprietary products and services.⁶ As time goes on, the companies also began to place increasingly higher importance on customer service as a strategy for differentiation. Less important factors, although statistically significant at all stages of growth, included breadth of product line, strategic alliances/partnerships, and reputation. Other researchers have cited manufacturing “know-how” supported by proprietary processes as an important and valuable core competency.

Even though a large percentage of the emerging companies in the study group believed that they had a unique product and/or technology, 84% of those companies acknowledged that they expected to face competition in their target markets at the point of the earliest business plan and all of the companies in the study group, including those that opted for another point of differentiation noted that competition was going to be a factor in determining their success by the time that they reached the IPO stage. For a majority of the emerging companies in the study group the type of competition remained stable over time; however, a large minority (40%) noted that competition broadened as time went by and markets developed.

⁶ See, e.g., A. Bhidé, *The Origin and the Evolution of New Businesses* (New York, NY: Oxford University Press, 2000). Among venture capitalists there is a discernable split of opinion as to whether the key determinant of success for emerging companies is the targeted product and market or the strength and experience of the management team. While the preferred situation is to invest in a company that has promise on each of these dimensions, it appears that different venture capital firms usually assign more weight to one factor than the other. See, e.g., S. Kaplan and P. Stromberg, “Characteristics, Contracts, and Actions: Evidence From Venture Capitalist Analyses”, *Journal of Finance* 2004:59, 2177-2210; and R. Quindlen, *Confessions of a Venture Capitalist*, (New York, NY: Warner Books, 2000).

The feedback with respect to the importance of expertise of senior management and other employees, also mentioned in the context of asset stability as emerging companies evolve and mature⁷, is interesting enough to warrant separate consideration. As of the date of the early business plan, 45% of the companies in the University of Chicago study group expressly referred to expertise as being an important differentiating factor. While this was far less than the unanimous designation of unique products and/or technology as a differentiating factor, it was more than any other factor at that stage; however, it is interesting to note that less than half of the companies in the study failed to assign importance to expertise as a means of differentiation. The University of Chicago researchers found a notable and marked decrease in the percentage of companies that cited expertise to be important at the time of the IPO (14%) and at the time of the third annual report following the IPO (13%) and cited this as evidence that non-human capital factors become more important than human capital as emerging companies mature.

§12 --Organizational design and structure

The unique goals and objectives of emerging companies, particularly their emphasis on technology and innovation as core competencies and points of differentiation, must be supported by appropriate practices with respect to organizational design and structure.⁸ Jelinek and Schoonhoven found that companies that were the most successful in pursuing a strategy of innovation tended to consciously work to encourage the free flow of new and innovative ideas from many sources and involve employees from all levels of the organization in the selection of ideas to pursue. While emerging companies do create formal organizational structures that define reporting channels and responsibility for decisions in various areas, they differ from traditional bureaucratic organizations in that structure is seen as a flexible tool that can, and should, be easily changed as circumstances warrant.⁹

Warrick argued that the appropriate organizational design for the dynamic environment in which technology-based firms (i.e., emerging companies) must operate should achieve the following goals: alignment of the structure, particularly the performance review and reward systems, to be consistent with the mission, philosophy and goals of the firm; assuring that the right people are in the right place with clear responsibilities; assuring that skilled leaders and managers are placed in key positions; and developing a lean, flexible, non-bureaucratic, functional and results-oriented structure that encourages self-management, high productivity and innovation.¹⁰

⁷ For detailed discussion of asset stability as emerging companies evolve and mature, see “Managing Growth and Change: A Library of Resources for Sustainable Entrepreneurs” prepared and distributed by the Sustainable Entrepreneurship Project (www.seproject.org).

⁸ For detailed discussion of various topics relating to organizational design and structure, see “Organizational Design: A Library of Resources for Sustainable Entrepreneurs” prepared and distributed by the Sustainable Entrepreneurship Project (www.seproject.org).

⁹ M. Jelinek and C. Schoonhoven, *The Innovation Marathon* (Oxford: Basil Blackwell, 1990).

¹⁰ D. Warrick, “How to Develop a High Tech Firm into a High Performance Organization”, which appears in L.R. Gomez-Mejia and M.W. Lawless, M.W. (eds), *Organizational Issues in High Technology Management* (JAI Press Inc., Greenwich, CT: JAI Press Inc., 1990), 151-163.

Warrick also noted other characteristics of the typical high technology firm that need to be taken into account in the organizational design process. For example, since these companies generally have a high proportion of technical employees, most of whom prefer to be left alone to pursue their job and give little or no priority to planned change throughout the firm, it is important for senior management to champion change programs and educate all employees about the importance of the program and the need for all levels of the organization to embrace each of the initiatives associated with the program. Small technology-based growth firms also suffer from a lack of experienced management. Accordingly, in order for the firm to be able to survive in its dynamic environment, conscious effort needs to be made to train and develop managers throughout the organization. In particular, emphasis should be placed on providing managers with the skills and techniques to effectively manage small teams and specific projects. Finally, while change is a concept that begins at the top of the organization, change programs must be designed and promoted in a way that addresses and satisfies the needs of individual employees for ownership and personal growth.

Additional input regarding the appropriate focus on organizational design and structure for emerging companies came from Kolodny, who suggested the following list of the most common organizational forms for new technology-based firms: project management systems; matrix organizations; organismic; network organizations; product focused; and functional forms with teams.¹¹

Extensive literature has developed on both project management systems and matrix organizations.¹² One example of an organismic organizational structure relies on the creation of several marketing-based groups that have primary responsibility for new product development and marketing activities in a particular product or market sector. Each group is also supported by engineering and manufacturing resources; however, the firm also creates and maintains separate groups specifically dedicated to developing and understanding new technology and manufacturing processes. Once a product has been completed and enters the manufacturing stage, production issues are handled almost entirely at the factory or plant level and each product unit is kept to a reasonable size in order to facilitate effective control. The headquarters office assumes primary responsibility for the finance, human resource and legal functions and also sets the strategic direction for the entire business.¹³

¹¹ H. Kolodny, "Characteristics of Organizational Designs in New/High Technology Firms", which appeared in L. Gomez-Mejia and M. Lawless (eds), *Organizational Issues in High Technology Management* (Greenwich, CT: JAI Press Inc., 1990), 165-176.

¹² See, e.g., D. Cleland and W. King, *Product Management Handbook* (New York: Van Nostrand Reinhold, 1982) and D. Cleland and W. King, *Matrix Management Handbook* (New York: Van Nostrand Reinhold, 1985). See also "Organizational Design: A Library of Resources for Sustainable Entrepreneurs" prepared and distributed by the Sustainable Entrepreneurship Project (www.seproject.org).

¹³ H. Kolodny, "Characteristics of Organizational Designs in New/High Technology Firms", which appeared in L. Gomez-Mejia and M. Lawless (eds), *Organizational Issues in High Technology Management* (Greenwich, CT: JAI Press Inc., 1990), 165-176, 168.

The use of “networking” refers to the common practice among small high technology firms of collaborating with other companies to bid on large contracts. By so doing, the firm is able to address gaps in its own resource base that might otherwise prevent it from pursuing those contracts. Over time, the firm develops trusted and reliable relationships with several partners and taps into their resources rather than investing in the internal development of comparable assets and skills. There are several different ways of classifying and explaining product-focused organizational forms, including semi-autonomous work groups, group technology cells, parallelization and product shops. Key characteristics of a product-focused organization include the use of new process manufacturing technology, computer integrated manufacturing and changes in materials and inventory management practices.¹⁴

§13 --Strategic alliances

Emerging companies must have, or be in the process of developing, relationships or contracts with recognized companies in the industry in order to demonstrate the credibility of the company’s business model in the marketplace. Strategic alliances can provide access to technology and other needed resources and allow the company to scale up its manufacturing and sales activities quickly without having to make substantial capital investments. In fact, within the University of Chicago study group there was an increase in the use of strategic alliances from the time of the earliest business plan to the IPO; however, usage appeared to flatten out over the three years following completion of the IPO. Nonetheless, 69% of the companies remained involved in one or more strategic alliances at the time of the third annual report following the IPO and reliance on alliances was even higher in some industries such as biotechnology.¹⁵

§14 --Location

Studies show that there is a high concentration of successful, and potential, emerging companies in a small number of geographic areas that appear to have the requisite infrastructure to spawn and nurture these types of businesses. Silicon Valley in California is probably the best example of an area where there seems to be a magical nexus of talent, money, innovation and lifestyle factors and other areas where an extraordinarily high level of innovative activity has occurred include Austin (“Silicon Hills”), Boston (“Route 128”), New York (“Silicon Alley”), Portland (“Silicon Forest”) and San Diego (“Silicon Coast”). The conditions for the creation of a Silicon Valley have been well documented and include access to universities, substantial involvement in government-funded research and development activities, venture capital, and an attractive environment for talented employees.

§15 Emerging companies in foreign countries

¹⁴ Id. at 170.

¹⁵ For further discussion of strategic alliances and other partnerships, see “Managing Growth and Change: A Library of Resources for Sustainable Entrepreneurs” prepared and distributed by the Sustainable Entrepreneurship Project (www.seproject.org).

While the term “emerging companies” originated as a descriptor for certain types of firms launched and located in the US, it is clear that new technologies, products and business models are continuously flowing from all parts of the world and that emerging companies can now be found almost anywhere including countries where the overall economy is itself referred to as “emerging”. Entrepreneurs in those countries must certainly strive to meet certain essential universal requirements for emerging company status—technology, products, markets and distinctive competencies—and must also demonstrate that their ventures can compete with established competitors from mature, industrialized areas. In particular, these firms must concentrate on investing in new equipment and technology, complying with internationally-accepted quality standards, implementing effective financial management and investment strategies, and adhering to accounting standards and practices that are understood and accepted in the US and other industrialized countries. It also important for the leaders of innovative firms in emerging markets to proactively pressure local government officials to create a political and business environment that foreign investors perceive as stable and transparent.

The Global Entrepreneurship Monitor (“GEM”) is a partnership between the London Business School and Babson College that administers a comprehensive research program to produce annual assessments of national levels of entrepreneurial activity.¹⁶ An integral part of these assessments is the collection and analysis of data from around the world on “high-expectation entrepreneurs”, which should be understood to include entrepreneurs that either expect to employ at least 20 employees within five years of starting a new firm, and on “high-growth entrepreneurs”, which are entrepreneurs that have been in business over 42 months and who currently employ 20 or more employees. In 2007, for example, the GEM researchers reported that in addition to the US, the following countries ranked in a global “Top 10” with respect to their rates of high-expectation and high-growth entrepreneurs in their adult populations: China, New Zealand, Iceland, Canada, Argentina, Australia, Singapore, Israel and Ireland.

An interesting subject for comparison with the US is the United Kingdom, which has been at the forefront of developing a national portfolio of technology-based companies and ranked 11th in the 2007 GEM report referred to above.¹⁷ The British Venture Capital Association (“BVCA”) has reported that the venture capital industry in the UK is the largest and most developed in Europe and second to the US in world importance. Surveys available from the BVCA have indicated that venture-backed companies in the UK have been able to dramatically exceed the national growth rate for all businesses with respect to increased staffing levels, sales, export and investment, and it has been estimated that these companies have employed as much as 15% of the private sector workforce in the United Kingdom. In recent years, a significant portion of the initial public offering activities on the Official List of the London Stock Exchange have been

¹⁶ For further information on the Global Entrepreneurship Monitor, see “Research on Entrepreneurship” in “Entrepreneurship: A Library of Resources for Sustainable Entrepreneurs” prepared and distributed by the Sustainable Entrepreneurship Project (www.seproject.org).

¹⁷ Parts of the discussion of emerging companies in the UK in this section are adapted from A. Gutterman, *Advising New Businesses: A Practical Guide* (London: Sweet & Maxwell Group Ltd., 2003).

private equity based companies. Specific geographic areas, particularly London and the South East, have benefited substantially from investment by professional venture capitalists and the successes experienced in and around Cambridge and Oxford have been well documented. However, while these reports are impressive, information collected and reported during the late 2000s indicated that the number of technology-related companies in the US that received venture capital financing was significantly greater than the comparable number in the UK and that UK investment in high technology companies was still substantially less than the amount invested in such companies in the US.

A comparison of the strategies and growth patterns of emerging companies in the US and the UK as of the late 2000s revealed several interesting differences. For example, while research and development expenditures in both countries were roughly comparable, UK technology-based companies continued to favor defense-related initiatives while US companies were more likely to search for commercial applications. At the time of their initial public offering (“IPO”), emerging companies in the US tended to have a much higher level of revenues than their counterparts in the UK. This may be explained by the fact that US firms could tap into larger domestic markets, thereby generating higher levels of revenue, while emerging companies in the UK need to explore and enter new foreign markets much earlier in the development cycle. The level of venture capital ownership at the time of the IPO was higher in the US than in the UK, a finding that could be explained, in part, by the historical reluctance of venture capitalists in the UK to invest in what are perceived to be “higher risk” companies. In addition, at the time of the IPO the percentage of equity owned by employees in the US was much higher than in the UK, which reflected the practice of companies in the US to grant options almost immediately following beginning of employment while UK companies moved more slowly in diluting the ownership share of the founding group by granting an equity interest to employees.

The apparent dynamism of the venture capital community in the UK was interesting given the overall profile of entrepreneurial aspirations in that country. In general, surveys taken in recent years by the GEM indicated that a relatively small percentage of the entrepreneurs in the UK anticipated that they would create 20 or more jobs as their business develops. In 2001, for example, this percentage was just 14% and, in addition, only about 3% of the existing start-up businesses at that time expected growth to more than 50 employees, putting it at the bottom of the top third and well behind countries such as the Netherlands (7%), Norway (7%), and the US (5%). As to new firms launched in 2000 and 2001, 11% of those in the UK projected high growth to over 50 employees; however, the equivalent rate in the US was 39% and in Australia it was 42%. While the UK was on the same level as France and Germany in each of these measures, it lagged well behind Canada, Ireland, Russia and Sweden, as well as the other countries referred to above.

As is the case in the US, the inertia for creation of emerging companies in other countries tends to be most prominent in specific geographic areas where technology-driven firms appear to cluster. It has been persuasively argued that geography “matters” when searching for innovative activity. For example, it has been observed that “[i]ndustrial

agglomerations located in one place, rather than some other, create environments in which production experience can be accumulated, exchanged, and preserved in the local workforce and entrepreneurial community.”¹⁸ In another study of the impact of geography on innovation in the US, the researcher argued that innovation arises from the dynamic interaction of multiple technological infrastructures in a particular location as opposed to the activities of any single firm.¹⁹

Encouragement and support of technology-driven firms can be, and has become, an important strategy for economic development in smaller countries that need to pursue different strategies in order to achieve sustainable growth due to their size and relative disadvantages in relation to the larger nations. Smaller countries cannot build a domestic economy that is large enough to support a highly differentiated industrial base. This is particularly true with respect to industries that require growth to a level in which economies of scale can be achieved in order for participants to be competitive on a global scale (e.g., steel and automobiles). Import protection policies are of little value in these circumstances since the domestic market will never be large enough to fully support local firms and such firms will inevitably need to look outward for global trading opportunities in order to integrate their domestic activities with larger markets in order to achieve continuous growth.

Small countries, as well as regional economies in larger nations, are confronted with special problems and disadvantages in forging an effective science and technology policy. The major issue, of course, is the relative lack of capital and other resources that may be available to invest in research and development. In addition, smaller countries obviously lack a large domestic market that can be exploited to obtain economies of scale and increase the chances of obtaining profitability for internal research and development project. As a result, they must selectively choose those opportunities where they can make the most efficient use of their resources. Generally, this requires the following:

- Identification of specialized market and technology niches in which the country or region can compete effectively against larger countries;
- Identification of research and development opportunities where the initial barriers to entry are low and economies of scale are less important;
- Adoption of policies that encourage cooperation with, and inbound investment by, larger foreign firms that are willing to provide technology and facilitate development of local business networks that include smaller indigenous firms; and
- Development and implementation of domestic policies that encourage rapid commercial deployment of the results of research and development activities and diffusion of new technologies throughout the local industrial base.

Even these solutions, when implemented, come with some degree of risk. For example, the need to maintain an “open economy,” while important for attracting foreign

¹⁸ P.A. David and D. Foray, “Accessing and Expanding the Science and Technology Base,” STI Review (16) 1995 OECD Periodical.

¹⁹ M.P. Feldman, *The Geography of Innovation* (Dordrecht: Kluwer Academic, 1994).

investment and technology, means that it is more difficult for indigenous firms to preserve any technological advantage they may have developed in niche areas.

Small countries are particularly dependent on inbound transfers as a means for acquiring world-class technologies necessary to raise living standards and develop and produce products and services that will be successful in global markets since these countries lack the institutions generally found in the US and other larger countries that are required to develop the necessary technologies. In order for those countries to be successful in creating the environment necessary for emerging companies to flourish the following conditions must be meant to attract profitable foreign direct investment:

- Low corporate tax rate and/or special tax incentives for foreign investment into targeted industry sectors;
- Liberal regulatory policies with respect to inbound foreign investment, including opportunities for foreign investors to retain 100% ownership of domestic operations;
- Low tariff duties on the importation of capital goods and intermediate products necessary for production activities in the export sector;
- Exchange rate policies that allow the country to maintain competitive wage levels in relation to other potential foreign production centers;
- Adequate infrastructure (i.e., power, ports and warehousing) and efficient administrative service (i.e., customs and taxation) to ensure that domestically manufactured products can be efficiently disseminated into world markets;
- Stable political environment with low risk of expropriation of volatile regulation policies and practices;
- Low rates of government expenditure as a percentage of national GDP, thereby facilitating low taxation rates and higher private sector savings and investment;
- Competitive labor markets, including low payroll taxes, low or no minimum wage requirements, and regulatory flexibility with respect to recruiting and dismissing employees as required by business conditions; and
- Favorable geographic position, thereby reducing the costs of inbound shipments for suppliers and outbound transport for finished products into target export markets.

The importance of any of these factors will be influenced by the particular products and the markets therefore. For example, many countries that have thrived on the manufacture of electronics products that are eventually re-sold into highly developed countries such as the US must rely almost exclusively on imported components that represent a very high percentage of the final export value of the products. If the country were to impose even a small tariff on imports of such components, or failed to provide a cost-effective transportation infrastructure, foreign investors would abandon the country quickly to find a more cost-effective alternative.

Another interest phenomenon that has occurred in recent years as a truly interdependent global economy has emerged has been the accelerated focus in many developing countries on achieving growth and progress in their industrial sectors. For example, many countries in Eastern Europe, eager for integration into the broader European Union,

unleashed ambitious modernization plans; however, success has not been easy or quick due to challenges raised by the following problems in those countries: backward industrial structure and lack of a critical mass of local businesses that are dependent on scientific and technological developments; outdated technology and low levels of innovation; poor labor productivity; significant dependence on cheap materials from neighboring countries; lack of professional and managerial competence; poor cooperation among various economic sectors and lack of competitiveness in key business infrastructure areas such as energy and distribution; and poor infrastructure for business services and poorly developed financial services sector. In order to succeed, such countries must be willing and able to make the transition from physical product to business and information services and develop global, as opposed to strictly domestic or regional, markets for the products and services. In addition, developing countries must look to shift their focus from industrial areas to the creation of competitive clusters.

§16 Managing emerging companies

Emerging companies, particularly when they are at their earlier stages, have a number of strengths that distinguish them from larger companies. Among other things, the founders and other managers of small emerging companies often demonstrate exceptional determination to be successful, creating an enthusiasm that permeates the entire organization. In general, the innovation process is much more rapid in these firms and they are generally able to respond more quickly to customer needs. In many cases, initial success is achieved by identifying and servicing niche markets that have been ignored by larger companies. Smaller firms can also thrive by taking on jobs that are considered to be too small for bigger businesses.

On the other hand, some of the very characteristics that create opportunities for small emerging companies can endanger their survival. For example, the limited resources and day-to-day pressures of launching a new business often leads to a short-term focus and neglect of the investment in human resources necessary for long-term success and stability. Small firms may also become too reliant on a small group of customers. Cash flow is another common problem for firms in the early stages, since they are particularly vulnerable to order stoppages and slow payment by a single customer and generally experience difficulties in finding capital required for expansion on reasonable terms. Finally, while governments are attempting to reduce the regulatory burdens confronting small businesses, the time and costs of compliance are still disproportionately high for companies of this size.

Small businesses engaged in technology-related innovation face additional challenges above and beyond the hurdles confronting other small firms. For example, they must find a way to collect development capital to complete the work necessary to move into the production and diffusion phase. This is often problematic in that such firms must survive for substantial periods with revenues from commercial activities. Also, success in this type of venture requires an unusual mix of technical and managerial abilities that differ from the generic group of small businesses. In particular, the ability to effectively transfer technology developed in a science-based environment into new commercial

applications is essential to the growth of innovative technology firms. Finally, small technology-based firms tend to be more reliant on networking relationships with other firms and organizations (e.g. universities) having complimentary resources.

In light of these challenges, it is not surprising that the early years of existence are tremendously volatile for new firms. In fact, various studies have indicated that 30% of the new firms launched in the United Kingdom were out of business by the third year following formation and the number increased to 50% by the fifth year. Of those firms that are able to survive only a small number grew beyond 20 employees. In order to achieve the desired growth rate, or to simply just survive, new businesses must be able to develop appropriate management skills, attract sufficient capital, and make the right strategic decisions with respect to creation, acquisition and marketing of their products and services.

§17 --Critical success factors

The risks associated with emerging companies have led to keen interest in attempting to identify the critical success factors that are likely to be relevant in predicting how a particular firm will fare in the marketplace. The term critical success factors in the context of a business organization can be understood as referring to the primary process performance measures that most closely define and track how the organization must perform in order to be considered successful. In order to be effective and meaningful the critical success factors for a company must be directly related to the business and strategic objectives and goals of the company as set out in a formal business plan and must also be defined in a way that they can be easily monitored by senior management to quickly determine whether the company is “on track.” One common analogy used with respect to setting and reviewing performance against key indicators is the instruments commonly found on the dashboard of an automobile or an airplane.

It is admittedly difficult to measure performance, and establish critical success factors, in the early days of a new venture that has been launched based on an emerging technology that will hopefully create markets that do not currently exist. At that point the various entrepreneurs (i.e., the founders and other senior managers) lack the traditional points of reference typically used to design critical success factors—there are no products on the market, the market itself is still be evaluated and defined, competition has yet to emerge, standards are lacking, and decisions have yet to be made regarding the involvement of regulators and the boundaries of property rights that may be associated with new technologies. What often occurs is that a list of milestones or benchmarks is created to serve as a roadmap of the path of events that need to be completed in order to achieve “success”: close the first round of venture capital funding, complete development and testing of the initial product, establish of one or more key strategic alliances, successfully launch the initial product, rollout additional products, and complete a successful initial public offering. A target date is assigned to each milestone and a detailed list of the activities that need to be undertaken to reach each milestone is also created.

Certainly each of the events listed above is important; however, they are more correctly viewed as the desirable consequences of having identifying and managing critical success factors rather than being success factors in and of themselves. For example, it is more accurate to identify what they company should be doing in order to obtain financial resources from venture capitalists or complete and launch its first product efficiently and on a timely basis. These “factors for success,” which should be the subject of measurement as indicators of performance, might include establishment of an organizational structure and project management capability to support operational activities or creation of a high-quality new product development process. It should also be noted that achieving a certain benchmark may itself improve performance with respect to a critical success factor. A good illustration is the expected improvements in process development that a smaller company can expect from absorbing knowledge from larger and more experience partners during the course of a strategic alliance relationship.

Not surprisingly, the search to identify critical success factors for fledgling technology-based companies has spread far and wide and there have been numerous studies on the subject. In general, research in the area of critical success factors for emerging companies has focused on the identification and studies of two main groups of factors: “internal” factors, which focus on the characteristics of the particular company and its founders and senior managers which can usually be affected by the company itself; and “contextual” (or external) factors, which focus on the organizational environment in which the company is operating and generally exist independent of the activities of the company although management generally has some discretion in defining key elements of the organizational environment in which the company will be operating. Each main group can be further broken down into specific categories for closer analysis. For example, internal factors might be classified by reference to human resources, product development strategies, organization structure and culture, and stakeholder relationships. In turn, contextual factors include the creation and operation of regional clusters of firms working on related issues, the breadth and condition of the infrastructure supporting the activities of the company (e.g., transportation, telecommunications, availability of affordable housing, etc.), and governmental policies relating to the technologies and markets of interest to the company. There will obviously be some overlap between internal and contextual factors such as whether the local housing market is attractive enough to support the company’s efforts to recruit the personnel deemed critically necessary for success.

§18 ----Internal factors

The success or failure of a new business venture will ultimately depend, to some extent, on the skills, energy and judgment of the founders and the other members of the senior management team. These factors, including the personal characteristics and experience of the members of the founder-manager team and the specific strategies that they select to cope with their company’s business environment, are typically classified as “internal,” since they are integral part of the firm itself and the way it is managed. Outside investors who place the greatest emphasis on internal factors are said to fall into the camp of basing their bets on the “jockey” (i.e., the management team) rather than on the “horse” (i.e., the

business model). For example, Arthur Rock, a revered investor who was one of the first to see the promise in Apple Computers, has often been cited for this belief that the quality, integrity and commitment of the members of the management team is the most important factor in an investment decision. Others have taken a similar view by favorably quoting the following saying: “You can have a good idea and poor management and lose every time. You can have a poor idea and good management and win every time.”²⁰ However, other studies have shown that once a firm emerges from the very earliest stages of development the company’s ultimate success is determined by non-human factors such as intellectual property rights, customer relationships and physical assets and firms with the right product in the right market will thrive even if there is substantial change within the management team.

Not surprisingly, various studies have focused on certain personal characteristics of the founders and other managers of a company in an effort to predict whether the company would be able to achieve rapid growth. For example, Barkham et al argued that there is a significant positive correlation between faster growth and characteristics such as the relative youth of the ownership group; shared ownership and cooperation, meaning that more than one person had an equity stake in the business and that there was a willingness to work together as a group; serial entrepreneurship among the founder-manager group, meaning that members of the group have been involved in more than one business activity; and membership in professional organizations, which generally meant that the founders and managers had achieved recognized levels of technical competence and certification (e.g., engineering).²¹ Storey evaluated empirical studies of founder-manager teams conducted by a number of other researchers and concluded that the most commonly-cited predictors of rapid growth for companies led by those teams included relatively high levels of education and extensive management experience from previous positions. Storey also noted that the companies that were most likely to be successful in achieving high growth were led by a team or group of entrepreneurs, rather than just one individual, and that the leadership team was usually middle-aged, a finding that was somewhat at variance with Barkham et al but consistent with advanced education and management experience.²²

In contrast, advocates of the strategic management theory posit that the most important internal factors are not the personal characteristics of the founders and other members of the management team but the actual choices made by those persons with respect to charting the course for the business in light of the relevant environmental conditions. This approach is consistent with the belief that entrepreneurship is not simply discovering a “bright idea” but rather is the entire continuous process of collecting and organizing the necessary resources, identifying the best opportunities for quickly executing the idea and then organizing the resources in a way that is best suited to take advantage of those opportunities. Studies focusing on the relationship between strategy and success for

²⁰ D. Gladstone, *Venture Capital Handbook* (Financial Times Prentice Hall, 2002), 91-92.

²¹ R. Barkham, G. Gudgin, M. Hart and E. Hanvey, *The Determinants of Small Firm Growth: An Inter-Regional Study in the United Kingdom 1986-90*, Regional Policy and Development Series 12 (London: Jessica Kingsley Publishers and Regional Studies Association, 1996), 37.

²² D. Storey, *Understanding the Small Business Sector* (London: Routledge, 1994), 157.

companies targeting rapid expansion have identified the following factors as being extremely important to predicting how well the business will operate: the specific functional strategies and skills of the company, particularly in areas of marketing and production; the level of technology usage and expertise; and the quality of the infrastructure created by the firm to penetrate and exploit new markets. Harrison and Taylor, in their study of “super growth” companies, identified the following key “winning performance factors”: competing on quality rather than pricing; domination of a market niche; competing based on areas of strength; implementation of tight financial and operating controls; and frequent product or service innovation.²³ Levie made a similar finding in a survey that demonstrated that sustained growth was more likely to occur when a firm elected to follow a narrow market entry strategy in a rapidly growing market or industry as opposed to attempting broader strategies in markets or industries that had matured.²⁴ Other research in this area highlights the importance and positive impact of production focus and exceptional customer service.²⁵

Another approach to evaluating how strategic decisions relate to the success of a firm is illustrated by research conducted by Accenture on how “business success” should be defined.²⁶ The researchers began by looking at the following five key quantitative and qualitative dimensions of business performance of larger firms over a seven-year period, all of which were also compared against a carefully selected set of competitors: growth, as measured by expansion of revenues over the measurement period; profitability, as measured by the difference between the company’s return on capital and its cost of capital; positioning for the future, as represented by what the researchers refer to as “future value”—the portion of the company’s share price that cannot be explained by its current earnings—and by the portion of the industry total that each company’s future value represents; longevity, as measured by the duration of out-performance in total return to shareholders; and consistency, as measured by the number of years during the measurement period that the company exceeded the median level of profitability, growth and positioning for the future within its group of competitors.

The researchers acknowledged that the relative importance of the five high performance measures might vary from industry-to-industry and that care should be taken before attempting to make comparisons between firms that are not part of the same peer group of competitors. Nonetheless, they felt it was also possible to identify the following three drivers of performance, or “competitive essence,” that were applicable to firms across industry boundaries:

²³ J. Harrison and B. Taylor, *Super Growth Companies: Entrepreneurs in Action* (Oxford: Butterworth-Heinemann, 1996).

²⁴ J. Levie, “Strategies for New Venture Growth and Harvest: A Five Year Follow-Up of 176 Young Growing Firms in Denmark, Ireland and Scotland”, *Frontiers of Entrepreneurship Research* (Wellesley, MA: Babson College, 1995).

²⁵ J. Baum, “On the Relation of Traits, Competencies, Motivation, Strategy and Structure to Venture Growth”, *Frontiers of Entrepreneurship Research* (Wellesley, MA: Babson College, 1995).

²⁶ T. Breene and P. Nunes, “Going the Distance: How the World’s Best Companies Achieve High Performance,” *Outlook Journal* (September 2006).

- Market focus and position, which means knowing “where and how to compete” and successfully scaling the business by adroitly exiting mature markets and consistently identifying new markets and entering them on a timely basis;
- Distinctive capabilities, which includes the unique set of business processes and resources that cost-effectively serve the specific needs of customers (referred to by the researchers as “differentiation on the outside and simplification on the inside”); and
- Performance anatomy, which begins with a set of stable values developed by the leaders of the company and continues with the constant use and communication of those values to create a shared mindset within the company regarding critical organizational elements such as the balance between strategy and execution; the cultivation of talent; the strategic importance of information technology; the need to measure performance selectively; and the drive for continuous innovation and renewal.

Also interesting was the observation that an apparent condition for aspiring to become a high-performance business (although not a guarantee that the level of performance will actually be achieved) is world-class excellence across the whole range of key functional areas and cross-functional activities (e.g., supply chain management; human performance; customer relationship management; finance and performance management; strategy; and information technology).

As with much of the research in this area, Accenture focused on large companies and thus the applicability of the conclusions to emerging companies is not completely clear but for the fact that emerging companies, almost by definition, aspire to become world leaders at some point in the future. Four concepts do, however, are interesting for founders and senior managers of emerging companies . . . creating “future value,” mastering market focus and position; identifying and cultivating one or more distinctive capabilities; and laying the foundation for a strong performance anatomy. By appreciating the ultimate importance of these activities at an early stage, the leaders of an emerging company can consciously invest their time and company resources in pursuit of the goals that will pay the largest dividends in the future. This means, for example, establishing a solid infrastructure for evaluating market trends and customer needs and fostering a culture that encourages personal development and growth and innovation.

§19 ----External factors

Some researchers argue that external, or contextual, factors are the most important when considering the chances of success for a particular entrepreneurial venture or governmental policies that are intended to provide support for new business activities. These factors include such things as governmental support; market and cultural factors in the home country of the firm; industry characteristics, including the stage of development and nature of the customer base; location and market sector; and the competitive structure of the industry and the place of the firm therein as measured by its comparative advantages in relation to current and potential competitors. Bruno and Tyebjee were among the first to create an extensive list of external factors that they found to be

important supports for entrepreneurial activity: venture capital availability; presence of experienced entrepreneurs; a technically skilled labor force; accessibility to suppliers; accessibility to customers or new markets; favorable government policies; proximity to universities; availability of land and facilities; accessibility to transportation; a receptive population; availability of supporting professional services; and attractive living conditions.²⁷ If the importance of external factors is recognized then it follows that a key determinant of the success of a new venture is the ability of the founders and other senior members of the management team to establish the appropriate strategy for handling uncertainty in their external environment and identify and acquiring the necessary resources from that environment.

§20 --Challenges for managing emerging companies

Several researchers have carefully studied the progress of firms that appear to have the potential for rapid growth—emerging companies—in an attempt to identify some of the specific challenges that those firms and their managers can expect to encounter and the strategies that are most likely to be successful in overcoming those challenges. Some of the challenges are primarily related to the personal situations of the founders and the other members of the senior management team such as the lack of adequate management time, inadequacies in management skills, and conflicts within the management group. A shortage of necessary resources, such as qualified labor and/or suitable financing for expansion and credit facilities, was also often problematic. Interestingly, managers of growing firms apparently were relatively unconcerned about competition or lack of demand, both of which are consistently identified as significant challenges by managers of firms suffering through static or declining patterns. However, any new firm must anticipate that it will need to overcome certain barriers to entry and work hard to establish a reputation and track record.²⁸

Hendrickson and Psarouthakis²⁹ identified the following eight issues that they believe must be managed in order for firms to realize growth-oriented objectives:

- **Resource Acquisition:** How does the firm acquire the necessary capital, human resources, assets, and information to launch and operate the business?
- **Resource Allocation:** How does the firm best deploy its accumulated resources?
- **Work Flow:** How are the required work activities of the business to be divided and organized to ensure efficiency and effective communications?
- **Human Relations:** How does the firm motivate and satisfy its human resources and encourage employees to understand and share a common vision?

²⁷ A. Bruno and T. Tyebjee, “The Environment for Entrepreneurship”, in C. Kent, D. Sexton and K. Vesper (Eds.), *Encyclopedia of Entrepreneurship* (Englewood Cliffs, NJ: Prentice Hall, 1982), 288.

²⁸ R. Barkham, G. Gudgin, M. Hart and E. Hanvey, *The Determinants of Small Firm Growth: An Inter-Regional Study in the United Kingdom 1986-90*, Regional Policy and Development Series 12 (London: Jessica Kingsley Publishers and Regional Studies Association, 1996).

²⁹ L. Hendrickson and J. Psarouthakis, *Dynamic Management of Growing Firms: A Strategic Approach* (Second Edition) (Ann Arbor, MI: University of Michigan Press, 1998).

- **Technical Mastery:** How does the firm achieve and maintain the necessary technical know-how to attain the highest levels of productivity and quality?
- **Market Strategy:** How does the firm identify its market niche and determine who its customers are and what they are looking for in making their purchasing decisions?
- **Public Relations:** What external groups, other than suppliers and customers, are important to the firm's future and what strategies should be adopted for dealing with those groups?
- **Financial Viability:** Can the firm meet its financial obligations as they come due, grow its asset base, and operate profitably?

Achieving each of these objectives requires its own strategy and the day-to-day activities of managers and employees within the company can be understood as essential elements in pursuing each of those strategies. For example, recruitment of new employees is part of the company's resource acquisition strategy and compensation and benefit planning is part of the company's resource allocation strategy. The company's work flow strategy will be impacted and defined by decisions on job design and descriptions. Communications with employees in the form of meetings, manuals, policies and newsletters are an integral part of the company's human relations strategy. Training and development programs are important to several different issues. Training of sales and marketing personnel can advance market strategy, while technical training should improve the company's technical mastery. In addition, training for managers should assist them in motivating employees (i.e., human relations) and smoothing work flow.

Embracing Challenges to Create a Compelling Story for Investors

While in practice it is difficult to draw lines between each of the issues listed above, they do provide a starting point for analyzing the needs of a new business and communicating a story to potential investors. For example, entrepreneurs need to be able to explain to investors what will be needed in terms of capital, human resources, assets and information in order for the business to be successfully launched and operated. While presumably investors are being contacted to address the capital requirements of the business, the money won't be forthcoming unless the investors are satisfied about the entrepreneur's plans for acquiring the right people and technology and are convinced that the entrepreneur has the skills necessary to deploy and manage the human and technological resources so that milestones in the business plan can be achieved on a timely basis. Entrepreneurs often lack the details that investors require with respect to how the money will be spent and have difficulty explaining to investors how they intend to organize work activities, motivate their employees and achieve the level of technical mastery necessary to create high quality products and services. In order to avoid problems, entrepreneurs need to go beyond head count projections and be prepared to show investors how the new company's critical first product development project will be managed. While sophisticated investors will understand that things don't always go as planned, they will be interested in how the entrepreneur approaches and explains the development process and will want to understand the key assumptions that the

entrepreneur is making and how they are impacting the timetables and budgets in the new company's business plan.

§21 --Common problems confronting emerging companies during start-up

The period immediately following the initial launch of an emerging company, the so-called “start-up” phase is particularly critical for the ultimate survival of the business and calls for keen management skills and, in many cases, a dose of good fortune. Slatter identified the following as being among the most common problems confronting technology-based companies during the start-up stage: delays in product development; premature market entry; incorrect customer and market identification; lack of credibility with potential customers; unrealistic delivery promises; and lack of control over subcontractors.³⁰ A comprehensive review of the literature by Kazanjian to assess the relation of dominant problems to stages of growth in technology-based businesses identified the following factors as being particularly important during the start-up phase³¹:

- **Organizational Systems:** This factor included the need to develop financial systems and internal controls, as well as management information systems, and define responsibilities within the firm.
- **Sales/Marketing:** This factor focused on attainment of sales, profit and market share goals, penetration of new geographic markets, and development of product service and support.
- **People:** This factor emphasized the need to recruit capable personnel; however, no reference was made to culture and employee satisfaction and morale issues.
- **Production:** This factor covered the ability of the firm to improve the procurement and production functions to the point where sufficient volume could be generated to meet customer demand.
- **Strategic Positioning:** This factor included development of new product or technology applications and entry into new product market segments.
- **External Relations:** This factor included relationships with capital providers, as well as recruitment of outside professional advisors and board members.

Another way to identify problems is to learn more about why emerging companies failed to realize their potential and achieve the aspirations the founders had in mind when the business was first launched. Mottram acknowledged that emerging companies are, by nature, risky ventures that are highly likely to fail; however, he argued that based on his experience in working with emerging companies the founders frequently engaged in a common set of behaviors that doomed their firms yet could have been avoided or mitigated. In an effort to warn founders of challenges that may ultimately overwhelm

³⁰ S. Slatter, *Gambling on Growth: How to Manage the Small High-Tech Firm* (Chichester UK: John Wiley & Sons, 1992), 61-68.

³¹ R. Kazanjian, “Relation of Dominant Problems to Stages of Growth in Technology-Based New Ventures,” *Academy of Management Journal*, 31, no. 2 (1988), 257-79.

them Mottram listed and described “10 Reasons Why Emerging Companies Fail” in a blog post that first appeared in 2009³²:

- **Myopic or extraneous market research:** The failure of the founders to validate their ideas using basic qualitative and quantitative market research using assumptions that have been developed to avoid any bias which might influence the data and pre-determine the outcome. Faulty research leads to poor business and marketing planning and strategies based on the founder’s personal experiences rather than hard data from the actual marketplace itself.
- **Product development guided by internal perceptions and biases:** Founders need to remember that a new technology, regardless of how innovative it might be, is of little use to customers unless it provides them with a cost-effective solution to a real problem they are facing and provides them with a new way to increase their profits and/or become and remain more competitive.
- **Overly optimistic marketing plans:** Founders should certainly develop a marketing plan that creates enthusiasm within their team; however, care should be taken not to become too optimistic and pursue goals that are unrealistic and set the stage for failure and deterioration of morale and scarce resources.
- **Incomplete product:** Founders need to remember that customers evaluate products, particularly technology-based products, on the basis of the entire customer experience and not just a particular feature or function. Accordingly, product development needs to be seen expansively and include installation, training, financing, technical support, application support, application ecosystem and customer comfort with the company’s reputation in the marketplace. The goal should be to build and maintain a brand not just a commodity product or service.
- **Undifferentiated products:** Founders must be sure that their new products can be easily differentiated by prospective customers and that the point of differentiation is considered meaningful by customers and not just the founders and their team members. Following on the point above, founders need to remember that customers look at their entire experience and there are opportunities for differentiation that are outside the familiar issues of features and pricing.
- **Weak or confused market focus:** While founders are eager and anxious to generate sales revenues as quickly as possible care must be taken to avoid weak or confused market focus and marketing efforts should be directed toward niches and segments that offer the best opportunities for success. Many companies fail because they chase any new sales possibility regardless of whether it will be profitable or whether it makes sense in the long-term and the result is that scarce resources are overextended and support costs increase over the original budget.
- **Vague messaging and poor positioning:** Founders need to avoid getting caught up in their own excitement and take the time to sit down and calmly and objectively develop a clear statement and argument for customers regarding the value of the new product or service as a solution for customer problems and position the product or

³² B. Mottram, “10 Reasons Why Emerging Technology Companies Fail”, Storagetopics (blog), July 27, 2009, <http://www.storagetopics.com/2009/07/why-technology-products-fail.html>, accessed November 6, 2014.

service in a way that allows customers to easily differentiate it in a noisy and competitive marketplace.

- **Channel confusion:** Once again, in their pursuit of quick sales founders often neglect to take the time to develop a coherent channel strategy. The founders need to take the time to make the tough choices among direct, indirect and combination sales strategies and then closely manage each of the channels to avoid conflicts and ensure that each channel is being pursued effectively.
- **Executive thinking that promotion is marketing:** Founders and other senior executives of emerging companies often believe that marketing has only one goal: generating demand for the company's products and services. While demand generation is important, emerging companies cannot ignore the need to build the company's reputation and brand, both of which are essential to the long-term success and sustainability of the firm.
- **Marketing and sales teams disconnected:** Founders need to act carefully and thoughtfully as they distinguish and build out the marketing and sales teams and make sure that there is communication and coordination between the functions in key areas such as identifying segmentation and target customers, development and implementation of "go-to-market" strategies, channel strategies, lead generation and qualification, sales tools and training.

Several years later in 2014, Mottram restated his original list and added a few more potential problems outside of his original focus on marketing and sales issues including the following: lack of passion and persistence among company leadership; dysfunction, including conflicting agendas, among the leadership team; operational mediocrity and inefficiencies; inability to think and act fast: being too dogmatic and thus unable or unwilling to react to market changes; lack of mentors or advisors; insufficient funding; unprofitable or no business model; over-expansion; poor launch strategy and lack of coherence within the launch team; and an idea that is not scalable.³³ While Mottram's catalog is extensive, founders must be mindful of the need to overcome other challenges such as poor cash management skills, failure to create a well-developed business plan, poor pricing strategies, unwillingness or inability to recognize areas in which they need help from others, failure to delegate, poor hiring decisions (i.e., hiring people that think the same way as the founder as opposed to people with different viewpoints and complementary skills and experience), failure to understand and pay attention to the competition and too much reliance on a single customer.

§22 --Milestones for change and transition within emerging companies

There have been a number of attempts to identify the stages of development of a business and recognizing and accepting that change and evolution is inevitable is essential to the pursuit of continuous success and survival for the enterprise. There is no universally

³³ B. Mottram, "Revisiting a popular post: '10 Reasons Why Technology Companies Fail'", Storagetopics (blog), July 11, 2014, <http://www.storagetopics.com/2014/07/why-companies-fail.html>, accessed November 6, 2014.

accepted growth model for emerging companies; however, it is clear that as time goes by there will be changes in immediate business objectives, predominant management style, organizational structure, the state of the company company's product and market activities and the most pressing managerial challenges (e.g., resource management, sales and marketing, and communications and cooperation within the organization). For example, Hendrickson and Psarouthakis have provided a useful and comprehensive list of some the milestones that tend to trigger the need for change within firms that are experienced rapid growth:

- As the firm grows, resource acquisition priorities shift from capital to recruiting qualified and experienced managerial and technical employees.
- In the marketing area, growing companies may find that they can no longer fulfill their appetite for expansion in a small niche that allowed the company to launch successfully. As a result, the firm must adopt more formal strategic planning methods to locate and attack new markets and/or develop new products or services.
- As the business grows and becomes more complex, senior managers must be more mindful of outside constituencies and requirements, particularly laws and regulations that come into play as the firm increases in size and the number of customers and other business partners expands.
- As the customer base expands and orders rise, the company must learn to carefully manage its available resources. The simple and basic internal controls that were adequate when the firm had only a handful of customers must be replaced by formal budgets and computerized accounting.
- The need for the firm to expand into new markets and service more customers tends to lead to more specialization among managers and employees. This not only impacts the way in which the company must recruit and select new employees, it also creates challenges of communication to make sure that tasks and activities do not overlap.
- Employee growth and increased specialization inevitably lead to great distance between the founders and professional senior executives, such as the CEO, and other parts of the organization. As a result, it becomes most difficult for the CEO to keep an eye on the pulse of the firm and directly and clearly convey his or her sense of company mission to employees.
- The need for advanced internal controls, standardized products, and enhanced product quality and productivity means that the firm must focus on improving technical mastery through recruitment of new employees and ongoing training of current workers.

Of course, the CEO of every firm, regardless of its goals and expectations with respect to growth, may need to initiate changes that are unrelated to the challenges described above. For example, change may be triggered by recognition that a current strategy or approach is no longer effective or that it is no longer sufficient to attempt to operate without formally addressing a particular issue; the need to seize an opportunity to make improvements in the way that the firm may already be dealing with a particular issue, such as increasing efficiencies and further reducing costs; or the need to respond to major changes in structure or other internal circumstances, such as a significant change in the

number of employees, diversification, acquisitions, or the departure of one of more key senior managers.

Responding to these challenges requires specific actions by the founders and other members of the senior management team of an emerging company including development of the proper strategies for recruiting employees with proper technical skills and experience; proper design and implementation of corporate budgeting and planning systems; establishment of an efficient purchasing and production systems to ensure that products can be manufactured in a timely manner and at desired levels of quality; development of strategies for creating a loyal and satisfied group of employees, including training and skill development programs to build and maintain technical mastery; and proper investment of time and other resources in market research and new product development to create products and services that address an identifiable customer demand. While the solutions can often be readily identified actual execution may be hampered by resistance to change, shortcomings in diagnosing the causes of the particular problem or issue, inappropriate solutions and failure to adequately measure and evaluate the results of the change in relation to the situation that existed in the past.³⁴

Other surveys and research efforts over the years have provided additional insights and perspective on challenges confronting emerging companies. For example, a study of a group of Inc. 100 companies in the early 1980s identified the following crucial transformation issues that must be overcome in order for firms to be successful in their growth plans: acquisition of management resources, both at the executive level and at middle management, development of work flow systems, human relations and cultivation of firm culture, and resource allocation.³⁵ In addition, interviews of CEOs of 121 Inc. 500 companies conducted in the early 1990's identified the following as key problems that arise as the firm moves beyond the start-up stage and into the period where rapid growth is anticipated: obtaining adequate capital, raw materials and human resources; controlling margins, expenses and cash flow and developing sufficient production capacity; modifying allocation of job responsibilities, transitioning from customized to standardized products, and training and development of workers; building employee satisfaction and morale and reducing turnover; developing technical expertise and integrating it into product development and production processes; and building a broader customer base and developing new marketing and distribution channels.³⁶ The researchers also identified lack of management time and expertise as an important issue that tended to contribute to the challenges in each of the areas listed above.

§23 --Strategic alternatives for emerging companies

³⁴ L. Hendrickson and J. Psarouthakis, *Dynamic Management of Growing Firms: A Strategic Approach* (Second Edition) (Ann Arbor, MI: University of Michigan Press, 1998).

³⁵ D. Hambrick and L. Crozier, "Stumblers and Stars in the Management of Rapid Growth," *Journal of Business Venturing*, 1 (1985), 31-45.

³⁶ D. Terpstra and P. Olson, "Entrepreneurial Start-up and Growth: A Classification of Problems," *Entrepreneurship Theory and Practice*, 17, no. 3 (1993), 5-20.

While an extensive discussion of strategic alternatives for emerging companies is beyond the scope of this chapter it is useful to understand the different categories of strategies that have been identified for these types of companies. New companies may select from among a number of identifiable strategies when identifying their initial activities. Each activity has its own level of risk and resource requirements and the appropriate mix of activities will depend on a variety of factors. For example, relatively low risk activities that may be completed with a limited set of resources include technology consulting, contract research work, and development of custom and semi-custom niche products. Pursuit of these activities may be appropriate in cases where the ultimate market for the company's products and technology is still emerging and final direction is difficult to predict. On the other hand, development of standardized products for potentially large markets is a much higher risk activity that will require substantially more resources, including capital to allow the firm to survive until the development is completed and the product is launched. A strategy based on these activities should be considered when the firm is confident about the technology and the size of the market. In some cases, the firm has little choice but to proceed in this direction if the company's internal technology base is so narrow that it is impractical to try and take on a diverse set of consulting and niche development projects.

Assuming that the business concept underlying the new firm is based on commercialization of a "radical" technological innovation the first step will normally be adaptation of the technology to an identified need in the marketplace and educating potential customers about the technology and the ways in which it can be used to solve a specific problem of importance to the customer base. The activities of the firm at this stage have been characterized as "research and consultancy" and the company will often engage focused contract activities to diffuse knowledge about the commercial applications of the technology, as opposed to ramping up for large-scale production of standardized products. In many ways, the firm and its products are still "soft" at this stage and changes may be made as a result of information gained during the consultation activities. The next stages of development may include distribution of the company's proprietary products by other companies and eventually creation of the company's own independent functions for manufacturing and marketing.

One strategy used by emerging companies is referred to as "focused" and contemplates that the firm will attempt to secure a dominant position in a specific market niche. A more "broad-based" strategy emphasizes introduction of the technology into a wide range of products and industries, often through joint ventures and other strategic alliance with third parties. Some companies opt for an "early product" strategy based on rapid introduction of new products into markets with low barriers to entry and relatively small consultancy costs. This strategy is generally followed when the firm is looking to generate cash quickly in order to continue to finance development of more sophisticated products that can be launched using one of the other strategies. If, for whatever reason, the firm is destined to pursue the riskier path of developing a full-fledged line of standardized products, consideration should be given to various strategies that can be used to manage those risks and keep the company moving forward until a return on the large investment can be realized. Among the possibilities are the following:

- Companies may gain experience with some of the activities related to development and commercialization of their selected products by providing manufacturing, distribution or service for similar products designed by other manufacturers. These projects not only build the knowledge base of the firm, but also can provide cash flow that can be used to continue the product development effort and begin building the necessary support functions.
- Complementing the standardized products with additional offerings of customized versions that are built to meet the specific requirements of various market segments within the broader product class.
- Entering into large contracts with one or more customers to provide a specified volume of products. These types of contracts with key customers, particularly customers that are perceived as important players in the target market, can provide a steady stream of revenues and also create opportunities for the firm to improve its manufacturing and service functions. The downside is that these large contracts may derail the firm from pursuing its primary product development objectives. Moreover, in some cases, restrictions in such contracts make it difficult for the firm to expand its customer network.
- Entering into “private label” or OEM contracts can provide benefits similar to those associated with large customer contracts, notably cash flow.

The success of the selected strategy will depend, to some degree, on the reaction from established competitors. A variety of scenarios are possible, including attempts to improve existing technologies to reduce the innovative appeal of the products offered by the start-up firm or an effort by incumbents to secure technological leadership by either creating similar products at lower prices or moving forward with development of second generation products. Efforts to attain technological leadership are generally facilitated by the fact that incumbent firms are typically larger and already have an integrated functional structure that includes development, manufacturing and distribution. Start-up firms confronted by this type of opposition face greater challenges in surviving long enough to become an independent and fully functioning entity and are often forced into acquisition, termination or continuation as a small niche player supporting the larger firms. A well-known example of this type of reaction can be found in a review of the early years of the biotechnology revolution. As small firms began to emerge, large incumbents in many industries, including agricultural, chemicals and pharmaceuticals, responded by making large investment in traditional technologies and in biotechnological research itself. It should be noted that the optimal situation for growth is probably somewhere between these two extremes, since small innovative firms will need industry cooperation, in the form of financing and marketing arrangements, to continue to grow.

About the Author

Dr. Alan S. Gutterman is the Founding Director of the Sustainable Entrepreneurship Project (www.seproject.org). In addition, Alan's prolific output of practical guidance and tools for legal and financial professionals, managers, entrepreneurs and investors has made him one of the best-selling individual authors in the global legal publishing marketplace. His cornerstone work, *Business Transactions Solution*, is an online-only product available and featured on Thomson Reuters' Westlaw, the world's largest legal content platform, which includes almost 200 book-length modules covering the entire lifecycle of a business. Alan has also authored or edited over 40 books on sustainable entrepreneurship, management, business law and transactions, international law business and technology management for a number of publishers including Thomson Reuters, Kluwer, Aspatore, Oxford, Quorum, ABA Press, Aspen, Sweet & Maxwell, Euromoney, CCH and BNA. Alan has over three decades of experience as a partner and senior counsel with internationally recognized law firms counseling small and large business enterprises in the areas of general corporate and securities matters, venture capital, mergers and acquisitions, international law and transactions, strategic business alliances, technology transfers and intellectual property, and has also held senior management positions with several technology-based businesses including service as the chief legal officer of a leading international distributor of IT products headquartered in Silicon Valley and as the chief operating officer of an emerging broadband media company. He has been an adjunct faculty member at several colleges and universities, including Boalt Hall, Golden Gate University, Hastings College of Law, Santa Clara University and the University of San Francisco, teaching classes on a diverse range of topics including corporate finance, venture capital, corporate law, Japanese business law and law and economic development. He received his A.B., M.B.A., and J.D. from the University of California at Berkeley, a D.B.A. from Golden Gate University, and a Ph. D. from the University of Cambridge. For more information about Alan, his publications or the Sustainable Entrepreneurship Project, please contact him directly at alanguutterman@gmail.com, and follow him on LinkedIn (<https://www.linkedin.com/in/alanguutterman/>).

About the Project

The Sustainable Entrepreneurship Project (www.seproject.org) engages in and promotes research, education and training activities relating to entrepreneurial ventures launched with the aspiration to create sustainable enterprises that achieve significant growth in scale and value creation through the development of innovative products or services which form the basis for a successful international business. In furtherance of its mission the Project is involved in the preparation and distribution of Libraries of Resources for Sustainable Entrepreneurs covering Entrepreneurship, Leadership, Management, Organizational Design, Organizational Culture, Strategic Planning, Governance, Corporate Social Responsibility, Compliance and Risk Management, Finance, Human Resources, Product Development and Commercialization, Technology Management, Globalization, and Managing Growth and Change. Each of the Libraries include various Project publications such as handbooks, guides, briefings, articles, checklists, forms, forms, videos and audio works and other resources; management tools such as checklists and questionnaires, forms and training materials; books; chapters or articles in books; articles in journals, newspapers and magazines; theses and dissertations; papers; government and other public domain publications; online articles and databases; blogs; websites; and webinars and podcasts.

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