Chapter 15: Growth Strategies for Start-Ups
Global Text Project (2010)

Learning objectives and overview

Module by: Global Text Project. E-mail the author
Edited By: Dr. Donald J. McCubbrey

Summary:
Business Fundamentals was developed by the Global Text Project, which is working to create open-content electronic textbooks that are freely available on the website http://globaltext.terry.uga.edu. Distribution is also possible via paper, CD, DVD, and via this collaboration, through Connexions. The goal is to make textbooks available to the many who cannot afford them. For more information on getting involved with the Global Text Project or Connexions email us at drexel@uga.edu and dcwill@cnx.org.
Translated and reprinted with permission from Dowling/Drumm Gründungsmanagement (Entrepreneurship) Springer Verlag, 2003.
Editors: Michael Dowling, Hans Juergen Drumm (University of Regensberg)
Reviewer: Timothy B Folta (Purdue University)

Learning objectives

- define what constitutes a growth firm
- describe the problems of growth and growth strategies
- describe growth mistakes and solutions

Overview

In this chapter we investigate possible strategies for the growth of start-up firms. First, we describe growth as a phenomenon and basic problem for such firms. In particular we analyze the problem from the viewpoint of new start-ups which plan from the outset to grow larger quickly. We then examine different growth strategies which firms can pursue. In the second part of the chapter we present the most well-known mistakes made by start-ups during the growth phase, and suggest ways to correct or—even better—avoid them. To conclude, we provide recommendations for how entrepreneurs can profit best from growth. In this chapter we refer most often to firms with "products" but the strategies and pitfalls reviewed here also apply to service companies.

Definition and models

Module by: Global Text Project.E-mail the author
Edited By: Dr. Donald J. McCubbrey

Summary:
Business Fundamentals was developed by the Global Text Project, which is working to create open-content electronic textbooks that are freely available on the website http://globaltext.terry.uga.edu. Distribution is also possible via paper, CD, DVD, and via this collaboration, through Connexions. The goal is to make textbooks available to the many who cannot afford them. For more information on getting involved with the Global Text Project or Connexions email us at drexel@uga.edu and dcwill@cnx.org.
Translated and reprinted with permission from Dowling/Drumm Gründungsmanagement (Entrepreneurship) Springer Verlag, 2003.
Editors: Michael Dowling, Hans Juergen Drumm (University of Regensberg)
Reviewer: Timothy B Folta (Purdue University)

Definition and statistics

We start by defining what we mean by growth and growth-oriented firms. Criteria such as growth in the number of employees, or sales growth are generally used by researchers. The Kaufmann Center for Entrepreneurial Leadership, a leading institute of entrepreneurial research in the USA, for example, defines high-growth firms as being those with over 30 per cent growth in sales or over 20 per cent growth in the number of employees for each of the three preceding years. Other US researchers (Siegel/MacMillan 1993) define strong growth as over 25 per cent growth per annum over a three-year period.

The number of high-growth firms is no doubt limited. Even in the USA, only 5 per cent of firms each year are estimated to take on extra staff (cf. Sexton/Bowman-Upton 1991, p. 12). However, these fast-growing firms have a disproportionate significance for the increase in the number of jobs. In the USA, for example, it is estimated that only 12-15 per cent of all businesses are responsible for 100 per cent of the employment growth in the US economy (cf. Sexton/Bowman-Upton 1991, p. 10). Research studies in Germany have also shown that businesses with 50 to 250 employees recorded the greatest increase in employment (cf. Kühlhorn/Wissdorf 2001). International comparative data can be found in the Global Entrepreneurship Monitor (GEM). Based on a survey of all start-ups from 1999, the GEM presented the share of high-growth start-ups (see Exhibit 1). (cf. Sternberg 2000).

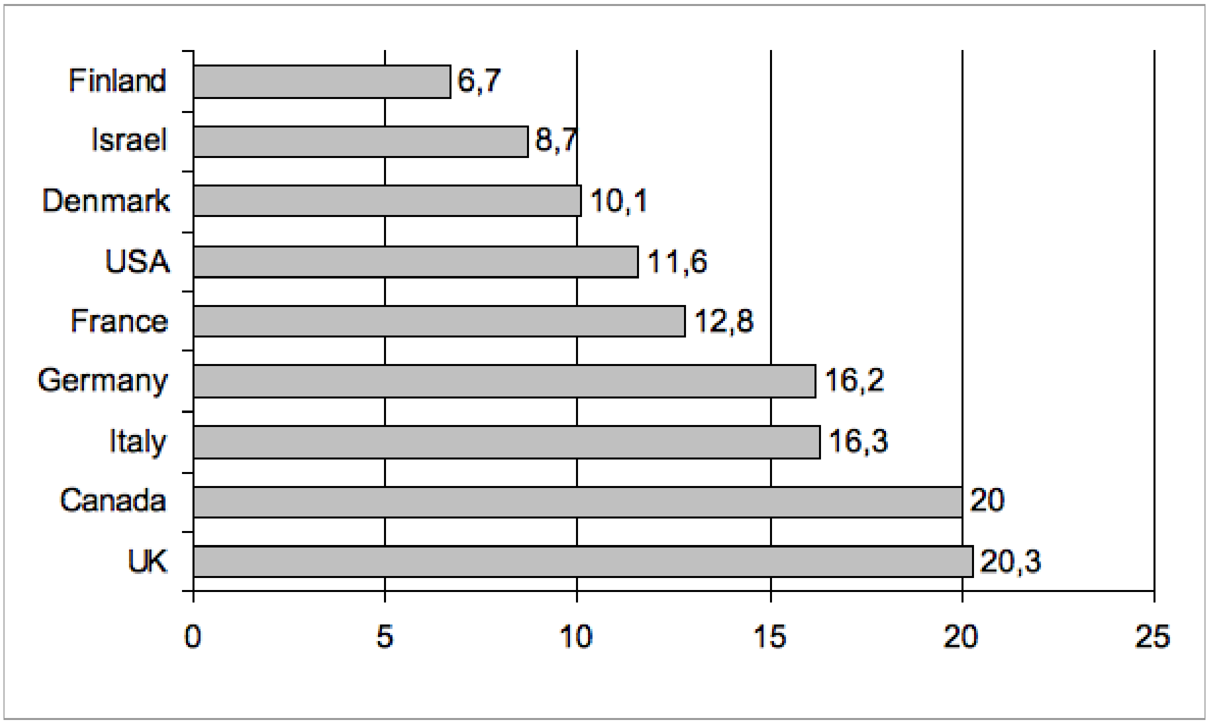

Exhibit 1: Countries in comparison: Share of high-growth start-ups compared to total start-ups. (*Source*: Sternberg 2000)

Growth models

In the field of entrepreneurship research, life cycle models are often used to describe the entrepreneurial process. These models are also used in research into growth problems. Kazanjian and Drazin (1980), for example, developed a four-phase growth model, and identified the typical growth problems of fast-growing firms in each phase.

Phase 1, Concept and development: Focus on the invention and development of a service or product. Main problems:

- developing the idea
- testing a prototype
- finding investment support for the idea

Phase 2, Commercialization: Developing the product for introduction to the market. Main problems:

- setting up the organization and production
- solving technical problems

- market entry

Phase 3, Growth: The fast-growth phase is characterized by its focus on the market.

Main problems:

- Producing larger quantities
- Guaranteeing quality
- Expanding market share
- Personnel problems

Phase 4, Stability: In this phase the focus lies on consolidating the market position with the initial product, and developing further products.

Main problem:

- Simultaneously managing the market entry of new products without losing the competitive advantages of older products.

Although life phase models like these can help the decision-making process in research and practice, they also have their pitfalls. In a review of such models, Sexton and Bowman/Upton (1991) warned that economic phenomena cannot always be compared to biological phenomena (life cycles). Firm growth does not always develop through the phases of such models in a straightforward, linear way, for example. Particularly in fast-growing industries involving technological change, growth is more chaotic than ordered. Moreover, well-known growth models with a bell-shaped, concave, or plateau structure are only useful as ideal reference patterns for actual growth processes.

Building on this criticism, Covin and Slevin (1997) suggest another growth model from the complexity management perspective. This model emphasizes that growth occurs through certain market factors in combination with internal competences and resources. The main problem for entrepreneurs is overcoming the increasing organizational and external complexity. In the following sections of this chapter we will define possible strategies for start-up growth. See **Exhibit 2**below.

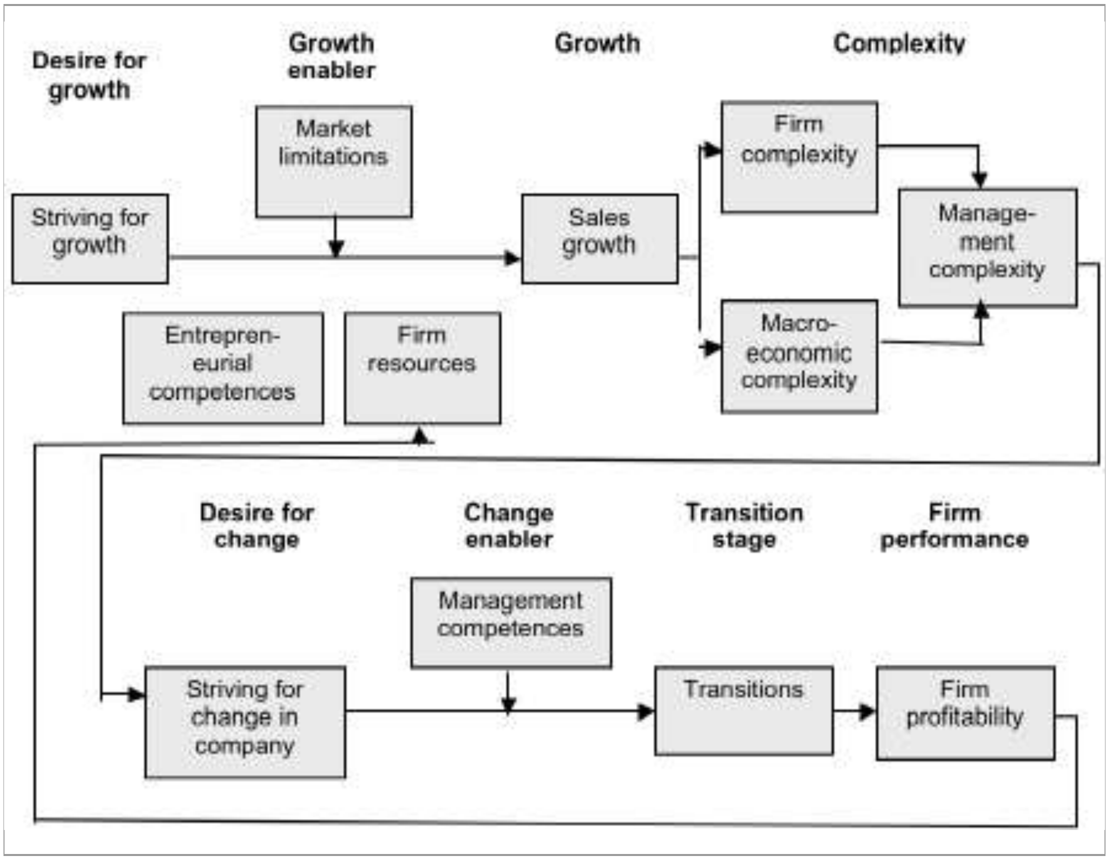

Exhibit 2: The “complexity management” growth model

Industrial change is often triggered by technological changes, for which there are many examples: the substitution of digital technologies in a whole range of analog products, from office equipment to telephones, and the Internet as a communication medium. Technological changes like this enable start-up firms developing new technologies and introducing them to the market to take over the positions of their established competitors.

A second catalyst for industrial transformations is change in consumer behavior. The increasing technological competence of customers, for example, has enabled the growth of direct computer sellers like Dell. Customers are prepared to get information about even high-technology products from the Internet and order them online instead of asking for advice in a shop.

Deregulation or liberalization can also be a reason for industrial transformation and change. In recent years industry deregulation has created opportunities for start-up firms and growth opportunities in general in various industries, such as the air traffic, telecommunications, or financial service sectors.

Changes in technologies, customer preferences, or regulations offer opportunities for transformation and change, but it is up to entrepreneurs to make use of them. At the beginning of a transformation period, firms must experiment with different strategies to tap the growth potential of the industry situation. We have seen many different such experiments with Internet technologies in the last few years. Many of them came to nothing, but several successful business models have survived. We have already given the example of Dell as a successful direct provider of PCs via the Internet. Further examples are US company Auto-By-Tel's sale of cars to traditional car dealers via the Internet, or E-Bay, the Internet auctioneers.

A period of experimentation is followed by a stabilization phase. In the literature, innovation management researchers talk about "dominant designs". A dominant design stabilizes a particular industry structure, and the positions of competitors. There is generally a consolidation phase in the industry, and failed experiments lead to certain firms disappearing from the industry. However, successful business models can mean even faster growth for the survivors, as they can take over shares of the market from other competitors.

Growth through buying out other companies

The entrepreneurship management literature generally refers to internal growth. However, small, fast-growing companies also have the possibility of growing by acquisition. These opportunities have become even more frequent in recent years due to the increasing availability of venture capital, and of capital resources from initial public offerings (IPOs). An acquisition strategy for a fast-growing start-up can bring many advantages. First of all, just like large firms, small firms can try to obtain synergies by means of complementary resources from bought-out firms. Sales growth as a result of buying out firms in the same industry could be rendered more efficient by combined resources and the acquisition of competent employees. An acquisition strategy can also be pursued to enable growth in new geographic markets. Moreover, the opportunity for expansion via acquisition is particularly attractive in other countries, where it can be difficult to establish new businesses.

Such a strategy can also offer the opportunity to go into related diversification, i.e. a start-up firm can acquire other products or services which are related to its original ones. Synergy effects and reduced or shared overheads can also be gained here. Firms can also integrate vertically through acquisition, i.e. by buying out suppliers or customers to process more steps in the value chain in-house. Vertical integration can sometimes bring advantages of cost or differentiation. Cost advantages can arise either through buying or building up cheaper distribution channels (forward integration), or cheap inputs (backward integration). Advantages of differentiation can be obtained by distribution channels or inputs which stand out from those of competitors (cf. Porter 1992).

If the firm to be taken over is already successful, the take-over can provide additional financial resources. A further gain from an acquisition may be additional qualified personnel who might also be able to strengthen the original firm. More customers can be won, or acquired more cheaply than if they have to be found using conventional marketing methods. The acquisition of other firms can also be a chance to gain technological know-how, or even new technologies in the form of patents.

Growth through cooperation

A cooperation strategy strikes a balance between internal growth and growth from the acquisition of other companies. Several studies in the USA have proved that fast-growing start-ups sometimes use cooperation with other small firms, and sometimes with large, established firms.

This cooperation is of various types. Licensing is a typical strategy in the biotech industry, for example. Small biotech start-ups generally do not have the necessary complementary resources (cf. Teece 1986) to carry new drugs through all the test phases and then to market them. Such firms often sell licenses to established pharmaceutical firms (the danger of this strategy will be dealt with "Inadequate or incorrect marketing") Other cooperation strategies, such as Research and Development cooperation, or outsourcing production, are possible. Cooperation strategies are pursued more frequently where there are networks of start-ups (cf. Lechner 2001).

Although new firms can gain the complementary resources they lack through cooperation, they still need basic competences in root technologies and key functions. In a study of high-tech start-ups in the USA, McGee et al. (1995) showed that the start-ups which grew fastest were those which pursued cooperation strategies to build on strengths, and not to compensate for weaknesses.

Stopping growth by selling the firm

An acquisition can be regarded as a growth strategy, but the sale of a company leads to a halt in growth. Such a sale does not necessarily have to be described as a loss, however. On the contrary, a trade sale—when a start-up sells itself to another firm—can be seen as the successful end of the entrepreneurial process. A firm has the possibility of continuing to grow as part of another firm, or the founders can use the sales revenue to pursue other activities. There are many examples of so-called "serial entrepreneurs". These entrepreneurs have founded several new companies, helped them to grow, and then sold them in order to pursue other activities. The best example of this is Jim Clark from Silicon Valley. He is currently working on starting his fourth and fifth companies, both in the Internet field. Prior to this he generated several billion USD for himself and his colleagues with three very successful high-tech start-ups: Silicon Graphics, Netscape, and Healthion. Clark recognized a long time ago that he is best at controlling the growth phase of a start-up, but is too impatient to manage a mature organization professionally. He tries to choose the right time to sell new firms to competitors which are better at dealing with the maturity phase (cf. Chong et al. 2000).

Growth through innovation

Times of technological change are an opportunity for start-ups to grow. New firms that use technological changes to introduce new products or services as market leaders can gain competitive advantages quickly. However, technological innovations like these must be able to be protected, or they will not last. The new firms must also possess or acquire the necessary complementary resources for the products and the marketing of them (cf. Teece 1986).

Certain types of innovation are especially advantageous for start-ups. In his book, *The Innovator's Dilemma*, Christensen (1997) differentiates between "sustaining technologies" and "disruptive technologies". Sustaining technologies improve existing product-market structures and are generally introduced most effectively by established firms. Disruptive technologies, on the other hand, which enable new applications for new customer segments, tend to be developed and marketed by start-ups. Christensen takes the example of the computer hard drive industry to show how start-ups have very often seen successful growth over a twenty-year period as spin-offs of established firms. Similar developments can be seen in other sectors.

In the next part of this chapter, we analyze the most frequent growth mistakes in start-ups.

Growth problems

Module by: Global Text Project.E-mail the author
Edited By: Dr. Donald J. McCubbrey

Summary:
Business Fundamentals was developed by the Global Text Project, which is working to create open-content electronic textbooks that are freely available on the website http://globaltext.terry.uga.edu. Distribution is also possible via paper, CD, DVD, and via this collaboration, through Connexions. The goal is to make textbooks available to the many who cannot afford them. For more information on getting involved with the Global Text Project or Connexions email us at drexel@uga.edu and dcwill@cnx.org.

Translated and reprinted with permission from Dowling/Drumm Gründungsmanagement (Entrepreneurship) Springer Verlag, 2003.
Editors: Michael Dowling, Hans Juergen Drumm (University of Regensberg)
Reviewer: Timothy B Folta (Purdue University)

Management mistakes

Of course, start-ups often make management mistakes in pursuing growth.

A classic first mistake is in the choice of a product or service—and/or even worse, a market—with no potential for growth. The only safeguard against this mistake is to conduct careful market and competitor analysis (See **(Reference)** Chapter 13) to estimate the total market potential. This analysis must be complemented by the choice of a strategy for capturing the market with which an assumed market potential can be developed, taking into account the given financial restrictions. A second mistake is the failure to choose one of the aforementioned growth strategies early on. A third mistake is to not recruit competent and professional staff to implement the planned strategies. A fourth mistake is not to align product-market growth strategies with the firm's other strategies, especially finance, HR, and organizational strategies. A fifth mistake is to choose the wrong finance model. Here, an almost classic mistake is for firms to refinance long-term fixed capital with short-term returns, or with short-term revolving loans. A sixth mistake is to force growth. If growth occurs too rapidly, the firm is in danger of losing sight of the risks involved in the individual activities of the value chain, even when this growth can be financed. Here, continuous development is better than erratic growth (cf. Hutzschenreuter 2001), because it enables management to fill the gaps in their knowledge. We will go into several of these management mistakes in more detail in the following.

Incompatibility of growth strategies and organizational structure

The growth of start-ups must be planned, and supported by one or more of the above mentioned strategies. It is a significant growth mistake to do without planning and strategic development. However, even when these mistakes are avoided, and growth strategies exist, managers tend to overlook the fact that there is a connection between the chosen strategy and the particular organizational structure of the start-up. This oversight is a serious impediment to growth.

Firms which are still small and striving to grow should choose team structures, or, if necessary, tight centralization as a structure for their organization so that they can handle knowledge management, and decision coordination and implementation better. The lack of team management and networking in the start-up and consolidation phases hinders growth, as the experience of start-ups from Silicon Valley has shown.

If growth is achieved by increasing sales volume, start-ups can defer the adjustment of the original organizational structure until decision deficits, such as delays in decision-making, begin to surface. In growing companies, maintaining the same team structures and management generally leads to a loss of coordination. It also postpones the creation of a clear corporate structure. If the distribution of responsibility in the start-up is unclear, or if the same team management has been continued despite growth, problems will arise due to a lack of coordination. Therefore, the distribution of competences and responsibility must be achieved, depending on the strategies the start-up pursues. If team structures impede this because they are too slow, they must be replaced by hierarchical structures.

Different strategies may be necessary if the company pursues diversification strategies by expanding into new markets, or bringing out new products by expanding the value chain, or into new networks. However, this requires a good knowledge of the industry or industries in which the start-up wishes to diversify. In this case, a more decentralized organizational structure with different, relatively autonomous departments is advisable. However, department decentralization makes coordination essential. Some of the classic mistakes made by young firms are either to wait too long before decentralizing, decentralizing too soon, and/or failing to coordinate the new departments. Each of these mistakes, or a combination, can have a restricting effect on the growth of a firm, and in the worst case can even increase the risk of a young firm's going bankrupt.

Inadequate or incorrect marketing, cooperation, finance, or HR strategies

Growth is also at risk if start-ups fail to develop strategic planning, marketing, financing, risk management, HR management, organization, or policies for internationalization. Growth mistakes made in regard to marketing, financing, and HR management are particularly serious. Many of the following issues have been introduced in previous chapters.

The first group of flawed growth strategies is marketing strategies. Start-ups are particularly susceptible to concentrating on developing a technical or scientific product further and developing new products, but not paying enough attention to marketing. Marketing plans and their extrapolation are a prerequisite for avoiding growth mistakes. If a firm does not conduct market research, identify customer preferences, generate new customer wishes, or segment or capture the market, it will not grow. Start-ups can only find out whether or not they can achieve or have already achieved a dominant position in the market by conducting systematic market research. If they already have a dominant position, they could try to push competitors out of the market or prevent them from entering it in the first place. Depending on the financial resources available, e.g. after a successful IPO, it could even make sense to buy out competitors and grow in this fashion.

A second group that can hinder growth is cooperation strategies, such as when a start-up becomes overly dependent on a more established company as a senior partner, for example, when a small biotech firm depends on a large pharmaceutical company to market its products. If larger established companies really commit themselves to their junior partners and are successful, then cooperation often ends up with the senior partner taking over the start-up. This only ensures the growth of the senior partner. Transferring licenses to larger firms before a product is fully developed is also dangerous—this is a particular problem for biotech start-ups if the government has not yet approved a new drug. However, what is much more common is opportunistic behavior by the senior partner, where it is paid well by the junior partner for its marketing activities, but then it does not in fact aggressively market the junior partner's products. Such a flawed marketing strategy is also a huge hindrance to growth.

A third group of flawed growth strategies concerns the financing of growth. In the initial phases of the life cycle of start-ups, growth can scarcely be financed out of their profits, nor can it generally be financed alone by the founders' equity. Start-ups in particular are often undercapitalized. The only alternative that remains is seeking outside capital.

To finance growth strategies start-ups sometimes borrow long-term debt which is to be paid back with interest from the revenues from implementing the strategy. Likewise, some start-ups redeem loans and interest payments step-by-step over a long period by taking out revolving, short-term loans. Both financial strategies jeopardize growth considerably, or even hinder it completely if the firm does not generate the planned revenues, or if no new short-term loans are available to pay off part of the long-term loan at the right time. In addition, start-ups with high growth potential in certain industries, can trade partial ownership in their firms for "venture capital".

Start-ups can also make another growth mistake in financing by launching their IPOs on the stock market too soon and simply using this revenue to repay debt or venture capital and replace it with equity from the capital market. What is even more serious after an IPO is when firms make the growth mistake of merely increasing their cash management or randomly buying out other firms, rather than using their IPO funds to finance wise growth strategies.

The fourth group of related business strategies where serious mistakes can be made is Human Resource strategies. In many cases the founders and employees of start-ups are in their thirties, and sometimes only in their twenties, and are frequently highly qualified university or college graduates (cf. Frank/Opitz 2001, p. 454). The homogeneity of the age distribution of managers and employees often leads to start-ups acquiring new personnel from the same age group. However, a homogeneous age distribution may lead to a decline in motivation as employees age at the same time. Start-ups must therefore be particularly careful to achieve a heterogeneous age distribution in their personnel. They must also attempt to acquire older employees with experience in the industry and with management competences from other successful companies. It can be of great value to acquire more senior managers who enjoy the new challenge of working for a start-up before they retire. Lack of loyalty in their personnel should lead start-ups to think about how to retain their particularly talented employees. If start-ups fail to consider these points, obstacles to growth are a matter of course.

Much more important, however, is developing the knowledge and competences of the entire staff depending on the start-up's chosen growth strategy. The knowledge and competences necessary for formulating and implementing the growth strategies must be forecast as part of qualitative Human Resource planning, and then provided by Human Resource development or by acquiring external personnel (cf. Drumm 2000). If this does not happen, start-ups face a growth barrier which is hard to overcome. The failure to implement strategy-oriented HR development and build up and maintain internalized motivation of the employees through attractive work and working conditions is a barrier to growth which is often overlooked.

Inadequate or incorrect internal accounting

All firms, whether young or mature, need cost accounting systems which can report costs and—as far as they are specifically attributable—revenues per cost unit, cost center, and department. It is important that start-ups establish systems for unit cost accounting, cost center accounting, and breakeven analysis (cf. Scherrer 1999) in order to be able to assess economic inefficiencies and sources of loss by means of target/actual comparisons and profit margins. If the competition is fierce, firms should also establish target costing to be able to undermine competitors by adjusting price policy.

Doing without any kind of cost accounting leads not only to the fact that sources of loss remain undiscovered, but also that profit potentials stay hidden as well. Both of these points represent possible growth risks. Start-ups must therefore avoid this risk by establishing cost and profit accounting, and a breakeven analysis as quickly as possible.

Dependence on third parties

Many start-up, survival, and growth strategies lead almost inevitably to the dependence of new firms on third parties. This causes no problem as long as the interests of all people and firms involved are relatively equal and/or compatible. Dependence on third parties functioning as investors, licensors, partners, principal customers in the sales market, or single suppliers does not necessarily lead to growth barriers. However, dependence is a disadvantage if there are diverging interests, or if the partners behave opportunistically. In this case, the growth of the start-up is inhibited and the firm is forced to fight the opportunistic behavior of the partners. For the start-up these defense activities incur transaction costs which arise in the preparation phase of a partnership and in the conclusion of cooperation contracts, and are added to later by transaction costs arising from controlling, and correcting errors.

However, the older the firm becomes, dependence on third parties should be reduced. The dependence on licensors should be compensated for by the firm's own research and development. The dependence on outside investors, on the other hand, is generally unavoidable, but it can be put to positive use by raising risk capital by profit sharing with investors to create homogeneity of interests.

As shown above, dependence on third parties can arise when a firm markets its products. It can, however, also arise in the acquisition of preliminary products, or in financing. It is at its highest in firm networks. Start-ups must therefore ask themselves repeatedly whether these dependencies secure their existence and survival, or whether they are endangering their growth. As long as the firm's survival is secured by suppliers or customers through strategic dependencies, for instance within a network of cooperating firms, the start-up can profit. If such dependencies however, endanger the success and growth of the firm, the start-up must try to extricate itself by building up its own sales or supply channels. Homogeneity of interests must also be taken into account when building an external network in order to minimize transaction costs which stunt growth.

Acculturation problems when buying companies

Growth as a result of acquiring companies in the supply chain, or diversifying into other sectors not only creates the potential for mistakes due to inadequate knowledge of the industry, but by insufficient acculturation of the companies acquired. Every company develops its own culture from the moment it is founded. This is manifested in the founders' value system in regard to their employees, customers, suppliers, sponsors, and other partners. Founders will always try to transfer their value system onto their employees and thus form their behavior completely or at least partly. Company culture is also manifested in desired forms of behavior, rituals, and accepted processes of analyzing and solving processes practiced by the founders which they in turn would like their employees to implement. Communicating these values and forms of behavior is part of the management process.

If other companies are acquired in the course of planned growth processes, the company also takes on their "foreign" firm cultures. The confrontation between two or more incompatible firm cultures makes acculturation essential. The different cultures must be adapted to each other, or the growth of the entire company and its individual departments due to synergy effects is at stake.

There are three different acculturation strategies to choose from. In the case of usurpation, the management from the bought out firm is replaced by the management team of the firm that bought it out. This model is generally expensive, but can be implemented relatively quickly. In the case of adaptation, the buying and bought out firm(s) get to know and understand each other's cultures in order to change and adapt them step by step. This model is much slower than usurpation, but also cheaper. The synthesis model consists of consciously giving up the old firm culture and creating a new one. This model makes sense if the acquisition means that the markets and thus market-oriented strategies change, or the national orientation of the start-up can be expanded to an international one. Doing without acculturation strategies not only stunts growth, but also increases the risk of bankruptcy.

Chapter summary

Module by: Global Text Project.E-mail the author
Edited By: Dr. Donald J. McCubbrey

Summary:
Business Fundamentals was developed by the Global Text Project, which is working to create open-content electronic textbooks that are freely available on the website http://globaltext.terry.uga.edu. Distribution is also possible via

paper, CD, DVD, and via this collaboration, through Connexions. The goal is to make textbooks available to the many who cannot afford them. For more information on getting involved with the Global Text Project or Connexions email us at drexel@uga.edu and dcwill@cnx.org.
Translated and reprinted with permission from Dowling/Drumm Gründungsmanagement (Entrepreneurship) Springer Verlag, 2003.
Editors: Michael Dowling, Hans Juergen Drumm (University of Regensberg)
Reviewer: Timothy B Folta (Purdue University)

Company growth must be planned by both old and young firms. It requires the choice of one or more of the above mentioned strategies to promote growth. Product and process innovations, the differentiation of products and markets, the use of market niches, and networking with other companies are important strategies for start-ups. Growth along the supply chain is a special case in vertical networking strategies. Buying out entire companies is also suitable as a growth strategy, but it presupposes the availability of sufficient capital, and the solution of acculturation problems. Growth can be seriously threatened by the management mistakes discussed above, but also promoted by growth strategies that are well implemented.

References, and further literature

Module by: Global Text Project.E-mail the author
Edited By: Dr. Donald J. McCubbrey

Summary:
Business Fundamentals was developed by the Global Text Project, which is working to create open-content electronic textbooks that are freely available on the website http://globaltext.terry.uga.edu. Distribution is also possible via paper, CD, DVD, and via this collaboration, through Connexions. The goal is to make textbooks available to the many who cannot afford them. For more information on getting involved with the Global Text Project or Connexions email us at drexel@uga.edu and dcwill@cnx.org.
Translated and reprinted with permission from Dowling/Drumm Gründungsmanagement (Entrepreneurship) Springer Verlag, 2003.
Editors: Michael Dowling, Hans Juergen Drumm (University of Regensberg)
Reviewer: Timothy B Folta (Purdue University)

Chong, M.L. et al. (2000): The Silicon Valley Edge, Stanford, CA. pp. 120-121.

Covin, J.G. and Slevin, D.P. (1997): High Growth Transitions. Theoretical Perspectives and Suggested Directions. In: Sexton, D.L, and Smilor, R.W., 1997. pp. 99-125.

Christensen, C.M. (1997): The Innovator’s Dilemma. Boston.

Drumm, Hans Jürgen (2000): Personalwirtschaft. 4. Aufl. Berlin usw.

Frank, E. and Opitz, C. (2001): Internet-Start-Ups—Ein neuer Wettbewerber unter den „Filteranlagen“ für Humankapital. Zeitschrift für Betriebswirtschaft 71. Jg.: 453-469.

Hutzschenreuter, T. (2001): Wachstumsstrategien. Einsatz von Management-kapazitäten zur Wertsteigerung. Wiesbaden.

Kazanjian, R.K. and Drazin, R. (1990): A stage-contingent model of design and growth for technology-based new ventures. Journal of Business Venturing (5): 137-150.

Kühlhorn, G. and Wissdorf, F. (2001): Jobmotor Mittelstand. Impulse März 2001-05-28: 20-27.

Lechner, C. (2000): The Competitiveness of Firm Networks. Frankfurt usw.

McGee, J.E., Dowling, M.J. and Megginson, W.L. (1995): Cooperative strategy and new venture performance. The role of business strategy and management experience. In: Strategic Management Journal 16(7): 565-580.

Porter, M. (1992): Wettbewerbsvorteile. 3. Aufl. Frankfurt/Main.

Porter, M.E. and Rivkin, J.W. (2000): Industry Transformation. Harvard Business School. Publishing N9-701-008, July 10.

Scherrer, G. (1999): Kostenrechnung. 3. Aufl. Stuttgart.

Sexton, D.L. and Bowman-Upton, N.B. (1991): Entrepreneurship: Creativity and Growth. New York.

Sexton, D.L. and Smilor, R.W. (1997): Entrepreneurship 2000. Dover.

Siegel, R., Siegel, E. and MacMillan, I. (1993): Characteristics distinguishing high growth ventures. Journal of Business Venturing 8(2): 169-180.

Sternberg, R. (2000): Entrepreneurship in Deutschland—Das Gründungsgeschehen im internationalen Vergleich: Länderbericht Deutschland zum Global Entrepreneurship Monitor. Berlin.

Teece, D.J. (1986): Profiting from technological innovation: Implications for integration, collaboration, licensing, and public policy. Research Policy 15: 285-305. Elsevier Science Publishers B.V. (North-Holland).

About the chapter author

Professor Michael Dowling is Professor for Innovation and Technology Management at the University of Regensburg. He received his PhD in Business Administration from the University of Texas at Austin in 1988. His research interests include the strategic management of technology, especially in the telecommunications industry, high technology entrepreneurship, and the relationships between technology, public policy and economic development.

About the chapter editor

Professor Hans Jürgen Drumm is a retired Professor of Business Administration with a focus on Human Resource Management and Organization Theory. He received his doctorate at the Free University of Berlin and his Habilitation at the University of the Saarland.

Translated and reprinted with permission from Dowling/Drumm Gründungsmanagement (Entrepreneurship) Springer Verlag, 2003.