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Strategic Planning for Small IT Business

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ABSTRACT

Strategic planning is critical for the survival of small IT businesses. They are challenged by the escalation of competition, customer power, competitive strategies, and diverse global market players. Competition is caused by the concurrence of a number of market factors. The value of having a strategic plan is widely accepted, but formulating a sound strategic plan based on some standard format poses significant challenges due to factors such as varying size of IT businesses and stage of growth, and the type and scope of customer services provided. This contribution examines strategic planning processes, levels of strategic planning and some strategies that are specific to small IT businesses. The characteristics of a small IT business are considered in terms of a growth model, and a simplified strategic planning process model is proposed. A SWOT matrix for the stages of the growth model is compiled and potential strategies for the small IT business are recommended.

Keywords

Small IT business, strategic planning, strategic planning process, business planning

INTRODUCTION

Small businesses are important contributors to the world economy, a fact that is especially the case in developing economies. Small companies account for a considerable portion of the gross national product of the world. The Small Business Act states that a small business concern is "one that is independently owned and operated and which is not dominant in its field of operation." The law also states that in determining what constitutes a small business, the definition will vary from industry to industry to reflect industry differences accurately.[1]

A small information technology (IT) business is a company defined in information of NAICS[2] sectors, whose employees are less than 500, its primary production is information technology and/or who primarily uses information technology for internal processes. From 1991 to 2001, more than 99% of companies in the US were small businesses[3], and almost 50% of the paid employees worked for small businesses. Although only about 1% of these were IT businesses, [4, 5] IT companies employed almost 3% of the workforce and contributed 5% to the annual payroll in this category. Of these more than 98.5% were small IT companies representing 27% of paid employees and contributing 23% to the annual payroll in the IT sector. Table 1 shows the IT companies' distribution by employee size from 1998 to 2001. Over 50% of small IT companies had less than 5 employees, over 27% from 5 to 19 and over 13.5% from 20 to 499.

Many models of organizational growth have been developed. [6, 7] A four-stage growth model was developed for small IT businesses as shown in Figure 1, drawing on these models and United States census data. The stage to which a company belongs is determined by many factors, such as the number of employees, revenue, elapsed time since startup, and the internal and external business environments in which the company is operating. Each stage is characterized by the dominant management style used to achieve growth, and management problems that must be solved before growth can continue.

The launch stage covers the preparatory activities as well as the actual startup. From Table 1 it is evident that over 16% of IT companies have no employees, and over 40% 1 to 4 employees. Most IT companies with less than 5 employees fall in Stage 1. In this stage the emphasis is on creating both a product and a market for it. The survival stage is the initial period of operation (up to two years) during which many IT companies fail. In this stage the company size could be 5 to 19 representing approximately 27% of all IT companies. New directive techniques are called for to sustain growth and advance to the expansion stage. During this stage the organization passes the break-even point, and success appears to be more likely

Year	Total	0	1 to 4	5-9	10 to19	20 to 99	100 to 499	500 +
2001	77,459	14.6%	42.0%	15.9%	11.7%	11.7%	2.8%	1.5%
2000	79,565	16.4%	40.7%	15.8%	11.6%	11.4%	2.6%	1.4%
1999	77,052	16.9%	41.0%	15.7%	11.6%	11.0%	2.5%	1.3%
1998	75,299	16%	40.9%	16.2%	11.8%	11.1%	2.5%	1.3%

Table 1. U.S. IT Industry Companies Distribution by Employee Size

(Source: http://www.census.gov/epcd/susb/1998/us/US51.HTM)

with both management delegation and coordination in effect. The company size could be 20 to 99 employees and about 12% of IT companies are of this size. Finally, the maturity stage involves slowed or slight growth and might be referred to as a "comfort" stage where success is assured. Only about 3% reach this stage. Maturity is not necessarily the end of growth for the business. Expansion opportunities are still sought and diversification considered, sometimes through take-overs or mergers, leading to the formation of some medium sized IT companies. Only a few will become the IT giants such as Dell, Sun Systems, Microsoft, Cisco and Intel, after many years of struggle.

During these stages, the company changes from being entrepreneurial to professionally managed. This change usually occurs once the business employs between 20 and 100 people. The entrepreneurial approach to management, where one individual, the owner, dominates, shifts to a professional management style with several top, intermediate, and functional line managers.

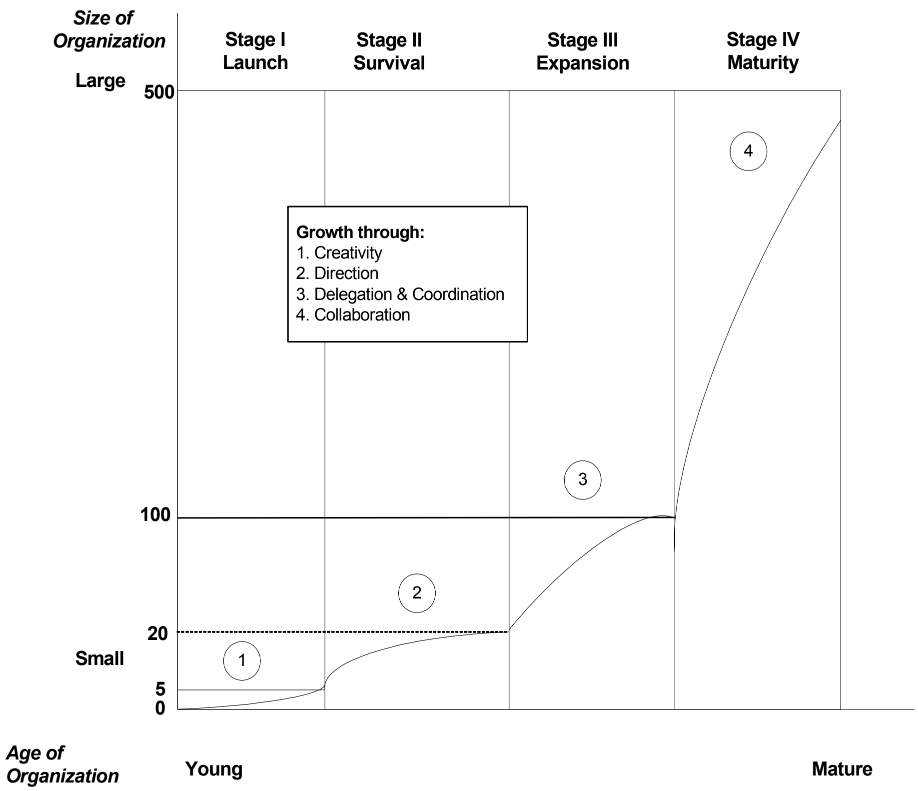

Figure 1. Small IT Business Growth Model

According to Almus and Nerlinger (1999), [8] small IT businesses are growing significantly faster than their non-IT counterparts. However, most entrepreneurs and managers are often so preoccupied with immediate issues that they lose sight of their ultimate objectives. Dealing with operational realities and making tactical decisions allows a company to remain in business but falls short of growing and continuously improving the business. Management is rarely aware of the importance of strategic planning for the company in today's competitive global marketplace. Although strategic planning may not be a recipe for success, without it a business is much more likely to fail. Strategic planning is important not only for the big IT businesses but is in actual fact critical for the survival of small IT businesses. Strategic planning provides many advantages. Planning avoids chaos by defining a cohesive approach to change. It allows the establishment of an environment to support operational planning and change. It drives resource allocation. It necessitates that an organization establishes feedback and correction mechanisms which are critical in measuring the success of a strategy. Planning provides a common direction for all members of the organization and a framework to ensure that decision-making is aligned to the strategic mission. Strategic planning today isn't what it was even ten years ago. IT industries have entered an era of hyper competition characterized by some very alarming hallmarks, such as:

- Escalation of competition due to new innovations that offer potential advantage.
- Customer power with diminishing loyalty to company and brand.
- Competitive strategies that aim at disrupting a successful business in destructive ways.
- Diverse global market players.

Several approaches and technologies have emerged in industry and academia that may be adopted to develop a strategic plan. Some of these are based on a process view of the IT business tasks while others propose frameworks, templates and accompanying standards for conceptualizing the relevant dimensions and contexts of a business strategy. Unlike the case of big IT businesses, effective strategic planning for small IT businesses must be adaptable, move and react rapidly, produce definitive output, and provide a practical context from which more detailed planning can evolve.

This contribution considers strategic planning processes, internal and external appraisals in terms of appraisals (strengths, weaknesses, threats and opportunities, i.e. SWOTs), business strategies and a strategic planning implementation specific to small IT businesses. A sound plan should:

- Serve as a framework for decisions or for securing support/approval.
- Provide a basis for more detailed planning.
- Explain the business to others in order to inform, motivate and involve.
- Assist benchmarking and performance monitoring.
- Stimulate change and become the building blocks for subsequent plans.

STRATEGIC PLANNING PROCESS

As discussed above, each small IT business exhibits characteristics in a specific growth stage as shown in Table 2. A small IT company, being in business to provide IT products and services, should perform strategic planning focused on both business and IT aspects. The strategic planning process is the first and most important step in business planning.[9] An entrepreneur, top managers or experienced strategic planning consultants are responsible for determining with which businesses to collaborate and which ones to avoid. The management team has to devote a great deal of effort, attention, and creativity to formulate different strategies to meet the company's goals. Strategic planning is a special kind of planning performed by the entrepreneur and business managers for the business.

There are several approaches that can be used for strategic planning by small IT businesses, such as the three step method of Hill and Jones[10], and Finkelstein's[11] general planning framework. Combining these approaches with the small IT business growth model in Figure 1, a strategic planning process model was developed as shown in Figure 2. In this model the entrepreneur and top managers gain an overview of the business planning process by analyzing and determining the company's stage of development and its' goals and objectives. Goals indicate the long-term success factors derived from the company's mission statement, whereas objectives tend to be somewhat shorter-term steps in the process of achieving these goals. A key property of goals and objectives is that they are measurable. Different stages have different critical success factors (CSFs) that must go well to ensure success.

After understanding the goals and objectives and having identified the business stage at which the company is, management must identify the strategies and plans that are currently being followed to achieve the company's goals. The strategy must take into account both internal and external factors. For the internal appraisal, it mainly considers the strengths and weaknesses in the inner company environment, and externally concentrates mainly on the threats and opportunities in the external business environment. The analyses will indicate the extent to which a strategic gap exists between the strategy being followed and the stated goals of the company. Following on the gap analysis all alternatives should be examined before setting a new direction for the company. A strategy selection is made to match the business environment and written into the strategic statements for execution. Results need to be constantly monitored to determine whether any modifications are required. The frequency of the iterative strategic planning cycle will depend on the degree to which the company is achieving its stated goals and objectives. The companies that do well at matching themselves with their internal and external environments will likely succeed. Those that do not will have considerably more trouble.[12]

Characteristics	Launch	Survival	Expansion	Maturity
Key Issues	Development of business "idea" Raising funds Obtaining customers	Generating revenues Breaking even	Managing and funding growth Obtaining resources Maintaining control	Expense control Productivity Consideration of diversification and other expansion
Employee Size	0 - 4	5 –19	20 -99	100 -500
Management Style	Entrepreneurial, individualistic, direct supervision, creative	Entrepreneurial, allows others to administer but supervises closely, provides direction	Delegation, coordination, but still entrepreneurial Monitoring	Decentralization, collaboration, reliance on others
Organization Structure	Unstructured, loosely connected	Simple, virtual	Functional, centralized, virtual	Decentralized functional/product
IT Product, Services/ Market	Single line, individual service and single market	Single line, team service and single market (possible global market) but increasing diversity	Wider IT product, service range and multiple markets including global market	Several product lines, service teams, multi-market and channels including global market
Main Sources of Funds	Owners, friends, relatives, government assistance, and Mini Loan	Owners, suppliers (trade credit), banks, government assistance, business incubator, loan	Banks, new partners, retained earnings, secured long-term debt, venture capital	Retained earnings, long-term debt, may be public shareholders, venture capital

Table 2. Small IT Business Characteristics

Porter's[13] framework of competitive strategy shown in Figure 3 is the most commonly accepted model for analyzing the competitive forces that influence most organizations. He suggests that identifying the relevant forces and enacting a strategy to weaken them can give an organization a strategic advantage. Most organizations tend to reflect only on the competition in terms of rivals within the same industry. Using this model allows a small IT organization to consider a wider range of factors than typically done when performing strategic planning.

LEVELS OF STRATEGIC PLANNING

One important aspect of strategic planning is recognizing the different levels at which strategies are formulated. The levels of strategic planning for IT businesses usually have three levels: corporate, business unit and functional. Most small IT companies in the launch and survival stages have very simple organization structures and even the companies in the expansion and maturity stages lack the comprehensive organization structures found in big IT companies. Therefor it is proposed that in the case of strategic planning for small IT businesses two strategy levels are adequate:

- An integrated organization and business-unit level strategy; and
- A functional level strategy.

Integrated Organization and Business Unit Level Strategy

Small IT companies are relatively simple, with the organization containing only a few business units. The strategic management process at this level establishes the strategy for all the organization and business units. The entrepreneur and top managers usually establish the strategy, set the objectives for and approve strategic decisions made at the functional level. Strategic decisions are usually medium to long-term, influencing the overall direction of the business, and involve large commitments of resources, especially financial resources. For a small IT business to remain a player in the fast changing IT environment of today it is sometimes critical to change direction at a given point.

Functional Level Strategy

Functional level strategy refers to the strategic management process within departments such as marketing, production, finance, professional services, research and development (R&D), human resources (HR) and teams and personnel based at individual companies. At this level the focus is on the efficiency and effectiveness of operational areas such as purchasing, delivering, maintenance, supporting and cost accounting. It is desirable to measure the results in quantifiable terms. Objectives and strategies are established for each function and center around implementing the strategies and fulfilling the objectives is the shortest possible timeframe.

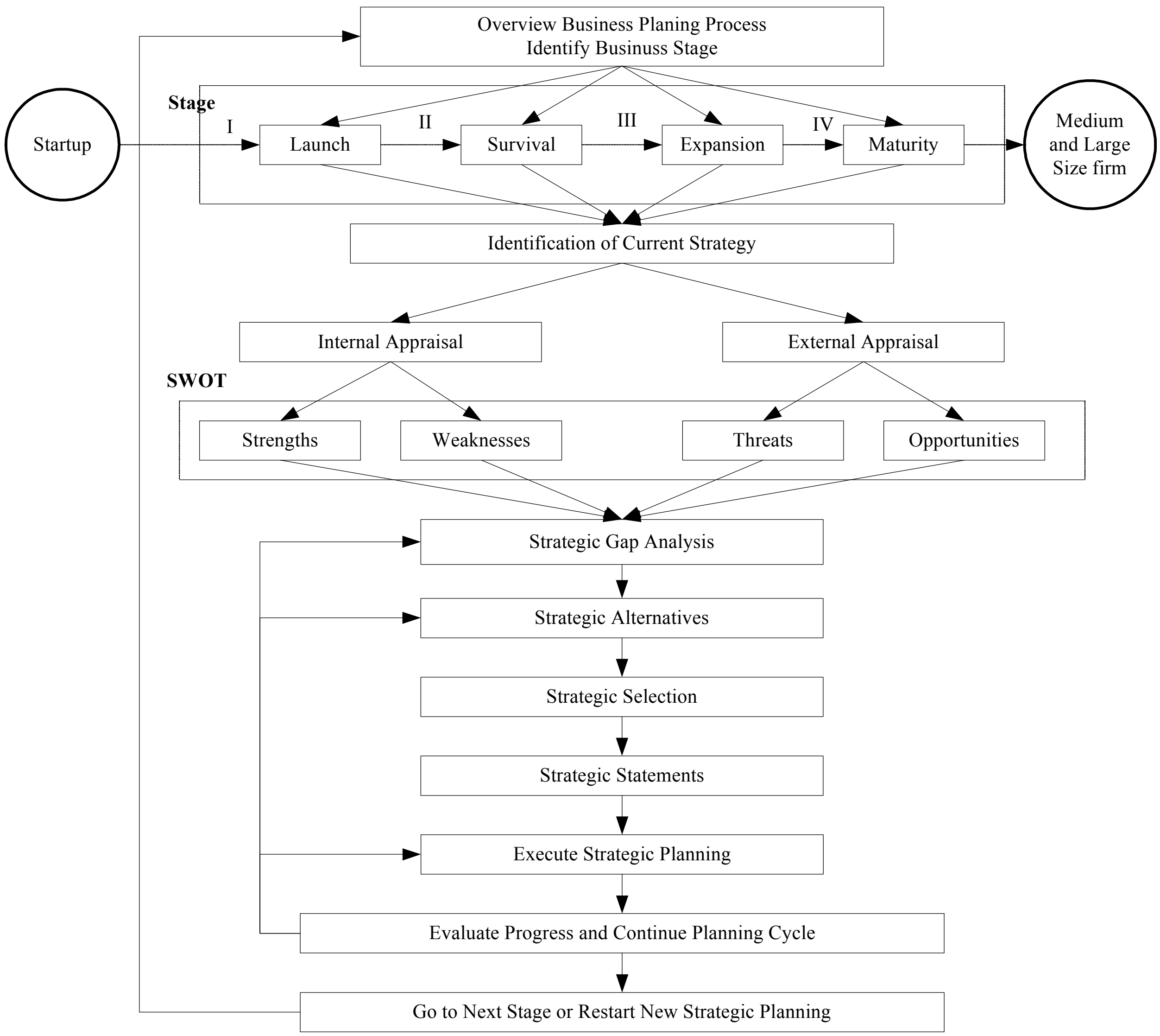

Figure 2. Small IT Business Strategic Planning Process Model

SWOT ANALYSIS

For small IT companies strengths and weaknesses are essentially internal to the organization and relate to matters concerning resources, programs and organization. What constitutes strength or weakness in one environment sometimes is the reverse in another. The external threats and opportunities confronting the small IT business can exist or develop in the following areas:

- Structural changes may be occurring such as market size and segmentation, changing growth patterns and maturity, established patterns and relationships, emergence/contraction of niches, international dimensions and relative attractiveness of segments.

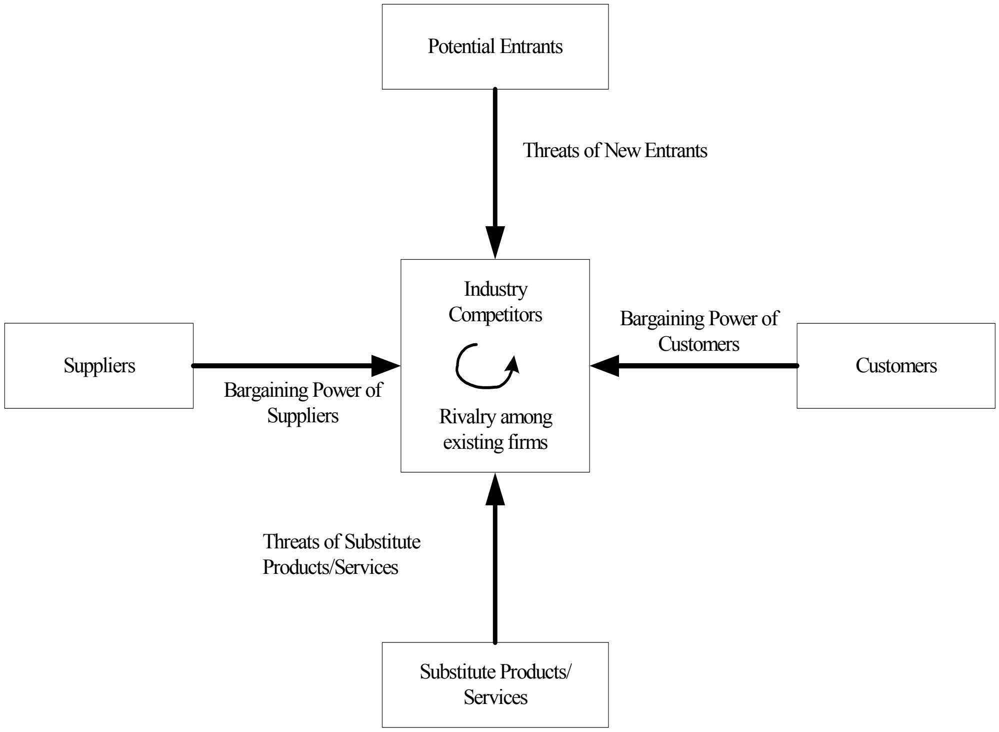

Figure 3. Porter's Framework of Competitive Strategy[13]

- The marketplace that may be altering due to economic or social factors such as customer base, distribution channels, economic factors, social/demographic issues and political and environmental factors.
- Competition that may be creating new threats or opportunities such as new entrants or withdrawals, enhanced performance, changes in market share, new initiatives, targeting and price-cutting.
- New technologies that may be causing fundamental changes in products and processes such as substitute products, alternative solutions, shifts in service channels such as outsourcing and cost savings.

Again the threat for one company may be an opportunity for another. A broad-based SWOT analysis for IT companies reveals the most likely characteristics of the various stages of development.

STRATEGIES FOR SMALL IT BUSINESSES

Common SWOTs for small IT companies in each of the growth stages have been identified and presented in Table 3. Performing the SWOT review reveals the future strategy, or as is more likely, a series of strategies or combination of tactics will present themselves. Use the SWOTs to help identify possible strategies: Build on strengths; Resolve weaknesses; Exploit opportunities; and Avoid threats.

The resulting strategies can then be filtered and molded to form the basis of a realistic strategic plan. There are many strategies a small IT company might choose. Several of the most widely accepted strategies, also applicable to small IT businesses, are summarized below and serve as background for interpreting Table 4.

- Generic strategies: The three broad categories are cost leadership, differentiation, and focus on a niche market.[14]
  - Cost leadership occurs when a business strives to have the lowest costs in the industry. Most companies in the resource industry base their strategies on cost leadership since the prices of the products are often established in markets over which they have no control.
  - When pursuing a strategy of differentiation, an organization tries to provide goods or services that are distinctive from those of its competitors. Many consumer product organizations try to differentiate, or distinguish, their products from others through distinctive advertising or packaging.

SWOT	Launch	Survival	Expansion	Maturity
Strengths & Weaknesses (SW)				
Management	Entrepreneurial, individualistic, direct supervision	Entrepreneurial, allows others to administer but supervises closely	Delegation, coordinative, but still entrepreneurial Monitoring	Decentralization, reliance on others
Operations	Basic	Integrated	Adaptable	Complex
IT Products and services	Single line, individual service Hard to adapt product to meet customer needs Quality limited	Single line, team service but increasing diversity Quality limited	Wider IT product, service range Good quality	Several product lines, service teams Quality Control
Finances	Weak skills in accounting and finance Lack of working capital Lack of budgetary control and planning	Weak skills in accounting and finance Lack of working capital	Proper skills in accounting and finance General rise in costs	Good skills in accounting and finance Extended lines of credit
R & D	Very little	Limited	Moderate	Strong
Sales	Limited	Adequate	Strong	Strong
Costs	Low	Moderate	High	High
Systems	Lack of IT facilities	Limited IT infrastructure	Defined IT architecture	Managed Enterprise system
Main Sources of Funds	Owners, friends, relatives, government assistance and Mini Loans	Owners, suppliers (trade credit), banks, government assistance, business incubator, loans	Banks, new partners, retained earnings, secured long-term debt, venture capital	Retained earnings, long-term debt, may be public shareholders, venture capital
Threats & Opportunities (OT)				
Marketing	Single market Difficulty in marketing IT product and service	Single market (possible global market)	Multiple markets including global market	Multi-market and channels including global market
Organization Structure	Unstructured, loosely connected	Simple, virtual	Functional, centralized, virtual	Decentralized, functional/business units
IT industry environment	Local	Local and limited global	Local and global	Local and global
Competition	Limited	Moderate	Strong competition from large companies and competitors	Hyper competition from large companies and competitors
New technologies	Easy to adopt new technologies	Easy to adopt new technologies	Moderate adaptability to new technologies	Moderate adaptability to new technologies, innovation
Outsourcing	Contract consultants	Support, services	Professional services, Global outsourcing	Professional services, Global outsourcing
Human resources	Few IT experts Consultants	IT specialist team IT engineers Consultants	IT R&D, IT engineers, Professional solution team, Sales	Marketing team, R&D, engineers, Professional solution team, workers

Table 3. Small IT Business SWOTs

   - When a focus, or niche, strategy is used, the business concentrates on serving a particular market segment, or niche. The company choosing the focus strategy might be able to establish its niche on the basis of either cost leadership or differentiation.

- Internal Growth Strategies: Market penetration occurs when an enterprise tries to increase the market share of its existing products or services in their present markets, usually through greater marketing efforts. By contrast, market development means introducing existing products and services into new geographic areas. Most Internet-based IT companies are running their businesses without any borders and can use it as a growth strategy. Product and service development takes place when enterprises attempt to increase the sales by improving their existing products or services for either existing or new customers.
- Integration Strategies: Vertical or horizontal integration. With vertical integration the corporation can seek ownership or control of a supplier, or it can seek ownership control over a company's distribution or retailers. Horizontal integration occurs when a company purchases or increases control over another enterprise in the same business (i.e., a competitor).
- Diversification Strategies: Concentric diversification involves adding new but related products or services to an existing business.
- Collaboration Strategies: Because small IT businesses have become increasingly dependent on the networks and the Internet, collaboration with successful small IT retailers, IT professionals and IT service businesses should be pursued.
- Cooperative Strategies: Joint ventures, alliances, networks, strategic partnering, and strategic networks. These strategies have become popular in the past decade. In each case, enterprises establish a collaborative arrangement for sharing or splitting managerial control in a particular undertaking.
- Stabilization and Retrenchment Strategies: Designed to maintain revenues and profits through asset reduction or cost cutting.

Particularly appropriate for an IT company is to adopt a just-in-time strategy that can deal with the following issues in an efficient and effective manner: Exploiting new technological innovations while still delivering instant business solutions to impatient users; Balancing long-term investment decisions against the pressure to demonstrate immediate return on investment; Integrating multiple, often competing, strategies that grew independently in response to various IT needs.

- Innovation strategies: The means by which enterprises create wealth. Enterprises that learn how to integrate innovation into strategy, and strategy into the process of innovation, will gain a competitive advantage and optimize the enterprise's creation of wealth. There are seven basic innovation strategies, namely customer, competitor, technology, stakeholder, project, resource, and culture-driven.[15]
- E-Commerce Strategies: Changed the business model and enabled most of the non-IT companies to improve their business processes. They are also good strategies for small IT businesses. The most used e-commerce strategies are B2B and B2C for online business that can result in cost-cutting and expansion of market scope.

Each small IT company is at a particular stage of growth and can choose to adopt its strategies selectively. Table 4 shows the possible selection for each growth stage.

IMPLEMENTING STRATEGIC PLAN

Once the small IT business has formulated its strategic plan, it must be implemented. How to convert their strategic thinking into action is a challenge for them since changes might be introduced to the business, and change tends to meet with resistance from employees. Potential opposition must be addressed before implementing the strategic plan. Implementation usually requires a series of medium-term tactical plans and even more specific and focused operational plans. The tactical plans are the intermediate action plans for achieving strategic goals, whereas the operational plans are detailed short-term project plans for performing specific tasks indicated in the tactical plan. The most important issue is that the entrepreneur and top management should monitor the implementation of the strategic plan and determine its effectiveness in guiding the organization to achieve its objectives. It follows that all tactical and operational plans should be monitored in terms of measurable outcomes. Once an operational project has been completed its outcomes must be validated against the project objectives and the tactical plan updated accordingly. Similarly the realization of the tactical objectives must be aligned with the strategic plan. In this way it is possible to control the strategic direction of the organization. The need for control of the implementation is paramount to the business' success as problems become apparent and require that the strategic plan be modified.

Strategies	Launch	Survival	Expansion	Maturity
Generic	x	X	x	x
Internal Growth	x	x		
Integration			x	x
Diversification		x	x	x
Collaboration			x	x
Cooperative		x	x	x
Stabilization and Retrenchment			x	x
Just-in-Time	x	x	x	x
Innovation		x	x	x
e-Commerce	x	x	x	x

Table 4. Some Well-known Strategies for Small IT Business

CONCLUSION

In the last few years, the worldwide IT industry suffered its largest decline. This, along with the high failure rate of IT companies, entrepreneurs and top managers should be acutely aware of the importance of strategic planning. The apparent absence of adequate strategic planning probably relates to the rapid changes that occur within the IT industry and the entrepreneurial nature of its management giving rise to an undisciplined and informal approach to management, especially in the early years after startup. Add to this how intimidating a full blown strategic planning model must be to someone who has had little or no formal financial or business training, it is no wonder that they shy away. The approach presented in this paper suggests that strategic planning need not be such a formidable exercise and that it lies well within the capabilities of small IT companies to perform. Just the fact that an entrepreneur(s) launched a new venture indicates that they probably have a fairly sound understanding of their business environment and are capable of compiling an action plan and performing SWOT analysis for their businesses. If the action plan incorporates the "what?", "why?", "who?", "when?" and "how?" for each action it will provide the answers to the company's stage of development, goals and objectives, critical success factors, and clarify its current strategy. Comparing this understanding to the results of the SWOT analysis will indicate whether a strategic gap exists and whether alternative strategies need to be considered. Progress can be monitored by recording revenue to measure growth, margin as an indication of profitability, and cash flow as a measure for sustainability or survival. Formal financial accounts, once they are available, should be used to determine actual return on investment and the actual success of an IT company.

The outcome of this research project is derived from considerable practical experience, but has not been put to the test. This research project forms part of an ongoing research program in the field of management in information technology. The proposed approach to strategic planning will be empirically validated in the next phase of the project.

REFERENCES

1. U.S. Small Business Administration (2004), What is small business? http://www.sba.gov/size/.
2. North American Industry Classification System (NAICS) (2004) http://www.census.gov/epcd/www/naics.html.
3. Statistics of U.S. Businesses (2001) http://www.census.gov/epcd/susb/2001/us/US--.HTM#table1.
4. SBA Office of Advocate, Economic Statistics and Research (2004) www.sba.gov/advo/stats.
5. U.S. Census Bureau (2004) Statistics of U.S. Businesses: 1998 – 2001, Information United States http://www.census.gov/epcd/susb/1998-2001/us/US51.HTM.
6. Scott, M. and Bruce, R. (1987) Five Stages of Growth in Small Business, *Long Range Planning*, 20, 3, 45-52.
7. Greiner, L. E. (1972) Evolution and Revolution as Organizations Grow, *Harvard Business Review*, 50, 4, 37-46.
8. Almus, M. and Nerlinger, E.A. (1999) Growth of new technology-based firms: Which factors matter? *Small Business Economics*, 13, 2, 141- 154.
9. Griffin, R. W. and Ebert, R. J. (2003) Business, Prentice Hall, 136.
10. Hill, C. and Jones, G. (1989) Strategic Management: An Analytical View, Houghton Mifflin.
11. Finkelstein, C. (1992) Strategic Systems Development, Addison-Wesley.
12. Kiechel III, W. (1988) Corporate Strategy for the 1990s, *Fortune*, February 34-42.
13. Porter, M.E. (1980) Competitive Strategy: Techniques for Analyzing Industries and Competitors, The Free Press.
14. Griffin, R. W. and Ebert, R. J. (1993) Business, Prentice Hall, 143 -144.
15. Schumann, P. and Prestwood, D. (1994) Innovate, McGraw-Hill.