



AFTER A YEAR OF CHANGE
The 2001 Small Business Environmental Scan

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The 2001 Small Business Environmental Scan

INTRODUCTION

The annual environmental scan produced by the University of Missouri Outreach and Extension Business Research Information and Development Group (BRIDG) identifies and addresses major issues driving change for Missouri small businesses and entrepreneurs. The report has three primary objectives:

1. Provide guidance to those who create, deliver and administer programming designed to benefit Missouri's small business community;
2. Inform those who make and execute public policies relevant to the health and success of Missouri's small businesses; and
3. Educate the public about the significant contribution of small business to the state's economic and social health.

This is the fourth report in a series that provides an overview of issues and identifies challenges critical to the small business and entrepreneurship community in the state. As an environmental scan, it raises the level of discussion about the everyday affairs of small businesses and identifies emerging patterns and approaching changes that have the potential to impact Missouri's small business community in the next two to four years.

BRIDG performs this scan with the assistance and through the eyes of a wide range of people and organizations that continuously have their eye on the small business environment. These "industry watchers" include experts in public agencies, trade and professional associations, academic, corporations and a few "unaffiliated" individual scouts. Each contributor brings a unique perspective to help with the learning process. By casting this wide and inclusive net, BRIDG strives to present a representative sampling of what seems to matter to the companies and individuals in the small business community.

The Role of this Report

This series of reports is a constantly evolving one. The structure and focus of each succeeding report will build upon predecessors, but they will change to meet the requirements of mid- and long-range projections of issues significant to Missouri's small businesses and entrepreneurs. It should be noted that few topics that figured prominently in the last version of this report might appear to have decreased in significance in this edition.

Principal among these is globalization. This is not to imply that globalization and its increasingly interconnected and interdependent markets for goods, services, labor and capital are less relevant to American small businesses and entrepreneurs than they were two years ago. On the contrary, most American small businesses with markets and supply chains extending beyond their immediate communities will be increasingly affected by the dynamics of an interconnected world economy and global markets. Yet, in the last year of sharp, disturbing changes as discussed throughout this report, business owners and managers and

those who collect and analyze their thoughts and opinions have focused more on those immediate changes and defensive reactions to them.

THE DISCONTINUITIES

Within the past few years, several major disruptions hit the national economy and the environment in which small business operates. Each has the potential to have a dramatic impact on individual businesses and business formation. Taken together, they equal a period of profound change. Separately, they may appear to be less about changing circumstances and more about changing perception of circumstances. Some of them, in time, may reveal themselves to be of relatively short duration.

This series of reports focuses upon trends and issues of sufficient duration and lead time to allow for meaningful responses by businesses and those who serve them. Some of these changes may fail that test. But examining them can help clarify changes that occur cyclically in the affairs of business.

The Dot-Com Collapse

The past few years witnessed the last phases of expansion and rapid collapse of a pervasive enthusiasm for Internet-based business concepts and business formation. As this enthusiasm prevailed and since its ending, many observers viewed this phenomenon as a classic economic bubble – a bubble that coincided with a suddenly available and rapidly evolving new technology – the Internet and the World Wide Web.

As with other suddenly available technologies, these were seen as presenting unimaginable opportunities to structure business activity and create wealth for business owners. As with other periods of similar exuberance, capital of all kinds – financial, intellectual and human – was invested in the promise of unprecedented return. Much of the return was unrealized and the capital lost.

The cycle affected small business in a number of ways. The expansion led to a rapid growth of Internet-based business formations and subsequent failures. It channeled a great many resources, skills and jobs into a very limited part of the economy. It gave great urgency to the need to integrate these technologies and processes into conventional businesses. But when the dot-com bubble burst, the urgency was removed.

The cycle's longer-term consequence was a forced acceleration in ways small businesses assess their abilities to benefit from a new technology. As the enthusiasm for the technology grew, businesses came to feel that the rules for business had changed and that it was imperative for them to change to survive.

A New and Short-Lived Energy Crisis

Sudden spikes and chasms in energy costs and volumes have marked the past few years. As the legislated deregulation of many energy markets moved forward in a somewhat piecemeal fashion, energy customers suddenly found themselves confronted with unimagined costs and apparently uncertain supplies.

Early in 2001, the annual Dunn and Bradstreet survey found rising fuel costs high on the short list of the greatest problems facing small businesses (Dunn and Bradstreet 2001). This period coincided with unprecedented cost spikes and rolling blackouts in newly deregulated energy markets in California.

In retrospect, more recent trends such as the collapse of Enron and its apparent involvement in some of the excesses of energy deregulation efforts have eased some of the concerns found earlier in the period (Dunkelberg and Chamberlain 2001). The anxiety about the cycle seems to have been short-lived.

What is pertinent to small businesses is the cyclical nature of energy costs and the long-term planning companies can use to hedge against it. Energy is one of the most critical inputs for many small businesses and industry segments. From this last cycle, small firms should learn that costs and to some extent supplies should be expected to fluctuate in unpredictable ways.

Owners and managers can make adjustments in operations, processes and management to optimize energy use and minimize energy cost spikes. Investments in efficient plants and equipment, implementing efficiency practices, optimizing energy purchase economies and budgeting for contingencies can smooth out spikes for companies otherwise vulnerable to both conventional and evolving energy markets.

The Business Cycle Reappears

Since the last report in this series, the U.S. has experienced what has been identified by various experts as a slowdown, a recession and a downturn. This came at the end of a period of unprecedented business growth and economic expansion. During the expansion, many of the concerns identified as significant by small business reflected the expansion: tight labor markets, rising costs, the need for capital for growth (Perchloff and Hexter, 2000). As the expansion slowed, concerns with shrinking industrial markets and falling prices took prominence.

The conventional business cycle reappeared. Small businesses were forced to confront the normal rise and fall that periodically adjusts capital and other markets in the United States. Because the expansion had been of such a long duration, many firms were too young to have experienced the previous decline in the cycle. As a result, many were unprepared for its effects.

What the apparent re-emergence of the cycle should do is reawaken businesses and business assistance providers to its reality and to the need to structure operations and management processes to be better prepared for both sides of the cycle.

Terror, War and National Emergency

One constant theme since Sept. 11, 2001, is that everything has changed and that nothing would ever be the same. Indeed, the terrorist attacks and the resulting limited mobilization, war, recurring alerts and overall sense of national emergency have birthed a dislocation that seems nationwide and economywide. There is no doubt that businesses in general and small businesses in particular have been impacted in a variety of ways.

Many companies suffered directly from loss of employees, destruction of facilities, loss of customers, loss of suppliers and destruction of supporting infrastructure. Many others suffered more pervasive disruption in supply chains, infrastructure, financial markets, customer confidence and other less immediate areas. Some sectors, such as travel and tourism, suffered dramatic losses.

It is generally assumed that most of these effects will be temporary. Perhaps what will be less temporary is the sense of vulnerability engendered by the attacks and forced upon businesses in ways too compelling to ignore. Barring additional destructive attacks, a more general mobilization for war, fundamental reorganizations of social and political compacts or collapse of financial systems, it will probably be this awareness of vulnerability that is the longest lasting aftereffect.

Vulnerability is nothing new for small business. What is new is a more universal awareness of it and the resulting re-examination of business environments and processes in its light. Small firms, for example, are encouraged to review their risk management processes, their data systems integrity, the robustness and redundancy of their supply chain and their employee safety and health procedures in the light of this new reality.

In the time since the attacks, there has been surprisingly little written about their impact on small business. Assistance programs have been rolled out on regional and national levels. Chief among the roles this assistance can play is to help companies understand the vulnerabilities they now face as a result of a more dangerous world. Armed with that understanding, small firms can be supported in creating processes to minimize their risk.

REGULATION

Regulations and the often burdensome obligations of corporate citizenship continue to be a concern of small business. Regulations impose costs on all businesses that comply and the threat of penalties on all businesses that do not. A small business must operate within a more or less regulated arena with more or less stringent limits placed on its actions.

It appears the urgency of these concerns has diminished somewhat among small business owners. This diminution is probably not due to any significant relaxation of governmental

requirements. Rather, it is probably the case, as discussed above, that other factors including economic slowdown, energy concerns, war and terror have captured the attention of business owners.

Beyond that, the new national administration offered at least the anticipation of some diminishment of governmental burden on small businesses. Some early, high-visibility changes in environmental and workplace safety regulations appeared to justify this anticipation. On the other hand, since September 11, 2001, the business community has found a markedly activist government response to the attacks and the dramatic increase in mandated security measures.

The cost of regulation is nearly 60 percent higher per employee for small businesses than for large ones.

Whatever the immediate situation, it is probably fair to say that the relations among small business and the many levels of government will continue to be fraught with dissatisfaction. A recent study for the SBA Office of Advocacy on the issue (Crain and Hopkins, 2000) points to a continuing disparity between the cost of

regulation born by small and large businesses. According to this study, the cost is nearly 60 percent higher per employee for small businesses than for large ones. Among the compliance costs for small businesses, environmental regulations and the paperwork burden of tax preparation impose not only the greatest costs (40 percent of total compliance costs) but also impose those costs most inequitably on small firms.

Table I Regulatory costs by firm size

Type of federal regulation	Annual cost per employee			
	Fewer than 20 employees	20 to 499 employees	500 or more employees	All firms
All federal regulations	\$ 6,975	\$ 4,319	\$ 4,463	\$ 4,722
Environmental	\$ 3,328	\$ 1,173	\$ 717	\$ 1,213
Economic	\$ 1,616	\$ 1,648	\$ 2,485	\$ 2,065
Tax compliance	\$ 1,202	\$ 625	\$ 562	\$ 665
Workplace	\$ 829	\$ 873	\$ 698	\$ 779

Source: Crain, W. Mark, and Thomas D. Hopkins, *The Impact of Regulatory Costs on Small Firms*, U.S. Small Business Administration, Office of Advocacy, 2001.

Another study (Peterson, 2001) sheds additional light on the disproportionate regulatory burden. Peterson sought to understand how aware small business managers are of key federal regulations. An adequate understanding of these issues is crucial to small firms as

Small service company managers are in need of additional education and training about federal regulation.

they form strategies and tactics, hire and fire employees, work with competitors and suppliers, advertise, undertake sales promotions, set prices and deal with a wide range of human resource issues. The study found managers' understanding of many key laws deficient across most small business industry sectors. Particularly noticeable, however, was

managers' lack of awareness within the non-professional service sector. The study concludes that small service company managers are in need of additional education and training about federal regulation. Such training should possibly include state and local requirements as well.

Another issue of significance to many small firms involves apparent or real changes in federal procurement practices. An article on the subject (Burman, 2001) notes that although these reforms were designed to streamline many of the processes that had come to be seen as rule-bound and inefficient, many small firms are concerned that these reforms will result in their being shut out of the lucrative federal marketplace.

WORKFORCE

Since the last version of this report, workforce issues have remained of importance or risen to new prominence for small businesses and those who assist them.

Labor Market

Many of the trends and projections discussed in the last report occurred in a context of a vibrant, expanding economy and an increasingly tight labor market. The concerns of small businesses discussed in that report were tied to the dynamics of expansion. The slowdown that occurred since that time has wrought considerable changes in the labor market.

Even with the slowdown, however, there remains some tightness in the labor market. In a recent survey by the National Federation of Independent Business (Dennis, 2001a), 71 percent of the small firms surveyed reported difficulty in hiring good employees, and 66 percent reported leaving positions unfilled for want of good candidates. While these figures are lower than in recent, similar surveys, they still indicate stress on small firms. That stress is handled in a number of ways.

Unfilled positions have led to additional hours of work for small business owners, as well as increases in overtime.

Dennis found that small firms overwhelmingly turned to retention strategies (84 percent) and/or additional employee training (64 training) in order to compensate for shortages of qualified job applicants. Additionally, he found that in 83 percent of the responding companies, unfilled positions led to additional hours of work for owners. Likewise, 62 percent of responding firms reported increased overtime.

Table II Distribution of private small firm employees by industry in 1998

Industry sector	Fewer than 10 employees	10 to 24 employees	25 to 99 employees	100 to 499 employees	500 or more employees
Agriculture, forestry and fishing	6.1%	3.6%	1.9%	1.3%	0.4%
Mining	0.2%	0.5%	0.4%	0.6%	0.7%
Construction	13.4%	11.6%	9.4%	5.9%	1.8%
Manufacturing	5.1%	10.4%	17.0%	26.9%	23.4%
Transportation, communications, and public utilities	3.8%	4.1%	5.5%	5.7%	9.8%
Wholesale trade	3.9%	5.7%	6.5%	5.5%	3.4%
Retail trade	19.3%	25.1%	19.4%	11.7%	25.3%
Finance, insurance, and real estate	6.2%	5.2%	5.2%	6.7%	9.3%
Services	42.0%	33.9%	34.7%	35.6%	26.0%

Source: Headd, Brian, "The Characteristics of Small Business Employees," *Monthly Labor Review*, April 2000, p. 17

While the slowdown has eased some employee retention problems, one study (Phillip M. Perry, 2001) has found a surprising amount of employee mobility among highly talented personnel. Perry feels that this mobility is a lingering effect of the highly mobile culture of high-growth Internet and similar firms of the last several years. While much of the labor market has cooled off, Perry feels that the culture of mobility of the most valued personnel has become a permanent feature in some parts of the economy. Such personnel have been found to be a key strategic advantage in high-performing companies (*Human Resource Department Management Report*, April 2001), and companies seeking to maintain that advantage would do well to ensure retention through providing value to them. While this can be done in a number of formal and informal ways to be discussed below, Perry feels it is critical that such employees are not only well paid but also allowed to pursue achievements in their field and to take entrepreneurial leads on internal projects.

Demographics/Diversity

The overall workforce is becoming increasingly diverse, and the small business workforce is changing along with it. Some demographic differences can be found between the two groups.

According to the SBA Office of Advocacy (Headd, 2000), small business employees tend to be more white and Hispanic and less African-American, Asian or female than employees of large companies. Small businesses employ a greater share of the youngest and oldest workers, a larger share of part-time workers and a smaller share of high school graduates than do large companies.

In the light of the increasing diversity of the workforce and continued constraints on filling all positions, industry leaders believe that success for manufacturers depends on widening the pool of talent, creativity and experience (Jasinowski, 2000/2001). Such widening must extend to previously untouched human resources such as former welfare recipients.

Table III Demographic characteristics of small firm employees in 1998

Firm size by number of employees	Women	White	Black	Asian	Hispanic
Fewer than 10	46.8%	86.8%	7.9%	5.3%	12.8%
10 to 24	44.1%	87.1%	8.7%	4.2%	12.4%
25 to 99	43.7%	85.0%	10.7%	4.3%	12.2%
100 to 499	46.2%	84.0%	11.8%	4.2%	11.5%
500 or more	48.1%	81.7%	13.3%	5.0%	9.0%

Source: Headd, Brian, "The Characteristics of Small Business Employees," *Monthly Labor Review*, April 2000, p. 14

Though the workforce is widely seen as becoming more diversified, there is a surprising lack of interest in diversity-related training (AMIP, 2001) among companies with otherwise forward-looking training programs.

Benefits and Incentives

Benefits and incentives have become a widely agreed-upon method of overcoming some of the difficulties in recruiting and retaining quality employees. These benefits and incentives can be either formal or informal.

On the formal side, health insurance benefits are the most important to employers and employees. One study (Miller, 2001) found a significant increase in the number of small companies providing health insurance. According to the Kaiser Family Foundation, between 1998 and 2000, the number of companies with between three and nine employees providing health insurance was found to have increased from 49 percent to 60 percent. The number with between three and 199 employees rose from 54 percent to 67 percent. Of the companies offering health insurance as a benefit, 75 percent said it helped with recruitment. Another study (Glover et al., 2000) found that companies offered health benefits to attract and retain employees, to respond to demand by employees, to deal with a tight labor market or to get affordable coverage for the employer's family.

The successful implementation of informal employee benefits systems demands intelligent planning and a human resource function willing to stretch the boundaries of employee relations.

Informal benefits cover a wide range of relationships between firms and their employees. Many have to do with greater levels of employee flexibility and autonomy (Kickul, 2001). Many benefits of this sort are not directly negotiated but more or less implicitly

communicated to employees. Others are more explicit, directly communicated and negotiated. These can include agreed-upon growth-centered incentives (Chalmers, 2001), allowance for personal development within the field and opportunities for entrepreneurial activity within the firm (Phillip M. Perry, 2001). In the case of all such indirect benefits, employers are advised to communicate the company vision, hire strategically, empower employees and personalize rewards (*Human Resource Department Management Report*, April 2001).

Another facet of the evolving relationship between firms and their employees, particularly technical employees, is the increasing growth of telework. One recent study (Kistner, 2001) found a large increase in the number of small firms hiring both full- and part-time teleworkers. The study predicted that between 2000 and 2004, the number of teleworkers would increase from 19 to 39 million. As with any alternative relationship with employees, telework, license for entrepreneurship, autonomy and alternate reward structures must be carefully managed. Their successful implementation demands intelligent planning and a human resources function willing to stretch the boundaries of employee relations.

Training

Employee and management training continues to be a key concern for small business. A recent survey of more than 11,000 small business owners and managers with internal training programs (Continuous Learning Group, 2001) found that training is increasingly seen as a mechanism to overcome difficulties caused by tight job markets.

Companies encountering difficulties finding good, new employees are turning to training to eliminate the deficiencies of their workforce. Additionally, owners feel a company's ability to adapt and exploit training can be a source of strategic advantage. The survey found the greatest need for training in areas of job-specific skills, managerial or supervisory skills and computer literacy and applications.

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Despite the acknowledged need for training, the survey found relatively little growth in investment in training as well as a continuation of the disparity between the large and small firm's levels of training investment. Much of this low investment can be attributed to the inability to formalize programs, the difficulty in getting access to qualified trainers and a lack of time to develop programs internally. Additionally, employer attitudes explain some lack of commitment to training. The study found, for example, that many owners appeared to feel that current training needs would somehow disappear over time. It also found a pervasive lack of interest in evaluating training effectiveness. Finally, despite an increasingly diverse workforce, employers had little interest in providing diversity training.

One option to help employers overcome some of the barriers to successful employee training is a training consortium. A brief report on the topic (*Managing Training & Development*, Oct. 2001) found that these pooled, inter-firm programs could help firms leverage investment in internal training departments. Consortia, often consisting of firms within a single industry,

allow for considerable leverage of internal training investment. Their success depends on a clearly defined structure and mutually agreed upon individual roles and responsibilities.

Table IV Selected results from the American Society for Training and Development 2001 state of the industry report

Employee training-related measure description	Percent/Amount
Percent of U.S. companies that provide employee training	78%
Average amount spent on training per employee	\$677
Portion of training conducted electronically, for the average firm	8.4%
Portion of training conducted in the classroom	79.9%
Most common types of training	Technical processes and procedures (13%) Professional skills (11%) Interpersonal communications (9%) New employee orientation (9%) IT skills (9%)

Source: "Training is Up, Especially in Technical Areas: ASTD," *HR Focus*, May 2001, p. 8.

Another training mechanism of growing significance to small businesses is e-learning. A recent study (Tyler, 2001) has found that electronic learning in many formats is becoming increasingly attractive to small firms. E-learning is found to save a great deal in travel and opportunity costs and offers far greater flexibility in training options including on-demand training, greater variety and options for customization and modularization. Owners and managers of companies with identified training needs are strongly urged to keep abreast of the rapidly growing options both for themselves and for their employees. A survey of 795 growth-oriented companies (*Sales & Marketing Management*, 2001) found that 44 percent reported using the World Wide Web to facilitate employee telecommuting.

E-COMMERCE AND E-BUSINESS

The impact of the Internet and networking technologies on small businesses has been treated as an issue of critical importance in each previous version of this report. The Internet has permanently changed the landscape within which nearly every company does business. Discussions of e-commerce and e-business are combined into a single category in this section. In the broadest sense, this section addresses the use of technologies of interconnectivity to facilitate and streamline business practices and processes. Where these practices and processes involve actual transactions occurring in an electronically mediated environment, it is referred to as electronic commerce. Where they involve all other basic functions of business management, it is referred to as electronic business. Clearly, in many instances, there is overlap between categories.

During the last phase of a widespread exuberance about e-commerce, we heard of the promises of unlimited opportunity for new business concepts and the devastating threats to conventional businesses posed by e-commerce. The period witnessed the creation of a staggering number of new companies, both actual and virtual. To a considerable extent, this entrepreneurial spurt was facilitated and driven by the sudden availability of rapidly evolving technologies and vast stores of capital invested with unfounded expectation of undeliverable returns.

At the time, many saw the episode as a classic bubble in the long-term development of the world's economy. The bubble bursting had many costs. One of these can be measured in terms of lost investments and lost value. The loss continues, though at a far slower pace.

The dot-com collapse prompted changes in the attitudes of existing businesses...toward moving into e-commerce and e-business. However, e-business is a necessity for any business that seeks to remain competitive in the changed economic landscape.

Another cost can be seen in a general unwillingness on the part of businesses and investors to re-engage with the realities of an evolving digital economy. Such reticence is certainly understandable. Venture capital sources were badly injured by the collapse of the dot-coms. They are now operating with a clearer eye on realistically projected earnings and sound business models.

The collapse prompted changes in the attitudes of many existing businesses, especially small ones, toward moving into e-commerce and e-business.

According to a study of Canadian small businesses and their incorporation of e-business (*Canadian Business*, November 2001), the fluctuations in dot-com valuation left some with the impression that e-business was a spent force, an overhyped phenomenon that had reached its peak and was declining. Many businesses (including many U.S. businesses) felt relieved of the burden of change by the collapse. But, according to the report, what the 'market froth' of the collapse is obscuring is a very fundamental and long-term shift in the economy. It concludes by affirming the necessity of incorporating e-business and e-commerce processes and thinking into the operations of any business that seeks to remain competitive in the changed economic landscape.

Table V Selected results from recent small business Internet usage surveys

Measure Description	Percent
Percent of small businesses that have integrated the Internet as a tool ¹	66%
Percent of small businesses that feel using the Internet positively affects the "bottom line" ²	61%
Percent of small businesses that indicate a web site is essential in 2002 ²	77%
Percent of small businesses that wish they established a web site sooner ²	60%
Percent of small to mid-size businesses that have a comprehensive disaster recovery plan in place ³	35%
Percent of critical Internet downtime caused by people or process failures ³	80%
Percent of critical Internet downtime caused by technology failure, environmental failure, disaster ³	20%
Common small business Internet activities ¹	Travel planning (36%) Purchasing (36%) Online market research (34%) Marketing/advertising (29%) Networking with other entrepreneurs (24%) Managing accounts and making payments (16%)

Notes:¹ Based on responses to the OPEN Small Business Network 2002 Monitor survey, which were summarized in the source article.

²Based on responses to a survey conducted by Lewis, Mobilio & Associates, which were summarized in the source article.

³Based on responses to a survey conducted by Garter Inc., which were summarized in the source article.

Source: Greenspan, Robyn, "Small Biz Benefits from Internet Tools," Cyberatlas, Mar. 28, 2002, http://cyberatlas.internet.com/markets/smallbiz/article/0,,10098_1000171,00.html

Several studies confirm the urgency of the continuing trend toward e-commerce and e-business. In one, the U.S. Small Business Administration's Office of Advocacy (2000) conducted a major survey of small business expansion into e-commerce. Much of the survey work for this study was conducted during the dot-com buildup, and the results may be somewhat tinged by the enthusiasm of that period. Nevertheless, the results are worth considering. It found that small business spending on information technology and Internet-related products continues to increase.

85 percent of small businesses intend to be conducting some business on the Internet by early 2003.

According to the survey results, 85 percent of small businesses are expected to be conducting some business on the Internet by early 2003. Small businesses' connection to Internet services was most often provided by local Internet service providers (ISPs) -- themselves small businesses -- with most having fewer than 12 employees. In 2000, there were 7,100 local ISPs, a 41 percent growth in one year. The survey found that smaller firms were investing more aggressively in information technology (IT) than larger ones. And it found that business-to-business (B2B) e-commerce was anticipated to

continue to grow for businesses of all sizes. It estimated that electronically facilitated B2B commerce will account for 24 percent of total B2B sales by 2003, and e-commerce sales to other businesses will continue to increase at a rate of 41 percent through 2005.

Some more recent statistics on small business Internet use come from a major study by the National Federation of Independent Business (Dennis, 2001b). This study found that 84 percent of small firms employ IT in their businesses. Interestingly, this figure has been

Small business spending on web site establishment will increase by 45 percent by 2003, opening up an enormous market for companies offering products and services to maintain e-business processes.

relatively constant for five years. Of those firms, 57 percent use the Internet for business purposes, primarily communication. Most small firms that report using the Internet in their business generate income only indirectly from their connections. Of the sales actually made over the Internet, the vast majority is to consumers and other non-business entities.

The discrepancy between this and the previous study suggests a considerable opportunity for small

businesses to enter the B2B market. The most frequently noted benefit of connection to the World Wide Web is obtaining additional customers, but only 8 percent of those surveyed say their site has increased profits.

An IDC survey on small business Internet spending (Sandler and Boggs, 2001) points to growing use of the Internet by ever-smaller firms. It projects that small business spending on the establishment of a Web site will increase 45 percent each year, from \$19.6 billion in 1999 to \$85.4 billion in 2003. This projected increase will create an enormous market for companies of all sizes offering products and services to facilitate and maintain e-business processes. E-commerce revenues were anticipated to grow from \$12 billion in 1999 to \$110 billion in 2003. The study concludes that developing technologies and a market to provide facilitating goods and services will allow even the smallest company to participate actively in the emerging Internet economy.

Another IDC study (Davis, 2001) surveyed small, independent firms on their use of e-commerce in the business-to-consumer (B2C) market. It found that many technology vendors reacted to the dot-com collapse by shifting focus to B2B companies as potential customers. Nevertheless, the study finds that there is still an enormous opportunity for consumer sales. It predicts the next wave of e-retailers' will come from small mom and pop retailers and projects the number of small business Web sites to grow from 2.8 million in 2000 to 4.5 million in 2003. A vast majority of these new sites will be produced for or by very small firms selling directly to consumers.

Similarly, a study of small business success in Internet business (Weintraub, 2001) also points out considerable opportunities. Such firms are generally very small with few employees and less than \$5 million in sales. The study suggests that these 'mini-dots' succeed by employing the same strategies that small business owners have relied on for centuries: sticking to niches they understand, scrimping on expenses, foregoing lavish net

technology, and using net resources to save money. Weintraub believes that companies such as these will play a far larger role in Internet business than had been anticipated.

Incorporating the Internet in Existing Businesses

Another major concern of small firms is how to incorporate the Internet into their businesses. A survey conducted by *VAR Business* (April 2001) examines key issues of such companies and finds that despite all the attention the subject has received in the last several years, 58 percent of small businesses surveyed were unsure of how to accomplish the incorporation of Internet technology into their businesses. While this figure seems high, it is a decrease from 65 percent in the last survey. In a similar vein, 70 percent believe that recognition as an e-business company will benefit their firms (up from 63 percent in the last survey), and 66 percent believe that the Internet will open up new markets and opportunities for them.

With only 20 percent of surveyed firms indicating that they are driven to incorporate the Internet by customers' demands, the study assumes that most small businesses are still adopting the Internet to streamline and rationalize internal processes. A related study (Mehrtens et al., 2001), found that the three primary reasons for Internet adoption by small businesses were perceived benefit of the change, organizational readiness to adopt itself to the new reality and, only third, external pressure by customers and suppliers. Finally, the VAR-surveyed companies with an Internet presence reported that 16 percent of their sales were Internet-related.

E-commerce adoption by small business is hindered by many factors, including taxation, privacy, intellectual property issues, domain name confusion, international issues and network security concerns.

Internet and e-commerce adoption by small businesses is hindered by many factors including taxation issues, privacy issues, Internet fraud, intellectual property issues, domain name confusion, international management of the Internet (including legal concerns and dispute resolution venues), digital signatures and electronic contracting procedures, encryption controls, network security and integrity and antitrust concerns.

However, on a more basic level, the NFIB Web survey (Dennis, 2001b) found that a frequently stated reason for not having a Web site was that the business's products or services do not lend themselves to Internet sales.

A survey of 800 existing companies that attempted to incorporate the Internet into their operations (Kanter, Dec. 2000/Jan. 2001) discovered a common set of strategic or tactical errors that limited success. Chief among these was a failure to consolidate and centralize authority for Internet conversion, along with the control of the conversion process by a body of unengaged company officers. Other errors include failing to attempt change at a significant enough level, poor vendor selection, settling for merely duplicating existing off-line processes with an online copy, imposing the same standards such as cost controls and earnings

requirements as on offline ventures, reward systems that motivate independent actions rather than collaboration in cyberspace, benchmarking against offline competition, inadequate training on new systems and Internet implementation designed to meet company, rather than customer needs.

Another study by the same author (Kanter, 2001) surveyed 785 growth-oriented companies of all sizes on the impact of the Internet on their businesses. It found that the top uses for the technology in firms of all sizes were selling to conventional customers, allowing employees to telecommute and getting news and information of value to the firm's intelligence efforts. The principal barriers to successful incorporation for these growth companies were trouble finding partners for joint marketing, development or distribution projects; uncooperative suppliers; and an organizational style incompatible with optimum Internet use.

Finally, in a survey of sales and marketing executives on their business's future in e-commerce (Anonymous, 2001), there was uniform agreement on the need for cautious, incremental change. Sales and marketing executives agreed that success for their business in an Internet economy depends on slow, steady growth rather than a strategy aiming at a quick, high-value public offering. The Web is best seen as a new sales channel, rather than as a separate business.

Internet Entrepreneurship

Although the collapse of the dot-com bubble and resultant loss of investment capital and business opportunities has refocused much Internet-related interest into slower, incremental change of existing businesses, there continues to be considerable interest, if somewhat chastened, in Internet entrepreneurship.

A few recent studies have examined some of the major issues and concerns of Internet entrepreneurs. One such study (Hamm, 2001) examines the second generation of Internet entrepreneurs -- those Internet-based businesses initiated after the collapse of their earlier kin. The study finds a number of significant differences between this and the previous batch of

The second generation of Internet-based firms is raising venture capital in small increments and appear to be focused on engineering rather than marketing.

e-companies. First, the newer companies tend to target the development of tools to facilitate e-markets, rather than ideas aimed at overthrowing existing markets. That is, they are seeking to help established firms do business more efficiently in an electronic environment. Second, they are raising venture capital in much smaller increments (averaging \$2 million rather than \$10 million in the first generation). Third, there appears to be a greater focus on engineering rather than on marketing, and many have no plans to hire a sales manager until they have products ready for launch. Finally, they are staying private much longer, with no plan to go public in the near term.

However, another study focusing on the strategic lessons for e-business entrepreneurs both complements and, to some extent, contradicts the previous study (Suutari, 2001). This

study finds that there are still opportunities for new business formation on e-commerce/e-business concepts but that such Internet entrepreneurship must be based on solid strategic ground. These entrepreneurs must fully understand the economics and risks associated with the venture. Second, they must clearly communicate the value the venture provides to its customers. Third, they must determine that the market is truly ready for the new product or service. Fourth, the new venture must be able to achieve and maintain competitive advantage necessary for long-term survival during the growth phase of its product life cycle. Finally, Internet entrepreneurs must be certain that their sound judgment is unclouded by enthusiasm for a novel business concept.

OWNERSHIP

Preserving the continuity of family business has received considerable attention among ownership-related issues in the last year. In one study (McConaughy et al., 2001), it was found that firms controlled by a founding family had far greater value, were operated more efficiently and carried less debt than average firms. The study found that as much as 60 percent of the U.S. Gross Domestic Product is generated by firms controlled by their founding families. Many of these are thought to be 'microfirms.'

Further, it was found that in up to 80 percent of firms, the founding family would have a significant say in company strategic direction. Another report (Trombly, 2001) estimates that 90 percent of all businesses are family-owned and that such firms create 78 percent of all new jobs, 60 percent of the nation's employment and 50 percent of GNP.

With family firms playing such a significant role in the nation's economy, it is no surprise that growing attention is being paid to succession and ownership retention issues. Trombly estimates that more than 30 percent of all family-owned firms survive into the second generation, and that 12 percent will still be viable in the third and 3 percent in the fourth. The aging of business owners, especially those of the Baby Boom, will soon bring an unprecedented urgency to these facts. Trombly reports that 39 percent of family-owned firms will experience a change in leadership due to retirement or semi-retirement in the next five years. Family firms confronted with this demographic reality must take all possible steps to prepare for succession and transition. Programs and professionals dedicated to business success need to provide ways to help facilitate smooth generational transitions for this key element of the nation's economy.

Growing attention is being paid to succession and ownership issues. Professionals dedicated to business success need to provide ways to help facilitate smooth generational transitions for this key element of the economy.

RURAL SMALL BUSINESS

One group of small businesses that has received increasing attention since the last version of this report is small rural firms. In a report by the Kansas City Federal Reserve Bank, the author (McDaniel, 2001) examines key issues for small, rural businesses -- especially those with fewer than 20 employees. Such firms account for nearly 75 percent of rural establishments. They provide about 25 percent of all rural jobs and 20 percent of all rural payrolls. The great majority of these firms (89 percent) are in the service sector.

Small firms are seen as crucial to healthy rural economies for a number of reasons. They are more apt to invest in their local communities and less apt to relocate than large companies. Small rural firms generally offer employees a wider range of job responsibilities than larger firms, fill leadership roles in the community and are seen as a key source of creativity and ingenuity that leads to future high-growth industries.

Rural small businesses are challenged by a lack of infrastructure and highly skilled labor as well as the shrinkage of accessible capital due to the consolidation of locally controlled banks.

The report goes on to identify three key challenges to entrepreneurial activity in rural areas. The first is a less-developed infrastructure than in urban areas. Infrastructure needs range from roads and bridges to schools and high-speed Internet access. The second is a need for larger pools of highly skilled labor and the resources to offer higher wages and benefits such as retirement plans, health insurance or job training. The third is the shrinkage of locally accessible capital due to the disappearance or consolidation of locally owned banks.

A white paper on the Internet economy and its impact on local economies (Kolzow and Pinero, 2001) reaffirms the need for community infrastructure development to facilitate local businesses' participation in electronic markets, concluding with six suggestions for infrastructure development.

First, communities should incorporate e-commerce into overall strategic planning for economic development. Second, they should increase local awareness and knowledge of web commerce. Third, ways need to be found to connect local business to worldwide markets electronically. Fourth, community groups should build and promote a community portal for improved access for both public and small businesses. Fifth, community leaders and the financial community should facilitate new telecommunications infrastructure investments. And sixth, community leaders should stimulate and nurture the Internet economy locally.

VALUE CHAIN/SUPPLY CHAIN

Commerce relies on supply chains -- sequential arrangements of cooperating, interdependent organizations that share the responsibilities and revenues resulting from the provision of goods and services to end users. Seen from the perspective of end users, each of these organizations contributes to the value of the finally delivered good or service. The interlocking sequences are thus characterized as value chains.

Inefficiencies and errors at each point in supply chains contribute to cost. Purchasers and suppliers have attempted to reduce them by simplifying and streamlining processes within the chain. This is considered supply chain integration. Some integration involves improving the literal movement and processing of physical objects, but a great deal of it involves improving the management of information and its processing and sharing among cooperating suppliers and purchasers.

Radical supply chain integration became possible only with the emergence of electronic commerce technologies. Large, complex e-commerce technologies such as electronic data interchange (EDI) are well-established in many supply chains, but they rarely are fully deployed down to the level of individual small suppliers. Small businesses constitute the

Smaller firms can play a key role in supplier integration because of their enhanced flexibility, product specialization, personal relationships, local response, specialized technical knowledge and readily available inventory.

numerical majority of businesses in almost any supply chain with estimates ranging up to 80 percent in some (Smeltzer, 2001).

Recent attention to the issues of small business supply chain integration reveals that changing economic conditions present both threats and opportunities to small suppliers. Reduced revenues, demands for greater efficiencies and local plant closings may squeeze some small suppliers out of

supply chains. But small companies are generally more flexible and have a deeper understanding of local markets. These factors can make them invaluable secondary integrators. In that role, smaller firms can draw on such advantages as greater flexibility, intense product specialization, close personal relationships, quick local response, specialized technical knowledge, readily available local inventory, close relations with manufacturers, in-depth product knowledge and skills in innovation and problem solving.

Second, small suppliers face credibility problems when customers worry whether economic downturns jeopardize their long-term ability to meet contracts. If these concerns can be overcome, small suppliers can draw on market expertise, knowledge and strong relationships to serve as local intermediaries for large firms.

Much recent attention has been paid to supply chain integration tools and their suitability to small business environments and culture. Most early integration efforts have been based on tools such as EDI. These are considered complex, monolithic application automation systems

with expensive software packages and armies of system integrators (Fingar, 2001). Many see the burdensome cost and demands for specialized knowledge to operate such systems to be putting them out of the reach of most small firms. Many of these concerns are being alleviated by the development of a generation of far simpler Web-based supply chain management tools and systems that are considered to be within the budgets and capabilities of a great many small suppliers and distributors (Kemp, 2001). Among these are tools that allow for far more efficient joint management of inventory, suppliers, customers and finances (Frazza, 2001).

One overview of small company integration issues (Smeltzer, 2001) discusses the situation in terms of five inescapable facts. First, the rules for integration among large companies have already been written and are, to a great extent, in use throughout the economy. These rules are based on large EDI-type systems, which work well for large organizations but are not suitable for many small businesses. Nevertheless, many supply chain integration efforts are driven by penalties for non-compliance. Second, large and small companies have cultural and procedural discontinuities that make adoption of integration tools very different. Large companies have far more sophisticated coordination and control systems, can spread integration costs over larger units of production and have much better internal development capabilities. The result of these differences is that there is a considerable digital divide between large and small companies in the supply chain. Third, inertia and adherence to the status quo inhibit full integration for small companies.

There are considerable digital and cultural divides between large and small businesses in the supply chain.

In order to succeed, such efforts must have a low, predictable cost, minimal required changes to current processes and benefits so compelling as to far exceed alternatives. Full integration for firms of all sizes demands targeted technologies, a proven process and dedicated resources. And finally, technical advances are needed to maximize the value of connections all across the supply chain.

ACCESS TO CAPITAL

Capital of one form or another is the lifeblood of small businesses. Some form of capital investment funds start-up, growth, diversification, exit and almost all other changes in a small business's life cycle. As business cycles rise and fall, capital streams open and close. The present period of relative slowdown is no exception.

A report on the most recent Phoenix Lending Survey of secured lenders (Jacoby, 2001) finds continuing pessimism about the prospects for a swift economic recovery, though 60 percent of those surveyed assumed the turnaround would begin in the present year. The survey found that lending was down, due both to a reduced demand for start-up and expansion investments by small businesses and partly due to an increased tightening of lending requirements by banks. Start-ups and new ventures were seen as the least attractive

candidates for loans. This was felt to be due, in part, to caution left over from the bursting of the dot-com bubble. In a break from recent surveys, light manufacturing and distribution were presented as more attractive industries for lenders.

Another examination of some of the same issues, especially as they pertained to small businesses, was reported in testimony by Federal Reserve Bank officials (Meyer and Ferguson, Jr., 2001). This testimony was based on a survey of 3,500 small businesses. In the survey, small firms were asked to identify their most pressing problems. Access to capital was high on this list of concerns. The traditional system of financing through commercial banks continues to dominate small business-centered capital formation and financial services.

On the other hand, equity markets were seen to have declining attractiveness as sources of financing -- especially to firms hoping to go public for the first time. As in Jacoby (2001), this study found a general tightening of credit and loan standards. In another survey, bank loan officers indicated the demand for business credit had waned, largely owing to reduction in planned investments and diminished financing for mergers. For some, the general tightening in the financial community appears to be a normal response to a downturn following several years of expansion.

In the longer term, beyond the immediate changes caused by normal fluctuations of the business cycle, structural changes within the financial community may pose more significant threats to small business access to traditional debt financing. A report for the Federal Reserve

While there are clearly challenges brought about by structural changes in the banking industry, some feel the changes have left small business in better shape. Newly consolidated banks are making pronounced efforts to cater to the needs of small, local borrowers.

Bank of Kansas City (Keeton, 2001) and (Ely and Robinson, 2001) studied the impact of three such structural changes on capital availability for small businesses and consumers. The study focuses on the effects of consolidation, Internet banking and the growing integration of financial services.

It is often held that these changes, especially the first, are making for a banking system that is increasingly distanced from the local communities their branches are to serve. Not only are local

branches likely to lose the ability to act autonomously, but the real loan and credit decisions are more likely to be made without a real familiarity with local business and economic conditions. On the other hand, the changes can make branches less vulnerable to local and regional economic shocks and better stocked with nondeposit funds for loan purposes.

While there are clearly challenges brought about by structural change, the report found that, in general, the evolving situation in the financial community has left small businesses in somewhat better shape. This is due, in part to the fact that some newly consolidated large banks have made a successful effort to cater to the needs of small, local borrowers.

Additionally, the report found that a significant number of small, local banks had been founded to meet the need for locally based financial services. One unanswered, long-term question is whether there will continue to be a sufficient level of deposits in small banks for small business investment.

While most small business financing comes from commercial banks, alternative forms of capital continue to meet a significant share of the demand for new capital. This is especially true in technology and other high-growth areas. Though the communities of venture capital

Alternative forms of capital for small business, especially technology-based businesses, continue to meet the demand for new investments. Business support programs should help entrepreneurs understand all sources of financing and develop tools to help them price and negotiate deals.

and other forms of equity investment have been chastened by the dot-com collapse, these investment vehicles continue to play a key role. Less likely to invest on good ideas alone, most equity investors are now demanding realistic revenues and profits from their candidates.

One study (Van Auken, 2001) examined some of the financing difficulties faced both by small, technology-based firms and those who would invest in them. The study found a significant information gap among owners of such companies about alternative forms of financing such as venture capital. Because of that

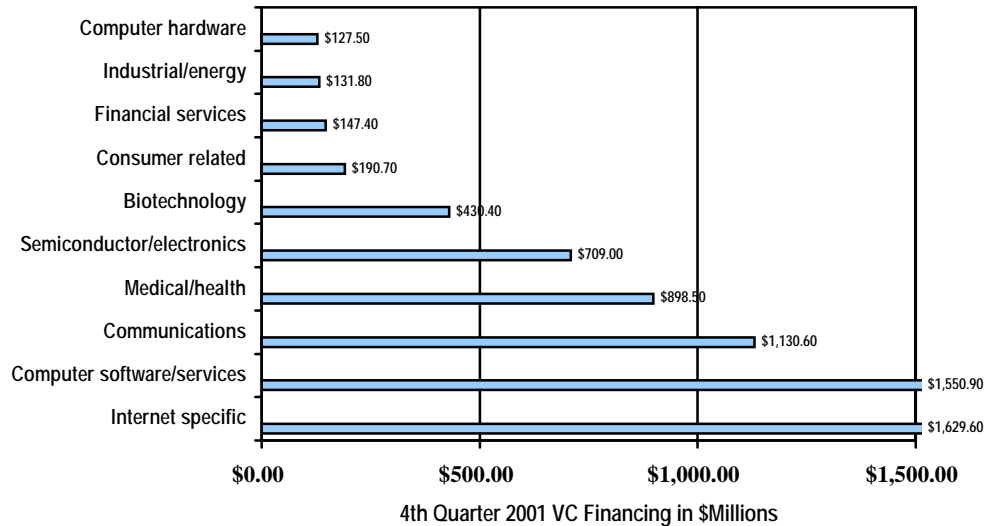
gap, these companies were at a considerable disadvantage in negotiating pricing and other aspects of equity investments in their firms. The report strongly urges that business support programs help companies understand all sources of capital and develop and provide tools to help them price and negotiate deals. One area of particular concern is the inability of technology-based companies to communicate the value of their intrinsic, technical assets to would-be investors.

Finally, a study of venture capital investments in network-related start-up businesses reveals a dramatic reduction in available capital for these enterprises (Marsan, 2001). All segments of the network industry were found to be suffering about equally as a result of this decline in funding. Marsan's (2001) survey also found that there were fewer venture investments in early stage companies, with the number of seed and first round investments dropping by half. In addition, equity financing by corporations has fallen off dramatically, and more companies are turning to investment bankers rather than to venture capitalist firms for early funding. Finally, successful applicants for funding need to be much more able to demonstrate near-term revenues and profits than was the case a few years ago.

Another study examines angel investors and their importance to small business investors. The average angel investment is between \$50,000 and \$500,000. A survey of angels (Barnes 2001) identifies six crucial elements of a good investment candidate: experienced, passionately engaged management; a proven product that can be scaled up with additional funds; existing commitment from strategic partners; realistic projections for a significant market; sustainable competitive advantage of the business; and a realistic, positive cash flow/cash out model.

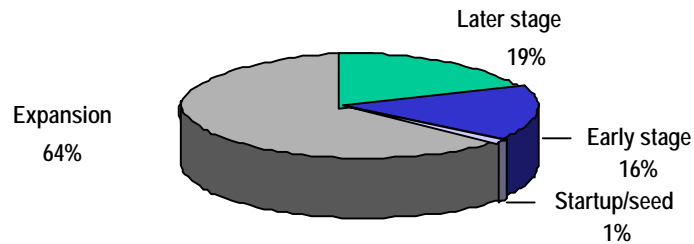
About \$7,138.5 million of venture capital was invested in U.S. firms in the fourth quarter of 2001. Of that, \$45.2 million was invested in Missouri firms (state rank: 19). Investments by industry for fourth quarter 2001 are shown in Fig 1. Most U.S. venture capital funds invested in that quarter were in businesses undergoing an expansion stage (Fig. 2).

Figure 1. Fourth quarter 2001 venture capital financing by industry



Source: Venture Economics, Venture Capital Investment in United States Companies by Industry/Technology Sector, 10/1/2001 to 12/31/2001.

Figure 2. Venture investments by stage, 4th quarter 2001



Source: Pricewaterhouse Coopers, "MoneyTree Current Quarter View by Stage of Development, Q4 01," <http://www.pwcmoneytree.com>

STRATEGY/MANAGEMENT

Previous issues of this report have focused on issues of management and strategy among small business watchers, particularly on fundamental elements of business planning and executing the functions of management. In this area, small business assistance providers have long been concerned that too few of their clients are firmly grounded in an intelligently developed and executed plan. Another focus has been on specific elements of strategy that small firms must develop in order to succeed in rapidly evolving markets and industries. These issues continue to be of concern.

A study of the relationship between business planning and business failure (Stephan C. Perry, 2001), found a disappointing lack of planning among U.S. small businesses of all sizes, though smaller firms were found to be much less likely to have formal plans in place than larger ones. Another study (*Broker*, August 2001) found only 38 percent of all surveyed businesses and 67 percent of larger ones with formal plans. Though the Perry data allow for only a tentative finding at this point, the study does show that successful firms are considerably more likely to have a formal plan in place than failed ones. Table VI summarizes another recent study of the extent of strategic planning by firm size.

Table VI. Percent of recently surveyed¹ businesses that have a strategic plan, by firm size

Firm size, in annual revenues	Percent having a strategic plan
Less than \$200,000	Less than 20%
\$200,001 to \$500,000	36%
\$500,001 to \$1,000,000	49%
\$1,000,001 to \$2,500,000	58%
\$2,500,001 to \$5,000,000	76%
More than \$5,000,000	90%

Source: Manthey, Robert and William E. Balhoff, "Passing the Baton Without Missing a Beat," *Journal of Accountancy*, March 2002

Another issue receiving some attention is competitive intelligence (Groom and David, 2001). This study involved a study of competitive intelligence techniques and resources by small firms. The study found that the ongoing assessment of internal intelligence is fairly common in well-run businesses, but that very few small companies employ competitive intelligence. Many entrepreneurs believe that they have a full enough understanding of the market in which the business competes and that they do not need information gathered in a more systematic way. Most small firms, it was found, lack any formal process for collecting, assimilating and converting competitive information into knowledge and

Most small firms lack any formal process for collecting, assimilating and converting competitive information into knowledge and intelligence they can use in making management decisions.

intelligence that is useful for strategy formation. Cost and the lack of internal resources to provide an intelligence function are strong inhibitors. In dynamic markets and industries, the lack of some source of information on competitor behavior can put companies at a real risk.

Finally, some recent studies have focused on strategy formation in family businesses. One survey of high-growth family firms (Upton et al., 2001) found that, unlike most small

High-growth family firms are more likely to prepare formal plans that are detailed enough to tie planning to actual performance.

businesses, 65 percent of such firms have prepared formal plans that are detailed enough to tie planning to actual performance and to adjust management compensation accordingly. Most of these companies regularly share information with employees regarding comparisons between actual company performance

results and goals or planned performance. Most of the surveyed businesses describe themselves as operating with a high quality producer strategy.

One intriguing approach questions the strategic differences between family businesses and publicly traded ones (McCann et al., 2001). This study identified four strategy options generally executed by family firms:

1. Defender (of a known market niche);
2. Innovator/prospector (for new market opportunities);
3. Analyzer (of what market leaders are doing to allow for development of competing products); and
4. Reactor (to threats as they arise).

The survey found that the innovator/prospector model firms reported more gains in their current market position than all other strategic types. Such firms were more likely to value effective management and employee teams. They were more likely to develop new, quality products and services. They were also more likely to create career development plans and opportunities for non-family members.

A final issue focuses on how successful family firms create value (Hutcheson and Colan, 2001) identifying seven key elements of success. These elements are summarized as follows:

1. Focusing on market;
2. Planning;
3. Rigorous selection and training processes for employees;
4. Defining and understanding key processes;
5. Defining corporate culture to reinforce behaviors that support strategy;
6. Frequent or constant communication; and
7. Adequate measurement of key processes with feedback mechanisms.

OUTSOURCING

The trend of outsourcing remains important, and is approached here from two angles particularly pertinent to small business. First, the trend on the part of large organizations to outsource functions outside their core competencies continues. While this has the negative effect of threatening jobs within the large organization, it also creates opportunities for small firms to provide the outsourced services through contracting. Many such contractors are small firms started by former employees of the larger organization. Thus, in this instance, outsourcing has been seen as a potential stimulus of small business formation and entrepreneurship. Firms seeking to provide such services must remember that they were outsourced in the first place to reduce cost and increase efficiency for the originating organization. Any firm attempting to become a vendor in this market may be judged by as stringent criteria as were used to outsource the operation in the first place. This may mean that competition will be heavily cost-based with low potential margins and quick penalties for poor performance.

Secondly, small firms unable to develop internally all the competencies needed to meet organizational and operational needs continue to use outsourcing. Such outsourcing is nothing new. Indeed, small firms have always been forced by limited human resources to contract with outside legal, accounting and other professional services. More recently, small companies have learned to apply the same strategy in non-professional, non-core areas, simplifying internal operations and, creating business opportunities for outside firms.

Recent literature on small business outsourcing has focused, for the most part, on IT issues. Dataquest (Caldwell, 2001) projected continued growth in IT outsourcing, including outsourcing by small manufacturers. This trend is anticipated to increase in times of declining economy when companies are seeking to reduce cost. IT outsourcing was anticipated to grow to \$159.6 billion by 2005.

One leading mechanism for IT outsourcing is through application service providers (ASPs). Through ASPs, companies, especially smaller ones, can gain unprecedented access to the power and functionality of high-tech software without incurring the many costs (personnel, hardware, software, and maintenance) usually associated with it. ASPs are found to provide an attractive alternative to hiring and training an IT department. The use of ASPs also take a good deal of uncertainty of cost and service out of high-performance IT services. Many smaller companies may be reticent to make use of ASPs because of concerns about system security, slow connections to needed software and data and cost (Banguis, 2001). While small companies may realize as much as 50 percent savings on IT costs, these savings will not show up in a meaningful way until the system has been in place for five years (Dezoysa, 2001b). This is a relatively long time horizon for many small businesses.

Business process outsourcing (BPO) is offered as an option much more far-reaching than ASP (Bothe, 2001). Small firms make use of BPO as a strategic tool that enables them to regain focus on their core businesses. It can help them become more

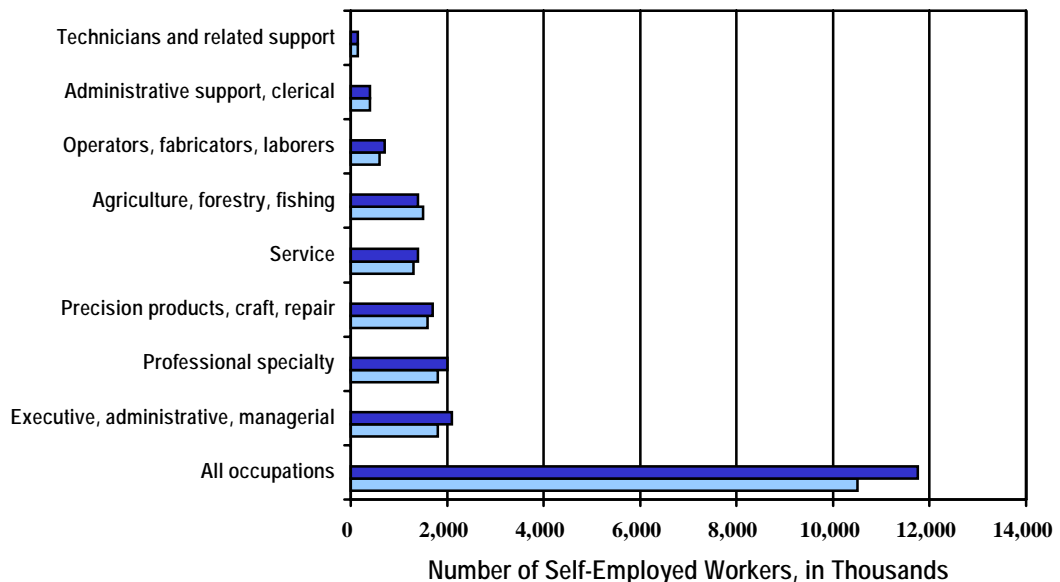
efficient and even rival the control and systems of larger competitors. The company retains strategic control, while the outside provider takes over procedural control. Outsourced functions involve a controllable, predictable cost and enhanced adaptability. Functions like payroll, accounting and legal services are seen as ideal functions for BPO.

SELF-EMPLOYMENT

A few recent studies have examined some aspects of self-employment. One has studied the income differences between self-employed men and self-employed women (Hundley, 2001). The study cites a survey that found that the annual incomes of self-employed women were 36.7% of the incomes of their male counterparts and 28.2% of male wage and salary workers. In a survey of 659 self-employed persons, the study identified the principal causes for this discrepancy in four factors.

First, there is a considerable difference in industrial distribution of self-employment between males and females. The survey found that women were far more likely to start firms in retail and non-professional service industries than men and that men were more likely to start businesses in construction and professional services than women. The second factor is attributable to the gender difference in time and effort allocated to child rearing and housework. The third factor is the different levels of capital availability enjoyed by the genders. The fourth is the varying levels of previous management experience available to men and women as they begin their own enterprises. All of these contribute to make for a significant difference in opportunity and outcome for men and women in self-employment.

Figure 3. Self-employment in the United States, 1996 (light blue) to 2006 (dark blue)



Source: Silvestri, George T., "Considering self-employment: What to think about before starting a business," *Occupational Outlook Quarterly*, Vol. 43, No. 2, Summer 1999, pp. 15-23, <http://www.bisgov/opub/ooq/1999/Summer/art02.pdf>

After a Year of Change: The 2001 Small Business Environmental Scan
University of Missouri Outreach and Extension Business Research Information and Development Group.

And finally the issue of health insurance on the willingness to enter self-employment remains critical (Wellington, 2001). Strong evidence supports that availability of such coverage is a strong enabler of entrepreneurship. Typically, this coverage may come from an otherwise employed spouse or some other universal source. More universally available coverage would encourage a great deal of self-employment business formation.

Table VII. U.S. home office households at year end 1999-2002, in millions

	1999	2000	2001	2002	Annual Growth
Total home office households	33.7	33.9	34.1	34.3	0.6%
Total income-generating					
Home offices	14.5	154.5	14.2	14.3	-0.5%
Primary	9.0	9.3	9.4	9.6	2.0%
Part-time	5.6	5.3	4.9	4.7	-5.4%
Total corporate home offices	23.4	23.8	24.1	25.1	2.4%

Source: IDC, 2002, in March 19, 2002, *PR Newswire* article

APPENDIX I

MISSOURI SMALL BUSINESS INDICATORS

A. Economic Indicators

Table A-1. Gross state products of Missouri and surrounding states, 1999

State	1999 real GDP in millions of chained 1996 dollars (preliminary)	Average annual percent change in real GDP 1992-1999
Illinois	\$429,496	3.9%
Missouri	\$162,941	3.6%
Tennessee	\$161,731	4.1%
Kentucky	\$107,499	4.0%
Oklahoma	\$84,038	3.1%
Iowa	\$84,029	3.5%
Kansas	\$78,025	3.4%
Arkansas	\$62,821	3.7%
Nebraska	\$52,240	3.4%

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Economics and Statistics Administration, "Gross State Product: New Estimates for 1999 and Revised Estimates for 1993-98," June 4, 2001

Table A-2. Civilian labor force and unemployment, Missouri and surrounding states, February 2002, not seasonally adjusted

State	Labor force, In thousands	Unemployed, in thousands	Percent unemployed
Illinois	6,325.0	404.7	6.4%
Missouri	2,935.8	153.8	5.2%
Tennessee	2,864.7	161.9	5.7%
Kentucky	1,972.3	119.9	6.1%
Oklahoma	1,682.4	77.9	4.6%
Iowa	1,596.5	67.9	4.3%
Kansas	1,434.9	68.0	4.7%
Arkansas	1,260.5	71.7	5.7%
Nebraska	948.8	36.6	3.9%

Source: Bureau of Labor Statistics, "Regional and State Employment and Unemployment (Monthly)," <http://www.bis.gov/news.release/laus.t04.htm>

Table A-3. Average annual pay by state

P R I V A T E	Industry Sector	MO	AR	IA	IL	KS	KY	NE	OK	TN
	Total	\$31,599	\$26,020	\$27,500	\$38,249	\$29,644	\$28,805	\$27,436	\$26,607	\$30,532
	Mining	\$43,628	\$37,069	\$37,261	\$48,651	\$36,479	\$43,689	\$32,763	\$51,921	\$43,657
	Construction	\$37,399	\$27,846	\$32,282	\$45,916	\$32,126	\$30,959	\$31,820	\$27,867	\$33,252
	Manufacturing	\$39,881	\$29,247	\$36,416	\$45,818	\$37,690	\$37,618	\$33,194	\$35,006	\$36,054
	Transportation, Communications, Public utilities	\$39,520	\$34,945	\$35,096	\$45,482	\$45,512	\$39,041	\$36,159	\$36,836	\$37,582
	Wholesale trade	\$42,031	\$34,561	\$35,651	\$51,659	\$40,110	\$37,806	\$33,905	\$34,142	\$40,234
	Retail trade	\$16,542	\$17,600	\$14,755	\$18,885	\$15,884	\$15,834	\$14,680	\$15,011	\$17,824
	Finance Insurance, and Real estate	\$42,315	\$33,763	\$38,780	\$60,656	\$38,032	\$37,467	\$36,873	\$32,059	\$43,240
	Services	\$30,015	\$24,265	\$24,071	\$35,207	\$26,485	\$25,784	\$27,254	\$24,490	\$29,003
Government	\$30,195	\$27,841	\$30,257	\$36,733	\$28,010	\$28,954	\$28,806	\$28,548	\$30,718	

Source: Bureau of Labor Statistics, "Average Annual Pay by State and Industry," Sept. 11, 2001, <http://www.bix.gov/news.release/annpay.nr0.htm>

B. Business Indicators

Table A-4. Employer firm births and terminations, 2000, Missouri and surrounding states

State	Employer firm births, 2000	Employer firm terminations, 2000
Illinois	28,875	31,361
Tennessee	15,793	17,563
Missouri	13,996	17,580
Oklahoma	8,979	8,848
Kentucky	8,637	7,508
Kansas	6,483	6,981
Iowa	5,668	7,485
Arkansas	4,680	5,581
Nebraska	4,441	5,234

Source: U.S. Small Business Administration, Office of Advocacy, *Small Business Economic Indicators 2000*, 2001, <http://www.sba.gov/advo/stats/sbei00.pdf>

Table A-5. Self-employment, Missouri and surrounding states, 2000

State	2000 self-employment, in thousands	Annual percentage change, 1996-2000
Illinois	332	-4.0%
Tennessee	217	-12.3%
Missouri	194	5.2%
Oklahoma	154	2.5%
Iowa	140	-14.5%
Kentucky	136	-7.2%
Kansas	108	-19.0%
Nebraska	97	-6.0%
Arkansas	87	-2.7%

Source: U.S. Small Business Administration, Office of Advocacy, *Small Business Economic Indicators 2000, 2001*, <http://www.sba.gov/advo/stats/sbei00.pdf>

Table A-6. Business bankruptcies, Missouri and surrounding states, 2000

State	2000 self-employment, in thousands	Annual percentage change, 1996-2000
Illinois	1,270	-8.9%
Oklahoma	876	20.3%
Tennessee	641	-20.1%
Missouri	369	3.1%
Kentucky	355	26.3%
Arkansas	261	-11.5%
Iowa	214	9.2%
Kansas	169	-1.7%
Nebraska	115	27.2%

Source: U.S. Small Business Administration, Office of Advocacy, *Small Business Economic Indicators 2000, 2001*, <http://www.sba.gov/advo/stats/sbei00.pdf>

C. Technology Indicators

Table A-7. Number and amounts of Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) program awards made to Missouri firms, 1997 to 2000

Year	No. of Phase 1 awards	SBIR No. of Phase 2 awards	Total amount	No. of Phase 1 awards	STTR No. of Phase 2 awards	Total Amount
2000	16	6	\$4,971,678	2	0	\$ 254,000
1999	16	5	\$4,002,509	3	2	\$1,035,000
1998	14	9	\$6,492,000	1	0	\$ 65,000
1997	15	5	\$3,583,000	1	3	\$1,346,000

Source: U.S. Small Business Administration, Office of Technology,
<http://www.sba.gov/sbir/indexsbir-sttr.html>

Table A-8. Percentage of total patent filings by type and origin, 1984-2000

	1984	1986	1988	1990	1992	1994	1996	1998	2000*
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%
U.S. Origin	57%	55%	55%	55%	56%	58%	56%	56%	56%
Large Entity	33%	30%	29%	30%	31%	31%	32%	33%	35%
Small Entity	24%	24%	26%	25%	25%	27%	25%	22%	22%
Individual	17%	19%	20%	19%	17%	17%	16%	15%	15%
Small business	6%	5%	5%	6%	7%	9%	7%	6%	6%
Non-Profit organization	1%	1%	1%	1%	1%	1%	1%	1%	1%
Foreign Origin	43%	45%	45%	45%	44%	42%	44%	44%	44%
Large Entity	34%	36%	36%	36%	35%	33%	35%	36%	35%
Small Entity	9%	9%	9%	8%	8%	9%	9%	9%	9%
Individual	5%	6%	6%	5%	5%	5%	5%	5%	6%
Small business	3%	3%	3%	3%	3%	4%	3%	3%	3%
Non-profit organization	0%	0%	0%	0%	0%	0%	0%	0%	0%

*Based on U.S. Patent and Trademark Office PALM files as of May 26, 2000.

Note: Percentages may not sum exactly due to rounding
 (for example, 0% indicates less than 0.5%)

Source: U.S. Patent and Trademark Office

Table A-9. Industrial research and development (R&D) per capita by state.
Missouri and surrounding states, 1999

State	Industrial R&D per capita, in \$millions	Rank
Illinois	\$7,715	16
Tennessee	\$1,768	30
Missouri	\$1,387	31
Kansas	\$1,284	23
Kentucky	\$684	36
Iowa	\$559	33
Oklahoma	\$365	42
Arkansas	\$216	44
Nebraska	\$178	43

Source: "Industrial R&D Per Capita by State: 1997-1999," *SSTI Weekly Digest*, May 3, 2002.

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