Make audits pay: leveraging the audit into consulting services

Michael J. Ramos
Linda Delahanty

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Make Audits Pay: Leveraging the Audit Into Consulting Services
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Make Audits Pay: Leveraging the Audit Into Consulting Services

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AICPA Practice Aid Series
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Finally, I wish to acknowledge my father, who passed away last year. He was a great father, a role model, my friend. I admired him a great deal and his spirit infuses my writing and my life.
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SUMMARY OF FORMS IN ELECTRONIC FORMAT

Enclosed with this publication is a complementary disk that contains the following diagnostic tools illustrated in this publication.

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The files of these diagnostic tools are provided in two formats for your convenience.

- Microsoft Word 8.0 (.doc)
- Portable Document Form (PDF) format (.pdf)

The Microsoft Word 8.0 format allows you to easily answer the questions and customize the tools for each client. If you do not have access to Word 8.0 you may wish to copy the diagnostic tools from the book, or you may print out the PDF files, and complete them as appropriate.

The PDF format allows you to read the form only and provides clean printouts that can be completed manually. To read or print a PDF file you need the Adobe Acrobat Reader software installed on your PC. The Adobe Acrobat Reader can be downloaded from the Adobe web site (www.adobe.com).
PREFACE

In Search of the Valued Business Adviser

I started my public accounting career in 1982 with Peat Marwick in Los Angeles. Like most new assistants, I was “totally clueless,” although I imagined myself to be worse off than most. I somehow made it through my college accounting curriculum without taking an auditing course, and for the first few months I was sure someone in recruiting would discover my obvious lack of qualifications and send me packing to go back home to Hawaii.

During our first training session we were indoctrinated with a good dose of firm culture. Among other things, we were told that we should think of ourselves not only as auditors but also as “valued business advisers” to our clients. The idea seemed simple enough. As auditors, we enjoyed close relationships with our clients; we knew their operations, their people, their financial condition. They trusted us. Because of this trust, we were in a perfect position to provide advice to our clients on a wide range of business issues. We were “cross-selling,” long before the term enjoyed its current popularity.

Unfortunately, it never worked out that way. I spent nine years in Big Eight (at the time) public accounting, and only once do I remember one of our auditors filling a role as a “valued business adviser” to a client. How does one become such an adviser? What does one do in that role? I never saw any evidence to answer those questions, and the “valued business adviser” was like Bigfoot or the Loch Ness monster, its existence rumored but never confirmed.

After I left Peat Marwick, I became a writer and consultant. My father was a CPA, a partner with a small firm in Alaska, and every busy season I joined him. I did a lot of audits and reviews with my dad acting as the engagement partner. We developed a good cop/bad cop routine that was quite effective. I was the enforcer, the GAAP and GAAS guru from the big city who brought clients the bad news. Dad was the good cop, playing off my technical zealotry, tempering it to the real world of his clients and his practice.

It was only then, after several years working side by side with my dad, that I finally learned what it meant to be a true adviser, a strategic partner for your clients to lean on. My dad thought like a businessman. He was confident, not afraid to take a stand and give you an opinion without the usual caveats. As his oldest son, I can tell you he was not afraid to use the phrase, “If I were you I’d...” or “What you ought to do is...” He used the same approach with his clients as he did with me, inscrutably offering advice on how to run their businesses.

They valued that advice. More importantly, they paid him for it. His rates were 10 to 15 percent higher than his peers’ but his clients paid. Long ago he stopped doing straight compliance work and accepted new clients only if the potential existed for consulting work with them sometime in the future. He had learned well how to leverage the skills and relationships enjoyed by a CPA to fashion a practice as a consultant.
In a sense, this book has taken me sixteen years to write, starting from the time I was told I was a “valued business adviser.” Recently, after describing this book to a colleague, he told me of a partner he used to work for who had crafted a practice as a consultant. My friend’s comment was that he thought consultants were born—not made. 

There’s truth to that, which poses a problem for someone trying to write a book such as this. It’s easy enough to describe the qualities and characteristics of a valued business adviser. The more relevant questions are these: How can you transfer those qualities to those of us who are not blessed with them naturally? How can you take abstract ideas and personal qualities and make them concrete so that others can benefit?

What This Book Offers

This book is driven by ideas. Some of the ideas are my own, based on my experiences. Many of the ideas originated with others, and I’ve merely adapted them for use by CPAs who work with small business clients.

CPAs are nothing if not practical. Ultimately, a book of this sort must be more than thought-provoking. It must demonstrate how ideas can be turned into action, and to the extent possible, it must describe a clear path for taking an idea and turning it into a service that can generate revenue.

That is what I’ve tried to do with this book. Each chapter contains a number of ideas and concepts. Each chapter also includes case studies and suggestions for ways to implement the ideas. At the end of each chapter are diagnostic tools to help you as you try to apply my observations and experiences to your own clients.

The first two chapters of the book provide general background information.

- Chapter 1. This chapter describes the business adviser approach to auditing as one that is client-focused, not product-focused. It describes what can be gained by becoming your client’s business adviser and what it takes to become one.

- Chapter 2. The foundation for business advice rests on having a good understanding of your clients’ businesses and the industry in which they operate. This chapter provides a framework for developing such an understanding.

Chapters 3 through 6 are “access points” to the business adviser process. Think of the traditional audit practice, one that is primarily a compliance service. After reading the first two chapters of this book, you will be able to visualize the business adviser audit practice as one that provides value-added service to its clients. The question is how does one get from here to there.

The last four chapters provide a way. Each chapter describes a separate area or technical skill you can use to analyze your clients’ businesses and to begin to offer consulting advice.
Chapter 3. This chapter describes ways you can help your clients achieve strategic cost reductions throughout their businesses.

Chapter 4. This chapter looks at internal controls, both operational and financial, and how you can design a control system of strategic importance to your clients' businesses.

Chapter 5. This chapter describes how you can help your clients identify the information they need to run their businesses and how that information should be presented to provide the greatest value to users.

Chapter 6. This chapter provides suggestions for how technology can be deployed to achieve the greatest strategic advantage.

In writing this book, two general themes emerged. The first is that, to become business advisers to our clients, we have to look outside the narrow confines of generally accepted auditing standards and generally accepted accounting principles. We must think like businesspeople; we must think strategically.

The second theme to emerge is that process matters. As accountants, we look at numbers, which measure results. Results are historical—by definition they can't be changed. If you want different results, you have to change your process. The suggestions contained in this book continually stress the need to analyze the business processes underlying the accounting results.

Michael J. Ramos
December 1998
PART ONE:

THE VALUED BUSINESS ADVISER
CHAPTER 1

THE BUSINESS ADVISER APPROACH TO AUDITING

Publications expressing the views of the public accounting societies consistently express grave concern in recent years about the deteriorating competitive position of the sole practitioner and small accounting practices as compared to the large public accounting firms. One reason is that the large CPA firms have added special management services departments to assist clients of all types and sizes in many different areas of business operations.

By contrast the small or medium-size practitioner finds it very difficult merely to keep up with the routine demands of his profession. He may have very little time to invest in acquiring new skills, or offering new services. However, changing conditions require positive action to meet the situation. One such action is to expand the scope of services and personnel and engage in management services. This positive step will assure the continued existence of the small practitioner.

Conan D. Whiteside
—1969

To make sure that the economic viability of the profession is going to be strong going forward—particularly the smaller firms segment—we have to make sure that accounting firms become viewed as professional services firms. The larger firms, particularly the largest firms, have effectively positioned themselves as multi-faceted professional services firms. To a large degree, and there are certainly exceptions, the smaller firms have not succeeded in doing that. They are still viewed by many of their clients and other business relationships as accounting firms, not professional services firms.

We see the greater viability of the CPA going forward as being a strategic business adviser, an information professional being viewed by the public as the person for solid, big-picture business advice—applied to a broader information world instead of a financial information world.

Barry Melancon
AICPA President
—1997

WHAT IT MEANS TO BE A BUSINESS ADVISER

For the past few decades, leaders of the accounting profession have been encouraging practitioners to branch out from traditional audit services and become business advisers to their clients. The reasons given for making this switch vary, but some of the more prevalent include the following:
▶ Auditing has become a commodity. The audit service is a mature product. Intense competition among CPA firms has reduced the audit to a mere commodity that is distinguishable to the consumer only according to price.

▶ Auditing fees are flat. Most firms’ auditing fees have remained relatively unchanged for many years. CPA firms have experienced most of their growth in the consulting area.

▶ Clients demand more consulting services. Consumers in general are more demanding than they were a generation ago. The Henry Ford marketing approach—"they can have whatever color car they want, just as long as it’s black"—is no longer viable. Customers want customized products tailored to their specific needs. Consumers of professional services want total business solutions.

▶ Constantly changing business environments drive business owners to seek help. Business has become more complex and volatile. Globalization, downsizing, rapidly changing technology—all these environmental changes require expert advice that many small business owners do not possess personally or do not have access to readily.

Many CPAs have recognized the need to broaden their audit practice by providing consulting services to their clients. Generally, these services can be divided into three categories.

1. Consultation. This is an informal arrangement in which you provide advice on a particular matter over a short period of time. For example, a client may call you to ask whether the terms of a proposed new lease seem reasonable. With little or no research and based primarily on your existing knowledge of the client, relevant business conditions, and circumstances of the transaction as represented to you by the client, you may be in a position to advise your client on the terms of the proposed lease.

Management letter comments are a form of informal business consultation, in which you present your observations about the company to its management and provide suggestions on ways for improvement.

2. Advice and Implementation. This is a more formal arrangement than a consultation, requiring you to develop findings, form conclusions, and make recommendations for client consideration and decision making. Once the client has made the decision, you may play a key role in implementing the chosen plan. For example, in conjunction with signing a new lease and relocating facilities, your client also may have decided to reconfigure the company’s workforce and to offer telecommuting to a group of employees. The client may engage you to investigate the available options and to make a recommendation concerning which one is best.

Unlike the informal consultation, this type of business advisory service is a separate engagement that can significantly increase your fees.

3. Transactional Consultation. This, too, is a formal arrangement, a separate engagement that may significantly increase fees. Unlike the advice and implementation projects,
which are tied to the ongoing operations of a business, a transactional consulting engagement relates to a specific, one-time-only transaction. For example, suppose that instead of leasing a new space, your client decides to build a new building. You may be engaged to prepare the information necessary to get the required financing.

When trying to branch into consulting services, most firms focus on the second type of consulting service, formal advice and implementation. The typical approach is product-driven in the sense that the CPA firm starts by choosing a service for which a market seems to exist. For example, a firm may target technology consulting, human resources, or a variety of services tied to a specialized industry such as health care or construction. The new assurance services developed by the AICPA (for example, Elder Care or WebTrust) are additional services a firm may choose to deliver.

Once the firm has selected the service it wants to provide, it acquires or develops the necessary expertise and then begins marketing that service to existing clients and others. Many firms have been successful with this approach; others have not.

Problems can arise when CPA firms choose a product-driven approach to developing a consulting practice. The most frequent problems in taking this traditional approach include—

- **Different needs.** The needs of an audit group may be different from the needs of a consulting group. An engagement that auditors consider worth pursuing may not be of interest to consultants. For example, an audit practice may focus on clients with revenues in the $5 million to $50 million range, but consultants offer services geared to businesses with a minimum of $100 million in revenues.

- **Difficulty in cross-selling.** Most auditors have little understanding of the services offered by consultants. Auditors trained in auditing and accounting standards, do not have the technical skills (nor the time in the audit budget) to identify possible consulting opportunities if they present themselves during the audit. The result is that most firms never realize the cross-selling potential originally planned.

- **Clash of cultures.** Consulting work tends to be less structured and the results less predictable than auditing and accounting work. Auditing work also has a different set of risks (for example, litigation) than consulting work. Ultimately, auditors are charged with protecting the public interest; consultants are clearly client advocates. These and other differences in culture can make it difficult for auditors and consultants to understand each other and to realize the intended synergy.

- **Client mind-set.** Clients may not be accustomed to thinking of the firm as a provider of broad-based business solutions. Over the years, the firm may have established itself as a conservative, technically sound auditing and accounting firm, which is good for marketing traditional auditing and accounting services. However, with that kind of reputation, even with an intense marketing effort, it may be difficult for clients to think of the firm in a different light.
For these and other reasons, it is not unusual for a CPA firm to acquire a consulting practice only to split it off several years later when the intended benefits do not materialize.

This book takes a different approach for CPAs who want to enter the consulting field— the business adviser approach. Unlike the traditional approach, which is product-focused, the business adviser approach is driven by customer need. Rather than developing a product first and then selling that product to your clients, the business adviser approach starts by identifying customer need. Once the needs are identified, you then provide guidance to the client which meets that specific need. The customer focus of the business adviser approach allows you to provide your customers with total business solutions to their problems, not an off-the-shelf consulting product.

Later chapters in this book include diagnostic practice aids to help you identify client needs and recommend solutions. These tools provide a structured approach to providing your clients with valued business advice.

The Business Adviser Approach to Providing Consulting Services

The business adviser uses the audit to understand the client and to identify needs across a broad range of business issues. An auditor who uses the business adviser principles is one who—

➤ Understands the client’s business processes and not just the client’s general ledger accounts.

➤ Analyzes the client’s industry according to how it affects the client’s business plan, not just how it impacts audit risk.

➤ Identifies client needs across a broad range of business issues and offers suggestions for addressing those needs.

➤ Engages the client in a dialogue about a broad range of business matters, not just matters of auditing significance.

There are many advantages to the business adviser approach to providing consulting services. First, the business adviser approach takes direct advantage of existing firm resources, including—

➤ Client relationships.

➤ Knowledge of the client and the industry in which it operates.

➤ In-firm expertise.

By building on existing firm resources, the business adviser approach can be deployed incrementally and selectively. Instead of “jump-starting” a consulting practice through
acquisition, the business adviser approach allows you to enter the consulting field gradually by targeting specific clients and delivering selected services.

The most important advantage in becoming a business adviser is that it brings you closer to your clients.

**CLIENTS WANT YOUR ADVICE**

Statement on Auditing Standards (SAS) No. 82 requires auditors to have a discussion with their clients about fraud.\(^1\) One small-firm CPA reports his experience in implementing that aspect of the Standard.

The year we implemented the Standard I sat down with my clients and said I wanted to talk about what they thought were the risks for fraud at their business. That turned out to be one of the best things I ever did. They were so grateful for the chance to talk about something they think about a lot. One client told me: “I’m glad you finally asked about something that matters. I thought you auditors didn’t do that anymore.”

There are many clients like the one in the above example—business owners looking for practical advice on a variety of business matters. The reasons for this are straightforward: Business owners value the advice provided by outside advisers.

A survey of business executives revealed several important reasons business owners seek the counsel of outside advisers such as their CPAs.\(^2\) Keep these benefits in the forefront of your mind. If and when the time comes for you to convince your client that your firm is the one to design and implement a proposed solution, reminding the client of the following could tip the scales in your favor: concentrated experience, impartial advice, and speeding up the implementation.

**Concentrated Experience**

As a CPA, you bring a concentrated experience to bear on a problem or project. For example, suppose you’ve developed a niche in auditing construction contractors. You have probably seen a similar problem arise for several different clients; for example, some of your clients may have difficulty making accurate bids. You are in a perfect position to advise the owner of the construction company who has seen it only once.

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\(^1\) Statement on Auditing Standards (SAS) No. 82, *Consideration of Fraud in a Financial Statement Audit* (AICPA, Professional Standards, vol. 1, AU sec. 316), requires certain communications between auditors and their clients regarding fraud. Paragraph 13 of the Standard requires auditors to inquire of management (a) to obtain management’s understanding regarding the risk of fraud in the entity and (b) to determine whether they have knowledge of fraud that has been perpetrated on or within the entity. Typically, these inquiries are made during the planning phase of the audit.

\(^2\) The survey was conducted by the Financial Executives Research Foundation and is cited in Conan D. Whiteside, *Accountant’s Guide to Profitable Management Advisory Services* (Englewood Cliffs, N.J.: Prentice-Hall, 1969), 2. The survey cited was taken several years ago, but in my experience, the results are still valid.
Business owners may try the first solution that comes to mind, unaware that other firms tried the same thing and were unsuccessful. Perhaps you don’t know the perfect solution to the company’s problem, but at a minimum, you may be able to tell the business owner what not to do. This type of advice provides direct, tangible benefit to your clients, and for that reason, it is valued highly.

Impartial Advice

Your clients have access to advice from many different people within the company. That advice is valuable because it comes from those who are most familiar with a situation. However, the advice sometimes can be tainted because those providing it can be motivated by their own self-interest. Even if the person providing advice has only the company’s best interests at heart, the perception that the person may be acting out of self-interest may cause management to question the soundness of the advice. For example—

The Accounting Software Package

A small business owner was having problems keeping accurate financial records, particularly in accounts receivable and accounts payable. Each month, the subsidiary ledgers were significantly different from the general ledger control totals. The business then merged with another company, which required the merger of two different payroll systems. This proved problematic, creating delays in preparing paychecks and filing the payroll tax returns.

The business owner considered outsourcing all bookkeeping. The in-house bookkeeper had another suggestion: Buy a better accounting software package. The bookkeeper argued that the software was the problem—with a better system and proper training, he could prepare more accurate and timely financial records.

The business owner listened to the bookkeeper and agreed that the suggestion had merit. The owner was impressed that the bookkeeper was knowledgeable about general ledger software packages and the features needed to make the company run smoothly. He told the bookkeeper to research the various options, including the possibility of outsourcing. He assured the bookkeeper that whichever option was chosen, the owner would find a position in the company for the bookkeeper, even if the accounting function was outsourced.

Several weeks later, the bookkeeper came back with the recommendation: Buy a new software package. The proposal made sense to the owner, but nagging questions persisted. How diligently had the bookkeeper researched the outsourcing options? Was the recommendation tainted, perhaps not knowingly, by the bookkeeper’s desire to keep his job?

Seeking impartial advice, the business owner called his CPA.
Speeding Up the Implementation

Think about the last home improvement project you did yourself that turned out to be more of a headache than it was worth. When you finally got to the end, you told yourself it would have been better if you’d hired someone to do it right. That same scenario can happen to the business owner who tries to do a consulting project in-house.

An outside consultant has the ability to accomplish a task much quicker than someone on the inside, usually because as an outside consultant—

- You have experience in dealing with the kind of problem the client is trying to solve (at a minimum, you have probably seen other entities deal with the same or a similar problem). Employees typically do not have the same experience or technical training.
- You have the resources to work on the problem full-time. A small business attempting a consulting project is like a homeowner trying to do a major renovation on his or her own. A small business owner can deploy internal resources only on a part-time basis—employees still need to do their regular jobs. In contrast, the outside consultant can focus on the problem and bring in the resources necessary to complete the work.
- You can work across departmental boundary lines. You don’t have to worry as much about bureaucratic protocol. An internal committee assigned to the same task can easily get bogged down in company politics.

If your client acknowledges a problem but is unsure whether to solve the problem internally or to hire you as an outside consultant, consider the following. Your client should call in an outside consultant\(^3\)—

- If the internal staff does not have the technical expertise or training to solve a specific problem or handle a proposed project.
- If the staff not only needs assistance on an urgent technical project but also is faced with a backlog of their everyday work or a shortage of people.
- As an aid to management when faced with critical decisions.
- To develop specific programs.
- To obtain an objective viewpoint and recommendation.
- To reconcile opposing or conflicting views voiced by internal groups or individuals.

\(^3\) From a second survey cited in Whiteside, page 5.
BUSINESS ADVICE AS A LEAD-IN TO STAND-ALONE CONSULTING ENGAGEMENTS

The business adviser approach requires time and effort beyond that required in a normal audit. This additional effort must be rewarded through increased fees—you cannot afford to become a business adviser to your clients purely for altruistic reasons. The business adviser approach focuses on informal consultations, the first of the three types of consulting services described earlier. By themselves, these informal consultations do not provide much opportunity for increased billable hours. The ultimate goal is to use the business consultation as an entrée into a stand-alone consulting engagement. For example—

Hill Auto Transport

Hill Auto Transport was a medium-sized company that hauled cars from the docks to various car dealerships around town. The company owned some vacant land outside of town, which was accounted for as an investment in idle land.

In preparing for the year-end audit, the audit manager received a preliminary trial balance that showed a gain from the sale of idle land of nearly $500,000. This was a material, unusual transaction, and the manager asked for a copy of the sales agreement. He read this agreement carefully, consulted his colleagues with extensive real estate experience, and ultimately concluded that the profit from the sale of the transaction would have to be deferred under generally accepted accounting principles.

The manager told the engagement partner about the transaction, and they met with the owner of the company to discuss the bad news. The manager took time to make a detailed explanation of the accounting rules and why profit would be deferred. He expected some resistance from the owner, but instead, Mr. Hill nodded and said that whatever the accountants wanted to do was fine. "I just sold the property to myself," he said. He explained that he'd sold the property to a new company he'd formed. "If you CPAs would have let me recognize profit on that deal, I would have said you were crazy."

The manager thought the meeting was over—the client had agreed to the change in accounting. But the partner had more questions. "What's your company planning to do with the land?" he asked.

"Build an apartment building," said Mr. Hill.

For the next half hour, the partner and client talked about the development of apartment buildings and how to manage construction, find financing, and operate a building. Mr. Hill was a trucker, a smart man, but he didn't know the first thing about developing an apartment building. His son-in-law had suggested the idea, and he just went along with it.
The partner referred the client to some builders and to a woman who worked for the city planning department. The owner was impressed. The next day he called the audit partner, and the two worked out an agreement for the CPA firm to prepare financial projections and to put together a package to look for construction financing.

This example illustrates the ideal outcome—informal business advice leads directly to an additional consulting engagement. Not all business advice will result in your firm being hired to perform a consulting engagement. In fact, most of the time that you help your client by providing unsolicited advice you will not be rewarded with additional work.

This does not mean that your attempts to be a business adviser are all for naught. There are many other advantages to adopting the business adviser approach which are bound to pay off in the long-run. These include differentiation, repositioning your firm in the client’s mind, staff retention, and personal satisfaction.

Differentiation

Observers of the accounting profession say the audit has become a commodity. As a commodity, the only way to compete is based on price. This is why auditing fees have shown little growth over the past several years.

The only way to break free from competing as a commodity is to differentiate your firm. Becoming a business adviser not only accomplishes this, but the value of that difference is easily seen and measured by the client.

Once your client understands that you are not just selling a commodity but also offering real value, you are able to compete on something other than price. Consultants to the profession talk about “value billing,” but value billing only works when the client sees value in what you do.

Repositioning Your Firm in the Client’s Mind

Once you have differentiated your firm from those that perform traditional audits, your clients will perceive you differently. When you provide feedback to your clients on general business matters, you educate them about your and your firm’s capabilities. They begin to see you in a different light—not only as a CPA who’s familiar with all the rules and standards, but also as someone who owns and manages his or her own business and knows how to articulate and solve a wide range of business problems.

Potential clients must think of you as a person or firm who can perform consulting work in order for them to hire you as a business adviser. If clients come to know you in this way, the opportunity to be considered for consulting engagements will increase dramatically due to the following:
Referrals. People talk. Although you may not want to admit it, your clients talk about you. Your clients are active in the community—they belong to trade groups, attend conferences, buy and sell goods and services within the city where you practice. Your clients may not have any need for a formal consulting engagement, but the people they do business with may.

If your clients regard you as an experienced, well-rounded businessperson, one who has continually demonstrated a knack for analyzing problems and suggesting solutions, they will be quick to refer you to other business owners who express a need for help.

Future Services. Your clients may not have a need for formal consulting at this time. Times change. Your client may decide to acquire another business, or to retire and sell out to a group of employees, or to reconfigure the firm’s computer system. When your client recognizes the need to call in outside help, you want to be considered the person or firm who can offer that help.

Recall the example given earlier about the business owner who was considering either outsourcing his bookkeeping function or buying a new software package. Once the owner decided that assigning the bookkeeper to the project was not the best option, he called his CPA. There were many other people who were qualified for the task. He could have done the research himself, or assigned it to someone else in the company. He could have called the computer consultant who installed the company’s network, or the one who sold him the existing software. Instead, he called his CPA, even though he had no direct knowledge that the CPA had ever performed the service required.

Business advice is a personal service. Over the years, the business owner had come to know his CPA as both a businessperson and someone who could be trusted to do what is best for the company.

Staff Retention

You try to hire the best to work for your firm. You look for people who are intelligent, inquisitive, self-reliant, and not afraid to take initiative. In contrast—as a means to introduce efficiency into the auditing process—most audits have become checklist-driven, a series of routine procedures that offer little opportunity for your staff to exercise and improve the skills that attracted you to them in the first place.

Implementing the business adviser approach in your audit engagements gives your best staff the opportunity for personal and professional growth. As business advisers to their clients, experienced staff have the chance to learn new skills, solve problems, and exercise creativity.

Personal Satisfaction

Did I tell you what John Huston said at that gin game with Willy Wyler and Sam Spiegel? They were all in their eighties and someone said: “We’re really old. If there’s
one thing you could still have, what would it be?” They went around the table, and Wyler and Spiegel said, “Food! Women!” When they got to John Huston, he said, “To be interested.”

Now, I’m not near the age of John Huston, but at a certain point you realize you do what you’re interested in. Interest is all that really matters.

There is security in following an audit program and doing the same audits year after year. In contrast, becoming a business adviser to your clients, developing an understanding of their businesses and trying to deliver consulting services to help their businesses improve is filled with uncertainty. But the downside to the certainty of traditional auditing is that you may start to lose interest in what you do.

Developing a business advisory approach to auditing can keep you fresh. Faced with on-going challenges, you get the opportunity to learn new skills and take a new approach to existing clients. You also have the chance to develop new business relationships not only with your clients, but also with a whole group of advisers to help those clients.

In diagnosing client needs you may discover an area in which the client needs advice that you are not qualified to give. For example, your client may need to hire a new sales manager or design a new compensation package for senior management—technical skills that are beyond your firm’s area of expertise. As a business adviser, one who provides business solutions, you can help your client locate the expertise required.

This type of relationship-building, having access to areas of functional expertise outside your own, works both ways. If you refer clients to others, they will refer them back to you.

**WHAT IS PROVIDED IN THIS BOOK**

This book gives you the tools to implement a business adviser auditing process at your firm. The foundation of the process is developing an understanding of the client and the industry in which it operates that goes beyond what’s required of a traditional audit. Chapter 2 describes a framework for understanding a client’s business which focuses on business processes and competitive strategies.

Chapters 3 through 6 provide you with the diagnostics and other tools you need for consulting “mini-engagements” in four separate functional areas. These areas build on strengths and skills most auditors already have and those in which business owners would most naturally look to a CPA for advice. These are the four areas: (1) cost analysis and reduction, (2) internal control policies and procedures, (3) information management, and (4) technology.

Because the ultimate goal of the business adviser process is to identify opportunities for separate, large-scale consulting engagements, each chapter also includes synopses of the engagements you may identify a need for as part of the diagnostic review.

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The business adviser audit service is a series of diagnostic tools designed to identify client needs and possible solutions over a wide range of business issues. An important feature of the program is selectivity. Your firm should use the diagnostics only for the most promising clients. Once the clients have been selected, you don’t have to complete all of the diagnostics. Complete only those diagnostics or portions of the diagnostics that are most valued by the client.

The following summarizes the diagnostic tools contained in this book:

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**Chapter 4 — Financial and Operational Controls**

| Diagnostic Tool 4-A | The Partner's Game Plan — Summary of steps for the partner to take to implement the ideas contained in this chapter. |
| Diagnostic Tool 4-B | Evaluating the Control System — List of questions to help you focus on management’s overall process for setting objectives, analyzing risks, and developing controls related to those risks. |
| Diagnostic Tool 4-C | Summary of Stand-Alone Consulting Engagements — Some examples of additional stand-alone consulting engagements that may result from obtaining an understanding of your client’s business as described in this chapter. |
| Diagnostic Tool 4-D | Control Checklist for Business Activities — Internal control checklist to evaluate the design and adequacy of your client’s control system (originally published as part of the Committee of Sponsoring Organizations of the Treadway Commission (COSO) report). |

**Chapter 5 — Information Management**

| Diagnostic Tool 5-A | The Partner's Game Plan — Summary of steps for the partner to take to implement the ideas contained in this chapter. |
| Diagnostic Tool 5-B | Aligning Information With Overall Business Strategies — Questionnaire to identify areas in which the company’s management may not be receiving the information necessary to successfully implement its business strategies. Use this form as a starting point for implementing the balanced scorecard engagement. |
| Diagnostic Tool 5-C | Performance Measures Examples — Examples of performance measures organized according to the balanced scorecard approach. |
### Diagnostic Tool 5-D
**Evaluating Information Reporting Format** — Questionnaire to identify the client's information needs and to develop a preliminary assessment concerning whether existing information is responsive to these needs.

### Diagnostic Tool 5-E
**Summary of Stand-Alone Consulting Engagements** — Some examples of additional stand-alone consulting engagements that may result from obtaining an understanding of your client's business as described in this chapter.

## Chapter 6 — Technology Planning and Use

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<td>Summary of Stand-Alone Consulting Engagements — Some examples of additional stand-alone consulting engagements that may result from obtaining an understanding of your client's planning for and use of technology.</td>
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The business adviser audit service can be deployed in one of two ways.\(^5\)

1. **Provide the service free.** You may choose to complete some of the diagnostic tools and make recommendations to selected audit clients for no extra charge. This strategy assumes that a portion of the cost of completing the diagnostics and reporting to the client can be recovered through more efficient auditing. Any non-recovered portion is considered an “investment” in the client which will be recovered through future consulting engagements identified as a result of the diagnostics.

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\(^5\) If you have been providing traditional audit services, I recommend providing some of the business adviser diagnostics free of charge at first. There are several reasons to do so:

- Completing the diagnostics contained in chapter 2 will help with your audit planning. Improved planning, particularly partner involvement at the planning stage, can lead to more efficient auditing.
- It takes time for you and your staff to become accustomed to working with the diagnostics and interpreting the results.
- The business adviser approach is based on building a stronger relationship with your client, differentiating yourself from other firms, and putting your firm in a position to be considered for large-scale consulting engagements when they become available. All of these objectives are served by actually implementing the diagnostics, instead of waiting for someone to include them with their basic audit.
Providing unsolicited business advice for no extra charge delivers the message that this type of service is a normal part of your audit process. Clients may expect you to provide this advice and may believe that it’s part of the audit fee. Charging them extra for something they believe they’re already paying may be difficult to do.

2. "Package" the diagnostics as a "mini-engagement." The diagnostics provided in this book can serve as stand-alone mini-engagements your client can add on to the basic audit.

For example, fast-food restaurants offer “meal deals” as a way to increase the amount of revenue earned on each customer transaction. Why not do the same thing with an audit? Offer your clients the opportunity to customize their audits by choosing from a list of add-on business advisory diagnostics. The total engagement fee depends on the services the client adds to the basic audit.

This approach has the advantage of increasing your fees from the start, assuming at least some of your clients will choose to add-on to the basic audit package.

Regardless of the method chosen to offer the service, the basic steps in the business adviser process are the same.

1. Target selected clients.
2. Develop strategy with the audit team.
3. Communicate with the client.
4. Conduct the audit using diagnostic practice aids.
5. Review results with the engagement partner.
6. Present findings to the client.

1. **Target Selected Clients** (recommended level of involvement: partner and manager)

One of the advantages of the business adviser approach to auditing is that it can be implemented incrementally with selected clients. Costs of implementing the program, completing selected diagnostic practice aids, and discussing the results with the client may not be recovered fully up front. In that sense, implementing the business adviser program is like investing in that client—you should only make the investment if you have a reasonable chance of getting a reasonable return. Clients who are worth the investment include—

- **High value clients.** Clients who currently generate significant fee income are considered likely candidates. Even if the likelihood of your receiving additional work from them is remote, you still may want to implement the business adviser program on these jobs because your best customers should receive your best service.
Clients who use consultants. Look for clients who have experience in working with outside consultants. If you are unsure if a client uses consultants, a review of the general ledger during the audit will help you determine if and with whom the client consults. Once you know that a client uses outside consultants, your strategy should be to capture as much of the client’s consulting business as possible.

Related entities. The same strategy holds true if your existing client has related business entities that are audited by another firm. Implement the business adviser audit process to differentiate your firm from the one engaged for the other entities.

Clients involved in a volatile industry or whose company is undergoing major changes. Clients who operate in a volatile industry or whose company is undergoing major internal changes such as restructuring almost always need outside help in navigating through periods of uncertainty.

Clients in an industry of strategic value to the firm. If your firm has carved out a specialized niche, it is to your advantage to offer business advisory services to all entities in that niche. Skills learned implementing the process for one client will easily transfer to others. Becoming a business adviser to all clients in a specialized industry will further your reputation as the preeminent accounting firm serving that market.

Referrals. Clients who will refer you and your firm to others should also be considered. Unless the client has referred your firm in the past, this may be difficult to judge. Look for business owners who are active or who serve as leaders in the business community.

2. Develop Strategy With the Audit Team (recommended level of involvement: all)

Once the target clients have been selected, the audit teams for those clients should meet and begin to map out a strategy for implementing the business adviser program. The objectives of this meeting are to—

Understand the client’s key business processes and overall business plan.

Identify the diagnostic practice aids that could be most beneficial for the client.

Discuss strategies for completing the diagnostics.

Speculate on what the diagnostics might reveal.

Decide on a budget for implementing the business adviser approach.

The best time to have such a meeting is shortly after the end of the busy season, when people have available time and the details of the engagement are relatively fresh in everyone’s mind.
3. **Communicate With the Client** (recommended level of involvement: partner)

Well in advance of the audit, the engagement partner should meet with the client to discuss business issues. Partner involvement is one of the key elements in successful implementation of the business adviser approach. The primary objectives of this meeting are fact finding and relationship-building.

Learn as much as you can about the client's business and industry. Ask questions to help you refine your business adviser implementation plan. Understand which business issues are most important to your client. Discussing these issues with the client helps establish you in your client's mind as a business adviser, not just an auditor. (Note: Diagnostic Tools 2-A, 3-A, 4-A, 5-A and 6-A include questions partners may ask during these sessions with the client.)

4. **Conduct the Audit Using Diagnostic Practice Aids** (recommended level of involvement: manager and senior staff)

During the audit engagement, the audit team completes the diagnostic practice aids. (These practice aids are found in the diagnostic tools at the end of each chapter. See "The Business Adviser Audit Service" section in this chapter for a summary of the diagnostic tools.) These diagnostic tools should be completed by the audit team and not given to the client. The staff needs to become familiar with how to best use the tools to identify client needs and possible solutions. During the audit, the staff may discuss findings with the client as needs are identified.

The engagement manager must monitor the progress toward completion of the diagnostic tools. Judgment is needed to determine how far to take a particular investigation, given the time allowed in the budget. The manager should review the results of the diagnostic to understand the nature of the needs identified and to refine the suggestions that will be presented to the client.

To the extent possible, any research that cannot be conducted during the audit should be performed in advance. For example, if the staff needs benchmark information on similar companies, this information should be obtained before the start of fieldwork to avoid delay in the issuance of the financial statements.

5. **Review Results With the Engagement Partner**
   (recommended level of involvement: partner)

The engagement partner should review the results of the diagnostic and discuss the needs identified and the proposed suggestions with the audit team. The partner should look for possible stand-alone consulting engagements (which simply may be an engagement to investigate the identified matter further) to suggest to the client.

If a separate consulting engagement is recommended, the partner decides whether the service will be offered by the firm or referred to an outside source. This can be a difficult choice, particularly if the firm has limited experience in offering the service and would have to invest considerable amounts of time and effort to learn the necessary skills. In debating whether to do the work in-house or to find another firm, consider—
Size of the potential market for the service. Do other clients or potential clients have a similar need?

Steepness of the learning curve. How difficult will it be for your staff to learn the skills necessary to do the job right?

Size of the fee. Can you charge enough to cover your learning curve plus the amount invested in completing the diagnostics and advising the client?

6. Present Findings to the Client (recommended level of involvement: partner and manager)

The partner and manager should meet face-to-face with the client to discuss the findings and recommended solutions. A written document such as a management letter is preferable to an informal discussion.6

The purpose of this meeting is not only to discuss your findings but also to ask for additional work based on those findings. State directly and unambiguously that your firm can help the client find solutions to the identified problems, either by doing the work directly or by referring the client to someone who can.

IMPLEMENTING THE BUSINESS ADVISER AUDITING PROCESS FIRMWIDE

Implementing the business adviser approach to auditing requires modification of your existing audit process. It requires a significant amount of partner involvement, both in planning the implementation and in following through on the process. The approach will not work if all you do is copy the diagnostic tools and have the staff complete them as they would any other standardized checklist.

The following discussion highlights the key factors to consider before implementing the business adviser process in your firm.

Skills Needed to Become a Business Adviser

A diagnostic tool is like any other checklist—it is just an aid. The best you can do with these tools is to organize your thoughts and make sure you have considered all relevant points. Give careful thought to interpreting the results you find with the aid of the checklist.

Additionally, completing the practice aid is only half of what needs to be done. Once you have identified client needs, you must engage the client in a dialogue about those needs to communicate your findings and explore possible solutions. Discuss any opportunities for stand-

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6 For further guidance on crafting management letter comments, refer to Peter F. Stone and Mark L. Frigo, Advisory Comments for Growth and Profitability (Burr Ridge, Ill.: Irwin, 1995). This book offers a great deal of practical guidance on identifying and writing effective management letter comments. The book also can be ordered from the AICPA.
alone consulting engagements at that time and agree on a plan for follow-through on the suggestions. This second half of the business adviser approach is the most crucial—it is during this phase that the client gains an understanding of the value of your work and that you have an opportunity to bid for additional work.

Thus, advisory services are personal services and the success of the business adviser program depends on the person doing the job. That person must have a particular set of skills and personal characteristics.

➢ High Tolerance for Ambiguity. It is true that judgment can play a significant role in an audit. But compared to business consulting, most aspects of the traditional audit are relatively routine. Guidelines exist in the form of standardized audit programs, checklists, professional standards, and prior year’s workpapers. Consulting has far fewer guidelines; there are no road maps. Consequently, the people performing business consulting services must be able to tolerate ambiguity in many areas, including—

— Interpreting the results of the diagnostics. You will have to use creativity and judgment in implementing the diagnostic tools to identify client needs and possible solutions.

— Communicating with the client. There is no way to know exactly how your client will respond to your suggestions, whether they will be well or poorly received, or whether they will lead directly to additional consulting engagements.

— Quantifying “deliverables.” As CPAs, we think in terms of providing our clients with a well-defined set of deliverables—audited financial statements, or a tax return, for example. As a consultant, you may not be able to provide your client with something tangible. You may simply be selling your client your expertise and skills without a written report.

— Measuring success. Even if you do everything right, identify a need, and make a perfect recommendation, there is no guarantee that the client will engage you for a consulting service immediately. In the long term, the business adviser approach to auditing is designed to increase your fees, but in the short term, measuring your progress toward that goal may be difficult.

In many respects, having a high tolerance for ambiguity is the most important characteristic of the valued business adviser.

➢ Technical Skills. There are two dimensions to technical skills: breadth and depth. The successful business adviser has a concentrated exposure to a breadth of business issues. Without this broad experience, it is difficult to recognize client needs and to provide advice.
It is not critical for the business adviser to personally possess the detailed technical skills necessary to solve the problem; however, he or she must have access to those skills and be able to bring them to bear on the identified problem.

For example, suppose that your client decides to set up a website to sell products electronically over the Internet. With personal exposure to a broad range of business matters, you can help your client identify issues to address in an e-commerce environment, for example, information security. You may not have the skills personally or in your firm to provide e-commerce security consulting, but to enhance your standing as a provider of total business solutions you can help your client find someone who is an expert in this area.

**Relationship-Building.** As a business adviser your goal is to provide total business solutions for your clients, but you may not always have the expertise available in your firm to implement solutions. Therefore, you need to develop a network of other professionals you can turn to for help when the time arises. Once you work with another professional or refer work, it is important to maintain contact. Work on establishing and maintaining your relationships as hard as you work on keeping your technical skills up to date.

As you begin to practice as a business adviser, your network of professional relationships will grow naturally. In the beginning, however, you may need to make a conscious effort to meet other people, find out what they do, and how you can mutually benefit from establishing a professional relationship.

Some people are more adept at building professional relationships than others and have already established a network of resources. Put these people at the top of your list of people to get to know. Think of them as gatekeepers to a resource network. Call them first when you need additional advice. Someone at your firm may be a “gatekeeper” or may have the natural skills to become one. Encourage the development of these skills. Remember that consulting essentially is a people business, and you must have access to the right people to do a credible job.

**People Skills.** To be a successful business adviser to your clients, you must have a wide range of people skills, including the ability to—

- Assume a leadership role and be comfortable influencing the thinking and actions of others.
- Gain the respect of clients, the people in your firm, and other professionals.
- Recognize your own limitations.
- Consider the ideas of others.
- Communicate effectively with a wide variety of people.
Business Adviser Auditing Is a Change in Your Firm’s Mind-set

Adopting the business adviser approach is a significant change in your audit process. For those engagements where you implement the approach, you and the staff will expand the scope of your inquiry and analysis far beyond the boundaries of generally accepted auditing standards (GAAS) and generally accepted accounting principles (GAAP). Changing a well-established process such as an audit is not an easy task. Even if the innovation is logical and the benefits easy to see, successful use of the innovation is not guaranteed. Here is some advice for helping innovations succeed at your firm.

- **Find a champion.** For an innovation to succeed, it must have a champion. A champion is vital in the early stages of implementing the business adviser audit process. Without someone to make successful use a priority, the innovation will never be initiated. Throughout the implementation process a champion is necessary to keep the firm moving forward, and this is particularly true if the changes you make to your existing audit process are costly, visible, or drastically change the way things have been done in the past.

  The best champion of a new process “is a charismatic individual who throws his or her weight behind the innovation, thus overcoming the indifference or resistance that a new idea often provokes in an organization.” Implicit in this definition is that the champion has some weight (that is, power and authority) to throw around.

- **Customize the business adviser process for your firm.** As you read this book, many of the proposed changes may seem like a good fit for you and your firm, but during implementation, reality invariably sets in. Be prepared to modify the suggested process to fit the particular needs, culture, and skills of your firm. The process of redefining external ideas also gives people within your firm the chance to define the innovation so that it becomes their own (that is, “buy-in”).

- **Manage the uncertainty.** People who resist changing the existing audit process do so because of uncertainty. For example, they do not know exactly how the practice aids will be used by the staff or how the firm will increase revenues. To overcome this resistance requires a champion or someone else involved in the implementation to manage this uncertainty.

  In general, the more knowledge people must acquire to implement the change, the more uncertain they will be. You can address this uncertainty by (1) proposing incremental changes that build on existing firm skills and knowledge, and (2) having those most resistant to the change participate in customizing it for the firm.

- **Keep the lines of communication open.** Actively involve the members of the firm and give them a personal stake in the implementation of the innovation. The diffusion of innovation is a social process. Links between people in an organization, both formal and

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informal, are vital in determining success or failure in implementing change. The greater the “interconnectedness” between people—the easier it is for ideas to flow among firm members—the better you will be at implementing innovations.

- **Maintain resources at a high level.** For any innovation to succeed, the firm must have the resources available to implement it.

**Partner Involvement (Set Aside Time to Ask Your Clients Questions)**

Use this not only to find out how your client works, but also to begin to build up knowledge about how the client solves problems. When you come across other clients with similar problems, you will know how to solve their problems.

**A WORD ABOUT AUDIT QUALITY**

Here is how a judge described the role of an independent auditor.

> The private attorney’s role is as the client’s confidential adviser and advocate, a loyal representative whose duty it is to present the client’s case in the most favorable possible light. An independent certified public accountant performs a different role.

By certifying the public reports that collectively depict a corporation’s financial status, the independent auditor assumes a public responsibility transcending any employment relationship with the client. The independent public accountant performing this special function owes ultimate allegiance to the corporation’s creditors and stockholders [emphasis added], as well as to the investing public.

The “public watchdog” function demands that the accountant maintain total independence from the client at all times and requires complete fidelity to the public trust. To insulate from disclosure a certified public accountant’s interpretations of the client’s financial statements would be to ignore the significance of the accountant’s role as a disinterested analyst charged with public obligations [emphasis added].

The business adviser is a client advocate. The entire business adviser audit process is based on understanding the client’s business from the owner’s perspective and acting in the owner’s best interests. This attitude is completely different from the professional skepticism required of the auditor.

Conflicts may arise, and you may be forced to wear two different hats, one as an advocate for the public interest and another as an advocate for the client. If you ever have to choose, err on the side of choosing to be a public advocate.

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To be successful as an advice-giving auditor make sure your staff is well-trained in audit fundamentals and that you have a sound quality control program before you implement the business adviser audit process.

SUMMARY

The push for auditors to provide consulting services is not new. Thirty, forty, or even fifty years ago, leaders in the profession cajoled practitioners to become consultants. Most firms that try to expand into consulting take a product-driven approach. They identify a service to deliver, obtain the skills necessary to deliver it, and then market it to potential clients.

This book offers a different approach to entering the consulting field—the business adviser approach. The business adviser approach is client-driven in that it focuses on identifying client needs. Once needs are identified, the CPA guides the client in developing solutions to those needs and participates in their implementation.

Subsequent chapters include diagnostic practice aids to help you identify client needs and recommend solutions. These tools provide a structured approach to providing your clients with valued business advice. By offering this advice, you place your firm in the position to be the first one considered by the client for developing and implementing solutions to identified problems.
Diagnostic Tool 1-A

ANALYZE YOUR EXISTING AUDIT PRACTICE

Answers to the following questions will help you determine the status of your current audit practice and assess your readiness for transition toward a business adviser approach. (See the section “What It Means to Be a Business Adviser” for a discussion of the business adviser approach.)

1. To what degree do key firm members specialize by industry or functional area?

2. What are the sizes of the firm’s consulting services, clients, and engagements, and how do these differ from the firm’s overall direction?

3. What is the firm’s personnel leverage ratio?

4. Are clients being billed for additional services outside the scope of recurring audit or tax work?

5. What percentage of existing firm service volume is recurring compared with that which is nonrecurring?

6. How formal is the firm’s present organization?

7. What are the professional goals of the existing management group?

8. What services do existing clients need that are not presently being provided by our firm?

9. For existing clients, what is the mix of compliance services and consulting services?

10. What percentage of the firm’s service volume is rendered to clients that use the services of more than one CPA firm?

11. What are the firm’s goals and operating history for—

   Profitability
   Realization
   Utilization
   Chargeability
   Write-offs
   Growth
   Financial investment in the firm
   Prior efforts to diversify services

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9 Originally published in the AICPA Consulting Services Practice Aid, *Developing a Consulting Services Practice.*
12. Do the partners want to start or expand a consulting services practice in order to—

- Meet client’s needs in order to retain them?
- Increase the off-peak chargeability of professional staff?
- Increase the firm’s exposure in the community?
- Compete more effectively with other firms?
- Increase the firm’s services?
- Enter new industries?
- Promote staff job satisfaction by providing a variety of engagements?

13. Who are the firm’s key competitors?

14. What is the firm’s competitive position within its defined market and where does it plan to go in—

- Size and growth
- Industry market penetration
- Nature of clients
- Services
CHAPTER 2

UNDERSTANDING THE CLIENT’S BUSINESS

This chapter provides a step-by-step method for understanding a client’s business in a way that will allow you to provide real insight to the client on how that business is run. Those steps are—

1. Understand the forces affecting the client’s industry. These forces include the relative intensity of the competition within the industry and other forces outside the industry. Understanding the forces affecting your client’s industry provides important background information that will be useful as you understand and assess the client’s strategic plan and current operations.

2. Understand the client’s basic competitive strategy. At a minimum, any business advice you offer the client must be consistent with its overall strategy. If the business owner cannot articulate a strategy that focuses on either cost leadership or differentiation, then chances are the client could use help in developing a strategic plan.

3. Understand the client’s value chain. Determine which activities are critical to the overall success of your client. Focus your efforts on these areas.

4. Analyze key value-chain activities and whether they contribute to the realization of the competitive strategy. Each value-chain activity must contribute to the company’s overall strategy. Analyze value-chain activities using a simple strengths, weaknesses, opportunities and threats (SWOT) analysis.

Case Study
Dave’s Janitorial Services Company

Dave’s Janitorial Services Company is an $8 million commercial janitorial services company operating out in southern California. The company serves a variety of clients, including high-rise office building tenants, sports clubs, and local governmental agencies. Recently, the company signed a large, long-term contract with a local Army base to clean family housing units just before they are occupied by relocated families.

In the last three years, Dave has doubled the size of his business. Yet, in spite of the growth, he expresses concern that he is working harder for less. The numbers seem to bear this out—although revenues have doubled, profits have risen less than 10 percent.

Dave blames the lack of profitability on onetime events—the legal fees and settlement related to a wrongful termination suit, and various costs associated with moving the company’s facilities.
“I’m not making as much money as I should,” he tells his CPA. “I’ve tried to make changes, but nothing seems to work. What do you see? What would you do to turn things around?”

WHAT YOU SEE DEPENDS ON HOW YOU LOOK

Having a broad understanding of the client’s business and the industry in which it operates is essential if you are to become a successful business adviser to your clients. By itself, understanding the client’s business may not directly lead to stand-alone consulting engagements or other consulting revenues. However, obtaining this understanding is absolutely essential if you are to get the most benefit from the ideas contained in the remaining chapters.

Developing an in-depth understanding of your client’s business and engaging your client in broad business discussions will help you differentiate yourself from your competition. Having a source of differentiation is important because—

➢ **It is not a commodity.** By bringing client- and industry-specific knowledge to your audits, you are no longer providing a commodity. You no longer have to compete solely on price. By providing personal, customized service to your clients you can price that service accordingly.

➢ **It creates higher switching costs.** Once you develop an in-depth knowledge of your client and the business issues it faces, you build up a barrier to your competition. To receive the same kind of knowledgeable service your firm provides, your client knows it will have to “train” any new CPA firm it might consider hiring.

As auditors, we tend to think in very narrow terms when it comes to understanding a client’s business. We analyze the business and the industry according to how they affect the audit but rarely do we think about how they affect the owner. For example, suppose we know that our client is in a rapidly changing industry in which products become obsolete quickly. The traditional auditor evaluates that information using a framework built on the audit-risk model and financial statement assertions. That framework may lead the auditor to conclude that inventory valuation is a high-risk audit area and that substantive test work relating to the assertion must be modified to reduce audit risk to an acceptable level.

This is a perfectly good conclusion for an auditor, but it falls far short of being a basis for providing valued business advice. The client already knows it operates in a volatile industry and that some of its inventory is probably obsolete. What value do you provide by stating that the estimate of the amount of the obsolescence is materially correct?

Business owners have other issues they need addressed. In this example, the business owner may be concerned about how to increase inventory turnover or how to develop new products in response to the constantly changing market. The audit-risk model is excellent for identifying issues of importance to auditors, but as a tool for identifying issues of importance to your client, it falls short.
To be a business adviser, what is needed is a different framework, new tools for understanding your client from the business owner’s perspective. The purpose of this chapter is to introduce you to a framework that can accomplish this.

This framework is not the original work of this author. The framework described in this chapter is based largely on the research and writings of Michael E. Porter.¹

INDUSTRY ANALYSIS

From a business adviser’s perspective (as opposed to the traditional auditor’s perspective), industry analysis is important because it describes the external forces facing a company. These external forces can be viewed as opportunities, which the company should work to take advantage of, or as threats, from which the company should protect itself.

Your first step in understanding the client’s industry should be to understand the relative intensity of the competition within the industry. In analyzing your client’s industry, consider the following.

- **Number and Relative Size of Competitors.** When there are many competitors in an industry, each of comparable size, competition tends to be fierce, as each company battles for market share. In contrast, when the industry includes only a few competitors, each company tends to recognize its mutual interdependence, and competition tends to be muted. When an industry is dominated by one company, competition also tends to lessen because the dominant company is able to dictate the terms of the competition and discipline defectors.

- **Underlying Industry Conditions.** The underlying basic conditions of the industry will influence the intensity of the competition. Overcapacity, for example, tends to increase competition, as firms cut prices to achieve better plant utilization. A glut of inventory can also increase competition, as can slow industry growth and lack of product differentiation.


There are many different ways to analyze a company or an industry, any one of which might have served as a suitable framework for this book. I chose Porter’s methodology for two reasons. First, Porter’s value-chain analysis has been adapted for use by others in the accounting profession. For example, the authors of the Committee of Sponsoring Organizations of the Treadway Commission (COSO) report used the value-chain analysis to draft their example engagement tools. The value-chain analysis also was used by the Special Committee on Assurance Services as a basis for understanding how assurance services function. In writing this book, I felt it was important to build off the work of others in the profession.

The second reason for using Porter’s framework is that I personally have found it to be an excellent way of understanding a business. Most of the tools auditors have to understand a client’s business and provide advice take what I call a “bullet point” approach to problem identification. They list all the possible areas you might look: for example, cash management, inventory controls, firm organization, and so on. The problem with this approach is that the individual bullet points are not unified into a cohesive whole. Porter’s approach organizes the functions of a business into a functional whole. As a result, you can take the individual bullet points and synthesize the information to draw broader and, hopefully, more meaningful interpretations.
Behavior. Your client’s management and that of its competitors may act in ways that are not directly tied to underlying industry structure. A company may have a diverse set of objectives or may attach a high strategic importance to a particular position, increasing the amount of competition. For example, a chain of family-owned, local hardware stores faced the prospect of competition from national home remodeling “superstores.” In response, the local stores engaged in a series of price battles, lowering profitability, in an effort to retain market share and customer loyalty.

In the case of Dave’s Janitorial Services Company, the industry consists of many companies of approximately the same size and a product that is not highly differentiated. As a result, the competition in the industry is fierce, and usually tied to price.

Forces Outside the Industry

In addition to the competition of rivals within an industry, forces outside the industry also can have a significant impact. For example—

Barriers to Entry. Industries with little threat of entry from outsiders tend to be more stable and profitable than those that must continually respond to the competition brought on by new companies entering the market. Entry barriers exist whenever it is difficult or economically unattractive for a new company to replicate the product of the existing companies in the industry. These barriers may take many forms, for example, governmental policy, access to distribution channels, or proprietary product differences. Entities that own commercial property in a town that imposes strict limitations on development enjoy a significant competitive advantage because of the high barrier to entry. The most common form of entry barriers relates to the scale and amount of investment required to enter an industry.

Substitutes. Entire industries can be threatened by substitutes. For example, with the increased reach of automated teller machine (ATM) networks, it is possible to travel all over the world and withdraw cash—in the local currency—directly from your home checking account using your ATM card. With such convenience and with charges of only a couple of dollars per transaction, the ATM transaction is clearly a viable substitute for traveler’s checks. This example highlights the important point that when analyzing the threat of substitutes, focus not only on the physical aspects of the product, but also on the function of the item to the customer. The function of the traveler’s check is to provide safe, easy access to cash while traveling. The ATM offers the same function.

Customer Clout. Powerful customers can force companies to reduce prices, or to add features or services to their products without charging for them. The size of the customer and the amount of the company’s business it commands usually determine the customer’s
power. Customer power can be blunted by product differentiation, that is, if your client supplies a product that is unique in some important way, the customer is unlikely to be too demanding. In assessing the relative power of your client’s customers, try to distinguish between the customer’s inherent power and its willingness to use it. For example, if your client’s product is only a small portion of the purchases of a given customer, that customer is unlikely to exercise its power over an immaterial amount of purchases. On the other hand, if your client’s customer spends a great deal of money on your client’s product, that customer is more likely to look for ways to negotiate a more favorable arrangement.

Supplier Clout. Supplier power is the exact opposite of customer power. Powerful suppliers have the ability to control the cost of your client’s input. As such, they are able to take profits out of the industry that might otherwise stay within it. For example, consider two powerful suppliers to the personal computer industry, Microsoft and Intel, which have an overwhelming share of the market on the supply of two critical components to computers. Not surprisingly, the two most profitable companies in the personal computer (PC) industry are these two suppliers, not the companies that make the actual PCs. In analyzing supplier power, focus on (1) the relative size and concentration of suppliers relative to industry participants, and (2) the differentiation of the materials supplied. In the PC industry, Microsoft and Intel are large, they have established monopolies, and their products are highly differentiated.

Dave’s Janitorial, continued

In the case of Dave’s Janitorial Services Company, the company is faced with some positive industry factors and some negative ones. On the positive side, the industry has no powerful suppliers. Cleaning supplies and, more importantly, workers, are easy to come by. There is no real threat of substitution, except that companies may choose to “insource” their janitorial function. Fortunately for Dave, most companies are looking to do just the opposite and outsource their janitorial function, thus the industry is expanding.

On the negative side, there are virtually no barriers to entry. It takes little capital to start a janitorial company, cleaning processes are well known and easy to copy, and there are no other restrictions on entering the industry. Additionally, customers have a great deal of power and tend to use it. Most customers shop exclusively on price. The large number of small companies in the industry, combined with the ever-present threat of new companies entering the industry,

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2 Vulnerability because of concentrations is a required disclosure under Statement of Position (SOP) 94-6, Disclosure of Certain Significant Risks and Uncertainties. Most auditors go through their disclosure checklist, evaluate this item from a financial statement disclosure standpoint, and quickly move on. Rarely will an auditor pause to consider how the concentration affects the company strategically. As auditors, we gather a great deal of information about our clients, but we use that information in narrow ways. Part of being a business adviser is to take the knowledge we already have and look at it from a different perspective—a business owner’s perspective.
make it easy for customers to extract concessions from their janitorial services provider.

All in all, the negatives of the industry outweigh the positives right now. Dave is operating in an industry in which it is difficult to make a profit.

Industry analysis is important because it broadens your understanding of your client and the issues facing the owner of the company. Industry analysis forces you to look outside the entity and identify some of the threats and opportunities that are present. Understanding threats and opportunities will be discussed later in this chapter. (See Diagnostic Tool 2-B for a listing of sources of information for industry analysis.)

BASIC BUSINESS STRATEGIES

Consider two different U.S. airlines: Southwest Airlines and Alaska Air. Southwest is famous for its no-frills approach to flying. There are no assigned seats—all seating is done on a first-come, first-serve basis. They serve no meals, only peanuts, and they offer only one class of service. The company is the undisputed leader in cost per mile, an industry standard for measuring cost efficiency.

Alaska Air is a West Coast carrier that accounts for only about 2 percent of U.S. domestic air traffic. Alaska is known for the generosity of the amenities it provides its customers. For example, it does not provide frozen entrees to its coach class passengers; all meals are cooked from scratch. Until recently, the airline offered free wine to all passengers, as well as wool blankets and complimentary newspapers.

Two companies in the same industry, in some cases serving the same markets, yet they have two completely different strategies for conducting business. In general, there are two generic business strategies: cost leadership and differentiation. In the above example, Southwest has adopted a cost-leadership approach, while the success of Alaska Air rests on its differentiation strategy.

As a business adviser, it’s vital that you have an understanding of your client’s basic business strategy. To be relevant, any advice you give them must be consistent with their strategy.

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Dave’s Janitorial, continued

When asked about his business strategy, Dave said: “I want to grow, make more money. I want to get more jobs. If I can win more jobs, I can drop more money to the bottom line. It helps to meet with the bigger customers personally, find out what they need and try to customize the bid. I think if I shave my margins just a little, I can get more work, and I’ll make up the lost margins in volume.”
In this example, the business owner has articulated a goal ("make more money") but not necessarily a well-defined strategy for achieving that goal.

The underlying premise of the strategic planning process is that companies must make a choice. They must choose to be a cost leader or to differentiate themselves from their competition. To try to be "all things to all people," or, worse yet, to make no choices regarding strategy, is a sure way to lead the company into mediocrity. In Dave's case, he seems to have positioned himself in the middle of the road. On the one hand, he wants to differentiate his company by customizing the service he provides. However, he also seems to be willing to work on thin margins, and compete on price, which means that to be successful he must establish cost leadership.

Long-term profitability accrues to the company that can establish a sustainable competitive advantage vis-à-vis its competitors. Choosing a competitive strategy is a blueprint for establishing such an advantage.

At a minimum, any business advice you provide to your clients should be consistent with their overall business strategies. To the extent that those strategies are fuzzy or ill-defined, any advice you can give to help your clients more clearly define their strategies will be highly valued. The following is a brief description of the two basic business strategies.

Cost Leadership

Firms that adopt a cost-leadership strategy are trying to become the low-cost producer in their industry. There are many ways a company can obtain a cost advantage, for example, through economies of scale, proprietary knowledge, superior training of its personnel, or preferential access to raw materials. A company trying to take a cost-leadership approach must be able to recognize and exploit all possible sources of obtaining a cost advantage.

A firm that pursues a cost-leadership strategy cannot ignore the quality of its product. A company must continue to provide a product that can command prices at or near the industry average. If its product is perceived by customers as not comparable to other products in the market, then a cost leader may be forced to discount prices and reduce margins in order to maintain sales. This may nullify any advantage the company has in its cost structure.

In addition, a cost leader must establish itself as the cost leader, not one of several companies trying to be the low-cost provider. When several companies compete to become the low-cost provider, the competition for market share is fierce. Unless one company emerges as the clear cost leader and the remaining firms back off, margins and profitability shrink unabated, and the results can be disastrous.

There are several risks facing the company that attempts to become a cost leader.

➢ Imitation. If a company is successful in becoming the clear cost leader in an industry, others in the industry will be quick to imitate its strategy. Barriers to imitation may exist,
but these are never insurmountable. For that reason, companies must continue to invest and improve their cost-leadership positions.

- **Erosion.** Another risk the cost leader faces is that its basis for cost leadership can begin to erode. For example, suppose Dave’s Janitorial were able to establish cost leadership, partially through the economies of scale achieved by buying large quantities of cleaning supplies. If the cost of supplies is a relatively high percentage of the cost of a standard cleaning job, then Dave’s purchasing discount is a substantial advantage. What if suppliers introduce new cleaning products into the marketplace that greatly reduce the amount of cleaners required on a job? In that case, Dave’s competitive position begins to erode as the basis for that position (the relative importance of the cost of supplies to job profitability) loses its importance.

- **Poor Quality.** The cost-leadership strategy is successful only as long as the company is able to command prices at or near the industry norm. The final risk faced by a cost leader is that the quality of its product declines and it can no longer charge a price comparable to that of others in the industry. If quality declines, the company must charge lower prices, margins decrease, and so will profitability.

A company’s structure and culture must be compatible with its business strategy. Companies that adopt a cost-leadership strategy usually are characterized by standard, no-frills products. They also emphasize internal controls, monitoring costs, and a dedication to the learning curve. The culture tends to value frugality, discipline, and attention to detail.

Detailed cost analysis leading to suggestions for cost control is one area in which CPAs can often provide value for their clients. Chapter 3 focuses on this topic in more detail.

**Differentiation**

The second generic business strategy is differentiation. Companies that choose this approach try to become unique in one aspect of their business that customers value. These companies must identify and understand what customers need and value and then uniquely position themselves to meet those needs, thereby commanding a premium price or similar benefits such as customer loyalty. For differentiation to work as an overall strategy—

- The premium charged by the company must exceed the cost of differentiation.
- The source of differentiation must be sustainable.

Many companies err in defining the scope of their differentiation too narrowly. They tend to limit their notion of differentiation to the product or the way it is marketed. For example, a manufacturer of golf clubs may consider its source of differentiation to be in the materials used to make the clubs, and the design of the club head and shaft. It may differentiate itself by its clever television ads featuring well-known celebrities you would not ordinarily consider to be golfers.
But companies can establish differentiation in many different ways, not solely by the product itself or how it is advertised. The procurement of raw materials, the after-sale servicing, the hiring and training of personnel—all of these areas and more can help a company differentiate itself from its competitors. Even if the product itself is essentially a commodity, finding ways to differentiate exclusive of the product can often lead to substantial differentiation. One of the problems faced by Dave’s Janitorial is that it provides what is essentially a commodity service. Yet, if Dave can find a way to differentiate in other areas, even in indirect costs such as training or equipment maintenance, he may be able to differentiate his company from other janitorial services companies.

The following table lists some examples of how companies can achieve differentiation in a number of different areas.

Table 2-1
Differentiation Activities

The following examples demonstrate how a company can achieve differentiation in a number of different areas.

<table>
<thead>
<tr>
<th>Human Resources</th>
<th>Superior training</th>
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<tbody>
<tr>
<td></td>
<td>Stable work force policies</td>
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<tr>
<td></td>
<td>Recruiting programs to attract the best qualified personnel</td>
</tr>
<tr>
<td>Technology</td>
<td>Unique product features</td>
</tr>
<tr>
<td></td>
<td>Unique production processes or machines</td>
</tr>
<tr>
<td></td>
<td>Unique delivery vehicle scheduling</td>
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<tr>
<td></td>
<td>Superior marketing research</td>
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<tr>
<td></td>
<td>Advanced servicing techniques</td>
</tr>
<tr>
<td>Procurement</td>
<td>Highest quality raw materials or product components</td>
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<tr>
<td></td>
<td>Superior location</td>
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<tr>
<td></td>
<td>Most desirable media placements</td>
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<tr>
<td></td>
<td>High quality replacement parts</td>
</tr>
<tr>
<td>Operations</td>
<td>Low defect rates</td>
</tr>
<tr>
<td></td>
<td>Short time to manufacture</td>
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<tr>
<td></td>
<td>Tight conformance to specifications</td>
</tr>
</tbody>
</table>

Inbound and Outbound Logistics

Timeliness of supply to the manufacturing process

Rapid and timely delivery of finished products

Accurate and responsive order processing

Handling that minimizes damage

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A company’s policies are the most important factor in determining its points of differentiation. Most uniqueness is discretionary and therefore is a function of the choices management makes about company policy. If you study Table 2-1, you will note that many of the items listed are a function of company policy and of whether management chooses to differentiate the company in those particular areas.

To be successful, companies that choose a differentiation strategy must be able to charge a premium for their product that exceeds the cost of differentiation. Thus, companies that choose a differentiation strategy cannot ignore their costs because their differentiation premium may be completely eliminated if the costs of achieving that premium are too high.

In contrast to the cost leader, there can be several companies within an industry that successfully differentiate themselves, as long as there are several attributes that are widely valued by buyers.

There are several risks to choosing a differentiation strategy, the first of which is that competitors can imitate the point of differentiation. In the airline industry, American Airlines was the first to introduce a frequent flyer program, which proved to be immensely popular and highly valued by its customers. It was quickly copied by its competitors.

A second risk to the differentiation strategy is that the point of differentiation chosen by the company is no longer valued by its customers. For example, a local retailer may differentiate itself through promotional tie-ins with the local professional sports team. If that sports team loses its popularity, for example, by fielding poor teams or through boorish public behavior by its players or management, the retailer’s tie-in with the sports team loses its value.

Finally, a company that chooses to differentiate itself may find that the cost of differentiation begins to increase, and the premium charged to customers is no longer sufficient to cover the costs. Margins decline and the company is no longer profitable.

Companies that adopt a differentiation strategy need a culture and an organizational structure that supports this strategy. Differentiation is fostered in an environment that encourages innovation, individuality, and risk-taking.

**THE VALUE CHAIN**

As auditors we are trained to examine a company by using the general ledger. When analyzing a business, our typical approach is to focus on the numbers. Financial analysis sometimes can help
identify problems or confirm suspected problems, but overall, quantitative analysis of this source is quite limited because the numbers only reflect results. To provide advice, you have to understand the processes that drive the numbers. You have to understand underlying causes.

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**Walea Contractors**  
**Past-Due Receivables**

Walea Contractors is a general contracting company. During the last two years, the company has experienced an increase in the amount of receivables in general and past-due receivables in particular. All the normal receivable ratios (for example, receivables as a percentage of sales, receivables turnover, and past-due receivables as a percentage of total receivables) indicate negative trends and are worse than industry average.

The senior auditor on the account recognizes the problem and proposes a management letter comment which recommends that the company become more aggressive in collecting from late-paying customers, for example, by hiring a collection agency or initiating lawsuits.

The partner on the account sees a different problem. Like most construction contractors, Walea sends progress billings to most of its customers. Under the standard billing arrangement, customers do not pay the final bill until the work has been completed to their satisfaction.

The partner made some inquiries and did further analysis on the reasons for the increase in past-due receivables. He discovered that the field personnel were becoming increasingly lax in completing “punch list” items at the end of jobs. As a result, many of these minor items remained uncompleted, and the customers, as entitled, withheld payment of the final bill. Thus the increase in past-due receivables.

In diagnosing the underlying cause of the deteriorating financial results, the partner was able to make a better recommendation—that the client take steps to ensure that field personnel complete jobs, including punch list items, on a timely basis.

In his book *Competitive Advantage*, Porter introduces the “value chain.” The notion behind the value chain is that companies are successful when they provide customers with value. The value chain consists of value activities, which are the physically and technologically distinct activities a company performs. The value activities are building blocks used by the company to create value for its customers. Value activities are of two types, primary activities and support activities.

Understanding the value chain will help you identify the underlying causes of business problems and help you make more valuable suggestions to your clients.
Primary Activities

The primary activities are those involved in the physical creation of the product, its sale and transfer to the customer, and after-sale service.

The "chain" of primary activities might look something like this diagram.

The Value Chain

The order of events in the value chain is read left to right—you start with inputs, produce a product, ship and sell it, and ultimately must service it. The primary activities in the value chain are described as follows.

> **Inbound Logistics.** Activities associated with receiving, storing, and disseminating inputs to the product, including material handling, warehousing, inventory control, vehicle scheduling, and returns to suppliers.

> **Operations.** Activities associated with transforming inputs into the final product, including machining, packaging, assembly, equipment maintenance, testing, printing, and facility operations.

> **Outbound Logistics.** Activities associated with collecting, storing, and physically distributing the product to buyers, including finished goods warehousing, material handling, delivery vehicle operation, order processing, and scheduling.

> **Marketing and Sales.** Activities associated with providing a means by which buyers can purchase the product or service and inducing them to do so, including advertising, promotion, sales force, quoting, channel selection, channel relations, and pricing.

> **Service.** Activities associated with providing services to enhance or maintain the value of the product in the hands of the buyer, including installation, repair, training, parts supply, and product adjustment.

The value chain is a tool you can use to understand the workings of your client's business. Your first step is to understand the relative importance of the primary activities, which will vary according to your client's type of business.
Dave’s Janitorial, continued

To gain a better understanding of Dave’s Janitorial, determine the relative importance of the primary value chain activities. Assign a value to each of the value-chain activities: 1 = the activity has little impact on the company’s overall success; 5 = the activity is critical to the company’s overall success. Applying this exercise to Dave’s Janitorial reveals the following:

*Inbound Logistics.* This is not a significant activity for Dave. In addition to cleaning the customers’ premises, on some jobs Dave also is responsible for restocking certain items such as paper towels and hand soap. On the company premises, the operations manager is responsible for receiving cleaning supplies and items to be restocked which are then allocated to the crews working that day. However, cleaning supplies are a small fraction of the cost of a job, and the number of customers that require restocking is small. Relative importance to overall company success: 2

*Operations.* This is the heart of Dave’s business. The performance of the cleaning crews in the field—whether they do their job properly and within budget—is vital to the overall success of the company. This value-chain activity also encompasses equipment maintenance, which also is important to Dave. Relative importance to overall company success: 5

*Outbound Logistics.* With the addition of the Army-base job, this activity has grown in significance. One of the components of this activity is scheduling, which is critical to the success of that particular job. Scheduling and order processing also are important for many of the other big commercial jobs. Relative importance to overall company success: 4

*Marketing and Sales.* This activity is of moderate importance to Dave. Currently, he has more work than he can handle, and most of his larger clients are signed to long-term contracts. He is not bidding on as many jobs as he used to, because many of his new customers are referrals from existing ones. Still, he spends a fair amount of time bidding on new work. Relative importance to overall company success: 3

*Service.* This is not a significant activity. Occasionally the company gets a callback to a certain job, but typically, once the work has been performed, Dave has no contact with the customer until the next scheduled cleaning. Relative importance to overall company success: 1

Dave’s value chain for primary activities could be drawn as follows.
The relative importance of each primary activity depends on the client’s industry. Dave’s Janitorial is competing in a service industry that depends heavily on the operations of its field personnel, and its service element is virtually nonexistent. In contrast, for an office equipment leasing company, service may be vital and operations minimal.

Companies in the same industry may have completely different value chains. For example, the primary activities of a contractor specializing in large-scale, commercial projects bid under cost-plus contracts are different from those of a contractor specializing in smaller, residential jobs bid on a fixed-price basis.

**Support Activities**

In addition to the primary activities, entities also engage in a set of “support” activities. These activities support the primary activities and each other by providing purchased inputs, technology, human resources, and various firmwide functions, such as cost accounting.

These support activities can be added to the company’s primary activities to create the overall value chain for the entity.

---

These support activities are—

- **Firm Infrastructure.** Activities associated with general management, planning, finance, accounting, legal, government affairs, and quality management.

- **Human Resource Management.** Activities associated with recruiting, hiring, training, development, and compensation of all types of personnel. Human Resource management affects competitive advantage in any company, particularly in service companies, such as CPA firms.

- **Technology Development.** Activities associated with efforts to improve products, services, and processes. Technology development can take many forms, from basic research and product design, to process equipment design and servicing procedures.

- **Procurement.** Activities associated with the purchase of inputs used throughout the entity’s value chain, including both primary and support activities. Typically, procurement is spread throughout the company, which tends to obscure the overall magnitude of this activity and allows many purchases to go unscrutinized.

---

**Dave’s Janitorial, continued**

Again, the client can be better understood if you determine the relative importance of the support activities. Assign a value to each support activity: 1 = the activity has little impact on the company’s overall success; 5 = the activity is critical to the company’s overall success. Applying this exercise to Dave’s Janitorial reveals the following:

**Firm Infrastructure.** This is an important part of Dave’s business. He spends a fair amount of time in the general management of the business, including obtaining different sources of financing as the business changes and grows. Relative importance to overall company success: 4

**Human Resource Management.** This activity is vital to Dave’s overall success, as it is with most service organizations. Training and the retention of highly trained personnel are key issues. Labor costs account for nearly 90 percent of all direct job costs. Relative importance to overall company success: 5

**Technology Development.** This is not much of a factor in Dave’s business. Most technological developments affect back-office operations such as accounting or scheduling, where personal computers are used. Relative importance to overall company success: 2

**Procurement.** This activity is a minor part of Dave’s business. Most costs are personnel-related. Relative importance to overall company success: 2
The support activities can then be added to Dave’s primary value-chain activities to create the overall value chain for the entity.

The Value Chain—Dave’s Janitorial

<table>
<thead>
<tr>
<th>Firm Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Resource Management</td>
</tr>
<tr>
<td>Technology Development</td>
</tr>
<tr>
<td>Procurement</td>
</tr>
<tr>
<td>Inbound Logistics</td>
</tr>
</tbody>
</table>

**USING THE VALUE CHAIN TO ANALYZE YOUR CLIENT’S BUSINESS**

When companies implement a business strategy, they need to look at each of these primary and secondary activities. Each activity should contribute in some way to the overall strategy of the business. For example, if a company is attempting to be the low-cost provider, then its procurement activities may include strategies to take advantage of volume discounts or other ways to cut costs. A company seeking to differentiate itself may include strategies for servicing its products that make the company unique among its competitors.

A company needs to analyze each of its activities to see if they are contributing to either the cost reduction or differentiation strategy of the business. In addition, a company should look at “linkages” between the activities to see if those linkages also are contributing to the strategy. For example, in a professional services firm, the hiring of new employees is linked to the delivery of the firm’s services. If the firm is seeking to differentiate the type and quality of its services from its competitors, then it must hire people with the skills to provide those services.

As a business adviser you need to understand your client’s value chain and the relative importance of each activity to the overall success of the company. Once you have identified the key activities, focus your attention there. In the case of Dave’s Janitorial, you should focus most of your attention on operations and human resource management, as these are the two activities that will contribute most to the company’s success. Other activities, such as how supplies are inventoried (inbound logistics) or which spreadsheet program is used (technology development), are not important enough to the client to warrant a great deal of your attention.

After focusing on the client’s key activities, analyze how those activities currently are being performed and determine whether they are contributing to the company’s overall business
strategy. For example, if Dave has decided to be the cost leader for janitorial services providers, what has he done in the area of operations and human resource management to establish his cost-leadership position?

One of the most useful ways to examine a company’s activities is by using a SWOT (strengths, weaknesses, opportunities, threats) Analysis.

**SWOT Analysis**

A SWOT analysis is a widely accepted methodology for analyzing a company’s business strategy. The primary advantage to the analysis is that it is relatively simple to perform and understand. It begins with the notion that a company’s business strategy is affected by circumstances both internal and external to the company.

- **Internal Forces: Strengths and Weaknesses.** A company’s internal policies and procedures create strengths and weaknesses. Strengths, obviously, are those things the company does well, that is, they help the company realize its overall strategy. Weaknesses are anything that detracts from the company realizing its strategic goals. They can be actions the company has taken that are counterproductive to its competitive strategy or that are poorly performed and need improvement. Weaknesses can also arise from company inaction or an inability to decide on how best to implement the desired strategy.

- **External Forces: Opportunities and Threats.** Forces external to the company create opportunities or threats. Opportunities give the company a real or potential competitive advantage. For example, changes in the law or in demographics can provide opportunities for a business that did not previously exist. Threats present the company with real or potential competitive disadvantages. The same law or demographic shift that presents an opportunity for one business may pose a threat to another.

Strengths, weaknesses, opportunities, and threats should be analyzed in light of the company’s generic business strategy, for example, how will the proposed demographic shift affect the company’s ability to differentiate itself from its competitors? Additionally, a SWOT analysis performed at a company wide level yields results that are too vague and general. For that reason, you should apply the analysis at the value-chain activity level. Again, you should focus on those activities that are most important to the success of the company.

To perform a SWOT analysis, identify the important activities of the company, and start by reviewing all you know about how the company performs those activities. Write down your perception of how well the company performs those activities, whether the stated policies and procedures and their execution contribute to the company achieving its strategic goals. Next, remember the industry analysis that was discussed at the beginning of this chapter. Consider those industry factors external to the company and identify opportunities and threats they present to the company.
Follow up your initial thoughts by interviewing the business owner to obtain more information and to confirm or refine your original perceptions of the company and industry. Consider taking a tour of the client’s facilities, particularly if inbound logistics, operations, or outbound logistics are a critical activity. Ask questions of key client personnel involved in those activities. For critical support activities such as human resources or technology, interview the people in charge of those functions.

Diagnostic Tool 2-C contains a form you can use to help you perform a SWOT analysis for your clients’ critical activities.

IMPLEMENTING THE IDEAS CONTAINED IN THIS CHAPTER

As noted at the beginning of the chapter, this chapter provides a step-by-step method for understanding a client’s business in a way that will allow you to provide real insight to the client on how that business is run. Those steps are—

1. Understand the forces affecting the client’s industry.
2. Understand the client’s basic competitive strategy.
3. Understand the client’s value chain.
4. Analyze key value-chain activities and whether they contribute to the realization of the competitive strategy.

Some of the information needed to complete the above tasks you probably have already as a result of your traditional audit work. However, the traditional audit focuses only on a small portion of your client’s value chain, that related to financial reporting. Auditors spend little if any time relating that financial information to the physical activities of the business: how raw inputs are transformed into finished products, which are then marketed, sold and delivered to customers, and subsequently serviced. To be a business adviser you need to understand the broad business issues affecting your client, which means obtaining information on matters outside the traditional audit scope.

Obtaining that information requires an investment of time and effort. Some of these costs you may be able to pass on directly to your client. Other costs may be recouped through lowering the costs of performing the traditional audit services. Some portion of the costs may be recovered only if you are successful in identifying and delivering stand-alone consulting engagements.
Epilogue
Dave’s Janitorial Services Company

Dave’s initial meeting with his CPA, which was described at the beginning of this chapter, occurred at the conclusion of the audit. The CPA had no immediate response to Dave’s question, but promised to give it some thought.

Using the techniques described in this chapter, the CPA formed some general ideas about the company. The CPA believed that for the company to be successful, Dave must focus on the cost-leadership strategy rather than differentiation. He also believed the key areas to look at were human resource management and field operations.

The CPA obtained resources on business planning, as described in Diagnostic Tool 2-D. Those resources, combined with the techniques described in this book, were sufficient for the CPA to design a work program to help Dave understand his business better.

The CPA met with Dave to describe his initial thoughts relating to cost leadership and the important activities of human resource management and field operations. He told Dave he would like to take some time to explore the matter in depth. He showed Dave the work program, and told him it would take thirty hours at the standard billing rates. He said that some of the work gathered during the engagement could be used during next year’s audit, and he promised to lower the fee accordingly. After several days, Dave accepted the terms of the engagement.

The engagement consisted of interviews with client personnel to understand the company’s human resources policies and the performance of individual jobs. The CPA observed several work crews performing their tasks.

At the end of the engagement, the CPA made several detailed suggestions related to the hiring and training of personnel, scheduling of jobs, and field supervision policies. During the engagement, the CPA also learned that the initial assessment about the relative importance of procurement activities had been wrong. Procurement was quite important to the company, and the CPA had several suggestions for improvements that could be made in that area. All the suggestions were designed to help the company cut costs.

The CPA also identified an opportunity for two additional stand-alone consulting engagements. One was to develop a field personnel manual and training courses for field supervisors. The second was to redesign the company’s information system so that cost information was available on a job-by-job basis.

The results of the engagement were presented to Dave in a face-to-face meeting. Except for a general outline of the findings, no formal written document was
prepared. Dave was receptive to the suggestions for improvement. He was somewhat interested in pursuing the other consulting engagements but was hesitant to proceed because of cost. He was most interested in the personnel manual because of a recent experience in which a representative of a large governmental agency asked whether he had a manual and how his people were trained. Dave believed that his personnel policies were one of the reasons he lost the bid.

The CPA does not have the expertise to develop a personnel manual and the supervisor training programs, but if Dave decides to pursue those matters, the CPA will help in the search to find a qualified candidate. The CPA does feel comfortable designing a new information system, and the hope is that is what Dave eventually will decide to do.

SUMMARY

Understanding your client’s business and the industry in which it operates is crucial if you are to become a business adviser to your clients. As auditors we have been trained to see our clients from a narrow perspective. As our client’s business adviser we need to broaden the scope of our understanding.

This chapter introduced techniques for broadening the understanding we have of our clients. These techniques will help you to understand the external forces affecting your client’s industry, define your client’s basic business strategy, and analyze your client’s business activities (not just its financial statements) to assess whether those activities are helping the company achieve its strategic goals.

The value-chain analysis and other concepts introduced in this chapter will be useful in implementing the ideas contained in subsequent chapters.
Chapter 2 — Diagnostic Tools

Diagnostic Tool 2-A  The Partner’s Game Plan
Diagnostic Tool 2-B  Sources of Information for Industry Analysis
Diagnostic Tool 2-C  Understanding a Client’s Business
Diagnostic Tool 2-D  Summary of Stand-Alone Consulting Engagements
Diagnostic Tool 2-A

THE PARTNER’S GAME PLAN

Partner commitment and involvement are essential for an audit firm to successfully implement the business adviser approach to auditing. Engagement partners should be able to answer the following questions about their clients’ businesses. If they can’t, the partner should get answers by talking to their clients. If necessary, additional research may be needed to prepare for the discussion with the client or to supplement the answers provided.

➢ What is the client’s generic business strategy? Is it attempting to become the cost leader in its industry, or to differentiate itself from the competition?

  • *Follow up.* If the client has trouble articulating its strategy, this may be an opportunity for the firm to help the client in its strategic planning process.

➢ If the client’s strategy is to become the industry cost leader, what are the primary sources of its cost-leadership advantage?

  • *Follow up.* Look for opportunities to offer cost analysis or reduction services as described in chapter 3. Signs that the client could use these services include: (1) the business owner’s lack of understanding of the company’s cost structure, (2) cost information that does not provide feedback on the success of its strategy, and (3) a general sense that the company has been unsuccessful in its cost-leadership strategy.

➢ If the client’s strategy is to differentiate itself from the competition, what are the sources of that differentiation? Has the client succeeded in differentiating itself in a way its customers value? Is the premium the company charges for differentiating greater than the cost?

  • *Follow up.* For more information on successfully implementing a differentiation strategy, start with Michael E. Porter’s *Competitive Advantage* (New York: Free Press, 1985), chap. 4.

➢ What is the client’s value chain? Which activities are most important to the success of this particular company? Do these key activities contribute to the client’s overall competitive strategy? What are the strengths, weaknesses, opportunities, and threats currently operating in each of the key-value chain activities?

  • *Follow up.* Weaknesses, opportunities and threats provide you with a good chance to identify additional services. At a minimum, you should suggest a stand-alone engagement to analyze the situation further and make recommendations.
Diagnostic Tool 2-B

SOURCES OF INFORMATION FOR INDUSTRY ANALYSIS

Understanding the client’s business and the industry in which it operates is a cornerstone for becoming a business adviser to your clients. Traditional sources of general business information for auditors include specialized industry audit manuals, AICPA Audit and Accounting Guides, Audit Risk Alerts, and newsletters, conferences, and training seminars sponsored by accounting organizations. These are all good sources of information for traditional auditors, but typically are too narrow in their focus to provide you with the type of broad-based information you need to become your client’s primary business adviser. (For a further discussion on understanding the client’s industry, see the “Industry Analysis” section in this chapter.)

The following reference sources provide information to help you research broad business issues.

General Reference Sources


A very helpful “how to” book that describes how to conduct business research. Also includes some insights into the limitations of some sources of information. Chapter 8 offers suggestions on the always difficult task of obtaining financial information on privately-held companies.


This is an excellent reference source, written by the former head of the Reference Department at Harvard Business School. Sources of information are arranged by subject, such as human resources, computers, or marketing, and excellent descriptions of what you can expect to find in each publication are provided. Also includes a how to section on finding information. Good starting point to see what information is available. If you’re interested in obtaining industry statistics, start with chapter 6, which includes information on sources of industry data on twenty-two different industries.


Another excellent starting point for research, this one generally is organized by industry. Includes listings of statistical sources, trade associations, periodicals and newsletters, research centers, and financial ratios for more than one thousand industries and subjects.
Industry Information


A starting point for identifying trade and industry sources of information. Limited to trade and professional associations and labor unions with national memberships.


Organized by Standard Industry Classification (SIC) code, volume one covers manufacturing industries and volume two service and nonmanufacturing. Includes many useful charts and graphs.


Describes major trends and issues in numerous industries. Financial and statistical information about industry leaders is included, often with market share data.

Small Business Sourcebook (New York: Gale Research).

This two-volume set is intended for the owners of small businesses, but it can be a good starting point for learning more about a client’s industry. For more than two hundred types of small businesses, this book lists associations, other organizations of interest, reference works, statistical sources, trade shows, and franchises.

Predicasts Forecasts (Cleveland: Predicasts, Inc.). Quarterly with annual summary.

This publication is an index to statistics, annual growth, and industry forecasts that have been published in magazines and periodicals. It’s really a starting point for your research, not necessarily an end point. Use it to find out which magazines prepared a forecast for your client’s industry, and then go read the original article.

Predicasts F & S Index (Cleveland: Predicasts, Inc.). Weekly and monthly supplements with quarterly and annual summaries.

Contains one-line descriptions of recent articles on industries, products, and companies compiled from more than 750 periodicals, newspapers, and reports.
Diagnostic Tool 2-C

UNDERSTANDING A CLIENT’S BUSINESS

Purpose: The purpose of this form is to (1) identify the primary and support activities that are critical to your client’s success, and (2) document your analysis of the strengths, weaknesses, opportunities, and threats associated with these critical activities. (See the “SWOT Analysis” section in this chapter for further discussion.)

Instructions: Review each of the primary and secondary value-chain activities and rate these activities according to their relative importance to the company: 5 = activity is critical to the overall success of the company; 1 = activity is insignificant to the overall success of the company.

For the most important business activities (for example, those receiving a rating of 4 or better) perform the following:

1. Based on your existing understanding of the client, identify the strengths, weaknesses, opportunities, and threats related to the activity.

2. Interview client personnel involved with the activity to obtain additional information and to confirm your initial understanding.

3. Depending on the nature of the activity, arrange for a tour or some other opportunity to observe firsthand how the client performs the activity. Use this information to complete the SWOT analysis.

4. Review the results of the analysis and identify areas that require additional follow-up or provide an opportunity for a separate consulting engagement (See Diagnostic Tool 2-D). Discuss these matters with the client.
Primary Activities

The primary activities are those involved in the physical creation of the product, its sale and transfer to the customer, and after-sale service.

Inbound Logistics. Activities associated with receiving, storing, and disseminating inputs to the product. These include—

➢ Material handling
➢ Warehousing
➢ Inventory control
➢ Vehicle scheduling
➢ Returns to suppliers

Importance. Relative importance of activity to company’s overall success. Circle one (5 = critical; 1 = inconsequential).

5 4 3 2 1

Strengths. Company policies and procedures or their performance that contribute to the company achieving its strategic objectives.

___________________________________________

Weaknesses. Company policies and procedures or their performance that limit the company from achieving its strategic objectives.

___________________________________________

Opportunities. Changes outside the company that may contribute to the company achieving its strategic objectives, if the company uses that change to its advantage.

___________________________________________
Threats. Changes outside the company that may prevent the company from achieving its strategic objectives, unless the company takes action to mitigate the risk.

Follow Up. Identify items that should be brought to the client’s attention. Identify possible stand-alone consulting engagements.

Operations. Activities associated with transforming inputs into the final product. These include—

- Machining
- Packaging
- Assembly
- Equipment maintenance
- Testing
- Printing
- Facility operations

Importance. Relative importance of activity to company’s overall success. Circle one (5 = critical; 1 = inconsequential).

5 4 3 2 1

Strengths. Company policies and procedures or their performance that contribute to the company achieving its strategic objectives.
Chapter 2: Understanding the Client’s Business

Weaknesses. Company policies and procedures or their performance that limit the company from achieving its strategic objectives.

Opportunities. Changes outside the company that may contribute to the company achieving its strategic objectives, if the company uses that change to its advantage.

Threats. Changes outside the company that may prevent the company from achieving its strategic objectives, unless the company takes action to mitigate the risk.

Follow Up. Identify items that should be brought to the client’s attention. Identify possible stand-alone consulting engagements.

Outbound Logistics. Activities associated with collecting, storing, and physically distributing the product to buyers. These include—

- Finished goods warehousing
- Material handling
- Delivery vehicle operation
- Order processing
- Scheduling

Importance. Relative importance of activity to company’s overall success. Circle one (5 = critical; 1 = inconsequential).

5 4 3 2 1
Strengths. Company policies and procedures or their performance that contribute to the company achieving its strategic objectives.

Weaknesses. Company policies and procedures or their performance that limit the company from achieving its strategic objectives.

Opportunities. Changes outside the company that may contribute to the company achieving its strategic objectives, if the company uses that change to its advantage.

Threats. Changes outside the company that may prevent the company from achieving its strategic objectives, unless the company takes action to mitigate the risk.

Follow Up. Identify items that should be brought to the client’s attention. Identify possible stand-alone consulting engagements.

Marketing and Sales. Activities associated with providing a means by which buyers can purchase the product or service and inducing them to do so. These include—

➢ Advertising
➢ Promotion
➢ Sales force
➢ Quoting
➤ Distribution channel selection and relations
➤ Pricing
➤ Authorizing credit

*Importance.* Relative importance of activity to company’s overall success. Circle one (5 = critical; 1 = inconsequential).

5 4 3 2 1

*Strengths.* Company policies and procedures or their performance that contribute to the company achieving its strategic objectives.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

*Weaknesses.* Company policies and procedures or their performance that limit the company from achieving its strategic objectives.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

*Opportunities.* Changes outside the company that may contribute to the company achieving its strategic objectives, if the company uses that change to its advantage.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

*Threats.* Changes outside the company that may prevent the company from achieving its strategic objectives, unless the company takes action to mitigate the risk.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

*Follow Up.* Identify items that should be brought to the client’s attention. Identify possible stand-alone consulting engagements.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Service. Activities associated with providing services to enhance or maintain the value of the product in the hands of the buyer. These include—

➢ Installation
➢ Repair
➢ Training
➢ Parts supply
➢ Product adjustment

Importance. Relative importance of activity to company’s overall success. Circle one (5 = critical; 1 = inconsequential)

5 4 3 2 1

Strengths. Company policies and procedures or their performance that contribute to the company achieving its strategic objectives.

Weaknesses. Company policies and procedures or their performance that limit the company from achieving its strategic objectives.

Opportunities. Changes outside the company that may contribute to the company achieving its strategic objectives, if the company uses that change to its advantage.

Threats. Changes outside the company that may prevent the company from achieving its strategic objectives, unless the company takes action to mitigate the risk.
**Chapter 2: Understanding the Client's Business**

*Follow Up.* Identify items that should be brought to the client’s attention. Identify possible stand-alone consulting engagements.

---

**Support Activities**

These activities support the primary activities and each other by providing purchased inputs, technology, human resources, and various firmwide functions, such as cost accounting.

**Firm Infrastructure.** Activities associated with general management, planning, finance, accounting, legal, government affairs, and quality management.

**Importance.** Relative importance of activity to company’s overall success. Circle one (5 = critical; 1 = inconsequential).

5 4 3 2 1

**Strengths.** Company policies and procedures or their performance that contribute to the company achieving its strategic objectives.

---

**Weaknesses.** Company policies and procedures or their performance that limit the company from achieving its strategic objectives.

---

**Opportunities.** Changes outside the company that may contribute to the company achieving its strategic objectives, if the company uses that change to its advantage.
**Make Audits Pay: Leveraging the Audit Into Consulting Services**

*Threats.* Changes outside the company that may prevent the company from achieving its strategic objectives, unless the company takes action to mitigate the risk.

Follow Up. Identify items that should be brought to the client’s attention. Identify possible stand-alone consulting engagements.

*Human Resource Management.* Activities associated with recruiting, hiring, training, development, and compensation of all types of personnel.

*Importance.* Relative importance of activity to company’s overall success. Circle one (5 = critical; 1 = inconsequential)

5 4 3 2 1

*Strengths.* Company policies and procedures or their performance that contribute to the company achieving its strategic objectives.

Weaknesses. Company policies and procedures or their performance that limit the company from achieving its strategic objectives.

Opportunities. Changes outside the company that may contribute to the company achieving its strategic objectives, if the company uses that change to its advantage.
**Chapter 2: Understanding the Client’s Business**

*Threats.* Changes outside the company that may prevent the company from achieving its strategic objectives, unless the company takes action to mitigate the risk.

*Follow Up.* Identify items that should be brought to the client’s attention. Identify possible stand-alone consulting engagements.

**Technology Development.** Activities associated with efforts to improve products, services, and processes.

*Importance.* Relative importance of activity to company’s overall success. Circle one (5 = critical; 1 = inconsequential)

5 4 3 2 1

*Strengths.* Company policies and procedures or their performance that contribute to the company achieving its strategic objectives.

Weaknesses. Company policies and procedures or their performance that limit the company from achieving its strategic objectives.

Opportunities. Changes outside the company that may contribute to the company achieving its strategic objectives, if the company uses that change to its advantage.
Threats. Changes outside the company that may prevent the company from achieving its strategic objectives, unless the company takes action to mitigate the risk.

Follow Up. Identify items that should be brought to the client’s attention. Identify possible stand-alone consulting engagements.

Procurement. Activities associated with the purchase of inputs used throughout the entity’s value chain, including both primary and support activities.

Importance. Relative importance of activity to company’s overall success. Circle one (5 = critical; 1 = inconsequential)

5 4 3 2 1

Strengths. Company policies and procedures or their performance that contribute to the company achieving its strategic objectives.

Weaknesses. Company policies and procedures or their performance that limit the company from achieving its strategic objectives.

Opportunities. Changes outside the company that may contribute to the company achieving its strategic objectives, if the company uses that change to its advantage.
Chapter 2: Understanding the Client's Business

**Threats.** Changes outside the company that may prevent the company from achieving its strategic objectives, unless the company takes action to mitigate the risk.

**Follow Up.** Identify items that should be brought to the client’s attention. Identify possible stand-alone consulting engagements.
Diagnostic Tool 2-D

SUMMARY OF STAND-ALONE CONSULTING ENGAGEMENTS

When obtaining an understanding of the client’s business as described in this chapter, you may identify opportunities for additional stand-alone consulting engagements. The following pages identify some of those engagements. A brief description of each engagement is provided along with signs you should be alert for which may indicate that your client is a prime candidate for the service. “Resources” indicates where to go to obtain information on how to perform the engagement, including detailed explanations, work programs, engagement letters, and other practice aids. Asterisk ratings (on a four-point scale with “****” as an excellent resource) and comments on these resources are the author’s opinion.

The possible stand-alone consulting engagements discussed in this Diagnostic Tool are—

1. Strategic Planning
2. Planning for Business Succession
3. Helping Clients Obtain Financing
4. Cash Management
<table>
<thead>
<tr>
<th>Service:</th>
<th>Strategic Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description:</td>
<td>Perform a SWOT analysis along the company’s value-chain activities. Assist in developing a plan to address weaknesses, opportunities, and threats. Assist in implementing the plan.</td>
</tr>
<tr>
<td>Signs to look for:</td>
<td>Significant items identified while obtaining an understanding of the client’s business require follow-up Recent or pending turnover in client’s senior management Recent or pending changes in key business relationships, such as a significant customer or supplier Stagnating or declining performance Significant recent or pending changes in the client’s industry Client expressed interest in strategic planning</td>
</tr>
<tr>
<td>Resources:</td>
<td>AICPA Management Consulting Services (MCS) Practice Aid, <em>Business Planning</em> (***)(^5). Includes business-planning questionnaire, example business plans, and example business-planning session agendas. Organized according to SWOT analysis, although not along the value-chain analysis.</td>
</tr>
<tr>
<td>Other:</td>
<td>Take the information obtained while understanding a client’s business and turn it into a formal document of strengths, weaknesses, opportunities, and threats that you then give to the client. The next step is to develop a plan to address weaknesses, opportunities, and threats. Some clients may prefer a one- or two-day planning session, rather than the development of a formal business plan. You can serve as a planning facilitator rather than the drafter of a written plan.</td>
</tr>
</tbody>
</table>

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\(^5\) This practice aid can be found in the AICPA Integrated Practice System, *Consulting Services Manual*, issued by the Management Consulting Services Division. The Manual is out of print and is available through the AICPA library or your local state society library. The AICPA has issued an updated practice aid, *Developing Business Plans* (not reviewed by the author) (product no. 055292) which may be ordered through the AICPA order department at 1-888-777-7077.
<table>
<thead>
<tr>
<th>Service:</th>
<th>Planning for Business Succession</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description:</td>
<td>Assist the entity in planning for the retirement of the owner-manager, including tax implications.</td>
</tr>
<tr>
<td></td>
<td>Implement the orderly transfer of control to the owner-manager’s successor.</td>
</tr>
<tr>
<td>Signs to look for:</td>
<td>Owner-manager is close to retirement age, and there is no designated successor.</td>
</tr>
<tr>
<td></td>
<td>Designated successor is not interested or is otherwise unavailable to take over the business.</td>
</tr>
<tr>
<td></td>
<td>Designated successor needs further training to operate the business effectively.</td>
</tr>
<tr>
<td></td>
<td>Owner-manager’s retirement plans have changed, creating a need for a new plan.</td>
</tr>
<tr>
<td></td>
<td>Designated successor lacks the financial resources required by the owner, and therefore a new plan is needed.</td>
</tr>
<tr>
<td>Resources:</td>
<td>AICPA MCS Practice Aid, <em>Assisting Closely Held Businesses to Plan for Succession</em> (product no. 055134) (**). Good work programs, questionnaires, and an example. Assumes working knowledge of pertinent tax matters and employee stock option plans.</td>
</tr>
<tr>
<td>Other:</td>
<td>Succession plan may result in sale of the business, which provides an opportunity for further consulting work, including business valuation.</td>
</tr>
<tr>
<td></td>
<td>Use the business succession planning as a way to help ensure you retain the client after ownership has passed.</td>
</tr>
</tbody>
</table>
Chapter 2: Understanding the Client's Business

Service: Helping Clients Obtain Financing

Description: Identify and evaluate financing alternatives and possible sources.

Prepare historical or prospective financial data, business plan, and other information necessary to obtain financing from lenders or investors.

Signs to look for:

Seasonal peaks in working capital.

Existing lending rates are significantly different from the rates currently being paid by the entity (refinance possibility).

Owner-manager is the primary financing source for the entity.

Entity has plans to expand the existing business, either through internal growth or acquisition.

Entity has plans to acquire new machinery or make capital improvements.

Resources: AICPA Consulting Services Practice Aid, *Obtaining Funds for a Small Business* (***)

Includes list of possible funding sources, how to evaluate them, and how to prepare the materials for lenders. Example engagement, including work product.

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6 This practice aid can be found in the AICPA Integrated Practice System, *Consulting Services Manual*, issued by the Management Consulting Services Division. The Manual is out of print and is available through the AICPA library or your local state society library.
<table>
<thead>
<tr>
<th>Service:</th>
<th>Cash Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description:</td>
<td>Analyze and evaluate company's cash management policies, including its ability to maximize cash inflows, minimize cash outflows, optimize borrowing terms, and maximize the yield on idle funds. Make suggestions to improve existing cash management policies. Implement cash management systems.</td>
</tr>
<tr>
<td>Signs to look for:</td>
<td>Unpredictability of cash flows Lack of cash availability limits operations Line of credit being used instead of permanent debt Cash balances in operating accounts are high High borrowing rates Low yields on invested funds Difficulty in transferring funds</td>
</tr>
<tr>
<td>Resources:</td>
<td>AICPA Consulting Services Practice Aid No. 96-4, <em>Providing Cash Management Consulting Services</em> (***/). Excellent background material and examples explaining key cash management concepts. Detailed questionnaires and checklists to aid in performing the engagement. Case study illustration.</td>
</tr>
</tbody>
</table>
PART TWO:

CONSULTING TOPICS
CHAPTER 3

STRATEGIC COST ANALYSIS AND REDUCTION

This chapter focuses on a separate area or technical skill you can use to analyze your client and begin to offer consulting advice, and provides you with the diagnostics and other tools you need for a consulting “mini-engagement” related to strategic cost analysis and reduction.

Compared with increasing revenues, cutting costs can be a much more effective way of increasing profits. This chapter emphasizes a strategic approach to cost analysis and reduction, which assumes that activities create costs and that any cost-reduction initiatives should focus on problems, not symptoms.

Case Study
Spinelli’s Markets

Jerry and Ellen Spinelli started a neighborhood grocery store fifteen years ago. Their original store was located in an older residential neighborhood, and their idea was to create the kind of local market they both remembered going to as children. They offered an alternative to the large-scale chain grocery stores. Most customers walked to Spinelli’s, their average purchase was between $10 and $20, and they visited the store three or four times a week, rather than just once. The store specializes in fresh fruits and bakery products, and they have an excellent delicatessen. They also offer a variety of prepared entrees made by Mrs. Spinelli.

The original store proved to be remarkably successful, and eventually the Spinellis opened up four more. Revenues from all of the stores are in excess of $6 million.

Spinelli’s had always offered home delivery services on a selected basis, mostly to older or handicapped customers who had difficulty transporting groceries. They offered this service merely as a convenience to their customers, free of charge. Several years ago, the Spinellis’ son-in-law began aggressively promoting the delivery service and charging a fee.

He set up a fax machine and encouraged customers to fax their orders from work, right before they were ready to come home. He filled the orders and delivered them to the customers within minutes of when they arrived at home. Often, the orders included prepared meals that were to be eaten that evening. The convenience of the service proved popular and profitable for Spinelli’s Markets.

Last year, after much debate, the Spinellis decided to launch the delivery service in all five stores, and they did it in a big way. They purchased a large warehouse
roughly in the geographic center of all the stores. They stocked the warehouse with a wide variety of goods, more than the narrow range of choices usually offered at a neighborhood grocer. Customers had the option of placing orders via phone, fax, or over the Internet. The idea was that the warehouse would allow Spinelli’s the chance to capture some of the customer share that currently was being captured by the large chain grocers.

During the first year of operation, Spinelli’s Home Delivery earned revenues 50 percent higher than projections but barely broke even. “I think this will work if we just get more volume,” said Jerry Spinelli. “But sometimes I feel like that old guy who priced his groceries at less than cost. ‘You can’t make any money,’ his accountant told him. ‘Sure I can,’ the old guy said. ‘We’ll make it up on volume.’”

**COST REDUCTION: DROPPING SAVINGS TO THE BOTTOM LINE**

In golf there is an old saying, “Drive for show, putt for dough.” In other words, hitting a big, booming drive off the tee is a sure way to impress your fellow golfers, but if what you really want to do is lower your score, you have to sink your putts.

In business, generating revenue is like the tee shot in golf—it is memorable and satisfying to the ego to be able to say you generated X amount of business last year. Many small business owners focus on generating more revenue, with the assumption, consciously or unconsciously, that profits naturally will result. Unfortunately, this is not always the case.

Managing expenses is the less glamorous side of business. It is like putting is to golf—not as impressive at first glance, but absolutely essential to performing successfully.

To illustrate, suppose that Jerry Spinelli had two options to consider—one would increase revenues by $100,000 (at no extra cost), the other would cut expenses by $50,000. How would net income be affected under each scenario?

<table>
<thead>
<tr>
<th>Current Results</th>
<th>Increase Revenues</th>
<th>Decrease Expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>$ 852,000</td>
<td>$952,000</td>
</tr>
<tr>
<td>Cost of sales</td>
<td>685,000</td>
<td>765,000</td>
</tr>
<tr>
<td>Gross margin</td>
<td>167,000</td>
<td>187,000</td>
</tr>
<tr>
<td>Selling, general &amp; administrative expenses</td>
<td>125,000</td>
<td>125,000</td>
</tr>
<tr>
<td>Net income</td>
<td>$ 42,000</td>
<td>$ 62,000</td>
</tr>
</tbody>
</table>
As this example illustrates, cost reductions drop right to the bottom line; increases in revenue do not result in nearly as great an improvement. And yet, in spite of this, most small business owners instinctively would choose the plan to increase revenues.

As an adviser to these business owners, you can do them a great service by focusing on the less glamorous, but more crucial side of the business—controlling and reducing costs.

**Misunderstanding Cost-Reduction Techniques**

Cost-reduction techniques often are misunderstood or misapplied. Too often, cost-reduction techniques are deployed at the tactical level.

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**Tactical Cost Reduction**  
**Overnight Mail Expenses**

A business manager reviews the latest income and expense summary and is alarmed at the amount of overnight mail charges. These expenses have been steadily increasing, and it is time they be brought under control. Looking in the book *1001 Ways to Cut Costs*, the manager settles on tips #836 and #840. He issues the following directive to all employees: From now on, all overnight mail service must be approved in advance by the business manager, and all deliveries will be scheduled for next-day afternoon rather than next-day morning.

There are two significant problems with taking the above type of approach to cost reduction:

1. **Tactical cost reduction treats symptoms, not underlying problems**. In the example of the overnight mail charges, on the surface it may seem that charges are high because employees send overnight mail for next-morning delivery when next-day afternoon would be sufficient in most circumstances. That may be true, but a more important question is, "What is causing employees to use overnight mail services in the first place?" It may be that there is some internal process the company is performing poorly. As a result, work gets done late, and in order to satisfy customer needs, the product must be sent overnight. A better solution, one that would yield long-term results, would be to fix the problem that is causing the work to be completed late.

2. **Tactical cost reduction treats costs in isolation**. The manager in the above example thinks he will cut costs by reviewing each request to use overnight mail service. That might cut the overnight mail costs, but how much time will it cost him to review and approve the overnight mail requests each and every day? Tactical cost-reduction techniques treat costs in isolation. They fail to consider how costs in one area are affected by actions taken in another. Again, the more important questions focus on the *drivers* of a particular cost, which allow for more broad-based solutions.
In some cases you may be able to suggest a "quick fix" to a client's cost-control problems, but those situations will be rare. A better approach, one that will allow you to build a consulting practice in this area, is to approach cost reduction *strategically*, rather than tactically. By looking at cost reduction strategically, you get to the root causes of excess costs and you help ensure that your proposed solutions will result in reduced costs for the company as a whole.

This strategic approach to cost reduction involves the following steps:

1. Understand the client’s cost-information system.
2. Analyze the information and target specific business activities for cost reduction.
3. Analyze cost drivers for targeted business activities.
4. Explore ways to improve the underlying cost structures of key business activities.

The first half of this chapter focuses on cost information systems and identifying cost drivers. The second half of this chapter examines specific examples of how cost structures can be altered to achieve significant cost reduction for key business activities (using the value-chain model introduced in chapter 2).

**COST SAVINGS BEGIN WITH GOOD INFORMATION**

Any strategic cost-reduction plan must begin with cost information that facilitates analysis. As auditors, we tend to focus on the *accuracy* of accounting information, but for strategic purposes, accuracy is not enough. The information must be grouped in a way (and overhead costs allocated in a way) that lets you focus strategically on opportunities for sustainable cost reduction.
Spinelli’s Markets, continued

The bookkeeper for Spinelli’s Markets provided the following expense summary for Spinelli’s Home Delivery.

<table>
<thead>
<tr>
<th></th>
<th>Amount</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries and wages</td>
<td>$145,654</td>
<td>42%</td>
</tr>
<tr>
<td>Employee benefits</td>
<td>33,852</td>
<td>10%</td>
</tr>
<tr>
<td>Utilities</td>
<td>18,754</td>
<td>5%</td>
</tr>
<tr>
<td>Property taxes</td>
<td>22,921</td>
<td>7%</td>
</tr>
<tr>
<td>Repairs and maintenance—building</td>
<td>14,165</td>
<td>4%</td>
</tr>
<tr>
<td>Repairs and maintenance—equipment</td>
<td>20,050</td>
<td>6%</td>
</tr>
<tr>
<td>Insurance</td>
<td>4,768</td>
<td>1%</td>
</tr>
<tr>
<td>Gas and oil</td>
<td>18,558</td>
<td>5%</td>
</tr>
<tr>
<td>Depreciation</td>
<td>37,985</td>
<td>12%</td>
</tr>
<tr>
<td>Telephone</td>
<td>18,864</td>
<td>5%</td>
</tr>
<tr>
<td>Printing and postage</td>
<td>4,109</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>6,455</td>
<td>2%</td>
</tr>
<tr>
<td><strong>Total expenses</strong></td>
<td>$346,135</td>
<td>100%</td>
</tr>
</tbody>
</table>

“It’s the salaries,” said Jerry Spinelli. “We’re probably paying those guys too much for driving around delivering groceries, but I wanted to get good, reliable drivers, not a bunch of pizza delivery flunkies. Maybe that was a mistake. Maybe I should hire cheaper laborers.”

The key premise behind strategic cost analysis and reduction is that costs are tied to business-process activities. To analyze the true cost behavior of your client, you must be able to associate those costs with activities. Ultimately, any efforts directed toward true cost reduction must focus on the underlying business activities.

Unfortunately, most cost information is summarized according to its natural classification, just as it was in the example above. This type of organization does not allow for an analysis based on the activities of the business. Because of this, one can jump to the wrong conclusion or miss the real problem, as Jerry Spinelli has in the above example.

Recall the value-chain analysis introduced in chapter 2. If you were to describe Spinelli’s Home Delivery value chain and assign the activities a relative value (forgetting for the moment the cost summary described above), you might come up with something like this (5 being crucial; 1 being not essential):

- **Inbound Activities.** Receive goods from food suppliers and stock on warehouse shelves. Control inventory. Relative value: 4
Make Audits Pay: Leveraging the Audit Into Consulting Services

- **Operations.** Pick items and pack for delivery to customers. Maintain and operate warehouse. Relative value: 4

- **Outbound Activities.** Deliver products to customers. Maintain and operate delivery vehicles. Relative value: 5

- **Marketing and Sales.** Advertise service. Relative value: 2

- **Service.** Not applicable. Relative value: < 1

This ideal value chain for Spinelli’s Home Delivery could be represented graphically, as follows.

The Ideal Value-chain — Spinelli’s Home Delivery

| Inbound Activities | Operations | Outbound Activities | Marketing and Sales | Service |

A strategic cost analysis requires you to focus on key business activities. Therefore, the question to consider is how do actual cost results—according to activity—compare to what was expected?

In the case of Spinelli’s Home Delivery, the cost summary presented previously must be redone. Costs that include more than one activity must be allocated. Assume that a discussion with the warehouse manager and Jerry Spinelli reveals the following.

- Home Delivery has five employees. One person works full time receiving goods, stocking them, maintaining control over the inventory, and coordinating the drivers. The other four are drivers. They are responsible for filling orders, loading up their trucks, and delivering the ordered items to customers.

- The insurance and depreciation accounts include expenses related to both delivery vehicles and the warehouse.

- Each delivery truck is outfitted with a cellular telephone to help coordinate deliveries. The cost of these cellular phones makes up the bulk of the telephone expense line item.

- Some inefficiencies have resulted from incorrectly packing customer orders. The customers call when they notice they did not receive all they asked for, and one of the Spinelli drivers must deliver the item to the customer immediately, which requires a trip back to the warehouse.
With this information it is now possible to summarize the general ledger accounts into their business activity. Note: It is not necessary to be precise when performing this exercise. All you are trying to do is to make a good estimate of the cost of each activity. Going through this exercise for Spinelli’s Home Delivery reveals the following.

<table>
<thead>
<tr>
<th>Estimated Amount</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inbound activities</td>
<td>$43,000</td>
</tr>
<tr>
<td>Operations</td>
<td>102,000</td>
</tr>
<tr>
<td>Outbound activities</td>
<td>173,000</td>
</tr>
<tr>
<td>Marketing and sales</td>
<td>4,000</td>
</tr>
<tr>
<td>Service</td>
<td>24,000</td>
</tr>
<tr>
<td><strong>Total expenses</strong></td>
<td><strong>$346,000</strong></td>
</tr>
</tbody>
</table>

Under the ideal value chain discussed previously, inbound activities, operations, and outbound activities had roughly the same value, with the outbound activities being slightly more valuable to customers. The actual cost results reveal an entirely different scenario. The cost of operations is roughly what we expected, but outbound activities account for half of all costs, which is much greater than anticipated. Additionally, service costs amounted to approximately $24,000 when they should be close to zero.

The actual costs of Spinelli’s Home Delivery may be represented graphically as follows.

With this information we are on our way to understanding the problems of Spinelli’s Home Delivery. To solve these problems we will focus on the two business activities that seem out of line: outbound activities and service.

**The Problem of Overhead Allocation**

All of the costs in the previous example were direct costs. Allocating them to the various activities was a fairly straightforward exercise. However, complications can arise when it comes to allocating indirect costs to a client’s activities. For example, suppose that all of the purchasing for Spinelli’s Home Delivery was performed by the main office. What method would you use to
allocate the expenses of the purchasing department (for example, salaries, telephone, rent, and so on) to the five stores and the warehouse?

Many companies establish an overhead allocation percentage or a standard cost. For example, Spinelli’s may decide, based on their previous experience, that all stores and the warehouse get charged 5% of their purchases as an allocation of purchasing department costs. So, for example, if Spinelli’s Home Delivery purchased $1 million of goods for the warehouse during the year, the home office would allocate another $50,000 to the warehouse operation for purposes of measuring its performance.

The underlying assumption in this type of methodology is that the cost of purchasing correlates closely with the volume purchased. In fact, that may not be the case. As indicated earlier in this chapter, costs are caused by underlying transactions and activities. Therefore, they should be allocated based on those underlying activities. Volume may or may not be a surrogate for those activities.

To illustrate, suppose that Spinelli’s bought $1 million worth of goods for one of its stores. Because of the nature of the items purchased, the company was able to buy all of these goods from only five vendors. Additionally, because of the volume of business conducted with these vendors and the long working relationship Spinelli’s has had with each of them, ordering new shipments can be done over the phone, with a minimum of paperwork and hassle. Ordering from these suppliers has become routine. Maintaining files on only five vendors and paying them monthly also is fairly easy.

In contrast, the $1 million worth of goods stocked for Spinelli’s Home Delivery are much more diverse than those carried at the stores. Because of this, the buyers for the Home Delivery warehouse must deal with more than sixty different vendors. Each vendor has its own purchase order (PO) requirements, and many will not accept an order without an authorized PO. Maintaining sixty vendor files requires a great deal of time, as does issuing sixty different checks at different points in time. Ordering for the warehouse and maintaining relationships with those vendors is a high-maintenance proposition.

Under this scenario it is clear that the activities of the people involved in the purchasing function are much more heavily weighted toward purchasing for the warehouse and not toward purchasing for the stores. For that reason, the cost of purchasing $1 million worth of goods for the warehouse is much greater than the cost of purchasing the same volume of goods for the store. An allocation method based on volume would incorrectly allocate an equal amount of the costs of the purchasing department between the two.

Activity-based costing is a method aimed at allocating overhead costs based on the underlying activities of the business. Many small businesses could benefit from activity-based costing techniques, especially those businesses interested in obtaining an accurate picture of the true cost of their products or customers or as a starting point for planning cost-reduction efforts. A detailed discussion of activity-based costing is beyond the scope of this book, but as you review your client’s cost information, you should at least be aware of the issue. Find out how your client allocates overhead costs. Is the allocation base (for example, volume, labor hours,
machine hours) an adequate surrogate for the underlying activities that drive the overhead cost? If not, you may wish to explore an activity-based costing method with your client.¹

To help you determine if the client’s overhead allocation system accurately reflects the activities underlying overhead costs, Diagnostic Tool 3-B provides a list of potential causes of cost.

**Don’t Sacrifice Quality for Cost Reduction**

Keep in mind one of the points made in the previous chapter. Companies pursuing a cost-leadership strategy cannot ignore quality. For cost leadership to be a viable strategy, a cost leader must produce a product whose quality is perceived as comparable to the quality of other similar products.

The same is true with cost-reduction strategies. Any attempts at cost reduction need to retain the overall quality level of the product.

**FOCUS ON COST DRIVERS**

Once you analyze the costs of your client according to business activity you must then target certain of those activities for further analysis. In general, focus your attention on high-cost activities and on those activities that show a negative trend. In the case of Spinelli’s Home Delivery, those activities were outbound logistics, which accounted for a disproportionately high amount of cost, and service, which had a fair amount of cost when we expected none.

Once you target certain activities for further analysis, determine the cost structure for those activities. What are the cost drivers, the underlying determinants of cost behavior for that activity? How does the company control those cost drivers?

There are many different frameworks for grouping cost drivers. The following is from Michael E. Porter’s book, *Competitive Advantage*.

- **Economies of Scale.** Economies (or in some cases, diseconomies) of scale stem from the ability to perform activities differently or more efficiently at larger volumes. For example, procurement activities often can benefit from economies of scale because volume-purchasing plans with a given supplier affect the company’s bargaining power. Similarly, a manufacturing company can benefit from economies of scale by scheduling larger production runs.

- **Learning.** The cost of an activity can decline over time simply because a company learns to do it more efficiently. The possibilities for learning within an organization go beyond personnel simply learning to do their existing jobs more efficiently. Learning also encompasses the entity’s ability to restructure the way certain activities are performed.

¹ The AICPA offers many products to help you implement activity-based costing for your small business clients. Another excellent source of information is *The Ernst & Young Guide to Total Cost Management* (New York: John Wiley & Sons, 1992).
for example, by redesigning a plant layout to be more efficient. Learning often is the accumulation of many small improvements rather than major breakthroughs. Retaining employees with a long history or vast knowledge of the company ("institutional memory") also can aid in learning.

- **Capacity Utilization.** When an activity has a substantial amount of fixed costs, the cost of the activity is affected by capacity utilization. For example, if a company pays salaries to an in-house sales force, the relative cost of that sales force will depend on the volume it produces. If the sales force is underutilized, its relative cost, measured as a percentage of sales, goes up. The reverse is also true. One way to take capacity utilization out of the equation is to turn fixed costs into variable costs, for example, by putting a salaried sales staff on commission.

- **Linkages.** The cost of an activity often is affected by how other activities are performed. For example, if a company has procedures in place to test the quality of the items it receives from suppliers (inbound logistics), that can save on the cost of scrap or on testing the finished product (operations).

- **Interrelationships.** If the owner of a small business owns other businesses, the interrelationship among the businesses can provide cost advantages, for example, by sharing overhead functions.

- **Integration.** Integration has to do with whether the company performs certain tasks in-house or outsources them to third parties. Integration (performing the task in-house) can reduce costs in several ways, for example, by allowing the firm to avoid suppliers with considerable bargaining power. But integration also has its risks, for example, by creating inflexibility or by driving up the company’s fixed costs.

- **Timing.** The timing of an activity can impact its cost. In some instances it may be advantageous to be first to the market, for example, to lower the costs of establishing and maintaining a brand name. In other circumstances, cost advantage accrues to the company that moves late, for example, by avoiding the high market development costs that must be borne by those first to the market.

- **Discretionary Policies.** Cost is always affected by policy choices a firm makes, independent of other cost drivers. Policy choices reveal a company’s overall strategy because they often involve a trade-off between cost reduction and differentiation. Helping management make policy choices is an area of cost-reduction analysis that is particularly suited to a CPA’s analytical and financial skills.

Pay particular attention to the following company policies, which tend to have the greatest impact on cost.

- Product configuration, performance, and features
- Product mix and variety
Levels of service provided to customers
- Spending rate on marketing and technology development activities
- Delivery time
- Buyers served (for example, small versus large)
- Distribution channels used (for example, fewer, more efficient dealers versus many small ones)
- Process technology
- Specifications of raw materials or other purchased inputs
- Wages paid and amenities provided to employees, relative to prevailing norms
- Other human resource policies including hiring, training, and employee motivation
- Procedures for scheduling production, maintenance, the sales force, and other activities

Location. The location of an activity can affect its costs in many ways, for example, by wage and tax rates. The location can also impact logistical costs such as shipping.

Institutional Factors. These include government regulations, unionization, tariffs and local content rules. In some industries, these can be the single most important cost driver.

Applying the Cost-Driver Analysis to Spinelli’s Home Delivery

Through observation of the activity and inquiry of client personnel (including operations personnel, not just the owner or those responsible for accounting) you should be able to gain an understanding of the cost drivers associated with targeted business-process activities.

The targeted activities for Spinelli’s Home Delivery were the delivery process, which showed an inordinately high amount of costs, and the service process (customer callbacks), which showed approximately $24,000 of cost when the expectations were for $0. Through structured interviews and an observation of the warehouse activities, Jerry Spinelli’s CPA learned the following about the underlying cost drivers for Spinelli’s Home Delivery.

Economies of Scale. This is one of the primary cost drivers for the delivery function. It is much cheaper to deliver large orders to a few customers than small orders to many customers. The reason is that fewer customers means less driving time. The problem with Spinelli’s is that they fail to control this cost driver and many times find themselves
loading their delivery trucks with lots of small orders destined for many clients spread over a large geographic area.

➢ **Capacity Utilization.** This is another primary cost driver for the delivery activity. Spinelli’s established a policy to deliver an order within three hours of when it is placed by the customer. This helps ensure that the customer will be there to receive and inspect the delivery, and it also helps establish the reliability of the company in the eyes of its customers. The problem with this policy is that many times trucks leave the warehouse with less than a full load, and then they must return to the warehouse to get more orders. This constant back-and-forth adds greatly to driving time and related costs.

➢ **Linkages.** The delivery personnel are responsible for packing the orders, and they have made more mistakes than anticipated in filling orders. Some of the mistakes they admit to, acknowledging that they simply picked the wrong size or flavor from the shelf. Other mistakes they claim were not their fault—they filled the order exactly as it was given to them, only to be told later by the customer that some item that was ordered was not received. These problems create customer callbacks, which resulted in the company incurring $24,000 of unplanned costs.

➢ **Discretionary Policies.** The design of the home delivery service emphasized customer service, convenience, and reliability. Unfortunately, the company never realized how costly some of these features turned out to be. For example—

— The company promises to deliver within three hours of when the order is placed. The result of this policy is that each day delivery schedules are different, and the company has no control over the geographic area serviced in a day. It is not unusual for delivery personnel to serve the same general location twice or more in a day, or for more than one delivery truck to end up in the same location at the same time.

— The company requires no minimum purchase. This, too, adds to the amount of driving time and reduces any economies of scale that might otherwise be realized.

— Delivery personnel call customers when they are within twenty minutes of the customer’s location. This customer service feature allows the customer to receive and inspect the delivery. It also requires the delivery trucks to be outfitted with mobile telephones.

— The company offers a great deal more items from its home delivery warehouse than from its stores. The sheer number of goods in stock sometimes makes it difficult for employees to pick the correct item. It also contributes to misunderstandings between the customer ordering the goods and the Spinelli’s warehouse manager who takes the order.

➢ **Location.** The location for the warehouse was chosen because of its proximity to the freeway. However, many customers order Spinelli’s prepared foods, which are made at
the individual store locations. This requires delivery personnel to go to a store to pick up
the prepared foods. The stores are not easily accessible from the freeway, and to get from
the warehouse to a store requires travel on slow-moving surface streets.

Jerry Spinelli expressed concern about his Home Delivery Service, which showed revenues
greater than anticipated, but no profit. He wondered whether higher volume would allow him to
make a profit, but in the back of his mind, he had a feeling that costs were out of line.

Spinelli’s CPA analyzed the costs of the operation by linking them to their underlying business
activity. By reconfiguring costs in this way, it became apparent that delivery costs and service
callbacks were two areas that needed further analysis. Analyzing the cost drivers of these
targeted areas provided the CPA with insight into cost behavior. This analysis provided a basis
for several strategic cost-reduction strategies.

To achieve sustainable cost reduction, Spinelli’s Home Delivery should consider the following.

- Establish a minimum delivery order per customer. This will allow the company to take
  advantage of some economies of scale.

- Set predetermined delivery dates for customers in the same area of town. For example,
customers on the west side of town can receive deliveries only on Tuesday and Thursday.
This will add stability to the delivery schedule and eliminate a great deal of back-and-
forth driving.

- Eliminate the three-hour delivery guarantee and require the customer to place orders
twenty fours hours in advance of their scheduled delivery day. Again, this will eliminate
much of the back-and-forth driving and allow the company to fill its delivery trucks
closer to capacity.

- Decrease the variety of goods offered. This will eliminate the confusion between the
  customer and the company and will help increase packing accuracy.

- Set up a kitchen and make the prepared meals at a location closer to the warehouse. This
  will eliminate the need for the delivery vehicles to stop at one of the stores.

- Eliminate the phone call to customers to advise them that their delivery is on its way.
Give customers a half-day window for when they can expect delivery. Deliver regular
customer’s orders in coolers to preserve perishables in case the customer is not there to
receive the delivery.

Of course, the benefits of implementing these suggestions should be weighed against their costs.
For example, would policy changes affecting customer service compromise the quality of the
product or make it undesirable in some other way? Would the cost of preparing food in the
warehouse be less than the delivery-cost savings? Ultimately, Spinelli’s may have to experiment
with several different options in order to receive the proper balance between product features and
cost.
How to Turn Cost Analysis Into Suggestions for Strategic Cost Reduction

Once you have gained an understanding of cost drivers for targeted business activities, you need to study those cost drivers to see if there are ways to strategically reduce costs. There is no magic formula that links your analysis to suggestions for cost reduction. The recommendations you decide on for your client will depend to a large degree on your own business experience, problem-solving abilities, and creativity.

However, the following sections of this chapter should provide some guidance in helping you formulate strategic cost reductions for your clients. The sections are organized according to business activity, with an emphasis on those activities where cost savings can be substantial for the small business.

COST-REDUCTION STRATEGIES— INBOUND AND OUTBOUND ACTIVITIES

Inbound and outbound activities include the receipt, shipping, handling, and storage of raw materials or finished goods. For some retailers and manufacturers, these are key activities with substantial opportunities for cost reduction.

Inbound and outbound activities share many of the same cost drivers. Well-organized shipping and receiving operations combined with good scheduling and coordination with freight carriers will go a long way toward reducing costs.

The receipt or shipping and handling of items should involve as few steps as possible. If feasible, physically separate the receiving and shipping functions—if both outgoing and incoming goods are located on the same dock, they are bound to be confused. When goods are ready for shipping, they should be “staged,” that is, organized on the dock in the order in which they will be loaded. The same is true for incoming goods, which should be staged according to how they will be stored. The idea is to reduce the number of times goods are handled.

During the audit, have one of the senior staff members observe the loading dock operations, looking for inefficiencies. Make inquiries of warehouse personnel to uncover additional areas for improvement.

Coordinating shipments with freight carriers is another way to reduce costs. Dispatchers should work to optimize—

> **Carrier equipment utilization.** It is usually cheaper to ship full loads rather than partial loads. If an outgoing shipment is smaller than normal, have the carrier send a smaller trailer.
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- **Scheduling.** Giving carriers advance notice of when a shipment will be ready may result in a discount. Additionally, scheduling certain carriers for specific times of the day gives the warehouse crew a chance to prepare, and it makes the work flow even throughout the day.

Streamlining and coordinating the receipt and handling of goods is one way to reduce the costs of inbound and outbound activities. Although important, usually the cost reductions to be realized from these efforts are incremental. For a breakthrough cost-reduction technique, look for ways to simplify and reduce inventory levels.

Inventory management can be a prime source for sustainable cost savings. Lower inventory levels translate into lower costs. Why? Fewer items in stock means fewer items to receive, handle, store, and account for. Lower inventory levels also means less working capital is tied up in inventory. In some industries, such as personal computer manufacturing, keeping low levels of inventory is crucial for decreasing obsolescence costs and maintaining margin levels.

**ABC Inventory Management**

One of the most effective ways of controlling inventory levels and reducing inventory costs is also one of the oldest—the ABC method of inventory control. The ABC method basically divides inventory into three different categories:

1. **A Items.** These items are 5 to 10 percent of the number of items in inventory. They represent 70 to 75 percent of cost in inventory but only 5 to 10 percent of shortages.

2. **B Items.** These items are 20 percent of the number of items in inventory. They represent 20 percent of cost in inventory and 20 percent of shortages.

3. **C Items.** These items are 70 to 75 percent of the number of items in inventory. They represent 5 to 10 percent of cost in inventory but 70 to 75 percent of shortages.\(^2\)

It is difficult and costly to manage an inventory of thousands of different items. In order to manage this, most small businesses treat all items the same, stocking two to three months of supply just to avoid shortage. The basic theory behind the ABC method is that all inventory items are not alike. Some items are more important to the company than others, and the company should direct most of its effort to monitoring and controlling those. Other items need not be managed quite so carefully.

The ABC method categorizes items according to their relative importance—A being most important, C being least important. Usually, items are categorized based on per unit cost. Once categorized, they should be managed in the following way.

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2 A variation on this approach is the 80-20 method, which relies on the typical relationship that 20 percent of the items account for 80 percent of sales. These items are the equivalent of the A items in the ABC approach.
A and B Items. These items represent the company's highest cost and investment. The purchase and turnover of these items should be tightly controlled. They should be ordered regularly, and the company should work to reduce the level of these items on hand.

C Items. These items do not represent much of an investment, but they do tend to cause the greatest shortages. For that reason, they can be purchased infrequently and in bulk.

The management of A and B items under this method will be more time-consuming than operating under the assumption that all goods are essentially the same; however, remember that these goods usually account for 30 percent of a company's inventory. Thus, if a company stocks 20,000, under the ABC method they really must closely monitor only 6,000 items, which does not result in as large an incremental cost as initially imagined.

The incremental benefits of the ABC system far outweigh the costs. For example, assume that under its current inventory management method, your client managed all items in the same way. If in an average month, that client used $500,000 worth of materials and kept three months of supply on hand, its inventory level would be $1.5 million.

<table>
<thead>
<tr>
<th>Monthly Requirement</th>
<th>Months of Supply</th>
<th>Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>All items</td>
<td>$500,000</td>
<td>3</td>
</tr>
</tbody>
</table>

Using the ABC method, the company targets their A and B items for tighter control, more frequent shipments, and faster turnover. C items they buy in bulk once or twice a year. Assume that these targeted efforts at inventory control are able to reduce the stock of A items to one month and B items to two months. C items they now buy less frequently, so levels increase to five months supply.

Under this management system, the total investment in inventory is cut to $700,000.

<table>
<thead>
<tr>
<th>Monthly Requirement</th>
<th>Months of Supply</th>
<th>Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>A items (75% of cost)</td>
<td>$375,000</td>
<td>1</td>
</tr>
<tr>
<td>B items (20% of cost)</td>
<td>100,000</td>
<td>2</td>
</tr>
<tr>
<td>C items (5% of cost)</td>
<td>25,000</td>
<td>5</td>
</tr>
<tr>
<td>Total investment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thus, by targeting its inventory management efforts at only the costly items, this company cut its inventory levels to less than half.
COST-REDUCTION STRATEGIES—OPERATIONS

For many small businesses, the two primary cost drivers for operations activities are product design and process design.

Most of the cost of a product is engineered into the product design. For example, products that are complicated to assemble, or that require costly materials or specialized parts, will be more expensive to manufacture. One way to reduce the cost of operations is to simplify the product itself—offer customers fewer options, for example. Substituting cheaper materials and parts for more expensive ones also will reduce costs, and similarly, standard, stock parts are cheaper to use than something custom-designed and -built. Finally, your company should try to produce a “family” of similar products that use many interchangeable parts.

Ask your client how often they redesign their products. Most products should be reevaluated every two or three years. Do engineers look for ways to design products so that they are cheaper to assemble? Do they look for opportunities to substitute cheaper and standard parts for more expensive ones? Many of these substitutions can be made without sacrificing quality or product differentitation.

Product Redesign Example
Automobile Molding

For many years, certain automobiles have featured exterior metal trim molding. In the 1950s, this molding was applied with steel fasteners, which required the workers to drill holes in the body panels of the car, line up the holes, and screw down the molding.

In the 1960s, the steel fasteners were replaced by plastic, which reduced cost somewhat, because plastic was cheaper than steel. Eventually, the plastic fasteners were replaced by two-sided tape. This was a tremendous cost savings because the tape eliminated the need to drill and line up holes in the body panel. Eventually, the tape was replaced with glue, which was cheaper still, and adhered better.

This evolution from steel fasteners to glue resulted in significant cost reduction, but did not affect product performance, and was totally unseen by the customer.

Diagnostic Tool 3-D provides a checklist of questions to help your client realize strategic cost reduction through product redesign.

The manufacturing process also should be designed to maximize efficiency. Goods should flow through the process in an orderly, logical fashion. Workers should have access to all necessary supplies and tools. Bottlenecks should be avoided.
The scheduling of work can have a significant impact on the cost of operations. Long production runs are ideal because they minimize setup time. Additionally, a steady, even workflow tends to be more efficient than one with significant highs and lows.

One of the key measures of operating efficiency is “throughput” time, which measures the time it takes to go from raw materials to finished goods. This is different from processing time, which is the time it takes to actually make the product.

For example, consider an audit. On an eighty-hour engagement, the staff is in the field for two weeks. This is the processing time, how long it takes to actually “manufacture” the product. Once the job comes out of the field, the binders sit on someone’s desk, waiting for review. The report must be sent to typing, where it sits for a few more days. The draft report is received and sent to the client to review. Meanwhile, the workpapers still haven’t been reviewed. Eventually, the report comes back from the client, changes are made, the workpapers are reviewed, and final review notes are cleared. The final report is prepared, and sits around the report department for another few days until finally it is issued. If all goes well, the final report is in the client’s hands three weeks after the end of fieldwork. Total throughput time is five weeks (two weeks in the field plus three weeks afterward).

Most of the difference between processing time and throughput time is wasted in non-value-added activities, for example, waiting for review or moving the product about. Long throughput times are costly. On an audit, you can’t final-bill the client until the report is delivered. On an eighty-hour engagement, chances are you don’t send a progress bill, so the cost of the entire job is unbilled until the report is finished at the end of the full five weeks. Eliminating the non-value-added activities, and reducing the throughput time can significantly reduce operating costs.

Ask your client’s operating personnel about the “dead time” on the shop floor. How much time is wasted in non-value-added activities such as waiting for materials to be moved? What is the client’s throughput time and how can this be shortened? Where are the bottlenecks on the assembly line and how can these be eliminated?

**COST-REDUCTION STRATEGIES—PROCUREMENT**

Procurement is a significant activity for many businesses, both large and small. Because of its significance, this area represents a significant opportunity for strategic cost reduction. In many industries, purchased inputs account for a greater portion of total cost than labor, but for all its significance to the entity, many business owners fail to pay procurement the attention it deserves.

In examining your clients’ procurement activities, you should first take note of how the function is performed within the entity. Purchasing should be centralized. If it is a significant activity for the business, then it should be afforded a position in the company commensurate with that significance. For example, no one would think to make tax-planning decisions outside the accounting department, so why should purchasing be any different?
Chapter 3: Strategic Cost Analysis and Reduction

Purchasing should not be devalued into expediting. When a production manager calls the purchasing manager and states that X units of a certain raw material are needed tomorrow or the entire plant will shut down, that is not purchasing, it is expediting. The purchasing manager has no choice but to find the needed item at whatever cost. A true purchasing function allows the person in charge of the function adequate time to do the job right, that is, to work with suppliers to receive the best quality goods at the lowest possible prices.

Maintaining good working relationships with suppliers is crucial to realizing cost reductions in the procurement function. Your client should be careful in choosing the right number and mix of suppliers for key inputs. Single-sourced items should be avoided if at all possible. Instead, the company should buy from enough vendors to encourage competition, but not so many vendors that the company’s purchases are not significant to any one supplier. The company should receive bids regularly from these suppliers and even from potential suppliers, just to stay current on pricing information.

As with the inventory control methods discussed earlier, the company should focus its purchasing-cost-reduction efforts on those few A and B items in which the cost-savings potential is greatest.

Keeping in mind the cost drivers discussed earlier in this chapter, the following are additional ways an entity can control those cost drivers to realize cost reduction.

- **Economies of Scale.** The volume of purchasing with a given supplier affects a company’s bargaining power. Your client should consider purchasing as many different products from the same supplier as possible in order to increase bargaining power.

- **Linkages.** Coordinating with suppliers on specifications, delivery, and other activities can lower costs. Additionally, close linkages and communication between the purchasing department and other departments within the company are absolutely crucial if the purchasing department is to have the time necessary to get the lowest possible prices.

- **Integration.** Some companies may have to choose between buying an input or making it themselves. That decision can have a significant impact on overall cost.

- **Timing.** The length of time the company has used a particular supplier can affect cost. For example, a long-time supplier may be more loyal to the company, offering it access to goods during periods of tight supply or working with the company in other ways to help it succeed.

- **Location.** The location of suppliers can affect cost because of either shipping or communication requirements, or both.

A caveat on purchasing-cost-reduction techniques: Although obtaining the lowest unit cost is an important consideration in choosing a supplier for a particular item, cost is not the only factor. In making purchasing decisions your client should consider the following:
Implementing the ideas contained in this chapter

Be alert for clients—

- Who show revenue growth but not increasing profits.
- Who are fixated on sales and marketing but do not control expenses.
- Whose profitability ratios are below industry norms.
- Whose cost levels are greater than industry norms.

These clients can probably benefit most from a strategic analysis of their cost structure and suggestions for cost reduction. Start by gathering the information necessary to analyze the key activities and underlying cost drivers for the company. Use that analysis as a basis for providing recommendations for strategic cost reduction.

The initial information analysis and cost-reduction suggestions can be offered as an add-on mini-engagement to the standard audit. The cost-reduction suggestions may provide additional opportunities for follow-up services, for example, financial projections, cost-benefit analyses, or implementation services associated with broad-based cost-reduction initiatives. Additionally, your initial analysis may reveal weaknesses in the client’s cost-information system. That system may need to be redesigned to provide management with the information needed to monitor costs on an ongoing basis. See chapter 5 for a further discussion of information systems.

Summary

Compared with increasing revenues, cutting costs can be a much more effective way of increasing profits. To their detriment, many small business owners pay little attention to cost-control and -reduction efforts. Therefore, any recommendations you can make in this area will be highly valued.

This chapter emphasized a strategic approach to cost analysis and reduction, which assumes that activities create costs and that any cost-reduction initiatives should focus on problems, not
symptoms. The starting point for any analysis is the client’s cost-information system, which should be capable of summarizing cost according to the underlying activity that creates it.

As your client’s business adviser, focus your efforts on high-cost activities that use a lot of the client’s resources and on those activities in which costs are growing. Understand the cost drivers associated with those activities. The most valuable cost-reduction suggestions, those that lead to sustainable benefit to the client, are those that aim to control the cost drivers of your client’s key business activities.
## Chapter 3 — Diagnostic Tools

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Diagnostic Tool 3-A

THE PARTNER’S GAME PLAN

Partner commitment and involvement are essential for an audit firm to successfully implement the business adviser approach to auditing. Engagement partners should be able to answer the following questions about their clients’ cost structure. If they can’t, they should get answers by talking to their clients. If necessary, additional research may be needed to prepare for the discussion with the client or to supplement the answers provided.

➢ What cost information does the business owner use to monitor the business? Does the information facilitate strategic analysis? How often is that information received and reviewed?

• Follow up. If the client’s cost information cannot be related to the underlying business activities that cause costs, then the information probably does not facilitate strategic analysis. Consider a “mini-engagement” to reallocate costs to business activities for further analysis.

• Follow up. If the client’s current cost-information system is inadequate, that system may need to be revised. See chapter 5 for guidance on assessing a client’s information needs and whether the existing information reporting system is responsive to those needs.

➢ Which business activities consume the greatest amount of the client’s resources? What are the cost drivers behind these activities?

• Follow up. Understanding the cost drivers behind key business activities is the starting point for recommending a strategic cost-reduction plan.

➢ Which items account for most of the costs carried in the client’s inventory? What is the turnover of these items? Are these items tightly controlled and managed?

• Follow up. If your client does not know which items account for most of the inventory costs, you should help determine that information. Clients that do not tightly manage their most significant inventory items may need advice on inventory control techniques.

➢ Does the client regularly redesign its key products? Do these redesign efforts give proper consideration to cost-reduction opportunities?

• Follow up. If your client does not regularly redesign its products, perhaps it should. Product redesign can lead to significant and sustainable cost reduction. See Diagnostic Tool 3-D.
Diagnostic Tool 3-B

POTENTIAL CAUSES OF COST

The first step in performing a strategic cost analysis is to obtain relevant cost information. Costs should be grouped according to business activity. The allocation of direct costs is fairly simple, but allocating overhead to activities can be difficult. Most allocation methods are based on dollar volume, labor hours, or some other basis that may or may not be an underlying driver of overhead cost. [See “The Problem of Overhead Allocation” section in this chapter for a further discussion of this topic.]

An activity-based costing system allocates overhead based on the underlying transactions that cause cost. The following is a list of examples of causes of overhead cost.

Review your client’s overhead allocation methods. Is one of the following examples a better basis for overhead allocation?

- Number of labor transactions
- Number of material moves
- Number of total part numbers
- Number of parts received
- Number of part numbers in an average product
- Number of products
- Average number of options
- Number of schedule changes
- Number of accessories
- Number of vendors
- Number of units scrapped
- Number of engineering change notices
- Number of process changes

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- Number of units reworked
- Number of direct labor employees
- Number of new parts introduced
Diagnostic Tool 3-C

COST-REDUCTION TIPS

Once you have identified key business activities and analyzed the cost drivers associated with those activities, you should then use that analysis to propose strategic cost-reduction measures for your client. The following list of examples of cost-reduction tips can be used as a memory jogger. These tips should be presented as part of an overall cost-reduction strategy and not deployed as tactics in isolation. (For a further discussion of this topic, see the “Focus on Cost Drivers” section in this chapter.)

Inbound Activities

Tip #1. Use ABC analysis to manage inventory levels.

Tip #2. Use just-in-time inventory techniques to manage inventory levels and delivery.

Tip #3. Organize warehouse to facilitate easy retrieval of items.

Tip #4. Institute policies and procedures for materials handling to reduce waste and damage.

Tip #5. Maintain good physical custody over incoming goods.

Tip #6. Reuse or recycle pallets and containers.

Tip #7. Segregate incoming from outgoing items on the loading dock. If possible, use separate docks for receiving and shipping.

Tip #8. Organize receiving activities to reduce the number of times items are handled.

Operations

Tip #9. Redesign products to reduce costs.

Tip #10. Redesign plant layout to increase efficiency.

Tip #11. Provide easy access to commonly used supplies.

Tip #12. Conduct regularly scheduled maintenance on equipment and building.

Tip #13. Find alternative uses for scrap and waste.

Tip #14. Maintain a neat, well-organized workspace.

Tip #15. Find ways to eliminate large fluctuations of volume through the operation activities.
Outbound Activities


Tip #17. Offer cash-and-carry purchasing option for small retail customers.

Tip #18. Review freight classifications, especially for new products or products recently converted to new materials.

Tip #19. Place most frequently shipped goods nearest the point of issue.

Tip #20. Establish tight physical control over finished goods to reduce theft losses.

Tip #21. Reduce the number of distribution outlets.

Tip #22. Perform regular, preventive maintenance on delivery vehicles.

Tip #23. Give carriers advance notice of shipping requirements.

Tip #24. Stage outgoing products according to the order in which they are to be shipped.

Tip #25. Minimize the number of shipments that are less than a truck load. Combine two or more days' shipments to fill a trailer.

Tip #26. Ship products sooner to take advantage of slower, cheaper modes of transportation.

Marketing and Sales

Tip #27. Monitor cost per customer or customer group.

Tip #28. Enter into exclusive sales agreements with large customers. (This also reduces distribution and service costs.)

Tip #29. Cull unproductive customers from mailing lists.

Tip #30. Use black-and-white rather than color print ads.

Procurement

Tip #31. Obtain volume-buying discounts through cooperative purchasing with other entities (typically separated by geographic or other barriers to avoid competitive problems).

Tip #32. Take advantage of purchase discounts by paying vendors on time.

Tip #33. Consider leasing options.
Tip #34. Substitute cheaper or generic materials, machines, and other items for more expensive ones, as long as quality is not impaired.

Tip #35. Order materials in the most economical weight, size, length, and so on.

Tip #36. Use standard, stock products.

Tip #37. Negotiate terms with suppliers.

Tip #38. Reduce the variety of items ordered to increase the possibility for bulk purchasing.

Tip #39. Consider buying used equipment and other long-lived assets.

Tip #40. Use affinity programs to receive discounts and other perks.

Tip #41. Purchase seasonal items during the off-season.

Tip #42. Obtain bids from several suppliers on key items.

Tip #43. Centralize purchasing activities.

Tip #44. Outsource procurement to companies that specialize in purchasing specific items. For example, outsource travel purchases to a travel agency.

Tip #45. Increase bargaining power by keeping the number of sources sufficient to ensure competition, but small enough to be an important buyer for each source.

Other Support Activities

Tip #46. Compare actual results to budget and monitor variances.

Tip #47. Institute policies that allow key executives to be more productive (for example, reduce workday interruptions, delegate responsibility, control and manage time commitments).

Tip #48. Store documents electronically (the “paperless office”).

Tip #49. Allow flexible working hours (flextime).

Tip #50. Provide incentives for reducing employee absenteeism.

Tip #51. Institute accident prevention programs.

Tip #52. Pay workers on a piecework system rather than an hourly rate.

Tip #53. Allow telecommuting (the “virtual office”).
Tip #54. Review employee classifications for workers’ compensation insurance premiums.

Tip #55. Use electronic data interchange (EDI) to exchange information with third parties.

Tip #56. Limit use of overnight mail to situations that require it.

Tip #57. Send documents using email or fax rather than overnight mail service.

Tip #58. Reduce the scope of accounting services from audit to compilation or review.

Tip #59. Outfit the plant or office with energy-saving devices such as automatic light switches, water flow regulators, insulation, and heating and air conditioning controls.

Tip #60. Outfit the plant or office with safety devices such as fire extinguishers and smoke detectors.

Tip #61. Purge unnecessary files; establish and adhere to record retention policies.

Tip #62. Limit advanced telephone features to those employees who need them regularly.

Tip #63. Sublet unused space.

Tip #64. Institute policies to increase employee retention.

Tip #65. Institute policies that encourage employees to be frugal with company money, for example, travel and entertainment expenses.

Tip #66. Use video- or teleconference rather than travel to a face-to-face meeting.

Tip #67. Eliminate company policies that do not contribute to differentiation.
Diagnostic Tool 3-D

PRODUCT REDESIGN CHECKLIST

Product redesign is a significant opportunity to achieve sustainable, strategic cost reduction. (For a further discussion of this topic, see the “Cost Reduction Strategies—Operations” section in this chapter.) Use the following checklist to help your client redesign its products to achieve lower production costs. (Note: The author of this checklist, Harry E. Figgie, estimates that conscientious product redesign ought to be able to reduce costs by a range of 10 to 50 percent.)

1. Are all the specification requirements necessary or desirable? (Or do they ask for more than is needed?)
2. Is the hardware’s function clearly understood?
3. Does the design provide only what is required in the specifications?
4. Is the design as simple as possible and does it provide only essential functions?
5. Has standard or existing hardware been utilized to the fullest extent?
6. Are test requirements too stringent?
7. Are tolerances and finishes substantially contributing to the cost of the product?
8. Can alternate material be used to reduce costs?
9. Can the design be changed to minimize use of special tooling or equipment?
10. Have newly developed manufacturing techniques been considered for potential cost advantage?
11. Do you have a standard item that can be satisfactorily substituted for this part?
12. Can you suggest any design change that will lower the cost of the item?
13. Do you have any other suggestions that will reduce the cost of this part?
14. Would the cost of the hardware be reduced if the customer provided standard hardware and materials, and performed processing operations?
15. Make an entire subassembly smaller, reducing material accordingly.

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16. When buying adjacent parts from vendor, have them preassembled if practical.

17. Make as many parts as practical on a particular job of identical raw material.

18. Design part and tools to hold scrap in machining to a minimum.

19. Provide proper tooling to eliminate need of expensive labor.

20. Avoid complicated equipment that requires continuous scrutiny and maintenance.

21. Check it against other methods of fabrication.

22. Check it against unique, less well-known methods of fabrications.

23. Check unusual but available forms of raw materials for use on the job.

24. Have the suppliers’ engineers been given sufficient facts and pressed for suggestions that would produce equivalent performance at lower cost?

25. Should minor changes suggested by the supplier that would afford lower-cost material be considered further?

26. Are parts obtained in best economical lot sizes?

27. Would a relaxation of any tolerances result in lower manufacturing cost?

28. Can you suggest any design changes that will lower the cost of the item?

29. Is there any part of this item that can be more economically produced (considering tooling, etc.) by casting, forging, extruding, or other processes?

30. Can you suggest any material substitute?

31. Are there any finish requirements that could be eliminated or relaxed?

32. Are there any test or qualification requirements that appear unnecessary?

33. Have you any other suggestions that might save weight, simplify the part, or reduce the cost?

34. Do you have a standard item that can be satisfactorily substituted for this part? Is it qualified? What does it cost? What would qualification cost?

35. Can the design be changed to eliminate the purpose of operation?

36. Does everyone concerned know precisely what the inspection requirements are?
37. Are tolerance, allowance, finish, and other requirements necessary?
38. Will lowering the requirements reduce costs materially?
39. Are all tolerances used in actual practice the same as on the drawing?
40. Can material be purchased in sizes that would facilitate handling?
41. Can the design be changed to eliminate or simplify the operation?
42. Is the design of the part suitable to good manufacturing practices?
43. Can equivalent results be obtained at lower cost by design change?
44. Can a standard part be substituted?
45. Can a standard part be converted to do the necessary job?
46. If part is a casting, can it be made lighter by additional coring?
47. Does design of part present difficulties when casting?
48. Can a form cutter perform two or three operations on a certain job at one time more economically than performing these operations separately?
49. Can the part be so designed as to be suitable for more than one job?
50. Is the activity of the piece sufficient to justify the development of highly specialized tools and fixtures?
51. Can special tools be applied to do more than one operation at a time?
52. Can magazine feed be used?
53. Is the design of the fixture correct?
54. Could higher cost tooling be justified by increasing order quantity?
55. Does the material specified appear suitable for the purpose for which it is to be used?
56. Could a less expensive material be substituted that would function as well?
57. Could a lighter gauge material be used?
58. Could the supplier perform additional work upon the material that would make it better suited for its use?
59. If a casting or forging, is the excess stock sufficient for machining purposes but not excessive?

60. Can the machinability of the material be improved by heat treatment or in other ways?

61. If a more expensive material that was easier to machine were substituted, would there be a savings?

62. Could the parting of the patterns be changed to eliminate a machining operation on the casting?

63. Could molded or cast parts be substituted to eliminate machining or other operations?

64. Can design be changed to eliminate excessive loss of scrap material?

65. Can newly developed materials be used?

66. If the material is obtainable with reasonable tolerances and surface finish, is it possible to specify a stock size that will eliminate a machining operation?

67. Can extruded material be used?

68. Is the supplier performing assembly operation on a part of material that we later dismantle?
Diagnostic Tool 3-E

SUMMARY OF STAND-ALONE CONSULTING ENGAGEMENTS

When analyzing costs and making suggestions for strategic cost-reduction measures, you may identify opportunities for additional stand-alone consulting engagements. The following pages identify some of those engagements. A brief description of each engagement is provided along with signs you should be alert for which may indicate that your client is a prime candidate for the service. “Resources” indicates where to go to obtain information on how to perform the engagement, including detailed explanations, work programs, engagement letters, and other practice aids. Asterisk ratings (on a four-point scale with “****” as an excellent resource) and comments on these resources are the author’s opinion.

The possible stand-alone consulting engagements discussed in this diagnostic tool are—

1. Operational Audit
2. Cost-Control Analysis
Service: Operational Audit

Description: Systematic review of an organization’s activities (or stipulated segment) for the purposes of—

➢ Assessing performance.
➢ Identifying opportunities for improvement, efficiency, and cost reduction.
➢ Developing recommendations for improvement or further action.

Signs to look for: Important cost ratios or measures far in excess of industry norms

Significant unexplained budget variances

Management letter indicates possible weaknesses that need further investigation

Customer, vendor, or other third-party complaints about the operation of certain processes (for example, slow payment of invoices), which management cannot explain

Significant backlog

Resources: AICPA Management Consulting Services (MCS) Practice Aid Operational Audit Engagements (***)

Includes detailed questionnaire for many different operational areas. Includes many summarized engagement examples.

Other: Operational audits are frequently requested by governmental agencies.

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\(^5\) This practice aid can be found in the AICPA Integrated Practice System, Consulting Services Manual, issued by the Management Consulting Services Division. The Manual is out of print and is available through the AICPA library or your local state society library.
### Make Audits Pay: Leveraging the Audit Into Consulting Services

<table>
<thead>
<tr>
<th>Service:</th>
<th>Cost-Control Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description:</td>
<td>Analyze relationship of cost to profitability. Understand and analyze cost drivers for the entity. Make and implement recommendations to reduce, eliminate, or reallocate costs. Improve information system to provide management with better cost information.</td>
</tr>
<tr>
<td>Signs to look for:</td>
<td>Management is preoccupied with sales and sales mix and pays little attention to cost. Management lacks understanding of entity’s cost structures. Accurate information on cost is not readily available. Key costs are out of line with industry or negative trends.</td>
</tr>
<tr>
<td>Resources:</td>
<td>AICPA Consulting Services Practice Aid No. 93-7, <em>Assisting Clients in Controlling Costs and Expenses</em> (*). Light on narrative guidance. Contains examples. Practioners Publishing Company (PPC) <em>Guide to Expense Reduction</em> (**). More than eight hundred suggestions for expense reductions in eleven different functional areas. More tactical than strategic, tends to focus on minor overhead expenses such as telephone charges, postage, and office supplies.</td>
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CHAPTER 4

FINANCIAL AND OPERATIONAL CONTROLS

This chapter provides you with the diagnostics and other tools you need for a consulting “mini-engagement” related to financial and operational controls. Opportunities for business advice exist for the auditor willing to analyze comprehensively the client’s control systems. Internal controls provide an excellent opportunity for you to suggest ways for your clients to improve their businesses.

Case Study
Goode Children’s Publishers

Charles Goode was a professional illustrator of children's books who started his own publishing company. Over a span of twenty years, the company grew into a $50 million a year business and established a reputation as a top-quality publisher of children’s and preteen books.

Mr. Goode is nearing retirement age and wants to sell the company. However, several years ago, a prolonged slump in the children’s book market resulted in poor financial results for the company, and Mr. Goode was unable to find any buyers to offer a suitable price. In response, he hired Al Bumbly, a self-described “turnaround specialist,” as vice president. Mr. Bumbly’s goal: to return the company to profitability and position it for sale.

The new vice president immediately developed his Plan 2000, a vision for returning the company to profitability. He cut costs (and employees), sold off a struggling but promising line of books, and set out ambitious plans for a new CD-ROM series of educational products.

Unfortunately, the initiatives proved a dismal failure. The industry as a whole has recovered, but Goode Children’s Publishers continues to struggle. Mr. Goode, admitting he made a mistake, eventually fired Mr. Bumbly.

“All this guy did was talk about his vision for the new millennium. Forget about the twenty-first century, we’re stocking out of inventory next week,” he told his CPA. “Everywhere you look in this company we’re out of control. We can’t get our shipments out on time, and now our distributors are angry. We can’t pay our authors on time, and now some of them are leaving. It took us ten months to approve Emily Worth’s new book because they were doing some sort of marketing analysis. She’s our best-selling author—just publish what she sends us. Now you tell me our accounting controls are so bad one of my employees could steal $20,000 and we’d never know. Believe me, I’m not surprised. We’ve lost control of the whole company, if you ask me.”
A NEW UNDERSTANDING OF CONTROL

As auditors, we are directed by our professional standards to have a narrow view of our client’s control system. We focus our attention only on those elements of control that have financial statement impact. The depth of our knowledge of these controls also is fairly shallow—we are required to understand controls only to the extent necessary to plan the audit. Any deeper understanding of controls is reserved for those instances where we wish to “rely” on controls to reduce the amount of substantive audit testwork.

As a practical matter, on most small business audit engagements we choose a primarily substantive audit approach. We learn little about our client’s control systems, and after years of adopting this approach, our ability to analyze a client’s controls and make suggestions for improvement becomes atrophied.

For the small business owner, the term “control” is more all-encompassing than the auditor’s definition, which is limited to financial reporting controls. Many small business owners consider controls to be akin to business management, including all functions of a business, not just those related to financial reporting. In the previous example, Mr. Goode states that his company lacks control, but most of the evidence cited (improper inventory levels, problems with payments and shipments) relates mostly to the company’s operations, not financial reporting and the accounting controls we are accustomed to dealing with.

As an auditor, you have an excellent opportunity to suggest ways to improve your clients’ businesses by using internal controls. You can realize this opportunity if you—

- Broaden your definition of controls to include matters related to the company’s operating efficiencies,
- Take the time to understand and analyze the controls in place for your client’s significant business activities.

This chapter introduces you to the internal control framework described in the Committee of Sponsoring Organizations of the Treadway Commission (COSO) report. You should not in any way confuse the guidance contained in this book with the guidance promulgated by generally accepted auditing standards. Diagnostic Tool 4-D contains a detailed checklist you can use to help you implement the ideas in this chapter.

Identifying Your Client’s Need to Rethink Its Controls

Given enough time, most of your clients probably could develop an effective control system for a static business environment. The problem, of course, is that your clients operate in environments that are constantly changing. A system of controls that functions smoothly under one set of conditions may not work as well when conditions change. For that reason, you should be alert for signs that the client’s control systems may need to be reconsidered in the face of significant change.
Consider the following conditions, which may indicate that you and your client should take a closer look at controls.

- **New Personnel.** New personnel may have a different focus on or understanding of internal control. A senior executive new to an entity may not understand the entity’s culture, or may focus solely on performance to the exclusion of control-related activities. When people change jobs or leave the company, management should consider the control activities that person performed and who will perform them going forward. Steps should be taken to ensure new personnel understand their tasks and are trained sufficiently.

- **Rapid Growth.** Significant and rapid expansion of operations can strain controls and increase the risk of a breakdown. Management should consider whether accounting and information systems are adequate to handle increases in volume.

- **New or Revamped Information Systems.** Significant and rapid changes in information systems can change the risk relating to internal control. When these systems are changed, management should assess how the changes will impact control activities. Are the existing activities appropriate or even possible with the new systems? Personnel should be adequately trained when information systems are changed or replaced.

- **New Technology.** Incorporating new technologies into production processes or information systems may change the risk associated with internal control.

- **New Lines, Products, or Activities.** Entering into business areas or transactions with which an entity has little experience may introduce new risks associated with internal control.

- **Changes in the Operating Environment.** Changes in the regulatory or operating environment can result in changes in competitive pressures and significantly different risks.

- **Accounting Pronouncements.** Adoption of new accounting principles or changing accounting principles may affect risks in preparing financial statements.

### SETTING THE PROPER TONE

For control policies and procedures to be effective, two elements must be in place:

1. The policies and procedures, as designed, must be capable of reducing identified risks to an acceptable level.

2. The *people* in charge of executing the policies and procedures must do so effectively.

In many ways, it is the second element—getting your client’s employees to properly perform their control functions—that is the most important.
It is difficult if not impossible to ensure that all employees will perform their control functions properly. However, your client can go a long way toward increasing the effectiveness of its control system if an environment is created that instills control consciousness in all employees.

Control consciousness starts at the top. The business owner and top management must demonstrate an awareness and concern for controls if they expect employees to do the same. The following are some commonsense questions to ask about your client’s management and whether they are setting good examples for their employees to follow.

- How closely do the business owner and management monitor both financial and operational results of the entity?
- Do they notice when things look wrong?
- Are they following up when things look wrong?
- What is management’s general operating philosophy? Conservative? Aggressive?

The following discussion describes some of the elements of an environment that encourages employees to effectively perform their control duties.

**Integrity and Ethical Values**

The effectiveness of internal control policies and procedures cannot rise above the integrity and ethical values of management. Management may tell you a great deal about their integrity and ethical values. They may even commit their words to a written document. Responses to inquiries and written policies are good, but as a business adviser you should focus on management’s actions and how these actions affect the employees on a day-to-day basis.

For management’s integrity and ethical values to have a positive impact on the employees, the following must exist.

1. The business owner and management must personally have high ethical and behavioral standards.

2. These standards must be communicated to company personnel. In a small business, this communication is often informal.

3. The standards must be reinforced.

When observing and evaluating management’s actions, be alert for the following:

- Segregation of personal from business funds and activities. Many small business owners intermingle their personal and business activities, for example, the company may pay the owner’s credit card bills even if they contain non-business expenditures. Consider the owner’s attitude and the care with which he or she separates the personal from the
business activities. It's not unusual for a business to pay the owner’s credit card bills, but the more important question is: Does the owner reimburse the company? Owners who treat company assets as if they were personal assets set a bad example for employees who may be encouraged to do the same.

Dealing with signs of problems. Consider how management deals with signs that problems exist, particularly when the cost of identifying and solving the problem could be high. For example, suppose your client became aware of possible environmental contamination on the premises. How would they react? Would they try to hide it, deny its existence, or act evasively if asked about it? Or would they actively seek out your advice or the advice of their attorney?

Removal or reduction of incentives and temptations. Individuals may engage in dishonest, illegal, or unethical acts simply because the owner-manager gives them strong incentives or temptations to do so. Removing or reducing these incentives and temptations can go a long way toward diminishing undesirable behavior.

The emphasis on results, particularly in the short term, fosters an environment in which the price of failure becomes very high. Incentives for engaging in fraudulent or questionable practices include—

— Pressure to meet unrealistic performance targets, particularly for short-term results.

— High performance-dependent rewards.

— Upper and lower cutoffs on bonus plans.

Temptations for employees to engage in improper practices include—

— Nonexistent or ineffective controls, such as poor segregation of duties in sensitive areas, which offer temptations to steal or conceal questionable financial reporting practices.

— Owner-managers who are unaware of actions taken by employees.

— Penalties for improper behavior that are insignificant or unpublicized and thus lose their value as deterrents.

Management intervention. There are certain situations where it is appropriate for management to intervene and to overrule prescribed policies or procedures for legitimate purposes. For example, management intervention usually is necessary to deal with nonrecurring and nonstandard transactions or events that otherwise might be handled by the accounting system. Consider whether management has provided guidance on the situations and frequency with which intervention of established controls is appropriate. Management intervention should be documented and explained.
Commitment to Competence

Competence should reflect the knowledge and skills necessary to accomplish tasks that define an individual's job. Commitment to competence includes management's consideration of the competence levels for particular jobs and how those levels translate into requisite skills and knowledge.

Management’s Philosophy and Operating Style

Management’s philosophy and operating style encompass a broad range of characteristics. Such characteristics may include—

- Management’s approach to taking and monitoring business risks.
- Attitudes and actions toward financial reporting and tax matters.
- Emphasis on meeting budget, profit, and other financial and operating goals.

Management’s philosophy and operating style have a significant influence on the actions of the employees, particularly in a small business where the owner-manager dominates the organization.

Organizational Structure

Your client’s organizational structure provides the framework within which its activities for achieving entity-wide objectives are planned, executed, controlled, and monitored.

Significant aspects of establishing an organizational structure include considering key areas of authority and responsibility and appropriate lines of reporting. Small business entities usually have fairly simple organizational structures. A highly structured organization with formal reporting lines and responsibilities may be appropriate for large entities, but for a small business, this type of structure may impede the necessary flow of information.

Assignment of Authority and Responsibility

The assignment of authority and responsibility includes the following:

- The establishment of reporting relationships and authorization procedures
- The degree to which individuals and groups are encouraged to use initiative in addressing issues and solving problems
- The establishment of limits of authority
- Policies describing appropriate business practices
- Resources provided for carrying out duties
Chapter 4: Financial and Operational Controls

Alignment of authority and accountability often is designed to encourage individual initiatives, within limits. Delegation of authority means surrendering central control of certain business decisions to lower echelons, to the people who are closest to everyday business transactions.

A critical challenge is to delegate only to the extent required to achieve objectives. Another challenge is ensuring that all personnel understand the entity’s objectives. It is essential that each individual knows how his or her actions interrelate and contribute to achievement of the objectives. Employees’ control consciousness is greatly influenced by the extent to which they recognize that they will be held accountable.

Human Resource Policies and Practices

Human resource policies and practices affect an entity’s ability to employ sufficient competent personnel to accomplish its goals and objectives. Human resource policies and practices include an entity’s policies and procedures for hiring, orientating, training, evaluating, counseling, promoting, compensating, and taking remedial action. In many small businesses, the policies may not be formalized but they should nevertheless exist and be communicated. The owner-manager can orally make explicit his or her expectations about the type of person to be hired to fill a particular job, and may even be active in the hiring process. Formal documentation is not always necessary for a policy to be in place and operating effectively.

Standards for hiring the most qualified individuals, with emphasis on educational background, prior work experience, past accomplishments, and evidence of integrity and ethical behavior, demonstrate an entity’s commitment to competent and trustworthy people. Hiring practices that include formal, in-depth employment interviews and informative and insightful presentations on the company’s history, culture, and operating style send a message that the company is committed to its employees.

Personnel policies that communicate prospective roles and responsibilities and that provide training opportunities indicate expected levels of performance and behavior. Rotation of personnel and promotions driven by periodic performance appraisals demonstrate the entity’s commitment to advancement of qualified personnel to higher levels of responsibility. Competitive compensation programs that include bonus incentives serve to motivate and reinforce outstanding performance. Disciplinary actions send a message that violations of expected behavior will not be tolerated.

Goode Children’s Publishers, continued

The control consciousness of Goode Children’s Publishers had deteriorated significantly since the change in management. After hiring Mr. Bumbly, Charles Goode adopted a hands-off approach to the enterprise, thinking it would be less of a transition for the employees when the company eventually was sold. However, because none of the employees knew the company was to be sold, they had a negative reaction to Mr. Goode’s new management style. They decided that he
didn’t care about the company anymore and that their actions were not being supervised.

Mr. Bumbly had a different management style. The CD-ROM product line and other elements of his Plan 2000 project became “pet projects” that he had a tendency to micromanage. All other elements of the business he essentially ignored, even product lines and activities that historically had been quite successful. When problems developed in these areas, he had a habit of dismissing them as unimportant for the future direction of the company. As a result of this operating style, employees learned to pay the most attention to Mr. Bumbly’s pet projects. Other business activities they ignored until the problems became so overwhelming that action was absolutely required.

As part of his overhaul of human resources, Mr. Bumbly cut the workforce and reorganized the remaining employees into teams. These teams were given wide latitude and authority to set and implement policies for the company. For example, one such team was formed to design a new inventory and production management system.

One of the problems with the team approach was that many team members lacked the skills and experience in matters relating to operational and financial controls. As a result, many of the plans they designed during the two-year period were severely lacking in these areas.

Mr. Goode’s CPA carefully considered Mr. Goode’s comment that the organization seemed out of control. Rather than start off with recommendations for developing a new set of control policies and procedures, she first decided to assess the control consciousness of the organization. Whatever control policies and procedures needed to be changed, ultimately they had to be carried out by the company’s employees.

Informally, she took the time to discuss the situation with several employees with whom she had established a good working relationship over the years. Based on those discussions, she offered the following advice to Mr. Goode.

➢ Mr. Goode needs to develop some broad-based business goals and strategies for the company. Controls would be linked to these goals and strategies, not to the pet projects of management.

➢ Mr. Goode needs to become personally involved in the day-to-day operations of the business, just like he was in the past. If the control policies and procedures are to be effective, Mr. Goode must set a proper tone of control consciousness for the employees to follow.
The company should reevaluate its team-based approach and the proper amount of delegation. Additionally, teams must be held accountable for their decisions. Many employees expressed dissatisfaction with the team approach, and it was generally acknowledged that teams were never held accountable and they gave no thought to operational or financial controls when working on their assigned tasks.

A FRAMEWORK FOR ORGANIZATIONAL CONTROL

Chapter 2 discussed how your client should work to establish broad business objectives. For the purposes of analyzing controls, consider these objectives to be one of two types: operational and financial. As auditors, we tend to focus on financial objectives. A narrow focus on financial controls is limiting—the end result is that the client can produce more accurate financial information, which is important, but not the be-all and end-all.

As your client’s business adviser, you need to look at operational controls as well. It is in the operations of the business that your suggestions can really make a difference to the client and that most of the opportunities for additional consulting work can be found.

Once your client has established a strong control environment, the following four elements must be put in place to create a complete control system.

1. **Risk Assessment.** The entity must be aware of and deal with the risks it faces. It must set objectives, integrated throughout all value-chain activities, so that the organization is operating in concert. Once these objectives are set, the entity must identify the risks to achieving those objectives, and analyze and develop ways to manage them.

2. **Control Activities.** Control policies and procedures must be established and executed to help ensure that the actions identified by management as necessary to address risks are effectively carried out.

3. **Information and Communications.** Surrounding the control activities are information and communication systems, including the accounting system. These systems enable the entity’s employees to capture and exchange the information needed to conduct, manage and control its operations. These systems are discussed in more detail in chapter 5.

4. **Monitoring.** The entire control process must be monitored, and modifications made as necessary. In this way, the system can react dynamically, changing as conditions warrant.
RISK ASSESSMENT AND CONTROL

The Links Between Objectives, Risk, and Control

One of the consistent themes in this book is that for your advice to be truly valuable to your clients, it ultimately must be related to their overall business strategies and objectives. Advice about controls is no exception. Control procedures do not exist in isolation. They are driven by an entity’s objectives and the risks of achieving those objectives.

For example, your client has several objectives with respect to accounts receivable, including making sure that all receivables are collected by the company. One of the risks to achieving that objective is that a dishonest employee can siphon off funds received from customers and cover the theft by eliminating the receivable from the accounting records. To mitigate that risk, an entity should institute a control procedure, namely, the controlled use of credit memos to make any credit adjustments to accounts receivable.

Chapter 2 discussed strategic planning and how you can help your clients develop entity-wide objectives and strategies. Once a business sets its broad business objectives, it must then identify more specific objectives directed toward each value-chain activity. When objectives are established for each activity, the entity can then identify “critical success factors”—the things that must go right if goals are to be attained. Once these factors are identified, you should begin to concentrate your efforts on identifying risks, and ultimately, on developing controls.

Goode Children’s Publishers, continued

Mr. Goode’s CPA told him that her advice was to build a system of controls from the bottom up, that is, by starting with company objectives and developing controls related to those objectives. She also confirmed that her approach was to think of controls comprehensively, including both operational and accounting controls.

She knew that Mr. Goode wanted to increase profitability and position the company for sale, but she wasn’t sure how he planned to do that. She asked him, and he seemed vague in his response, commenting only that he wouldn’t do what Mr. Bumbly had done. She asked, “What do you think was wrong with his approach?”

“I think he had some good ideas,” said Mr. Goode, “but we just tried to do too much too fast.” He explained that the company’s strength had always been in providing well-illustrated storybooks to preteens (eight to twelve year olds). Mr. Bumbly’s major initiative was to provide educational CD-ROMs to teenagers. “There’s too much we don’t know about that,” explained Mr. Goode. “We don’t know education, we don’t know teenagers, and we don’t know computers. It
makes more sense to me to build a little bit on some of the things we already do well. Don’t change everything at once. We’ll lose what we have.”

Based on those comments, Mr. Goode and his CPA were able to articulate a strategy for the company. Rather than do three new things at once, the company would do only one—they would develop a line of CD-ROM based stories for preteens. In other words, the market and product would play to the company’s strengths while the company developed the relationships and skills necessary to produce computer-based products.

However, without solid financial footing, it would be difficult for the company to develop the CD-ROM product line. For that reason, it was vital that the company continue to operate its existing lines of business in the most efficient and effective way possible while simultaneously developing new products. Mr. Bumbly’s policy of ignoring traditional operations could not continue. Mr. Goode’s CPA began her efforts by examining controls over these traditional activities.

Developing Control Policies and Procedures

Control activities can be in place at either the entity level or the business activity level. At the entity-wide level, control activities may be categorized as policies and procedures that pertain to the following.

➢ **Top Level Reviews.** These control activities include reviews of actual performance versus budgets, forecasts, prior-period performance, and competitors. As described in chapter 5, your client should monitor information related to key business objectives and strategies.

➢ **Physical Controls.** These activities encompass the physical security of assets, including adequate safeguards over access to assets and records, such as secured facilities, authorization for access to computer programs and data files, and periodic counting and comparison with amounts shown on control records.

➢ **Segregation of Duties.** Assigning different people the responsibilities of authorizing transactions, recording transactions, and maintaining custody of assets is intended to reduce the opportunities for any person to be in a position to both perpetrate and conceal errors or irregularities in the normal course of his or her duties.

Many small businesses cannot afford to hire enough employees to achieve an adequate segregation of duties. In these instances, the business owner should take a more active role in the control system. For example, a small business may authorize its bookkeeper to sign checks up to a predetermined amount. That same bookkeeper also may be responsible for preparing the bank reconciliations. This lack of segregation of duties leaves the entity vulnerable to theft of cash. To mitigate this risk, the business owner should become more involved in the controls related to cash either by reviewing the bank
reconciliations or by receiving the bank statements directly from the bank and reviewing the canceled checks before passing them along to the bookkeeper.

At the transaction level, a variety of controls are performed to check accuracy, completeness, and authorization of transactions. When analyzing control at the transaction level keep in mind the following.

- **Process Versus Control.** A process changes the nature of the data; a control is a check to make sure the process was performed correctly. The risks associated with an accounting system are related to the *processes*. Thus, whenever accounting data are processed, there should be some control in place to make sure it was done correctly. Once the initial transaction has been captured, the risks in processing it further typically relate to the *completeness* and *accuracy* of the data.

- **Preventive Versus Detective Control.** Controls can be broadly classified into two types: preventive and detective. A preventive control prevents unauthorized, incomplete, or inaccurate information from being processed. Your personal identification number (PIN) for the automated teller machine (ATM) is a preventive control because it prevents unauthorized access to your account. A preventive control occurs *before* a transaction is processed. A bank reconciliation is a detective control. It takes place *after* the information has been processed and is designed to detect processing errors. To be effective, detective controls must have a proper follow-up of identified errors. For example, if no one investigates the reconciling items, a bank reconciliation is ineffective.

Remember that as a business adviser you cannot focus exclusively on financial and accounting controls. To provide real value to the business owner, consider your client’s operational objectives and the related controls that can help achieve them.

Diagnostic Tool 4-D includes a detailed list of examples of control policies and procedures first published in the COSO report. This list is organized according to value-chain activities, and individual controls are linked to specific objectives and risks. Use this list to help you design specific control procedures for your clients.

**IMPLEMENTING THE IDEAS CONTAINED IN THIS CHAPTER**

Look for signs that your client’s internal controls (which include both financial and operational controls) are ineffective. Some signs you may discover during the performance of audit fieldwork. Typically, these internal control weaknesses relate to financial and accounting matters. As a business adviser, you also need to consider matters of operational performance. Analyze significant *nonfinancial* measures to see if negative trends for key measures indicate that important value-chain activities are not being properly controlled.

Internal control systems must be flexible. A common mistake is for the client to fail to recognize that changing business conditions frequently require a change in control policies and procedures. By failing to recognize the implications of change and to act accordingly, over time, a
company’s control system can begin to deteriorate. The presence of any of the changes listed at the beginning of this chapter may indicate that your client should conduct a thorough review of its control systems.

Start by determining whether the business owner has established an environment that is conducive to controls. If not, help your client create such an environment.

For significant value-chain activities, use the COSO internal control checklist included as Diagnostic Tool 4-D. This checklist will help you identify risks to your client’s business strategies throughout the value chain. The checklist also links specific examples of control policies and procedures to identified risks. This part of the checklist can be used to help design a broad-based internal control system that includes both operational and financial controls.

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**Epilogue**

**Goode Children’s Publishers**

Mr. Goode’s CPA wanted to focus her efforts on controls related to the production and sales of the company’s existing product line. She knew of some areas where controls were weak (inventory, accounts payable), and her first inclination was to look closely at those areas and design new control policies and procedures. Then she changed her mind.

Instead of concentrating on areas where problems were known to exist, she first wanted to look at the value-chain activities of greatest *strategic* importance to the company. She believed it was most important to fix those areas first—she could always go back and look at inventory and accounts payable later.

Keeping in mind the overall direction of the company (leverage on existing expertise and known markets to develop a new product), Mr. Goode’s CPA decided that two activities were critical to the success of the strategy. First, because the company had no in-house expertise in writing for interactive multimedia, they had to develop new relationships with writers, designers, and other vendors for the new product. Second, the company must be able to service their existing customers in a way that provides management with feedback on how the new products are perceived.

The CPA adapted the checklist contained in Diagnostic Tool 4-D combined with interviews of company personnel to help her define objectives, risks, and control procedures in the chosen activities. She approached the task broadly, including both operational and financial objectives. Controls related to accounts payable were a natural outgrowth of her analysis of the controls necessary to establish relationships with new suppliers. A special effort was necessary to design controls over inventory.
After a week of analysis and investigation, she prepared a report summarizing her recommendations for Mr. Goode. She has offered to help implement her recommendations, but he is considering turning the project over to someone in-house to keep his costs down.

**SUMMARY**

Auditors of small businesses typically take a substantive approach to the audit and spend little time and effort analyzing or understanding their client's control systems. When they do, they focus narrowly on financial reporting objectives and controls and ignore those relating to operations. This is unfortunate. For the small business owner, "controls" can be synonymous with "management," but only to the extent that they are not limited to accounting controls. Thus, opportunities for business advice exist for the auditor willing to analyze comprehensively the client's control systems.

To work effectively, a control system must be (1) well designed and (2) properly performed. Of these two requirements, the most important relates to performance by the company's personnel. Well-trained employees with a genuine concern for controls can make up for a poorly designed system. However, even the best system on paper will not work if it is implemented by people who do not do their jobs. For that reason, it is important for your client to establish a working environment that instills control consciousness among its employees.

The company's overall business objectives and the risks to achieving those objectives drive the development of control policies and procedures. For the purpose of developing control policies and procedures, the best way to analyze your client's objectives and risks is according to value-chain activities. In that way, the company's control system has strategic importance to the client.

By themselves, internal controls are not sufficient to run a business. By definition, controls are inward-looking, focused on what your client can control within its organization. There are many things your client cannot control, including developments outside the entity and even outside the industry. Still, if you can help your clients develop a well-designed control system, they should have reasonable assurance of controlling the activities they can and of being alerted when their business objectives are in danger of not being achieved.
Chapter 4 — Diagnostic Tools

Diagnostic Tool 4-A  The Partner’s Game Plan
Diagnostic Tool 4-B  Evaluating the Control System
Diagnostic Tool 4-C  Summary of Stand-Alone Consulting Engagements
Diagnostic Tool 4-D  Control Checklist for Business Activities
Diagnostic Tool 4-A

THE PARTNER’S GAME PLAN

Partner commitment and involvement are essential for an audit firm to successfully implement the business adviser approach to auditing. Engagement partners should be able to answer the following questions about their clients’ control systems. If they can’t, they should get answers by talking to their clients. If necessary, additional research may be needed to prepare for the discussion with the client or to supplement the answers provided.

➢ What recent changes at the client’s business may indicate that its existing control system may be obsolete?
  •  Follow up. Significant changes of the types listed in the section “Identifying Your Client’s Need to Rethink Its Controls” may strain existing controls. Look for the presence of such changes to suggest that your client do a thorough evaluation of its internal control system.

➢ What are the company’s entity-wide business objectives and strategies, and how have these formed the basis for objectives and strategies at the business activity level?
  •  Follow up. Your client may be unable to clearly articulate its entity-wide objectives and strategies. Alternatively, your client may have failed to make these strategies operational by developing closely related objectives at the business activity level. If this is the case, you may have an opportunity to help your client develop a strategic plan. See chapter 2 for additional suggestions in this area.

➢ What risks to achieving its stated objectives has the client identified? What control policies and procedures exist to mitigate these risks?
  •  Follow up. If your client has not identified and analyzed the risks it faces, or if it has failed to develop controls in response to those risks, this creates the opportunity for you to help the client design a comprehensive system of controls, one that includes both financial and operational objectives.

➢ Are the key control procedures related to critical business activities being properly performed?
  •  Follow up. It may be that the weaknesses in your client’s control systems are not caused by the system’s design, but rather its execution. Be alert for evidence that established control policies and procedures are not being followed by employees. Systemic failure to comply with established policies may provide an opportunity to (1) communicate and train the client’s employees on control policy matters, or (2) design and implement a monitoring system that allows management to identify and take corrective action when control policies have not been followed.
Diagnostic Tool 4-B

EVALUATING THE CONTROL SYSTEM

Before conducting a detailed assessment of your client’s specific control policies and procedures, you might first want to focus on management’s overall process for setting objectives, analyzing risks, and developing controls related to those risks. The following questions can help you make that overall assessment.

**Entity-Wide Objective**

1. Are the entity-wide objectives specific enough to relate directly to the client?
2. Are the entity-wide objectives effectively communicated to all employees?
3. Are broad business strategies related to and consistent with the entity-wide objectives?
4. Are the company’s business plan, budget, and information system consistent with entity-wide objectives?

**Activity-Level Objectives**

5. Are value-chain activity level objectives linked with entity-wide objectives and strategic plans?
6. Are activity level objectives consistent with each other?
7. Have activity level objectives been developed for all significant value-chain activities?
8. Has the entity devoted the resources necessary to achieve established activity objectives?
9. Has the business owner identified critical success factors necessary to achieve entity-wide objectives?
10. Have all levels of management been involved in setting objectives?

**Risk Identification and Analysis**

11. Does the entity have adequate mechanisms to identify risks arising from *external* sources?
12. Does the entity have adequate mechanisms to identify risks arising from *internal* sources?
13. Has the entity identified significant risks for each significant activity level objective?
Diagnostic Tool 4-C

SUMMARY OF STAND-ALONE CONSULTING ENGAGEMENTS

When obtaining an understanding of the client’s business as described in this chapter, you may identify opportunities for additional stand-alone consulting engagements. The possible stand-alone consulting engagement discussed in this diagnostic tool is helping clients establish credit and collection policies. A brief description is provided along with signs you should be alert for which may indicate that your client is a prime candidate for the service. “Resources” indicates where to go to obtain information on how to perform the engagement, including detailed explanations, work programs, engagement letters, and other practice aids. Asterisk ratings (on a four-point scale with “****” as an excellent resource) and comments on these resources are the author’s opinion.

In addition, you may want to “package” the diagnostic checklist included in Diagnostic Tool 4-D as a stand-alone engagement.
**Service:** Helping Clients Establish Credit and Collection Policies

**Description:** Understand and evaluate existing credit and collection policies.

Compare existing policies to similar companies.

Draft and implement new policies.

**Signs to look for:**
- No existing policies in place, or existing policies not enforced
- Key accounts-receivable ratios (for example, turnover, percentage of past-due accounts) are outside industry norms or indicate negative trends
- Recent change in sales volume, mix, or geographic area

**Resources:** AICPA Consulting Services Practice Aid No. 94-3, *Assisting Clients in Developing Credit and Collections Policies (****).* Includes engagement program and example engagement letters and final report.
Diagnostic Tool 4-D

CONTROL CHECKLIST FOR BUSINESS ACTIVITIES

On the following pages is the internal control checklist originally published as part of the COSO report. You can use this checklist to evaluate the design and adequacy of your client’s control system. (See the section “Developing Control Policies and Procedures” in this chapter for a further discussion on this topic.) When using the checklist you should note—

➢ Individual checklists have been developed for each activity within the value chain. There usually is no need to complete all checklists, only those that pertain to the clients most important value-chain activities.

➢ Reading across the checklist from left to right, the information is organized according to the framework described in this chapter. On the left-hand side of the checklist is a description of business objectives within the business activity. The middle column describes risks to achieving those objectives. The right-hand column describes examples of control procedures to mitigate those risks. Thus, the checklist can be used to help the client describe business objectives and the related risks in addition to designing control policies and procedures.

➢ The described business objectives include operational as well as financial and accounting objectives. These operational objectives are necessary if you are to provide broad business advice to your clients.

➢ The checklists relate only to the design of internal control policies and procedures. To be effective, these policies and procedures must be performed by well-trained employees with a proper level of control consciousness. See the section “Setting the Proper Tone” in this chapter for a discussion of suggestions on creating an environment of control consciousness at your client’s business.
## Internal Control Questionnaire
### Inbound Activities

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Risks</th>
<th>Control Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Logistics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Ensure that materials received and related information are processed and promptly made available to production, stores or other departments</td>
<td>Plans and schedules are not communicated to inbound activities, or do not clearly identify when or where materials are needed</td>
<td>Specify on plans and schedules what materials are needed, and when they are needed</td>
</tr>
<tr>
<td></td>
<td>Information on materials received is not entered into the information system accurately or on a timely basis</td>
<td>Communicate all plans and schedules to inbound activities</td>
</tr>
<tr>
<td>2. Ensure purchase orders not filled on a timely basis are investigated</td>
<td>Purchase orders are lost or not forwarded to inbound activities</td>
<td>Summarize material requirements and submit them to receiving periodically</td>
</tr>
<tr>
<td></td>
<td>Due date information is not available</td>
<td>Maintain material routing procedures for received items</td>
</tr>
<tr>
<td>3. Completely and accurately document goods received and goods returned</td>
<td>Lost receiving reports or lost shipping records</td>
<td>Provide inbound activities with nonroutine material routing instructions</td>
</tr>
</tbody>
</table>

Adapted with permission from *Internal Control—Integrated Framework*, Copyright © 1994 by the Committee of Sponsoring Organizations of the Treadway Commission.
Receive

4. Accept only items that were properly ordered
   - Purchase order information is not made available to inbound activities
   - Compare materials received, including verification of quantities received, to properly approved purchase orders. Do not accept materials not properly ordered
   - Monitor instances of invoices presented for payment when materials were accepted without a valid purchase order (performance indicator)

5. Accept only materials that meet purchase order specifications
   - Purchase order specifications are unclear
   - Maintain current lists of specifications to be used in inspecting and testing goods
   - Verify specifications with purchasing or other appropriate personnel
   - Monitor production problems related to substandard materials (performance indicator)
   - Materials are not tested for specification compliance
   - Establish testing procedures, as appropriate, for all materials ordered
   - Monitor production problems related to substandard materials and parts (performance indicator)

6. Ensure that all materials transferred from the receiving activity to other activities are recorded
   - Transfer procedures do not require preparation of supporting documentation
   - Require appropriate documentation of materials transferred from receiving to other business activities
   - Transfer documentation may be lost
   - Prenumber documents and investigate missing documents
   - Periodically count materials on hand and reconcile with perpetual records; investigate any differences (performance indicator)

7. Safeguard goods received
   - Inadequate physical security over goods received
   - Maintain physical security over goods received
   - Segregate custodial and record-keeping functions
   - Inadequate or untimely inspection of items received
   - Maintain appropriate procedures for inspecting items received

8. Ensure that vendor, inventory and purchase order information is accurately updated to reflect receipts
   - Receiving information may be lost
   - Prenumber receiving documents and investigate missing documents
   - Periodically identify and investigate open purchase orders
   - Periodically count inventory and reconcile with perpetual inventory records; investigate differences (performance indicator)

9. Return rejected items promptly
<table>
<thead>
<tr>
<th>Objectives</th>
<th>Risks</th>
<th>Control Activities</th>
</tr>
</thead>
</table>
| 10. Completely and accurately document all transfers to and from storage | • Incomplete or inaccurate information regarding materials transferred to/from storage  
• Transfer documents may be lost | • Transfer documentation accompanies all transfers; stores or other activities personnel verify materials and quantities received  
• Prenumber transfer documents and investigate missing documents  
• Periodically count materials and reconcile with perpetual records. Investigate differences (performance indicator) |
| 11. Appropriately requisition all goods to be transferred to operations | • Inadequate transfer or requisition procedures  
• Requisitions may be lost | • Transfer materials only on the basis of a properly approved requisition  
• Prenumber requisitions and investigate missing documents  
• Verify that material received complies with approved requisition |
| 12. Properly transfer all materials requisitioned | • Materials not requisitioned are transferred  
• Inadequate safety considerations | • Maintain relevant policies consistent with Occupational Safety and Health Administration (OSHA) and other pertinent laws and regulations, approved by technical and legal personnel, and monitor compliance  
• Follow up on reported safety concerns  
• Maintain appropriate procedures for handling and storing hazardous materials |
<table>
<thead>
<tr>
<th>Objectives</th>
<th>Risks</th>
<th>Control Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage and Schedule Operations</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 1. Schedule operations to minimize inventory and to ensure sufficient availability of completed products in a timely manner | • Poor communication with marketing regarding sales forecasts
• Several products compete for concurrent production
• Insufficient or excess raw materials due to poor communication with procurement, or inaccurate or untimely material requirement forecasts | • Use standard documents to prepare and communicate sales forecasts
• Ensure that production personnel receive all sales forecasts
• Compare production schedules to sales forecasts to ensure scheduled timing and production quantities are appropriate
• Determine production priorities based on established criteria or management judgment
• Evaluate adequacy of production capacity
• Approve all production schedules
• Use formalized communication channels to inform procurement of material requirements, including quantities and dates materials are required
• Compare material requirement forecasts with production schedule and product bills of materials; consider effect of lead times required to obtain materials
• Establish and adhere to accurate and realistic production schedules
• Consider the costs/benefits of establishing a Just-in-Time system, or similar production and inventory management philosophy
• Monitor instances of insufficient or excessive raw materials inventory (performance indicator)
| 2. Minimize production downtime | • Poorly maintained, misused or obsolete equipment | • Maintain equipment in accordance with an established preventative maintenance program
• Periodically evaluate production equipment in light of repairs and maintenance cost, capacity, breakdowns, obsolescence and other factors. Consider the costs/benefits of acquiring new equipment
• Train employees in the proper use of equipment
• Monitor instances of production downtime due to equipment failure (performance indicator) |
<table>
<thead>
<tr>
<th><strong>Objectives</strong></th>
<th><strong>Risks</strong></th>
<th><strong>Control Activities</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform Operations</td>
<td>• Inadequate skilled labor</td>
<td>• Train existing employees to perform various tasks</td>
</tr>
<tr>
<td>3. Produce product in appropriate quantities and in accordance with specifications and production schedules</td>
<td>• Natural or other disasters</td>
<td>• Maintain and update contingency and natural disaster plans</td>
</tr>
<tr>
<td></td>
<td>• Quantities to be produced are not communicated clearly</td>
<td>• Periodically test such plans</td>
</tr>
<tr>
<td></td>
<td>• Inappropriate or unclear specifications</td>
<td>• Use standardized documents to prepare and communicate production plans and directives</td>
</tr>
<tr>
<td></td>
<td>• Excessive work steps/operations</td>
<td>• Use standardized documents to communicate product specifications</td>
</tr>
<tr>
<td></td>
<td>• Pressure to meet production deadlines</td>
<td>• Consider methods to simplify production</td>
</tr>
<tr>
<td></td>
<td>• Lack of awareness of laws and regulations</td>
<td>• Upper management supports, in statements and actions, safety considerations</td>
</tr>
<tr>
<td>4. Comply with OSHA laws and regulations</td>
<td>• Product is produced in accordance with quality control standards</td>
<td>• Enforce disciplinary action on employees who violate safety procedures</td>
</tr>
<tr>
<td></td>
<td>• Production processes do not include procedures designed to ensure quality production</td>
<td>• Monitor safety violations (performance indicator)</td>
</tr>
<tr>
<td></td>
<td>• Product is difficult to produce</td>
<td>• Conduct periodic training sessions</td>
</tr>
<tr>
<td></td>
<td>• Inadequate product testing</td>
<td>• Post laws, regulations and company policy in conspicuous locations</td>
</tr>
<tr>
<td></td>
<td>• Quality problems are not discovered or appropriately reported during the production process</td>
<td>• Integrate quality assurance procedures into production processes</td>
</tr>
<tr>
<td>Assure Quality</td>
<td>• Inadequate product testing</td>
<td>• Standardize production processes to the extent practicable</td>
</tr>
<tr>
<td>5. Product is produced in accordance with quality control standards</td>
<td>• Design product with appropriate consideration given to potential production difficulties</td>
<td>• Test sufficient quantities of each production run to ensure compliance with quality control standards</td>
</tr>
<tr>
<td></td>
<td>• Quality problems are not discovered or appropriately reported during the production process</td>
<td>• Monitor defect rates (performance indicator)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Test products using personnel independent of production processes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Monitor customer quality-related returns and complaints (performance indicator)</td>
</tr>
</tbody>
</table>
# Internal Control Questionnaire

## Outbound Activities

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Risks</th>
<th>Control Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Process Orders</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Process orders only for customers who are authorized for credit</td>
<td>• Incomplete, untimely or inaccurate credit information</td>
<td>• Credit authorization systems that provide accurate and timely customer information regarding approved credit limits, current balances due, age of receivable balance and other pertinent information</td>
</tr>
<tr>
<td>2. Process orders accurately and expeditiously</td>
<td>• Inaccurate or untimely pricing and inventory information</td>
<td>• Use current pricing and inventory information</td>
</tr>
<tr>
<td></td>
<td>• Untimely processing of order information</td>
<td>• Prenumber order forms and periodically follow up on those not processed in a reasonable time frame</td>
</tr>
<tr>
<td></td>
<td>• Customer order information may be unclear, inaccurate or incomplete</td>
<td>• Verify customer order information with appropriate marketing/sales personnel; contact customer if necessary</td>
</tr>
<tr>
<td>3. Process only valid customer orders</td>
<td>• Customer orders may not be authorized</td>
<td>• Verify appropriate marketing/sales personnel approved customer order</td>
</tr>
<tr>
<td>4. Process all approved orders</td>
<td>• Order documentation is lost</td>
<td>• Prenumber order forms; investigate missing documents</td>
</tr>
<tr>
<td><strong>Store Product</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Protect products from damage</td>
<td>• Employee carelessness</td>
<td>• Monitor damage caused by employee carelessness (performance indicator)</td>
</tr>
<tr>
<td></td>
<td>• Handling and storage procedures, including storage containers, facilities and maintenance, are inappropriate for the nature of the products</td>
<td>• Store products in containers and facilities designed with consideration for product features and legal and regulatory requirements</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Create appropriate maintenance procedures and schedules for the nature of the storage facility</td>
</tr>
<tr>
<td>Objectives</td>
<td>Risks</td>
<td>Control Activities</td>
</tr>
<tr>
<td>-----------</td>
<td>-------</td>
<td>-------------------</td>
</tr>
<tr>
<td>6. Store products to facilitate timely order processing</td>
<td>• Improper organization of storage facility</td>
<td>• Design and maintain efficient warehouse layout to facilitate order fulfillment</td>
</tr>
<tr>
<td></td>
<td>• Insufficient storage capacity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Employees may not be aware of applicable laws and regulations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Inappropriate handling and storage policies and procedures</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Product moved into or out of storage may not be documented or recorded</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Product may be moved into or out of storage without proper authorization</td>
<td></td>
</tr>
<tr>
<td>8. Maintain complete and accurate records of product stored and available for shipment</td>
<td>• Improper products or improper quantities are retrieved from storage</td>
<td>• Monitor accidents or problems due to inappropriate handling or storage policies or procedures (performance indicator)</td>
</tr>
<tr>
<td></td>
<td>• Product is unavailable in sufficient quantity</td>
<td></td>
</tr>
</tbody>
</table>
10. Ensure product is packed properly to minimize damage
- Packing materials, containers or procedures are inappropriate for the nature of the product or method of shipment
- Use packing materials, containers or procedures that were designed giving consideration to the nature of the product and method of shipment

11. Ship only those products that are authorized for shipment
- Incomplete or inaccurate information from order processing
- Unordered or unauthorized products are included in customer shipment
- Compare documents authorizing product shipment with customer order
- Compare products to customer order prior to shipment
- Monitor customer returns or billing disputes relating to products delivered but not ordered (performance indicator)

12. Deliver products in the most efficient manner
- Disruption of normal shipping channels
- Inaccurate or incomplete shipping documents
- Use of inefficient shipping methods
- Identify alternative shipping arrangements
- Review shipping documents for completeness and compare to customer order for accuracy before shipment
- Periodically review shipping alternatives and identify the most efficient alternative

13. All shipments are accurately documented, and such documentation is forwarded to accounts receivable on a timely basis
- Incorrect information is entered on shipping documentation
- Compare shipping document information with customer order information before shipment
- Independent verification of shipping document information before shipment
- Prenumber shipping documents and investigate missing documents

14. Ensure timely shipment of customer order
- Shipping documents are lost
- Order or shipping documentation may be lost
- Prenumber order and shipping documents; investigate missing documents
## Internal Control Questionnaire
### Marketing and Sales

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Risks</th>
<th>Control Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Manage Marketing Activities</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 1. Design marketing strategies giving consideration to competitive, regulatory, business environment or other factors that may influence the entity’s marketing activities, and potential changes in those factors | • Inadequate information regarding factors that may influence the entity’s marketing strategy | • Retain marketing personnel experienced in the entity’s industry  
• Promote active membership in industry, trade or professional associations  
• Monitor legal and regulatory initiatives that may affect the entity  
• Conduct market research, and monitor and analyze economic, customer and industry trends |
| 2. Identify potential and existing customers, and develop marketing strategies to influence those parties to purchase the entity’s products or services | • Inaccurate, untimely or unavailable information regarding pricing, products, actual or potential customers, advertising and promotion | • Conduct market research  
• Evaluate pricing strategies vis-a-vis competitors’ products and pricing  
• Evaluate the effectiveness of advertising and promotion (performance indicator)  
• Communication of product capabilities, enhancements or new products from technology development personnel |
| 3. Maintain delivery capabilities for delivery of products to customers on a timely basis at the least distribution cost | • Limited number of appropriate distributors | • Identify and evaluate alternative distribution arrangements  
• Communicate appropriate customer information to distributors to ensure timely delivery  
• Monitor distributors’ performance in the context of the entity’s overall marketing strategy |
| | • Poor performance of distributors | |
4. Address market needs for product, including introduction of new products, and continuance, changes to or discontinuance of existing products
- Lack of or inaccurate information regarding competitive products or potential new products
- Conduct market research, including existence of competitive products, products under development and customer preferences
- Promote active membership in industry, trade or professional associations

- Products become obsolete
- Conduct market research, focusing on competitors' technical innovations and customers' acceptance of or preference for such innovations

- Lack of product demand
- Monitor the trend of product sales by the entity and the industry
- Evaluate advertising and promotion effectiveness
- Conduct market research

- Lack of information regarding profit margins and/or sales prices
- Communicate information needs to accounting, management information systems and other appropriate personnel
- Monitor profit margins and sales prices for signs of competitive price pressures

Manage Sales Activities

5. Implement marketing strategies effectively
- Sales personnel are unaware of marketing strategies
- Communicate marketing strategies to sales personnel

- Sales personnel disregard marketing strategies
- Establish sales quotas, commissions and other compensation, or other performance criteria in such a manner that failure to implement marketing strategies results in substandard performance evaluations and compensation, and positive implementation of strategies results in increased compensation and recognition

6. Meet or exceed sales targets in an efficient manner
- Sales personnel are unaware of potential customers
- Communication of market research results from marketing to sales personnel

- Salespeople lack knowledge about product features or benefits
- Provide product awareness training
- Retain qualified and experienced sales staff
<table>
<thead>
<tr>
<th>Objectives</th>
<th>Risks</th>
<th>Control Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Incomplete or inaccurate customer information</td>
<td>• Maintain customer information system, including name, address, phone number, contact, size, locations, history of previous orders, plans to expand or change the business, or other information that could be useful in marketing the entity’s products or services</td>
<td>• Maintain customer information system, including name, address, phone number, contact, size, locations, history of previous orders, plans to expand or change the business, or other information that could be useful in marketing the entity’s products or services</td>
</tr>
<tr>
<td>• Salespeople perform poorly</td>
<td>• Periodically verify the accuracy of customer information</td>
<td>• Retain qualified and experienced salespeople</td>
</tr>
<tr>
<td>• Sales orders are lost</td>
<td></td>
<td>• Organize sales force and align territories in most efficient manner</td>
</tr>
</tbody>
</table>

7. Forward all sales orders to outbound activities and service in a timely manner
## Internal Control Questionnaire

### Service

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Risks</th>
<th>Control Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Provide Customer Services</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Handle customer inquiries expeditiously and efficiently</td>
<td>• Inadequate information systems</td>
<td>• Maintain accurate and timely product and customer information</td>
</tr>
<tr>
<td></td>
<td>• Untrained staff</td>
<td>• Provide staff with initial and periodic product and customer service training</td>
</tr>
<tr>
<td></td>
<td>• Poor organization of customer service department</td>
<td>• Customer service representatives present favorable image to customers and are knowledgeable about products</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Organize customer service department in most efficient manner (e.g., along product lines, geographical lines, etc.)</td>
</tr>
<tr>
<td>2. Satisfy customer service needs so as to further sales and marketing objectives</td>
<td>• Lack of awareness of sales and marketing objectives</td>
<td>• Customer service representatives understand the objectives common to marketing, sales and customer service</td>
</tr>
<tr>
<td><strong>Install</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Make authorized installations correctly, efficiently and on a timely basis</td>
<td>• Untrained staff</td>
<td>• Provide installers with initial and periodic training regarding installation techniques and product features</td>
</tr>
<tr>
<td></td>
<td>• Product unavailability</td>
<td>• Monitor customer complaints regarding product installation (performance indicator)</td>
</tr>
<tr>
<td></td>
<td>• Inaccurate or unavailable customer information</td>
<td>• Coordinate scheduled installations with operations' production schedule and shippings' delivery schedule</td>
</tr>
<tr>
<td></td>
<td>• Unavailability of service personnel</td>
<td>• Compare installation authorization documents with customer orders to verify information accuracy and review such documents for completeness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Prenumber installation authorization documents and investigate missing documents</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Schedule installations and staff utilization to minimize costs</td>
</tr>
</tbody>
</table>
### Objectives

**Provide Warranty Service**

4. Warranty policies are consistent with marketing and financial strategies

5. Investigate and respond to requests for service on a timely basis and in accordance with warranties

**Provide Post-Warranty Service**

6. Customer service representatives use up-to-date pricing and other product information

7. Investigate and respond to requests for services in the most efficient manner and on a timely basis

### Risks

<table>
<thead>
<tr>
<th>4. Warranty policies are consistent with marketing and financial strategies</th>
<th>Inaccurate market information</th>
<th>Make certain that market information developed by marketing is considered when establishing warranties</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Investigate and respond to requests for service on a timely basis and in accordance with warranties</td>
<td>Insufficient staff</td>
<td>Forecast staffing level requirements</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Monitor adequacy of staffing, overtime, workloads</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Uncommunicated changes in warranty policies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Communicate changes in product warranty policies to appropriate personnel</td>
</tr>
<tr>
<td>6. Customer service representatives use up-to-date pricing and other product information</td>
<td>Unavailable or inaccurate information</td>
<td>Update pricing information on order processing systems on a daily basis</td>
</tr>
<tr>
<td>7. Investigate and respond to requests for services in the most efficient manner and on a timely basis</td>
<td>Insufficient number of customer service representatives or service personnel</td>
<td>Provide customer representatives access to order processing systems</td>
</tr>
<tr>
<td></td>
<td>Improperly trained service personnel</td>
<td>Maintain proper staffing levels and organize the customer service department in the most efficient manner</td>
</tr>
</tbody>
</table>
|  | Properly trained staff | }
## Internal Control Questionnaire

### Procurement

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Risks</th>
<th>Control Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Select Vendors</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 1. Identify and purchase from vendors capable of meeting the entity’s needs | • Inadequate vendor screening, including periodic requalification of existing vendors, relating to vendors’ abilities to meet:  
   - Technical specifications  
   - Quantity requirements  
   - Price  
   - Delivery dates/lead time  
   - Service | • Investigate and periodically update vendor capabilities regarding production quality and capacity, price (including volume or cash discounts and payment terms), order lead-time requirements, current and former customer satisfaction, financial condition, management stability, possible legal restrictions on providing the materials required and pending litigation  
   • Periodically update vendor information based on vendor performance in meeting terms and specifications of contracts or purchase orders (e.g., timely delivery of acceptable items, correction of errors or problems, and service)  
   • Appropriate review of purchase orders  
   • Monitor production problems related to out-of-stock materials and to material specifications (performance indicator)  
   • Monitor frequency of returned purchases (performance indicator)  
   • Develop data on alternative vendors and periodically reevaluate vendor selection decisions  
   • Specify procedures for notification by vendors of potential performance problems and for appropriate investigation and follow-through |
| 2. Purchase items only from legally qualified vendors and in conformity with applicable laws, regulations and contracts | • Unavailable or inaccurate information about fraudulent acts or other improper activities of vendors | • Maintain updated vendor information  
   • Review and approve purchase orders  
   • Institute and monitor code of conduct  
   • Consider ways to simplify vendor investigation procedures |
| 3. Ensure adequate supply of materials | • Poor communication of operations’ or other activities’ needs  
   • Vendors’ inability to provide needed quantities due to other higher-priority orders or an interruption in their own supplies | • Timely communication to procurement of operations’ or other activities’ needs  
   • Utilize forward contracts  
   • Identify alternate vendors  
   • Utilize long-term needs analysis |

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<table>
<thead>
<tr>
<th>Objectives</th>
<th>Risks</th>
<th>Control Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purchase</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Order items that meet appropriate specifications</td>
<td>• Inappropriate production specifications</td>
<td>• Review existing and revised specifications by technical personnel</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Monitor and analyze production problems related to material specifications (performance indicator); examples of performance indicators include comparing current-period data on production stoppages and slowdowns, rush orders, spoilage, and material price and quantity variances to prior-period data, peer or industry data, budgets, or other pre-established goals</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Communicate production specifications to procurement personnel</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Appropriate review and approval of contracts and purchase orders</td>
</tr>
<tr>
<td>5. Pay appropriate prices</td>
<td>• Out-of-date or incomplete price information</td>
<td>• Obtain competitive bids for each acquisition periodically</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Consider volume purchases by determining total usage of similar materials; combine orders to obtain volume discount</td>
</tr>
<tr>
<td>6. Order appropriate quantities at appropriate times</td>
<td>• Unavailable or inaccurate information on inventory levels or production needs</td>
<td>• Appropriate review of purchase orders</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Monitor material price variances (performance indicator)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Use hedging or forward contracts</td>
</tr>
<tr>
<td>7. Update vendor information completely and accurately to reflect open purchase orders</td>
<td>• Information on issued purchase orders is not clearly or completely communicated</td>
<td>• Maintain accurate perpetual inventory records</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Match periodic production schedules to inventory information and order lead-time requirements</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Appropriate review of purchase orders</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Use forecasts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Consider implementing Just-in-Time or a similar inventory and production management philosophy</td>
</tr>
<tr>
<td>8. Receive items ordered on a timely basis (See also Objective No. 2 of Inbound Activities)</td>
<td>• Unavailable or inaccurate information on items ordered but not received</td>
<td>• Route copies of purchase orders to appropriate personnel</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Prenumber purchase orders and periodically verify their entry into the system. Investigate unusual time delays in entering data</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Specify shipment mode and delivery date on purchase orders</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Prenumber and account for purchase orders</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Match receiving information with purchase order information and promptly follow through on outstanding orders</td>
</tr>
</tbody>
</table>
9. Record authorized purchase orders completely and accurately
   • Purchase orders may be lost

10. Prevent unauthorized use of purchase orders
    • Inadequate policies and procedures to prevent unauthorized use
    • Prenumber and account for purchase orders
    • Maintain physical security of purchase orders
    • Approve purchase orders
    • Notify vendors of company personnel authorized to approve purchase orders

• Monitor vendor performance in terms of timely delivery; follow up in cases of poorly performing vendors
• Prenumber and account for purchase orders
<table>
<thead>
<tr>
<th>Objectives</th>
<th>Risks</th>
<th>Control Activities</th>
</tr>
</thead>
</table>
| 1. Identify existing technology or develop new technology to satisfy product needs as identified by marketing, or operating or management processes needs as identified by other activities | • Product or processes needs are not effectively communicated to Technology Development | • Clear communication of needs and opportunities to Technology Development  
• Identify needs by appropriate activities |
| | • Technology Development personnel do not have technical ability to identify or develop appropriate technology | • Retain personnel who are adequately qualified to fulfill their responsibilities |
| 2. Maintain a high level of knowledge regarding current technological developments that may affect the entity | • Management does not have access to information relating to current technological developments | • Monitor business, technical and industry literature  
• Attend technical seminars, conferences, trade meetings, expositions and similar meetings  
• Periodically summarize technological developments and distribute to appropriate personnel |
| | • Technology Development personnel may acquire or have knowledge that would be useful in a development program other than that with which they are associated | • Regularly communicate information, including nature of the program, status, manager, anticipated use of technology and other pertinent information regarding ongoing or planned research or development programs |
| 3. Ensure that developed technology does not violate existing patents | • Technology may not be adequately defined | • Detailed technology specifications, plans, drawings, schematics or other technical data are created, to the extent possible, in the concept or early stages of development, and are modified as necessary throughout the project |
| | • Relevant patents may not be identified | • Communicate technical data to legal counsel for use when conducting patent searches |
4. Commit resources to those projects anticipated to have the greatest expected return for the entity
   - Existing patents may be disregarded
   - Technology development projects do not support entity-wide objectives or strategies
   - Technology development management are unaware of project priorities

   - Appropriate management review and approval of all technology projects
   - Appropriate technology project review and approval
   - Clear and complete communication from management regarding priorities
## Internal Control Questionnaire

### Human Resources

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Risks</th>
<th>Control Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Manage Human Resource Programs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Comply with applicable laws, regulations and company policies</td>
<td>• Management or supervisory personnel are unaware of legal and regulatory requirements and company policies</td>
<td>• Require supervisory and management personnel to attend training on labor laws and regulations and company personnel policies</td>
</tr>
<tr>
<td></td>
<td>• Management or supervisory personnel ignore legal and regulatory requirements or company policies</td>
<td>• Periodic review of policies and procedures by legal counsel for compliance with applicable legal and regulatory requirements</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Encourage personnel to report suspected violations of laws, regulations or company policies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Take appropriate disciplinary actions for violations of legal or regulatory requirements</td>
</tr>
<tr>
<td>2. Maintain records that demonstrate compliance with applicable laws and regulations</td>
<td>• Human resource personnel are unaware of the records that must be retained to demonstrate compliance with applicable laws and regulations</td>
<td>• Human resource personnel are subject to periodic training regarding legal and regulatory requirements</td>
</tr>
<tr>
<td></td>
<td>• Records are lost or prematurely destroyed</td>
<td>• Human resource personnel have appropriate training and experience prior to being hired</td>
</tr>
<tr>
<td></td>
<td>• Inaccurate or incomplete information is acquired and retained</td>
<td>• File and retain human resource records in accordance with laws, regulations and good business practice</td>
</tr>
<tr>
<td></td>
<td>• Record-keeping requirements are disregarded</td>
<td>• Logs, checklists or other appropriate tools are used to ensure appropriate records are received and retained</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Access to human resource records is restricted to authorized personnel</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Review and approve all files selected for disposition</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Review validity, accuracy and completeness of information received and retained in the form of records</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Take appropriate disciplinary or other action when legal or regulatory requirements or company policies are disregarded</td>
</tr>
</tbody>
</table>
| 3. Maintain confidentiality of human resource information | Restrict access to human resource records to authorized personnel  
- Require proper security codes to gain access to confidential records maintained on electronic media; change such access codes frequently  
- Monitor personnel accessing human resource records  
- Subject individuals who provide confidential information to unauthorized persons to disciplinary actions  
- Restrict access to confidential information to those persons who need such information to discharge their responsibilities  
- Human resource personnel divulge confidential information  
- Human resource records are not subject to proper security procedures  |
|---------------------------------------------------------------|
| 4. Maintain employee turnover at an acceptable level | Compensation and benefits are less than offered by other companies  
- Review and evaluate compensation and benefits on a regular basis  
- Compare compensation and benefits with those offered by other companies within the industry and within the local geographical area  
- Seek employee feedback about their needs  
- Employees may not feel their efforts are noticed or appreciated  
- Periodic, standardized performance evaluations and career counseling  
- Institute compensation programs that reflect past performance and capacity for future development  |

**Plan and Acquire Personnel**

| 5. Acquire sufficient number of appropriately qualified personnel | Over- or underqualified candidates may be hired  
- Maintain appropriate candidate identification, screening and hiring practices  
- Maintain adequate job descriptions and hiring criteria that can be used to measure and compare candidates’ qualifications with job requirements  
- Lack of awareness of entity’s current human resources  
- Investigate and review potential candidate inside the entity before considering external candidates  
- Lack of qualified candidates  
- Identify and retrain qualified personnel currently performing other job functions  
- Establish networks and candidate sources outside of the local geographical area  
- The entity may be unaware of its future staffing needs  
- Regularly update future staffing requirements as part of ongoing business planning  |
<table>
<thead>
<tr>
<th>Objectives</th>
<th>Risks</th>
<th>Control Activities</th>
</tr>
</thead>
</table>
| Train and Develop Employees | • Labor organizations may call for strikes or work slowdowns | • Continually identify union demands and issues and take reasonable steps to avoid labor disputes  
• Identify viable alternative sources of labor in the event of a labor dispute |
| 6. Ensure employees receive adequate training to discharge their responsibilities effectively | • Training requirements may not be adequately identified | • Solicit opinions and ideas of management, supervisors and employees to identify training needs  
• Monitor performance or other problems that may indicate training deficiencies |
| 7. Ensure staff receive adequate feedback regarding their performance and career development | • Staff are not evaluated on regular or timely basis | • Periodically evaluate performance and provide career counseling |
## Internal Control Questionnaire

### Firm Infrastructure

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Risks</th>
<th>Control Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage the Enterprise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Design and implement strategies that allow</td>
<td>• Incomplete or inaccurate information regarding changes affecting the</td>
<td>• Develop a strategic plan that incorporates senior management’s vision for</td>
</tr>
<tr>
<td>achievement of entity-wide objectives</td>
<td>entity, such as competition, products, customer preferences, or legal</td>
<td>the company</td>
</tr>
<tr>
<td></td>
<td>and regulatory changes</td>
<td>• Periodically evaluate direction and priorities set by senior management to</td>
</tr>
<tr>
<td></td>
<td></td>
<td>make certain they are still valid</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Communicate information regarding competitors, products, customers and legal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and regulatory changes to all relevant activities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Establish communication, down, up and across the organization, to allow</td>
</tr>
<tr>
<td></td>
<td></td>
<td>prompt identification and resolution of problems that impede achievement of</td>
</tr>
<tr>
<td></td>
<td></td>
<td>strategic objectives</td>
</tr>
<tr>
<td></td>
<td>• Lack of understanding of critical success factors</td>
<td>• Identify and analyze critical success factors from an industry and entity</td>
</tr>
<tr>
<td></td>
<td>• Insufficient or inappropriate resources</td>
<td>standpoint</td>
</tr>
<tr>
<td></td>
<td>• Inadequate attention to relationships with shareholders, investors</td>
<td>• Identify and maintain adequate supply of internal resources and ensure availability of external resources</td>
</tr>
<tr>
<td></td>
<td>or other outside parties</td>
<td>• Effectively communicate with shareholders, investors and other outside parties</td>
</tr>
<tr>
<td></td>
<td>• Information is too specific to be usable</td>
<td>• Establish an executive management reporting system that focuses on key</td>
</tr>
<tr>
<td></td>
<td></td>
<td>information for managing the business</td>
</tr>
<tr>
<td>2. Maintain systems that allow</td>
<td>• Out-of-date systems</td>
<td>• Regularly review information systems to ensure that they meet the changing</td>
</tr>
<tr>
<td>timely communication of accurate internal and</td>
<td>• Inaccurate or untimely information</td>
<td>needs of the company</td>
</tr>
<tr>
<td>external information to relevant personnel</td>
<td></td>
<td>• Institute information system that ensures the accuracy and timeliness of</td>
</tr>
<tr>
<td></td>
<td></td>
<td>internal and external information</td>
</tr>
<tr>
<td>Objectives</td>
<td>Risks</td>
<td>Control Activities</td>
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<tr>
<td>----------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>3. Ensure entity personnel are aware of acceptable actions and behavior</td>
<td>• Lack of Code of Conduct</td>
<td>• Implement and monitor compliance with Code of Conduct</td>
</tr>
<tr>
<td></td>
<td>• Employees do not understand the Code of Conduct</td>
<td>• Requirements of the Code of Conduct are reviewed with all new employees, and periodically with all employees</td>
</tr>
<tr>
<td></td>
<td>• Employees ignore the Code of Conduct</td>
<td>• Appropriate disciplinary action for violations of the Code of Conduct to clearly communicate the message that violations will not be tolerated</td>
</tr>
<tr>
<td></td>
<td>• Dishonest employees</td>
<td>• Hiring policies and procedures require reference checks on employment candidates</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Employees found violating laws are subject to appropriate disciplinary action and are reported to the authorities for prosecution</td>
</tr>
</tbody>
</table>

**Manage External Relations**

<table>
<thead>
<tr>
<th>1. Attempt to legally influence government policies and regulations that have an impact on the entity’s objectives</th>
<th>Lack of understanding of government policies</th>
<th>Employ personnel experienced in government affairs as they relate to the entity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Actively participate in standard-making bodies</td>
<td>Participation dependent on appointment</td>
<td>Monitor and communicate regulatory and other government information</td>
</tr>
<tr>
<td>3. Participate in community activities that enhance the public image of the company</td>
<td>Limited number of positions</td>
<td>Join industry or trade organizations that lobby legislative or regulatory bodies</td>
</tr>
<tr>
<td></td>
<td>Lack of information on and awareness of community issues</td>
<td>Establish reputation as industry leader</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Make certain that entity officials are visible spokespeople on issues that affect the entity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Encourage staff to support civic endeavors</td>
</tr>
</tbody>
</table>
### Provide Administrative Services

1. Provide quality services that are delivered on a timely basis at the least cost
   - Lack of or excess staff
   - Lack of planning procedures that incorporate objectives of administrative services
   - Inadequate accounting systems for allocating costs
   - Estimate service usage to ensure appropriate staffing levels
   - Where appropriate, evaluate the value of using outside service companies rather than providing service in-house
   - Accurately capture costs and distribute such costs on an equitable basis

### Manage Information Technology

1. Use information technology (IT) to carry out the entity’s strategic plans
   - Insufficient interaction of information technology, financial and operating management in developing strategic plans
   - Develop IT strategic plan that optimizes entity-wide investment in and use of IT, and ensure that IT initiatives support entity’s long-range plans
   - Involve users in the development and maintenance of the strategic IT plan
   - Use an IT steering committee

2. Capture, process and maintain information completely and accurately and provide it to the appropriate people to enable them to carry out their responsibilities
   - Systems are not designed according to user needs or are not properly implemented
   - Use a systems development life cycle
   - Use project management procedures to ensure proper management of systems development activities
   - Involve users in review and approval to ensure systems are designed to meet user requirements
   - System and program modifications are implemented incorrectly
   - Use well-controlled system and program change procedures
   - Computer operations fail to use correct programs, files and procedures
   - Prepare and adhere to a production job schedule; document and approve departures from the schedule
   - Establish adequate job set-up and execution procedures
   - Use control statements and parameters in processing that are in accordance with approved procedures
   - Require written approval, including user involvement where appropriate, for departures from authorized set-up and execution procedures
   - Establish adequate procedures for identifying, reporting and approving operator actions
<table>
<thead>
<tr>
<th>Objectives</th>
<th>Risks</th>
<th>Control Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Data files are subjected to unauthorized access</td>
<td>• Establish a security policy stating senior management’s commitment on information security; demonstrate such commitment through appropriate actions</td>
<td>• Establish standards, procedures and guidelines that translate the security policy into rules and compliance criteria</td>
</tr>
<tr>
<td>• Programs are subjected to unauthorized modification</td>
<td>• Consider the development of an information security risk assessment</td>
<td>• Use a security or access control software package to enhance the protection of data fields and system and program libraries</td>
</tr>
<tr>
<td></td>
<td>• Use proper system software controls to ensure that system software is properly implemented, maintained and protected from unauthorized changes</td>
<td>• Use proper system software controls to ensure that system software is properly implemented, maintained and protected from unauthorized changes</td>
</tr>
<tr>
<td></td>
<td>• Maintain proper physical security over computer hardware and software and information stored outside of data processing</td>
<td>• Consider the development of an information security risk assessment</td>
</tr>
<tr>
<td>3. Information systems are available as needed</td>
<td>• Lack of poor business continuation planning</td>
<td>• Establish and maintain a commitment by senior management for business contingencies</td>
</tr>
<tr>
<td></td>
<td>• Poor back-up and recovery procedures</td>
<td>• Develop and maintain a business continuation plan</td>
</tr>
<tr>
<td></td>
<td>• Inadequate safeguarding of IT resources</td>
<td>• Assess the impact of new or modified systems on business continuation procedures</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Establish alternative processing arrangements</td>
</tr>
<tr>
<td>Manage Risks</td>
<td></td>
<td>• Regularly back up critical data files, systems and program libraries and store off-site</td>
</tr>
<tr>
<td>1. Prevent and reduce potential for accidents</td>
<td>• Certain jobs, activities or locations are hazardous</td>
<td>• Identify hazardous jobs, activities or locations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Implement policies, procedures or precautions to enhance workers’ safety</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Monitor workers’ compensation or related insurance claims and compare with industry averages (performance indicator)</td>
</tr>
<tr>
<td>Causes of Accidents</td>
<td>Safeguards</td>
<td></td>
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<td>---------------------</td>
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</tr>
<tr>
<td>Out-of-date production facilities</td>
<td>Identify causes of accidents and implement appropriate, cost-effective safeguards</td>
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<tr>
<td>Ineffective safety and employee training programs</td>
<td>Ensure that capital expansion plans address safety objectives</td>
<td></td>
</tr>
<tr>
<td>Poorly maintained or inadequate equipment</td>
<td>Provide appropriate safety and training programs to all new employees</td>
<td></td>
</tr>
<tr>
<td>Employees ignore safety policies or procedures</td>
<td>Provide periodic updates on such programs to existing employees</td>
<td></td>
</tr>
<tr>
<td>Lack of knowledge regarding OSHA laws and regulations</td>
<td>Establish a maintenance program that ensures equipment is adequately maintained. Investigate and resolve employee reports of malfunctioning equipment</td>
<td></td>
</tr>
<tr>
<td>Inaccurate, insufficient or untimely information regarding risk-related costs or accidents or incidents that could give rise to an insurance claim</td>
<td>Appropriately discipline violators of safety policies or procedures</td>
<td></td>
</tr>
<tr>
<td>Lack of knowledge of risk management cost containment techniques</td>
<td>Retain competent legal counsel to advise the entity in OSHA requirements. Ensure legal counsel periodically reviews applicable policies, procedures and safety precautions</td>
<td></td>
</tr>
<tr>
<td>Ensure all accidents or other incidents that could give rise to an insurance claim are reported to appropriate personnel</td>
<td>Ensure that all significant risks pertaining to all activities have been identified and appropriately addressed, for example: product liability, property and casualty, business interruption and loss of key personnel</td>
<td></td>
</tr>
<tr>
<td>Ensure information systems provide information on all risk-related costs, including insurance premiums, self-insured losses, risk management personnel costs and other related costs</td>
<td>Evaluate insurance coverages and consider opportunities to limit costs through self-insurance, captive or off-shore insurance companies, or other techniques</td>
<td></td>
</tr>
<tr>
<td>Retain personnel or advisors with risk management training and experience</td>
<td>2. Ensure compliance with applicable Occupational Safety and Health Administration (OSHA) laws and regulations</td>
<td></td>
</tr>
<tr>
<td>3. Minimize insurance claims and other risk-related costs while maintaining adequate insurance coverage</td>
<td>3. Minimize insurance claims and other risk-related costs while maintaining adequate insurance coverage</td>
<td></td>
</tr>
<tr>
<td>Objectives</td>
<td>Risks</td>
<td>Control Activities</td>
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<td>------------------------------------------------</td>
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</tr>
<tr>
<td>Manage Legal Affairs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Ensure the entity complies with all laws and regulations</td>
<td>Management is unaware of legal and regulatory requirements</td>
<td>Retain legal counsel with applicable industry experience&lt;br&gt;Legal counsel periodically communicates with management about legal and regulatory requirements</td>
</tr>
<tr>
<td></td>
<td>Legal counsel is unaware of all activities taking place within the entity</td>
<td>Review of all significant contracts and agreements by legal counsel&lt;br&gt;Review of subsidiary, division or unit annual business plans by legal counsel&lt;br&gt;Legal counsel attends management meetings, visits business locations away from the executive offices or otherwise establishes adequate communication with subsidiary, division or unit management to gain a thorough understanding of enterprise activities&lt;br&gt;Encourage regular communication between legal counsel and the internal and independent auditors, and with the board of directors and its various committees</td>
</tr>
<tr>
<td></td>
<td>Changing legal and regulatory requirements</td>
<td>Legal counsel monitors new laws, regulations, court decisions or other events that could impact the entity&lt;br&gt;Review and approval of all significant contracts and agreements by legal counsel&lt;br&gt;Limit personnel authorized to execute contracts or agreements to responsible officials at an appropriate management level</td>
</tr>
<tr>
<td>2. Ensure contracts and agreements are clear, fair to the entity and legally enforceable</td>
<td>Legal counsel does not review contracts or agreements</td>
<td>Implement training programs for appropriate nonlegal personnel that address situations requiring communication with legal personnel&lt;br&gt;Include a clause in all contracts and agreements requiring copies of all legal notices or correspondence from other parties to be sent to legal counsel</td>
</tr>
<tr>
<td>3. Minimize litigation costs and settlements</td>
<td>Nonlegal personnel are unaware that certain circumstances could potentially lead to litigation</td>
<td>Monitor costs of current and previous litigation&lt;br&gt;Gather information on recent settlements or awards in similar litigation</td>
</tr>
<tr>
<td></td>
<td>Inaccurate information or estimates regarding costs of litigation or anticipated settlements</td>
<td></td>
</tr>
<tr>
<td>Plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Develop long- and short-range plans that are in accordance with entity-wide objectives</td>
<td>Lack of awareness of entity-wide objectives</td>
<td>Establish a planning approach that uses as its foundation entity-wide objectives&lt;br&gt;Communicate entity-wide objectives to appropriate personnel involved in the planning process</td>
</tr>
</tbody>
</table>
2. Develop plans in a format that allows management to manage the business and measure progress on a timely basis

- Insufficient information regarding available opportunities
- Join industry and trade associations
- Attend seminars or other informative sessions offered by outside parties
- Retain experienced and competent management
- Inadequate management information systems
- Establish information systems that present plan information in the same format as historical information
- Plan formats are ineffective in providing necessary benchmarks against which performance can be measured
- Monitor and evaluate the effectiveness of plans. Enhance plan formats to emphasize critical success factors

3. Develop plans using an efficient approach

- Inadequate and outdated planning systems
- Require agreement on entity-wide objectives before specific plans are developed. When allocating resources, prioritization should be made in accordance with entity-wide objectives
- Develop and maintain planning system and communicate to all relevant departments. Conduct training when appropriate
- Gather information for plans in accordance with the business focus used for managing the business
- Develop and follow timetable for gathering, analyzing and consolidating planning information

4. Develop plans that are realistic

- Incorrect information and assumptions
- Review and test the validity of assumptions
- Consider all operational support activities when developing plans
- Appropriate staff are involved in developing plans

**Process Accounts Payable**

1. Accurately record invoices on a timely basis for all accepted purchases that have been authorized and only for such purchases

- Missing documents or information
- Prenumber and account for purchase orders and receiving reports
- Match invoice, receiving, and purchase order information and follow up on missing or inconsistent information
- Follow up on unmatched open purchase orders, receiving reports and invoices and resolve missing, duplicate or unmatched items, by individuals independent of purchasing and receiving functions
- Inaccurate input of data
- Use of control totals or one-for-one checking
<table>
<thead>
<tr>
<th>Objectives</th>
<th>Risks</th>
<th>Control Activities</th>
</tr>
</thead>
</table>
| 2. Identify available discounts | • Missing or untimely receipt of documents | • Investigate unmatched information before due date  
• Maintain accounts payable ledger by discount date |
| 3. Accurately record returns and allowances for all authorized credits, and only for such credits | • Missing documents or information | • Prenumber and account for shipping orders for returned goods  
• Match shipping orders for returned goods with vendors’ credit memos  
• Follow up on unmatched shipping orders for returned goods and related receiving reports and invoices and resolve missing, duplicate or unmatched items, by individuals independent of accounts payable function  
• Review vendor correspondence authorizing returns and allowances |
| 4. Ensure completeness and accuracy of accounts payable | • Unauthorized input for nonexistent returns  
• Unauthorized additions to accounts payable | • Reconcile accounts payable subsidiary ledger with purchase and cash disbursement transactions  
• Resolve differences between the accounts payable subsidiary ledger and the accounts payable control account |
| 5. Safeguard accounts payable records | • Unauthorized access to accounts payable records and stored data | • Restrict access to accounts payable and files used in processing payables  
• Restrict access to mechanical check signers and signature plates |
| Process Accounts Receivable | • Inaccurate input of data | • Reconcile vendor statements payable records with vendor statements  
• Use of control totals or one-for-one checking |
| 1. All goods shipped are accurately billed in the proper period | • Missing documents or incorrect information | • Use standard shipping or contract terms  
• Communicate nonstandard shipping or contract terms to accounts receivable  
• Verify shipping or contract terms before invoice processing |
| | • Improper cutoff of shipments at the end of a period | • Identify shipments as being before or after period-end by means of a shipping log and prenumbered shipping documents  
• Reconcile goods shipped to goods billed |
2. Accurately record invoices for all authorized shipments and only for such shipments
   - Missing documents or incorrect information
   - Prenumber and account for shipping documents and sales invoices
   - Match orders, shipping documents, invoices and customer information, and follow through on missing or inconsistent information
   - Mail customer statements periodically and investigate and resolve disputes or inquiries, by individuals independent of the invoicing function
   - Monitor number of customer complaints regarding improper invoices or statements (performance indicator)

3. Accurately record all authorized sales returns and allowances and only such returns and allowances
   - Missing documents or incorrect information
   - Authorize credit memos by individuals independent of accounts receivable function
   - Prenumber and account for credit memos and receiving documents
   - Match credit memos and receiving documents and resolve unmatched items by individuals independent of the accounts receivable function
   - Mail customer statements periodically and investigate and resolve disputes or inquiries, by individuals independent of the invoicing function

4. Ensure continued completeness and accuracy of accounts receivable
   - Unauthorized input for nonexistent returns, allowances and write-offs
   - Review correspondence authorizing returns and allowances
   - Reconcile accounts receivable subsidiary ledger with sale and cash receipts transactions
   - Resolve differences between the accounts receivable subsidiary ledger and the accounts receivable control account

5. Safeguard accounts receivable records
   - Unauthorized access to accounts receivable records and stored data
   - Restrict access to accounts receivable files and data used in processing receivables

Process Funds

1. Accurately forecast cash balances to maximize short-term investment income and to avoid cash “shortfalls”
   - Inaccurate, untimely or unavailable information regarding cash inflows and outflows
   - Information systems identify all sources of cash and dates cash is due or expected to be collected
   - Information systems identify all cash requirements and dates cash is needed
   - Identify all internal sources of information
   - Compare information used to prepare cash forecasts with supporting records or underlying documents to verify information is internally consistent

2. Ensure necessary financing is available in the event of a cash “shortfall”
   - Lack of awareness regarding financing alternatives
   - Retain financial personnel experienced in obtaining financing for similar entities
   - Identify professional advisors who can assist in locating alternative sources of financing and consult those advisors as appropriate
<table>
<thead>
<tr>
<th>Objectives</th>
<th>Risks</th>
<th>Control Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Optimize return on temporary cash investments</td>
<td>• Lack of knowledge regarding investment alternatives</td>
<td>• Retain financial personnel experienced in short-term investments</td>
</tr>
<tr>
<td>4. Accelerate cash collections</td>
<td>• Handling cash receipts internally can delay deposit of such receipts</td>
<td>• Use professional investment advisors</td>
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<tr>
<td></td>
<td>• Customers delay remittance</td>
<td>• Consider “lock-box” arrangements</td>
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<tr>
<td></td>
<td>• Excessive accounts receivable collection problems</td>
<td>• Factor accounts receivable</td>
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<tr>
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<td>• Honor bank credit cards</td>
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<td></td>
<td>• Offer discounts for timely remittance</td>
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<tr>
<td></td>
<td></td>
<td>• Establish and enforce collection policies</td>
</tr>
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<td></td>
<td></td>
<td>• Monitor accounts receivable for overdue balances; implement collection procedures on a timely basis</td>
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<tr>
<td>5. Record cash receipts on accounts receivable completely and accurately</td>
<td>• Cash received is diverted, lost or otherwise not reported accurately to accounts receivable</td>
<td>• Establish and enforce a credit policy that reflects an appropriate balance between risk of credit loss and sales volume</td>
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<tr>
<td></td>
<td>• Receipts are for amounts different than invoiced amounts, or are not identifiable</td>
<td>• Assign opening of mail to an individual with no responsibility for or access to files or documents pertaining to accounts receivable or cash accounts; compare listed receipts to credits to accounts receivable and bank deposits</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Consider use of lock-box or other arrangements to accelerate deposits</td>
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<tr>
<td></td>
<td></td>
<td>• Consider ability to have customers transfer funds electronically to the entity’s bank account, and notify the entity of payment through Electronic Data Interchange (EDI)</td>
</tr>
<tr>
<td>6. Manage timing of cash disbursements</td>
<td>• Inaccurate, untimely or unavailable information regarding payment due dates</td>
<td>• Send periodic statements to customers and investigate customer-noted differences (performance indicator)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Reconcile general ledger with accounts receivable subsidiary records; investigate differences</td>
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<td></td>
<td></td>
<td>• Contact payor to determine reasons for payment, or payment different than amounts invoiced</td>
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<tr>
<td></td>
<td></td>
<td>• Information system identifies all cash requirements and dates cash is needed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Use accounts payable aging analysis</td>
</tr>
<tr>
<td>7. Minimize cash disbursements</td>
<td>• Bills are paid before due dates</td>
<td>• Delay check preparation or signature until the due date</td>
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<tr>
<td></td>
<td>• Checks clear the bank quickly</td>
<td>• Release check at the latest possible time and at the end of a day or week, if possible</td>
</tr>
<tr>
<td></td>
<td>• Information system does not identify available discounts and related required payment dates</td>
<td>• Consider check-clearing time when selecting a bank</td>
</tr>
<tr>
<td>8. Disburse cash only for authorized purchases</td>
<td>• Fictitious documentation is created</td>
<td>• Information system identifies payment dates related to available discounts</td>
</tr>
<tr>
<td></td>
<td>• Reuse of supporting documents</td>
<td>• Examine supporting documents, payments approved by individuals independent of procurement, receiving and accounts payable</td>
</tr>
<tr>
<td>9. Remit disbursements to vendors and others, such as for dividends, debt service, and tax or other payments, in a timely and accurate manner</td>
<td>• Inaccurate, untimely or unavailable information regarding amounts or due dates of payments</td>
<td>• Cancel supporting documents to prevent resubmission for payment</td>
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<tr>
<td></td>
<td>• Match disbursement records against accounts payable/open invoice files</td>
<td>• Detailed comparison of actual versus budgeted disbursements</td>
</tr>
<tr>
<td></td>
<td>• Prenumber and account for checks</td>
<td>• Compare payment amounts and recipients with source documents; verify accuracy of supporting documents</td>
</tr>
<tr>
<td></td>
<td>• Reconcile bank statements to cash accounts and investigate long-outstanding checks by individuals independent of accounts payable and cash disbursement functions</td>
<td>• Establish a &quot;tickler file&quot; to identify payment due dates.</td>
</tr>
<tr>
<td></td>
<td>• Segregate custodial and record-keeping functions</td>
<td>• Modify information systems as necessary to provide payment information</td>
</tr>
<tr>
<td></td>
<td>• Reconcile bank accounts by individuals without responsibility for cash receipts, disbursements or custody</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Receive and prelist cash by individuals independent of recording cash receipts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Restrictively endorse checks on receipt</td>
<td></td>
</tr>
<tr>
<td>10. Record cash disbursements completely and accurately</td>
<td>• Missing documents or information</td>
<td>• Deposit receipts intact daily</td>
</tr>
<tr>
<td></td>
<td>• Inadequate physical security over cash and documents that can be used to transfer cash</td>
<td>• Restrict access to accounts receivable files and files used in processing cash receipts</td>
</tr>
<tr>
<td></td>
<td>• Mail checks by individuals independent of recording accounts payable</td>
<td></td>
</tr>
<tr>
<td>Objectives</td>
<td>Risks</td>
<td>Control Activities</td>
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</tr>
<tr>
<td>Process Fixed Assets</td>
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</tbody>
</table>
| 1. Completely and accurately record fixed asset transfers, acquisitions, dispositions and related depreciation | • Acquisition documentation may be lost or otherwise not communicated to proper personnel | • Prenumber individual capital expenditure authorizations and investigate missing documents  
• Route copy of purchase orders for capital expenditures to personnel who process fixed assets; investigate purchase orders not matched with receiving documentation after anticipated receipt date  
• Reconcile fixed asset additions with capital expenditure authorizations  
• Acquired assets may not be adequately described | • Inquire of purchasing or other personnel to clarify asset description or function  
• Establish clear definitions for asset categories  
• Asset disposals or transfers may not be communicated to proper personnel | • Dispose of or transfer fixed assets only with proper authorization, a copy of which is provided to appropriate personnel  
• Prenumber fixed asset disposal and transfer authorization forms and investigate missing documents  
• Count fixed assets periodically, reconcile count with fixed asset records and investigate differences  
• Incorrect depreciation lives or methods may be used | • Establish policies regarding depreciation lives and methods, communicate them to appropriate personnel, and periodically review them to ensure continued appropriateness  
• Review depreciation detail for accuracy and compliance with policies and procedures |
| 2. Safeguard fixed assets from loss through theft | • Inadequate physical security over fixed assets | • Restrict access to facilities during non-working hours  
• Affix an identification plate and number to office furniture and fixtures, equipment and other portable fixed assets  
• Develop, implement and communicate safeguarding policies |
### Analyze and Reconcile

| 1. Compare operating results with pre-established standards, such as budgets or prior-period results. Identify variances, trends or unusual changes and their causes | - Pre-established standards are not determined | - Lack of or inaccurate information needed to compare actual results with pre-established standards | - Periodically establish operating standards, such as quarterly or annual budgets | - Specify information needed to identify and explain variances, trends or unusual changes | - Design information systems to communicate necessary information to appropriate people on a timely basis |

### Process Benefits and Retiree Information

| 1. Ensure all eligible individuals, and only such individuals, are included in benefit programs | - Program eligibility requirements are not clearly communicated to appropriate personnel | - Inaccurate employee information is provided to benefits personnel | - Eligible employees are improperly excluded from participation | - Nonexistent employees are entered as program participants or beneficiaries | - Train and update appropriate personnel regarding plan eligibility requirements and amendments thereto | - Compare information to employee personnel file or otherwise verify its accuracy | - Limit access to employee data base | - Periodically match participant list to employee and/or retiree list and to documentation of employees’ elections not to participate | - Periodically compare participant list to employee and/or retiree list | - Approval by an authorized official of all additions to participant data base | - Verify existence and status of participant |

<p>| 2. Accurately calculate benefits due to each participant | - Plan benefit provisions are unclear or complex | - Errors are made in calculating benefits | - Inaccurate information | - Ensure plan documents describe benefit provisions clearly and include sample calculations | - Amend plan as necessary to clarify benefit computations | - Consult legal, actuarial or other professionals as needed to clarify benefit provisions | - Standardize forms or programs for calculating benefits | - Review benefit calculations | - Limit access to information and data used in calculating benefits | - Approve all changes to data bases used to calculate benefits |</p>
<table>
<thead>
<tr>
<th><strong>Objectives</strong></th>
<th><strong>Risks</strong></th>
<th><strong>Control Activities</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Summarize and track benefit information</td>
<td>• Lost or misplaced information</td>
<td>• Reconcile various related reports</td>
</tr>
<tr>
<td></td>
<td>• Personnel are unaware of applicable laws and regulations</td>
<td>• Use logs or other devices to ensure completeness of processing</td>
</tr>
<tr>
<td>4. Comply with applicable laws and regulations</td>
<td>• Lack of adequate systems</td>
<td>• Train human resource or other personnel on applicable laws and regulations</td>
</tr>
<tr>
<td></td>
<td>• Lack of understanding of reporting requirements</td>
<td>• Review and approve all plan documents and policies by legal counsel experienced in employee and retiree benefit programs</td>
</tr>
<tr>
<td>5. Generate and distribute benefits reports in an accurate and timely manner</td>
<td></td>
<td>• Ensure that report generation systems process information accurately and satisfy reporting deadlines</td>
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<td></td>
<td></td>
<td>• Implement and monitor training programs</td>
</tr>
</tbody>
</table>

**Process Payroll**

<p>| 1. Pay employees in accordance with wage contracts and other established policies | • System is not designed to reflect payment schedule included in collective bargaining agreements or individual agreements with employees | • Implement payment schedule that reflects wage contracts and agreed-upon payment schedules |
| 2. Calculate and record payroll (including payroll deductions) accurately and completely for all services actually performed and approved, and only for such services | • Pay rates or deductions are not properly authorized or are inaccurate | • Review and approve initial pay and any subsequent additions or changes |
| | • Hours are not authorized or are inaccurate | • Periodically verify payroll data base information |
| | • Time cards or other source information is submitted for nonexistent employees | • Review and approve initial deductions/benefit elections |
| | | • Use standard forms for making changes to payroll information |
| | | • Review and approve all nonstandard items such as sick, vacation and bonus pay |
| | | • Review payroll register and checks for reasonableness |
| | | • Security controls that limit access to payroll data base |
| | | • Review and approve time records for unusual or nonstandard hours and for overtime |
| | | • Use standardized policies and procedures when hiring employees |
| | | • Security procedures relating to additions and deletions of employees to or from the data base |</p>
<table>
<thead>
<tr>
<th>Process Product Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>**1. Develop standard costs of producing products, including costs at each stage of</td>
</tr>
<tr>
<td>the production process**</td>
</tr>
<tr>
<td>• Inadequate or inaccurate information</td>
</tr>
<tr>
<td>• Inability to identify the stage of production</td>
</tr>
<tr>
<td><strong>Identify information necessary to develop standard product costs; ensure information systems accurately provide such information on a timely basis</strong></td>
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<tr>
<td><strong>Periodically evaluate the production process and estimate the costs associated with each stage of the process</strong></td>
</tr>
<tr>
<td><strong>Clearly define and organize each stage of production; appropriately document such stages</strong></td>
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<tr>
<td><strong>Establish systems to routinely identify stage of completion; periodically verify system is functioning properly</strong></td>
</tr>
</tbody>
</table>

| Maintain logs or other documentation supporting or tracking changes to payroll data base |
| Where practical, require valid identification and employee signature to receive paycheck |
| Prohibit payment of wages in cash, except in prescribed circumstances                  |
| Use direct deposit systems                                                             |

| **3. Restrict access to payroll data information to only those individuals who need such information to discharge duties** |
| **Unauthorized personnel may gain access to payroll information**                      |

| **4. Provide payroll information to relevant personnel to satisfy management information needs** |
| **Management information needs with respect to payroll are not defined**                |

| **Verify that source documents such as timecards are received for all employees**       |
| **Maintain back-up records of employees’ time in case source documents are lost**      |
| **Reconcile the employee subsidiary ledger to the general ledger control accounts; investigate any differences** |
| **Compare total hours and number of employees input with the totals in the payroll register** |

| **Access to information stored on electronic media is restricted by frequently changed passwords** |
| **Payroll processing systems and written information are subject to physical security**    |

| **Identify how payroll information can satisfy other management objectives and link information sources** |

| **Lack or loss of information or documents** |

<p>| <strong>Lack or loss of information or documents</strong> |
| <strong>Unauthorized personnel may gain access to payroll information</strong>                      |
| <strong>Management information needs with respect to payroll are not defined</strong>                |</p>
<table>
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<tr>
<th>Objectives</th>
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</thead>
<tbody>
<tr>
<td>2. Record actual costs incurred completely and accurately</td>
<td>Inaccurate, untimely or unavailable information regarding actual costs incurred</td>
<td>Prenumber and account for the numerical sequence of requisitions of materials and component parts issued to and returned from production; investigate missing or duplicate (unmatched) items by people independent of the materials handling function.</td>
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<tr>
<td></td>
<td></td>
<td>Reconcile records of labor and overhead charges to payrolls and overhead cost incurred; investigate differences.</td>
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<td></td>
<td></td>
<td>Prenumber and account for the numerical sequence of production reports or other records of finished production and transfers within work-in-process; reconcile those reports to quantities recorded; investigate missing documents and differences.</td>
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<td></td>
<td>Review and approve monthly summarizing entries.</td>
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<td></td>
<td>Maintain perpetual inventory records.</td>
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<td></td>
<td></td>
<td>Periodically balance the raw materials, work-in-process and finished goods records.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Periodically count raw materials, work-in-process and finished goods inventories and compare with the perpetual records; investigate differences.</td>
</tr>
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<td></td>
<td>Reconcile the perpetual records to the general ledger control accounts, and approve adjustments, by personnel other than those responsible for maintaining related perpetual records or for safeguarding inventories.</td>
</tr>
<tr>
<td>3. Determine variances from standard costs and their effect on inventory and cost of sales</td>
<td>Variances are computed or recorded inaccurately</td>
<td>Compute variances for each appropriate product; verify completeness by comparison to product list or other appropriate document.</td>
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<tr>
<td></td>
<td></td>
<td>Verify variance accuracy by recomputation or other appropriate methods.</td>
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<tr>
<td></td>
<td></td>
<td>Review general ledger or other records to ensure variances are recorded accurately.</td>
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</table>

**Provide Financial and Management Reporting**

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Risks</th>
<th>Control Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Provide timely and accurate information needed by management and others to discharge their responsibility</td>
<td>Information needs of management or others is unknown or not clearly communicated</td>
<td>Identify user information needs and update such needs periodically.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Communicate information needs from users to preparers of management reports.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Due dates and relative priorities of management reports are not clarified or communicated.</td>
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<tr>
<td></td>
<td></td>
<td>Determine due dates for all management reports, whether routine or nonroutine.</td>
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<tr>
<td></td>
<td></td>
<td>Establish relative priorities for all management reports, whether routine or nonroutine.</td>
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</tbody>
</table>
2. Prepare external financial reports on a timely basis and in compliance with applicable laws, regulations, rules or contractual agreements

- Information systems are incapable of providing necessary information
- Information systems cannot provide necessary information in a timely manner
- Personnel are unaware of applicable laws, regulations, rules or contractual agreements

3. Maintain confidentiality of financial information

- Unauthorized personnel have access to financial information

- Communicate management report due dates and priorities to report preparers and users
- Establish “tickler files” or other system to ensure due dates are routinely identified
- Identify information that the system is incapable of generating: identify necessary modifications to the system
- Identify and implement necessary systems changes
- Retain competent personnel who are knowledgeable of, and have experience with, applicable laws, regulations or rules affecting the entity’s external financial reporting
- Review of significant contractual agreements by management or supervisory personnel responsible for preparation of external financial reports
- Restrict report or information distribution to authorized personnel; periodically review and update distribution lists
CHAPTER 5
INFORMATION MANAGEMENT

This chapter provides you with the diagnostics and other tools you need for a consulting “mini-engagement” related to information management, including a two-step approach for assessing a client’s information needs and whether its existing information reporting systems are responsive to those needs.

I was talking recently with a top executive who said to me, “My accountant prepares a lot of reports for me and our directors, but I notice that many of them are left on the table after the meeting.”

That describes the mental attitude of top management to accounting reports. Our technical journals and persons of a professional turn of mind tell us that A minus B equals C. If we take the trouble to figure it out, we find it is correct, but who other than ourselves really cares? We must take that same equation and translate it into language which comes within the range of the person who makes the decisions.

Such a person has no time to go through a maze of accounting computations in order to decide that the company should engage in a new line of product, use working capital for the purchase of plant facilities, or to pay a common dividend. To be sure, it is that person who must make the decision, but the accounting report should be such that the answer becomes obvious and not one that requires research duplication, and education in the same basic set of rules which give CPAs their license.

You can’t sit behind your desk, mess around with a lot of exact and precise calculations, wrap them up in foolscape and say, “This is the answer.” It is your job to find out by constant and close relationship with the factory, the selling organization, and all units of executive management what they can use in the way of reports, the information which is of most value in those reports, and whether or not those responsible for operating results are doing their jobs in an effective manner. And it is your job also to put the figures together in a simple form and to interpret their significance, stating the facts fully, fairly, and fearlessly.³

³ Taken from the keynote address delivered at the 1946 Society of Industrial Accountants National Convention.
THE ACCOUNTANT AS INFORMATION PROVIDER

If the language in the opening quote to this chapter seems a bit dated, it should. It was taken from the keynote address delivered to a convention of accountants—*in 1946.*

Sadly, for many accountants, little has changed in the last half century. Accounting reports still get left on the table after meetings, and top decision makers must wade through irrelevant details or piece together important pieces of information to come to an answer they're looking for. Some decision makers invariably give up and never obtain access to the information they need to manage the business.

The speaker in the preceding quote recognizes that numbers cannot manage. Numbers can only be manipulated to show certain relationships. Seeing and understanding these relationships are what cause the manager to ponder, to consider, or to make a certain decision. Reading the opening quote, together with the observations of many business writers in the interim, leads to the following observations about the function of accounting information within a business.

- From the business owner's perspective, the function of accounting is not just to "count," but to provide information.
- The information provided by the accounting system must be timely, easy to understand, and relevant for decision-making purposes.

As auditors we have access to and review a great deal of information generated by our client's accounting department. We look at budgets, subledgers, projections, interim financial reports, and selected financial information. When we review our client's accounting information our focus tends to be quite narrow, for example, on whether the reports are accurate or can be relied on as audit evidence.

This chapter suggests that you look at client-prepared reports not solely as audit evidence but also as sources of information your client needs to make important business decisions. Does your client have access to all the information necessary to run the business? Is it presented in a way that is easy to follow and understand? By improving the source of information your client

---

2 Fifty years later, CPAs continue to sound the exact same theme. William Reeb and Michaelle Cameron, "Getting Beyond Accounting," *Journal of Accountancy* (December 1996): 69, state:

> CPAs don't like to be called bean counters. Yet, like it or not, the term comes uncomfortably close to describing the tasks CPAs have performed historically—counting, comparing, observing, recording and, finally, reporting financial information on daily business transactions.

> For financial information to be relevant, it must be presented in a different way. And to discover that way CPAs must first find out who makes decisions, when they make them, based on what information, where that information is, why it is needed and how it is used. This also means that the controller's role has to shift from that of financial manager to that of information manager.

uses to run its business, you can improve the results of that business and increase the value of your services to the business owner.

---

**Case Study**  
**Kathleen Miller, Ltd.**

Kathleen Miller was a small town success story. She grew up in a lower middle-class neighborhood and learned to play tennis on the public courts of Eugene, Oregon. She won three high school tennis championships and was recruited by dozens of universities, including those with elite women’s tennis programs. She chose to stay at home and attend the University of Oregon.

After one year of college, she turned pro and enjoyed a fifteen-year career as a successful and popular player, the highlight of which was winning the Wimbledon Tennis Championship after several second-place finishes. Shortly after winning that title, she sought to capitalize on her popularity and launched her own brand of clothing, Kathleen Miller Sportswear. Like the tennis player for whom it was named, the brand proved popular.

After she retired from competitive tennis, Kathleen returned to Eugene and opened up a women’s clothing store, where she sold other labels in addition to her own. Four years later, her company had grown to six stores, two in Eugene and four in Portland.

Kathleen is a hands-on manager and is intimately familiar with the details of her stores. When she just had one store in Eugene she was able to manage her business based on intuition. She could look at her shelves or stockroom and get a feel for inventory. A quick glance at the checkbook or the accounts-payable listing told her all she needed to know about her cash-flow position. Because her operations have grown, however, she now must rely on reports generated by the accounting department.

Recently, she complained to her CPA. “Every time I go into one of these financial meetings I have to bring a calculator. I’m always scribbling notes in the margins and doing calculations to get the information that’s important to me. Is that normal?” she asked. “For example, why are my sales reports grouped according to geography, Eugene and Portland? I’m much more interested in knowing the combined sales of stores #2 and #5, which sell only the proprietary line, than I am in knowing average sales in the two towns. Inventory is a problem, too. The information I get is fine, but why do I only see the month-end figures—seven days after the month is over? That’s not helpful to me.”
As your client’s business adviser, be prepared to evaluate the information your client uses to make day-to-day decisions. Based on your existing knowledge of the client and discussions with the owner, focus on answering the following questions.

1. What information does your client rely on to make day-to-day business decisions?

2. How is that information used, that is, why is it relevant for decision making? Is the needed information presented in a way that makes it easy to use?

3. How often should the information be presented? Does the existing information system provide information in time to correct problems, spot trends, or make decisions before it is too late?

IDENTIFYING INFORMATION NEEDS

The greatest problem associated with traditional performance criteria is their failure to provide sufficient guidance in the formation of tactical decisions. These performance measures are typically based on cost accounting and financial information. While this information is obviously important and is frequently used by top management to gauge a firm’s overall position in the market, financial and cost accounting information by itself does not convey the critical information necessary to understand why a firm made or failed to make a profit.4

Identifying the information needs of a business owner ultimately ties back to the basic business strategies of the company. For example, Kathleen Miller believes that the success of her company is closely tied to sales of her private-label line of sportswear. Thus, to monitor her company, she watches the sales figures from her two stores that sell that line exclusively.

The key question to answer is this: How does a business owner identify information needs? How does he or she build an information system that contains all the information required to run the business effectively?

The problem with most organizations is that they never take the time to really examine this issue and instead rely on traditional performance measures such as inventory turnover, gross margin percentages, or return on investment. In the meantime, the company has developed business strategies that may not lend themselves to measurement by traditional means. The result is that the company has set a strategic course but has no way to monitor its progress.

Management experts have studied the issue of decision information systems, and over the past decade or so have developed a methodology for identifying the information needed to make business decisions. Most commonly known as “strategic performance measures,” this methodology is based on the following tenets.

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1. A company’s information needs are directly related to its business strategies.

2. Traditional financial performance measures do not provide all the information needed to monitor a company’s success in implementing its strategies.

3. For that reason, financial measurements must be supplemented with nonfinancial performance measures that focus on gathering information about strategic business processes.

To a large degree, measurement drives performance. Thus, by using nonfinancial performance measures to monitor business processes, the company will improve the performance of those processes, which in turn will improve financial results.

**The Importance of External Information Sources**

Business management expert Peter Drucker, has said that there are no profit centers within an organization, only cost centers. In other words, costs are generated from within the entity, but revenues are generated from sources outside the entity. For that reason, information for strategic business purposes must include information from outside the entity.

For example, information about market share, customer preferences, or technological developments outside the company’s industry can be important for the business owner trying to manage the company. Benchmarking is another type of external information that allows the company to compare itself with its competitors. Benchmarking can be as simple as comparing the company’s key financial operating ratios with industry norms (for example, those presented in Robert Morris Associates, *Annual Statement Studies*). Industry trade associations may gather other types of industry operating data, which also can be sources for comparison.

As your client’s business adviser, take the time to understand the nature and extent of information external to the company that management uses (or should use) to make business decisions. Do some research to determine what sources of information are readily available, and see if this information will be useful to your client. (Diagnostic Tool 2-B provides suggestions for identifying industry data.)

**The Balanced Scorecard**

Within the general strategic performance measurement approach, researchers and consultants have developed several specific frameworks for linking performance measures to company strategies. One framework that has gained wide acceptance is the “balanced scorecard,” developed by Robert S. Kaplan and David P. Norton.

The overall objective of the balanced scorecard is to provide management with feedback about company strategy. The scorecard does this by translating company strategy into a set of performance measures and allowing management to look at the company from four important perspectives.
1. **Financial Perspective.** Answers the question: How does the company look to the owner?

2. **Customer Perspective.** Answers the question: How do customers see the company?

3. **Internal Business Perspective.** Answers the question: What must the company excel at to be successful?

4. **Learning and Growth Perspective.** Answers the question: Can the company continue to improve and create value?

The balanced scorecard is not a “one-size-fits-all” approach. Each company must devise its own performance measures in each of the four perspectives based on its own strategic initiatives. Diagnostic Tool 5-C includes examples of performance measures that some companies have adopted.

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**Kathleen Miller, Ltd., continued**

Early on in the development of her company, Kathleen Miller made two important strategic decisions. The first was that the company would compete based on quality and fashion, not by providing the lowest price. Central to this strategy was the creation of a successful private-label line of Kathleen Miller signature sportswear.

The company’s differentiation strategy extended to all facets of the way the company does business, particularly to the way it interacts with customers. From the very beginning, Ms. Miller tried to create an atmosphere in the stores that welcomed her customers and made them feel comfortable shopping.

The second key decision was to offer more than just sportswear at the Kathleen Miller outlets. Management of the company believed that Ms. Miller had a positive public image that went beyond the sports world and that the company could take advantage of that by attracting customers who were looking for more than just sports attire. By offering a more complete line of merchandise, the company hoped to capture a greater “customer share,” that is, customers would spend a higher portion of their annual clothing budget at Kathleen Miller, Ltd.

When she ran her first store in Eugene, Ms. Miller was able to monitor the success of these strategies and make decisions based primarily on the fact that she spent a great deal of time working in the store. She interacted with customers directly, listened to their comments, and observed their shopping habits. Now that the company has grown, she no longer has the time to be quite so hands-on. She believes she has lost touch with what is happening in the stores and she finds it difficult to tell whether her business is working as planned.
Throughout the rest of the chapter we will explore ways to provide Ms. Miller with the information she needs to monitor her business. This information will be closely linked to her stated business strategies.

LINKING FINANCIAL REPORTING TO STRATEGIC OBJECTIVES

Most companies use a variety of ratio analyses and other statistics to monitor financial performance, liquidity ratios, cash-flow projections, and a variety of profitability or return-on-equity analyses. These measures are like the measurements taken by a doctor at a routine physical, for example, height, weight, temperature, blood pressure, and so on. These measurements are important but by themselves are not nearly enough to effectively manage the business. If the fundamental information shows all is normal, that doesn’t tell you much. If something abnormal appears, that indicates a problem, but additional information is required to determine the exact nature of the problem and how to solve it. For that reason, fundamental information alone is insufficient for decision-making purposes.

The balanced scorecard expands the traditional notion of what is required by financial measures and attempts to link these measures to the root business strategies. Most business strategies are driven by three different financial themes. Management should therefore determine its strategy for each of these three themes and devise measurements to provide feedback.

1. 

Revenue Growth and Mix. This refers to strategies related to expanding product and service offerings, reaching new customers and markets, changing the product and service mix toward higher-value-added offerings, and repricing products and services. The strategy adopted for revenue depends on the nature of the company or the industry in which it operates. For example, growth-stage enterprises usually emphasize expansions of existing product lines or offer entirely new products and services. Companies that compete in an industry with long product development cycles tend to focus revenue growth on finding new applications for existing products. Still other companies try to grow revenues by expanding their customer base.

Whatever the strategy chosen by the entity to increase revenues, management must devise a measurement that directly relates to that strategy. The most common growth measures include sales growth rates and market share of targeted regions, markets, and customers. Other measurements need to be tailored to the individual needs of the company. For example, companies that emphasize new product development may choose to measure either percentage revenue or gross margin from new products.

2. 

Cost Reduction/Productivity Improvement. There are several ways a company can seek to reduce costs or increase productivity. Some companies seek to improve productivity through automation or standardized processes. Other companies may seek to reduce direct costs or general and administrative expenses.
One of the most common productivity measures is revenue per employee. This tends to be a better measure than one based strictly on an absolute measure of total cost. Companies that measure total cost run the risk of cutting back too far, limiting the entity’s flexibility to meet customer demands, or in a worst case scenario, reducing the company’s ability to carry out the routine tasks of running the business. For that reason, measures tied to revenue enhancement usually produce better results, particularly for companies in a growth stage.

Companies may also try to reduce the unit costs of products and services, thus increasing gross margin. Businesses that adopt such a focus are best served by an activity-based cost system. The advantage to an activity-based cost analysis is that it provides links between the spending on an activity, the performance of that activity, and its output.

3. **Asset Utilization/Investment Strategy.** A company may use any number of financial management strategies to increase revenues, reduce costs, and increase asset utilization. Cash management strategies fall into this category, for example. Return-on-capital employed, return-on-investment, and economic value-added are just some of the measures an entity might use to monitor its financial management strategies.

Working capital management is a key concern for many businesses, especially small businesses. One of the best ways to measure the effectiveness of working capital management is the length of the cash-to-cash cycle, defined as follows.

\[
\text{(Days Cost-of-Sales in Inventory + Days Sales in Accounts Receivable)}
\]
\[
- \text{Days Purchases in Accounts Payable} = \text{Cash-to-Cash Cycle}
\]

The cash-to-cash cycle measures how long it takes the company to convert cash payments to suppliers into cash receipts from customers. The smaller the number (some companies are able to achieve a negative cash-to-cash cycle), the more efficient the company’s cash management.

As a business adviser, you want to help your clients identify their information needs. Traditional financial measures and ratios are important, but you can provide a valuable service to your clients if you can help them develop additional financial measures tied to their business strategies. Start by classifying a client’s strategies into one of the three categories outlined above. Then work to define ways to provide feedback on the implementation of that strategy.

**INFORMATION ON CUSTOMERS**

Recall that the balanced scorecard attempts to provide information about company strategy from four different perspectives. One of these perspectives is the customer perspective.

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5 A discussion of activity-based costing techniques is beyond the scope of this book. The AICPA Center for Excellence in Financial Management offers a variety of publications and training courses on this subject.
Chapter 5: Information Management

Chapter 1 discussed how business has shifted over the years from a largely product-focused exercise to one driven by customer need. For that reason, it is essential that companies identify the customer and market segments in which they will compete and develop measures to gauge their performance in those areas.

Rather than present customer measurements in terms of the company as a whole, it is better to break down information into customer and market segments that have been designated by the company as having the greatest growth and profitability potential. For example, in your audit practice, you should be able to easily access information related to specific customers or specialized industries you have targeted as being essential for the future growth of your practice.

In defining their customer measures, most companies start with a basic set of five core measures that include the following.

1. **Market Share.** Market share reflects the proportion of business in a given market (in terms of number of customers, dollars spent, or unit volume sold) that your client sells. Note that this information is external to the company, so you or the client may have to do some research to obtain it. Industry groups, trade associations, or investment services are a good source. (Diagnostic Tool 2-B provides a list of resources for industry information.)

   A second measure of market share is the account share of targeted customer business. A clothing store like Kathleen Miller, Ltd. (see earlier example) may concentrate on increasing its total share of customer clothing purchases.

2. **Customer Acquisition.** Customer acquisition measures the rate at which your client attracts or wins new customers. Two of the more common customer acquisition measures are the number of new customers or the total sales to new customers. Some companies also measure the success rate of specific marketing programs, for example, the ratio of new customer revenues per sales call.

3. **Customer Retention.** Customer retention seeks to measure the rate at which your client retains or maintains ongoing relationships with its customers. In some industries, for example, credit card suppliers or long-distance telephone companies, customer retention is the key factor in business success. In addition to measuring retention in absolute terms, some companies measure the percentage growth of business with existing customers.

4. **Customer Satisfaction.** You client should have a means for measuring the satisfaction level of its customers using specific performance criteria. Many businesses use surveys to assess their customer’s level of satisfaction with their products or services. Designing a customer satisfaction survey can be a time consuming, expensive proposition that requires a great deal of expertise. Most small businesses do not want to incur the cost of developing a formal survey, but in many instances it may be possible for your client to conduct informal surveys—a follow-up telephone call, for example—of how key customers perceive the value of the company’s products.
5. **Customer Profitability.** A company should have the means to measure the net profit of a customer or segment, after allowing for the direct expenses required to support that customer. A common trap for small business owners is to focus on revenue growth or market share and to assume that profitability will follow. That is not necessarily the case. Some customers, particularly new customers who were costly to acquire, can be unprofitable or only marginally profitable.

The following diagram distinguishes between targeted and untargeted customer segments.

<table>
<thead>
<tr>
<th>Customer</th>
<th>Profitable</th>
<th>Unprofitable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Targeted Segment</td>
<td>Retain</td>
<td>Transform</td>
</tr>
<tr>
<td>Untargeted Segment</td>
<td>Monitor</td>
<td>Eliminate</td>
</tr>
</tbody>
</table>

[Reprinted by permission of Harvard Business School Press. From THE BALANCED SCORECARD by Robert S. Kaplan and David P. Norton, Figure 4-2, "Targeted Segments & Customer Profitability".]

Your client must work hard to retain targeted customers who are profitable. Targeted customers who are unprofitable need to be transformed into profitable customers. This may require repricing of products or services or finding ways to deliver the product or service more cheaply.

Untargeted customers who are profitable should be monitored closely to make sure they maintain acceptable profitability levels. Any untargeted customers who are not profitable should be dropped.

You probably have many clients who claim to be “customer-focused” or who “put the customer first.” But how many of those clients have the information systems in place to measure the effects of those initiatives?

Take the time to find out if your clients have access to information in each of the five areas listed above. If they don’t, find out why. In some cases, your client may have made a conscious decision not to obtain that information because it is not necessary to the company’s business strategy. There’s nothing wrong with that.

However, in many instances, small business owners fail to measure a key dimension of the customer perspective because (1) it never occurred to them that such information would be useful, or (2) they believed that obtaining such information would be too difficult. You can provide your clients with a truly valued service if you can point out the gaps in their customer perspective measures and find ways to obtain the necessary information.

In addition to core customer measures, some companies develop other measures tied to key customer strategies. These customer strategies usually focus on one or more of the following.
Chapter 5: Information Management

- **Product and Service Attributes.** Your client must make key strategic choices about the functionality of the product or service, its price, and its quality. For example, some businesses will choose to deliver a product of superior functionality or quality at a premium price. Others will focus on providing more basic products at the lowest possible price.

- **Customer Relationship.** Some companies focus on how their products or services are delivered to the customer and how the customer feels about buying from the company as a means of differentiation.

- **Image and Reputation.** A variety of intangible factors may attract a customer to a particular brand. A key business strategy for some companies involves establishing and maintaining a particular image or reputation and in that way generating customer loyalty well beyond the tangible aspects of the product or service.

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Kathleen Miller, Ltd., continued

As described earlier, Kathleen Miller’s customer strategy focused on differentiation and leveraging the owner’s positive public image to increase its customer share of clothing purchases. Implicit in this goal of increasing customer share is the creation of customer loyalty. Customers must return to the store throughout the year to purchase seasonal items, and they must return again in the following year. The company also wanted to differentiate itself in the way it provides service, by creating a satisfying shopping experience that increased customer loyalty.

Here is some key information that management of the company reviews to determine whether they are meeting their customer objectives.

- **Annual Purchase Growth for Key Customers.** The company started a “Wimbledon Club,” which provides its members with special discounts and other perks. There is no fee to join the club, and customers provide information about sizes, birthdays and anniversaries, credit card information, and so on. The primary advantage to the company is that it is able to track sales according to the Wimbledon Club member number. In that way the system is able to measure annual purchases per customer as a gauge of customer loyalty.

- **Customer Satisfaction.** Each Wimbledon Club member received customer satisfaction surveys once a year, and the results were summarized by store and reviewed by management. Additionally, the company conducts “mystery shopper” audits of each store on a periodic basis. Auditors pretending to be regular customers shop at the stores and rate salespeople and the overall shopping experience. Results are then summarized.
Merchandise Availability. One of the elements of the shopping experience that was considered critical to the company’s strategic plan was merchandise availability. Management of the company believes that having the right size and color is an important way to differentiate itself from other women’s clothing retailers and help realize other strategic objectives. For that reason, management receives regular information on backorders as a percentage of sales.

Private-Label Success. One of the keys to the company’s strategy is establishing a strong private label of Kathleen Miller sportswear. To monitor the success of its private-label line, the company uses two measures: market share of sportswear and gross margin on private-label merchandise.

Merchandise Quality. The company has adopted an overall differentiation strategy, the success of which depends on providing quality merchandise. The company uses several measures of quality: merchandise return rate, average unit retail price, and transactions per store.

MEASURING CRITICAL BUSINESS PROCESSES

Chapter 2 discussed the value chain as a framework for understanding the business activities of your client. The primary processes of a value chain are—

- Inbound activities
- Operations
- Outbound activities
- Marketing and sales
- Service

Once you assess which of the above activities are most important to your client, determine what information the business owner has available to gauge the performance of those activities. For example, consider a business that sells all of its products over the Internet. The business itself has no physical store for customers to come into and buy things. All customer purchases must be shipped.

For an Internet-based business such as that, outbound activities—the scheduling and shipping of goods—are critical to the overall success of the business. Accordingly, management of that company should be able to monitor how the company is performing in that critical area. Are shipments going out on time? Are goods packaged in a way to minimize damage? Are the right items and proper quantities included in shipments? Management must know the answers to these
and other questions to be able to properly manage the business. The key to measuring internal business processes is to focus on the \textit{process} and how well it is being performed.

Traditionally, the primary method for measuring process was to use standard costs, budgets, and variance reports. As the nature of business has changed, these measures have proved to be rather narrow in their focus and can lead to counterproductive actions, for example, keeping labor and machines busy to increase utilization, even though the company is building inventory that may no longer be desired by its customers.

Many companies are supplementing or even replacing traditional variance measures with performance measures that focus on—

- \textit{Quality}. Virtually any business-chain activity can be reviewed for the quality of its performance. Some quality measures are highly subjective, but many times an objective measure can be created to provide management with feedback on important activities. For example, the number of service callbacks can be used to measure the quality of the work performed by service technicians. “Yield,” the ratio of good items produced to good items entering the process, is another popular objective measure of process quality.

- \textit{Cycle time}. Reducing cycle times is a critical part of the competitive strategy for many companies. There are two ways in which shorter cycle times benefit a company. First, customers increasingly demand fast response times. Cutting cycle times responds to customer needs and can be a point of differentiation. Second, shorter cycle times cut down on excess inventory (production cycle) or accounts receivable (cash conversion cycle) and improve the company’s overall financial performance.

One of the more popular measures of cycle time is manufacturing cycle effectiveness (MCE), which is defined as

$$MCE = \frac{\text{Processing Time}}{\text{Throughput Time}}$$

where

\begin{align*}
\text{Throughput} &= \text{Processing} + \text{Inspection} + \text{Movement} + \text{Waiting/Storage} \nonumber \\
&= \text{Time} + \text{Time} + \text{Time} + \text{Time}
\end{align*}

By definition, throughput time is greater than processing time, so MCE is always less than 1, but companies should strive to have the ratio be as close to 1 as possible. The reason is that anything other than processing time is non value-added, and if companies can reduce the amount of this time they can operate much more efficiently.
Based on the strategies outlined previously, the management of Kathleen Miller identified three key internal business processes.

1. **Inbound Activities.** To meet its goal of providing customers with quality merchandise in the desired size and color, the company must have high-quality suppliers. Key suppliers must be able to manufacture quality garments and deliver them on time. To provide feedback on supplier performance, the company measures the number of quality-related returns per supplier and keeps track of supplier lead time and on-time deliveries.

2. **Operations.** To maintain customer loyalty and capture a greater customer share, company management feels it has to be a “fashion leader.” To measure their success in that objective, management designates a select number of key fashion items at the start of each new season. The company then tracks the percentage of sales from these key items. Additionally, the company monitors inventory turnover as a general measure of the efficiency of operations.

3. **Marketing and Sales.** The in-store shopping experience is vital to the company’s overall differentiation strategy. (Information related to the customer’s shopping experience was discussed in the previous section on customer perspective).

**LEARNING AND GROWTH PERSPECTIVE**

For organizations to achieve truly ambitious objectives, they must have the ability to learn and grow. Many business owners recognize the need to invest in the company for the long term, but traditional measures make it difficult to gauge the success of these investments. The balanced scorecard attempts to provide information about key drivers of learning and growth in the following three areas.

1. **Employee Capabilities.** The role of employees has changed over the years. During the industrial age, employees were hired mostly to do physical work. Now, a great deal of the physical work has been automated, and people are being hired to think. Once employed, they become “empowered” to make decisions on their own, to try to improve the way the company operates or serves its customers. For that reason, many companies say “our people are our most important asset,” yet few companies have much information about this asset.
The three areas in which a company should have information on its employees are—

a) Employee satisfaction

b) Retention

c) Productivity

Employee satisfaction is important because a satisfied employee is necessary for increasing productivity and the quality of work. Gauging employee morale also is important for the same reasons. One way to gather information on employee satisfaction and morale is through employee surveys; however, in a small business, informal communication channels can work just as well.

Organizations also should obtain information on employee retention. If employees truly are an asset, then companies make investments in their employees, for example, through training. Loss of employees should be treated as a loss of a long-term investment.

Productivity measures try to relate the output produced to the total number of employees required to produce it. The most common productivity measure is revenue per employee. A variation on this measure is to subtract externally purchased materials, supplies, and services from the revenue figure used in the numerator.

2. Information Systems Capabilities. A company’s information system should be capable of delivering the necessary strategic information to an entity’s decision makers. This entire chapter is devoted to this topic. Some companies actually measure and report the amount of strategic information available to management.

3. Motivation, Empowerment, and Alignment. The objective of this set of measures is to gauge the organizational climate for motivation and initiative. The notion is that even the best employees will be unable to contribute to the success of the organization unless they are motivated and encouraged to do so. This is a difficult area to measure, but some objective measures are possible, for example, the number of suggestions per employee. Small businesses may rely on informal, subjective information about employee motivation.

IDENTIFYING INFORMATION NEEDS—A SUMMARY

Identifying your client’s information needs can be a time-consuming proposition. Start by obtaining an understanding of the client’s basic business strategies. Through inquiries of the client try to find out what information the client uses to obtain feedback on those strategies. Look for gaps—strategic initiatives where the client receives little information.
The balanced scorecard approach assesses information needs from four different perspectives:

1. Financial perspective
2. Customer perspective
3. Internal business perspective
4. Learning and growth perspective

Use these categories to help assess the completeness and relevance of the information your client currently relies on to make important decisions. Some of the information needs described above can be difficult to measure because of their highly subjective nature. Small businesses may rely on informal, anecdotal sources for this type of information. However, the small business owner should make the effort to gather this information on a regular basis and not just leave it to chance. For example, the small business may not want to incur the time and expense to conduct formal customer satisfaction surveys. But the business owner must make a concerted effort to talk to customers and to obtain feedback on their satisfaction at regular intervals.

A caveat: Just because something can be measured does not mean that it should be measured. The examples of measurements provided in this chapter and in Diagnostic Tool 5-C are a list of possible measures. Your clients should receive information only on the items that are most important to them. In some cases you may have to reduce the amount of information provided to a manageable amount. Most small businesses can be managed with fewer than ten key business measures.

DESIGNING INFORMATION REPORTS

Turning Data Into Information

Once your client has determined the information content of decision-making reports, you should consider the way in which that information is presented. You can help your clients a great deal by distinguishing between data and information.

Data are raw facts; information is knowledge derived from facts. Data are presented as objectively as possible and left for the user to draw his or her own conclusion. Information, being derived from data, is a subjective presentation of raw data. Information is used to prompt the user to a conclusion and course of action. Information has a story to tell, it has a narrative element to the way it is presented. Data do not tell a story.6

6 The word “count” (as in “accounting”) originally came into English from the Old French word contener. As used by the French, contener had the connotation “to tell a story.” This sense of the narrative, this interpretive presentation of information, has been lost on today’s accountant. Typically, we present data only and leave it up to the user to interpret the “story.”
Accountants are trained to be as objective as possible, and so it is not surprising that most accounting reports present data. However, for decision-making purposes, information is much more useful.

Many business owners may not understand that they can and should receive information from their accounting reports and not just data. As a business adviser, you can do your clients a valuable service by—

- Helping them understand that they do not have to settle for data when what they really need is information.
- Scouring the company’s existing accounting reports and looking for ways these reports can be made more useful by presenting information rather than data.

Consider the following illustration. For strategic reasons, Kathleen Miller monitors sales revenue of private-label merchandise. A typical accounting report would show the current month’s revenues and year-to-date totals like this—

<table>
<thead>
<tr>
<th>Current Month</th>
<th>Seven Months Year-to-Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue—private label</td>
<td>$11,842</td>
</tr>
</tbody>
</table>

What do we have to do to make this information more useful to Ms. Miller, to turn these data into information?

Ms. Miller wants to monitor the sales of private-label merchandise. A natural starting point would be to ask whether the current month’s sales are greater or less than average. Looking at the above presentation, this information must be derived. If we’re relatively adept at arithmetic, we can do a quick calculation in our heads to see that the average monthly sales are somewhere between $9,000 and $10,000. It appears that the current month’s sales are running higher than average.

Why make the user do all this work? Rather than present data, present information.

<table>
<thead>
<tr>
<th>Current Month</th>
<th>Average Month Year-to-Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue—private label</td>
<td>$11,842</td>
</tr>
</tbody>
</table>

Presented in this way, it immediately becomes apparent that the current month’s sales are higher than average. How much higher? If that information is useful to decision makers, add it to the report.
Notice how the data have been translated into information that begins to tell a story. In the initial presentation, the user had to interpret the data, but in the revised report, the accountant has devised a format that interprets the data for the user. A story emerges, namely, that sales of private-label merchandise are significantly higher than average.

Formatting information to “tell a story” is more of an art than a science. Choosing the information to display and how to display it will depend on how the person receiving that information will use it. Other issues to consider when reviewing the presentation of information include—

- **Level of Detail.** Choosing an appropriate level of detail will go a long way toward determining whether the reports are used for decision making or left on the table after a meeting. Provide too much detail, and readers will get lost in all the numbers. Provide too little, and important information will be masked. One possible approach is to organize the report in a hierarchy of detail. For example, think of the way a set of audit workpapers is organized, from trial balance (highly aggregated), to lead schedule (less aggregation, more detail), to individual account analysis (high level of detail). It may be possible to organize your client’s key management reports along similar lines, leading off with highly summarized information, backed up by further detail for those who want it.

- **Exception Reporting.** Exception reports are a good way to focus management attention on problem areas. Rather than have management sort through a listing of all customers to identify the ones whose revenues or margins tend to be slipping, have the computer produce a report of those customers and save management the effort. In general, exception reports can identify one of three situations that need follow-up: (1) chronic problems, (2) significant changes, or (3) significant trends. A word of caution: Establishing the criteria that define an exception can be difficult. For the first few months after implementing an exception reporting system, somebody should review the report carefully along with the supporting data to make sure that the exception criteria chosen are successful at identifying all the items that warrant management attention.

- **Timing.** Determining the timing of the receipt of information usually requires some trial and error. The idea is to get information into the hands of decision makers in time for them to take action to correct problems. In general, the more frequently the information is provided, the more timely the response. However, providing information too frequently also can be a problem if it fails to distinguish normal fluctuations from bona fide trends. For example, sales levels may vary too much day-to-day, which would render daily reporting meaningless. Instead, weekly reporting or a seven-day moving average may be a better way to spot true trends and let the daily fluctuations smooth themselves out.
Chapter 5: Information Management

As independent auditors, we are trained to provide objective opinions and analyses. Objectivity serves us well in that capacity, but not necessarily in the role of a business adviser looking to improve the presentation of management information. Information is subjective; it is interpretive and selectivity is the key.

The best way to determine if your client’s information is presented in a useful way is to ask the people who use it. Diagnostic Tool 5-D contains examples of questions you can ask the client to identify areas in which the presentation of information can be improved.

IMPLEMENTING THE IDEAS CONTAINED IN THIS CHAPTER

This chapter provides a two-step approach for assessing a client’s information needs and whether their existing information reporting systems are responsive to those needs. Those two steps are—

1. **Information Content.** Evaluate the information used by the client to make business decisions. Determine whether this information is integrated with the company’s business objectives and is adequate to manage the business. Make suggestions for improvement.

2. **Information Display.** Evaluate the way information is presented to management. Are reports organized at the right level of detail? Do they provide all the necessary information? Are they interpretive? Does management receive the information in time to take action?

Most small businesses need help in aligning their business strategies with the content of their information reports. Even if your client does not have a formal strategic plan, chances are the owner carries around in his or her mind a fairly well-developed idea of where the business is going and how to take it there. The problem is that financial accounting and reporting systems do not measure everything that is necessary for the business owner to monitor progress toward strategic objectives. You can do your clients a great service by creating a balanced scorecard of strategic performance measures.

Unfortunately, creating a balanced scorecard is a time-consuming proposition. It does not lend itself to a mini-engagement that can be added on to the standard audit. Typically, the design and implementation of a balanced scorecard (or any other performance measurement system) must be marketed as a stand-alone consulting engagement.

Alternatively, you may choose to perform a high level review of the client’s information needs. (You can use the practice aid in Diagnostic Tool 5-B). Whereas the balanced scorecard builds information from the ground up, a high-level review starts by understanding the existing system and looking for ways to improve it.

The second step in the information review process is to review the way in which information is presented to decision makers. (You can use the practice aid in Diagnostic Tool 5-D.) This review of reporting format and display should be performed selectively, starting with the most...
important activities in the client’s value chain. This type of review, combined with a high-level review of the client’s information needs, lends itself perfectly to a mini-engagement that can be an add-on to the standard audit.

Epilogue
Kathleen Miller, Ltd.

The conversation between Kathleen Miller and her CPA took place at the beginning of the audit. The CPA knew that the Miller account was highly profitable and that Kathleen was the type to rely on outside advisers and experts to help her grow the business. The CPA decided to make a concerted effort to respond to Ms. Miller’s concerns and eventually try to win a consulting engagement to design a balanced scorecard of performance measures.

The CPA informed the Miller engagement staff that the theme of the current year’s audit would be “information.” She instructed the staff to obtain copies of all significant information reports used by the client—whether those reports were used in the audit or not.

Once the reports were gathered, the CPA spent six hours of her own time reviewing the reports and brainstorming on ideas for how they might be improved. She prepared a list of questions for the senior staff person to follow up on, and in that way she was able to obtain additional information on how the reports were used and how they might be improved.

The CPA then met with Kathleen Miller just to discuss her information needs. Because of the work the CPA had done to understand the existing system, the two of them were able to have a spirited exchange of ideas about what information was most desirable for management purposes.

Based on all of her research, the CPA prepared a management letter, complete with examples of redrafted reports, which she presented to Kathleen Miller. Ms. Miller was impressed and said this was exactly the kind of information she was looking for.

The CPA suggested the need for the company to build a performance measurement system using the balanced scorecard approach. Ms. Miller said she would think about it.

Several weeks later, Ms. Miller phoned the CPA to say that she had discussed the balanced scorecard approach with top management, and they all agreed that such a system was necessary if the company were to continue to grow and prosper. Ms. Miller went on to say that she was hiring a consulting firm that specialized in performance measures for retailers to design the measurement system.
However, because the CPA firm was intimately familiar with the company's existing information system Ms. Miller did want to engage the CPA firm to work closely with the consultants in determining how to obtain key information and how the new information reports could be designed so that the information is presented in a more user-friendly format.

SUMMARY

Many business owners do not receive the information they need, when they need it, to run their businesses. As auditors we look at a great deal of client-produced information, but our review of this information focuses rather narrowly on whether the information is accurate and useful as a source of audit evidence. When auditors break out of this narrow focus and look at information from the business owner's perspective, they can improve the quality and timeliness of information, and ultimately help the client run the business better.

This chapter offered two different approaches for helping clients with their information systems: (1) developing a balanced scorecard and (2) evaluating the presentation of existing information. Both methods share the same objectives—

➢ Determine the information management uses to make decisions.

➢ Understand how that information is used.

➢ Determine whether management receives the information in a format and time frame that is useful to them.

The difference in approaches is one of degree. On one hand, you can start with the client's existing information system, identify weaknesses in the way reports are organized and formatted, and suggest improvements. This method is relatively easy to perform and can be marketed as an audit engagement add-on.

The balanced scorecard builds an information system from the client's mission statement and company objectives. This method is more detailed than the incremental approach and is best marketed as a stand-alone engagement. The guidance and practice aids contained in this chapter can help you assess the client's need for a balanced scorecard.
Chapter 5 — Diagnostic Tools

Diagnostic Tool 5-A  The Partner’s Game Plan
Diagnostic Tool 5-B  Aligning Information With Overall Business Strategies
Diagnostic Tool 5-C  Performance Measures Examples
Diagnostic Tool 5-D  Evaluating Information Reporting Format
Diagnostic Tool 5-E  Summary of Stand-Alone Consulting Engagements
Diagnostic Tool 5-A

THE PARTNER’S GAME PLAN

Partner commitment and involvement are essential for an audit firm to successfully implement the business adviser approach to auditing. Engagement partners should be able to answer the following questions about their clients’ information system. If they can’t, they should get answers by talking to their clients. If necessary, additional research may be needed to prepare for the discussion with the client or to supplement the answers provided.

➢ What information does the business owner rely on to manage the daily operations of the business? To measure progress toward achieving medium- and long-range goals of the company?
  • Follow up. If the client has trouble describing the information needed to manage the business, this may be an opportunity to develop a balanced scorecard as part of a stand-alone consulting engagement

➢ What are the client’s overall business strategies? How closely does the client’s information system correlate with those strategies? Does the owner receive timely and relevant strategic information? (See Diagnostic Tool 5-B for examples of questions to help assess the strength of the linkage between a client’s overall business strategy and its information system.)
  • Follow up. Lack of strong correlation between a client’s strategic plan and its information system may be an opportunity to develop a balanced scorecard as part of a stand-alone consulting engagement.

➢ How does the client use the information to make decisions? For example, is it compared with industry averages, with internally set benchmarks, with prior months? Is the information presented in a way that “tells a story” and facilitates the decision-maker’s review?
  • Follow up. Stand-alone information systems or other evidence of frustration with the way information is presented may indicate an opportunity to review information systems and suggest improvements. See Diagnostic Tool 5-D

➢ What externally generated information does the client use for decision making? What externally generated information should the client use but does not?
  • Follow up. Lack of availability of externally generated information may indicate a need for a benchmarking study or other, similar services.
Diagnostic Tool 5-B

ALIGNING INFORMATION WITH OVERALL BUSINESS STRATEGIES

**Purpose:** Ideally, your client’s information system should be closely aligned with its overall strategic plan. The purpose of this questionnaire is to identify areas in which the company’s management may not be receiving the information necessary to successfully implement its business strategies. Use this form as a starting point for implementing the balanced scorecard engagement.

**Instructions:** Complete the following questionnaire by making inquiries of the business owner or client personnel responsible for the relevant activity. “N/A” means that the question is not applicable because it is not an important part of the client’s business strategy.

Focus your attention for follow-up on areas in which the client lacks information on its business strategies. A large number of “No” answers may indicate an opportunity to design a balanced scorecard performance measure system as part of a stand-alone consulting engagement.

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial Perspective</strong></td>
<td>Yes</td>
</tr>
<tr>
<td>1. Management can identify the profit drivers for the company.</td>
<td>____</td>
</tr>
<tr>
<td>2. Management receives timely financial information about company profit drivers.</td>
<td>____</td>
</tr>
<tr>
<td>3. Management receives information about sales growth rates for targeted markets and customers.</td>
<td>____</td>
</tr>
<tr>
<td>4. Growth rate measurements are closely linked to revenue growth strategies.</td>
<td>____</td>
</tr>
<tr>
<td>5. The client measures revenue productivity and not just absolute cost.</td>
<td>____</td>
</tr>
<tr>
<td>6. Cost measures provide a link between spending levels, the activities performed, and the output of those activities.</td>
<td>____</td>
</tr>
</tbody>
</table>
7. Cash-to-cash cycle information is readily available and monitored regularly.  

Customer Perspective

1. Management knows where the company is gaining and losing market share.  

2. Management knows which customers are loyal to the company.  

3. Management knows how much it costs to acquire new customers in targeted markets.  

4. The company has established effective communication channels with its customers and is aware of how customers perceive the company’s products and services.  

5. Management knows which of its customers are profitable and which are not.  

6. The company is able to measure the quality of its product or service, and this information is reviewed regularly.  

7. Management has access to information that allows it to gauge the effect of its marketing strategies.  

Internal Business Perspective

1. Management has identified the business processes that are critical to the company’s overall success.  

2. The company measures the quality of its critical primary activities and this information is reviewed regularly.  

3. Management knows how long it takes to perform critical primary activities.  

4. The company measures the quality of its support activities, and this information is reviewed regularly.
Diagnostic Tool 5-C

PERFORMANCE MEASURES EXAMPLES

This chapter offered the suggestion that the measurements and information provided by accountants should be linked to overall company strategies. The following examples of performance measures are organized according to the balanced scorecard approach. (For a further discussion on this topic, see the “The Balanced Scorecard” section, in this chapter.)

<table>
<thead>
<tr>
<th>Perspective</th>
<th>Key Question</th>
<th>Example Measures</th>
</tr>
</thead>
</table>
| Financial   | How does the company look to the owner?           | • Revenue growth by region, market or customers  
• Market share by region, market or customers  
• Percentage of revenue from new products and services  
• Gross margins from new products and services  
• Percentage revenues from old products with new applications  
• Percentage of revenues from new customers, market segments or geographic region  
• Revenue growth or profitability by product  
• Revenue per employee  
• Cost per unit  
• Percentage of business conducted through various channels  
• General and administrative expenses as a percentage of total costs  
• Cash-to-cash cycle (days cost-of-sales in inventory plus days sales in receivables minus days purchases in payables) |
| Customer    | How do customers see the company?                 | • Market share  
• Customer share for targeted customers or segments  
• Customer retention  
• Percentage growth of business with existing customers  
• Number of new customers  
• Total sales to new customers  
• Number of customer responses to solicitations  
• New customer revenues per sales call  
• Customer satisfaction measures  
• Profitability by customer or segment |
### Chapter 5: Information Management

**Internal Business**

<table>
<thead>
<tr>
<th>What must the company excel at in order to be successful?</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Order response time</td>
</tr>
<tr>
<td>• On-time delivery rates</td>
</tr>
<tr>
<td>• Rate of customer complaints</td>
</tr>
<tr>
<td>• Number of customer orders placed on backorder</td>
</tr>
<tr>
<td>• Average service call response time</td>
</tr>
<tr>
<td>• Lead time for introducing new products</td>
</tr>
<tr>
<td>• Defect rates (not detected by internal quality controls)</td>
</tr>
<tr>
<td>• Rate or cost of warranty claims</td>
</tr>
<tr>
<td>• Number of service requests</td>
</tr>
<tr>
<td>• Number of customer returns</td>
</tr>
</tbody>
</table>

| • Number of days from receipt of customer order to shipment of goods |
| • Number of days from start of production to completion of finished goods |
| • Ratio of processing time to throughput (processing + inspection + movement + storage) time |
| • Defect rates (detected by internal quality controls) |
| • Ratio of good items produced to good items entering the process |
| • Ratio of waste, scrap, or rework to total units produced |
| • First pass yields                                        |
| • Number of new products to market                         |
| • Percentage of sales from new products                    |
| • Percentage of sales from proprietary products            |
| • New product introduction vs. Competitors’ or plan        |
| • Time required to develop new products                    |
| • Percentage of products for which first design meets customer specifications |
| • Time required from beginning of development work until new product has generated enough product to break even |

### Learning and Growth

<table>
<thead>
<tr>
<th>Can the company continue to improve and create value?</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Results from employee satisfaction surveys</td>
</tr>
<tr>
<td>• Percentage of key employee turnover</td>
</tr>
<tr>
<td>• Revenue per employee</td>
</tr>
<tr>
<td>• Value-added (revenue minus externally purchased materials, supplies, and services) per employee</td>
</tr>
<tr>
<td>• Ratio of revenue or value-added to employee compensation</td>
</tr>
<tr>
<td>• Ratio of number of employees qualified for specific jobs versus anticipated entity needs</td>
</tr>
<tr>
<td>• Number of suggestions for improvement per employee</td>
</tr>
<tr>
<td>• Number of employee suggestions implemented</td>
</tr>
</tbody>
</table>

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Diagnostic Tool 5-D

EVALUATING INFORMATION REPORTING FORMAT

Purpose: The purpose of this questionnaire is to identify the client’s information needs and to develop a preliminary assessment concerning whether existing information is responsive to these needs.

Instructions: The answers to these questions are most helpful when considered separately for each important value-chain activity. Questions directed at the entity as a whole tend to result in answers that are too general to provide useful suggestions for improvement. Questions organized according to accounting area (for example, receivables or inventory management) typically result in answers that are too narrow and may miss the larger business implications. (For additional guidance on identifying key value chain activities see chapter 2.)

Questions should be directed to client personnel most responsible for that value-chain activity (inbound logistics; operations; outbound logistics; marketing and sales; service).

Value-Chain Activity __________________________________________

1. What information about the performance of the activity are you currently receiving, both internal and external?

2. What is the source of the information? Is the information accurate?

3. Do you have access to adequate benchmarking information about competitors?
4. What information about the performance of the activity do you wish you had?

5. Is there a readily available source for this information within the company? If not, where could this information be obtained outside the company?

6. Why is this information (both received and not received) relevant for decision making?

7. Is the information received in a format that readily identifies what action needs to be taken, or must raw data be manipulated to make it useful?

8. Do you find yourself manipulating the information you receive to make it more useful? If so, how do you change it?

9. Is the information received in a time frame that allows you to effectively monitor events and activities and allows for prompt reaction?
Diagnostic Tool 5-E

SUMMARY OF STAND-ALONE CONSULTING ENGAGEMENTS

When obtaining an understanding of the client's information systems, you may identify opportunities for additional stand-alone consulting engagements. The following pages identify some of those engagements. A brief description of each engagement is provided along with signs you should be alert for which may indicate that your client is a prime candidate for the service. "Resources" indicates where to go to obtain information on how to perform the engagement, including detailed explanations, work programs, engagement letters, and other practice aids. Asterisk ratings (on a four-point scale with "****" as an excellent resource) and comments on these resources are the author's opinion.

The possible stand-alone consulting engagements discussed in this Diagnostic Tool are—

1. Design Performance Measures and Performance Measurement System

2. Develop a Budget and Budgeting Process

3. Benchmark the Client Against Similar Entities
<table>
<thead>
<tr>
<th>Service</th>
<th>Design Performance Measures and Performance Measurement System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Analyze entity objectives.</td>
</tr>
<tr>
<td></td>
<td>Design a balanced scorecard of financial and nonfinancial performance measures.</td>
</tr>
<tr>
<td></td>
<td>Design and implement a system to capture performance measures.</td>
</tr>
<tr>
<td>Signs to look for</td>
<td>Management lacks information to manage the business.</td>
</tr>
<tr>
<td></td>
<td>Entity has not identified key financial and nonfinancial measures.</td>
</tr>
<tr>
<td>Resources</td>
<td>AICPA Continuing Professional Education (CPE) Course Assurance Services: Performance Measures (*). Light on explanatory text. Does include practice aids, including engagement letters and examples of performance measures developed by PPC.</td>
</tr>
<tr>
<td></td>
<td>Practitioners Publishing Company (PPC) “Performance Measurement Services” included as a separate chapter in the Guide to Nontraditional Services (**). Does a better job with explanatory text but offers no examples. Includes extensive examples of performance measures and other practice aids.</td>
</tr>
<tr>
<td></td>
<td><em>The Balanced Scorecard</em> by Robert S. Kaplan and David P. Norton (Boston: Harvard Business School Press, 1996) (***)). A definitive source on performance measurement, widely accepted. The book is easy to read and follow with many examples. A detailed case study at the end illustrates how to implement the balanced scorecard approach for your client.</td>
</tr>
<tr>
<td>Other</td>
<td>This service may be “institutionalized” by your firm. That is, once you develop an expertise, you can market the service to other companies.</td>
</tr>
<tr>
<td>Service:</td>
<td>Develop a Budget and Budgeting Process</td>
</tr>
<tr>
<td>----------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>Description:</td>
<td>Help client prepare a financial budget. Design and implement a formal financial budgeting process.</td>
</tr>
<tr>
<td>Signs to look for:</td>
<td>Client has no existing process or budget. Existing budget information is not used for decision-making purposes because—</td>
</tr>
<tr>
<td></td>
<td>➢ Information is inaccurate.</td>
</tr>
<tr>
<td></td>
<td>➢ Information is not timely.</td>
</tr>
<tr>
<td></td>
<td>➢ Reports are difficult to read.</td>
</tr>
<tr>
<td></td>
<td>➢ Reports do not contain relevant information.</td>
</tr>
<tr>
<td></td>
<td>➢ Existing budget is too time-consuming or difficult to prepare.</td>
</tr>
<tr>
<td>Resources:</td>
<td>AICPA Management Consulting Services (MCS) Practice Aid, Developing a Budget (*). Contains detailed example. Focuses on developing a budget, not necessarily design and implementation of a budgeting process.</td>
</tr>
</tbody>
</table>
### Service: Benchmark the Client Against Similar Entities

**Description:**

Determine key financial and nonfinancial ratios used to manage and evaluate companies in the client’s industry.

Obtain current and recent historical financial and nonfinancial ratios for similar companies.

Compare client’s ratios to comparable companies.

Update the analysis on a regular basis.

**Signs to look for:**

Accounting firm has several clients in the same industry.

Accounting firm has easy access to benchmarking information.

Client management is unaware of performance standards for similar companies.

Client has expressed an interest in information on competitors.

**Other:**

This is the type of product that can be institutionalized within the accounting firm. Offering the service will establish the firm’s reputation as a leader in the industry.
CHAPTER 6

TECHNOLOGY PLANNING AND USE

WHAT THIS CHAPTER IS ABOUT

You don’t have to be a computer expert to help your clients think strategically about their technology investments. This chapter is not about becoming a computer consultant or developing a technology consulting practice. Rather, the chapter approaches technology in the way other topics have been approached in this book—as a way to better understand the client’s business and how it might be improved. This chapter builds on your skills and expertise as a business adviser, and focuses on the strategic value of your client’s computer systems and whether those systems have been implemented in a way to realize that value.

The first half of this chapter discusses ways to analyze your client’s use of technology to determine how well it fits with the client’s overall business strategies. The second half of the chapter explores some common computer use issues you may uncover during your audits.

Keeping Current on Technology Matters

Becoming a computer “guru” is not required to implement the suggestions contained in this chapter. However, you do need to be current on technology developments to identify ways your client can benefit from improved planning and use of technology. Two excellent information sources provided by the AICPA to keep you current on technology matters are—

1. *Journal of Accountancy*. Almost every month the *Journal of Accountancy* publishes an article on technology matters. Annually, it publishes an overview of current developments in computer hardware, and periodically, it reviews the features and performance of leading accounting software packages. At a minimum, you should keep copies of these articles in one place where they are easy to retrieve. Review these articles on occasion to see which ideas make sense for your clients.

2. *Top 10 Technologies*. Each year the AICPA conducts a survey of two to three dozen CPAs who are knowledgeable on technology matters. These CPAs are asked to rank the technologies that will have the biggest effect on the profession in the coming year. Details on the top ten of those technologies are then published in book form by the AICPA. Read this book, and keep a copy in your library for easy reference.
STRATEGIC PLANNING FOR TECHNOLOGY

Case Study
Chesapeake Cable

Chesapeake Cable is a cable television company located in Virginia. The current owner bought the company four years ago because he thought it was undervalued. Operating costs were bloated, and one of the primary reasons was because of antiquated technology. The new owner made a significant investment in new computer systems and automated many tasks that previously had been performed inefficiently.

The savings realized through automation were significant but not as much as the owner had hoped. He recently told his CPA: “I want us to be a leading-edge company. The technology is changing so fast. There must be a better way to leverage that and really change this business.”

Using Technology to Implement Business Strategies

The experience of Chesapeake Cable is not unique. During the last thirty years or so, organizations have invested billions of dollars in computer technology, thinking that their investment would pay off in productivity gains and cost reductions. For the most part, those investments have not paid off to quite the degree that some had planned. Some of your clients may have had a similar experience.

One of the lessons companies have learned is that when information technology is used merely to automate preexisting processes, productivity gains are minimal. Real gains come only if—

➢ The technology is integrated with the company’s overall business strategies.

➢ Business processes are changed to accommodate and maximize the benefits of the technology.

Chapter 2 described two basic business strategies: cost leadership and differentiation. A recent survey of companies implementing new computer systems examined the relationship between technology and overall business strategies.¹

The first technology strategy focused on cost savings and improved management controls. The second strategy focused on differentiation with a distinct customer orientation—in implementing a new computer system the companies’ primary objective was to improve customer service, quality, flexibility, and speed. These improved capabilities in dealing with customers would help to differentiate them from their competitors.

The study sought to analyze productivity in terms of hard numbers such as revenue, labor costs, and capital costs. Surprisingly, it was the differentiation strategy that focused on the “soft” benefits—customer service, quality, and so on—which had the best productivity performance, significantly higher than those that used other technology primarily as a means to cut costs.

In other words, your clients should avoid the narrowly focused strategy of using computers merely as a means to reduce costs. Instead, to fully realize the benefits of technology, they must identify ways to use the technology to add value to their products and differentiate themselves in the minds of their customers.

Of course, it may be that your client has failed to articulate a clear strategy for its technology function. Some business owners either shy completely away from technology planning or change only when forced to do so. Other people may be “gadget freaks” and simply must have the latest technology as soon as it becomes available. Not surprisingly, the survey found that those companies that had no coherent technology strategy fared worst of all in terms of productivity and profitability improvement.

As a business adviser to your clients, your first task should be to understand the business owner’s attitude and strategy toward technology upgrading and maintenance. If your client has no overall strategy, you can help develop one. If your client does have a strategy, help the client to identify ways that technology can be used to improve customer service, quality, flexibility, and speed.

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**Chesapeake Cable, continued**

The CPA asked the owner of Chesapeake Cable what steps the company had taken to differentiate itself from other cable companies. The owner replied that Chesapeake Cable was trying to differentiate itself through customer service. Recently, the company reorganized its customer service department to more efficiently handle customer service calls.

Chesapeake Cable handles diverse customer service calls. For example, customers have questions about billing, repairs, service availability, programming, and level of service. Under the previous organization, different groups within the company supported different customers. This approach created problems.

- Customers with questions about several different topics got bounced around from department to department.
- One department could have several callers on hold waiting for help, while another department would have open phone lines.
- It was difficult for the company to maintain a critical mass of customer service representatives within each department.
To provide better service to their customers, the company decided to try a "universal representative" approach to customer service. Under that approach, they created a pool of customer service representatives, each of whom had broad training in every area and in-depth training and expertise in one particular area. Calls from customers came in and were answered by one of the customer reps in the pool.

But the owner admitted that this approach also was less than ideal. Customer reps answered too many different types of calls. For example, a sales-type call would be answered by a person highly skilled in repairs, or a new trainee would get the same number of calls as a person with ten years of experience. Left to a random or first-come, first-serve basis, customers would not receive the benefit of having their calls answered by the most qualified person in a particular area.

The ideal solution was to have a system in which the most highly qualified person answered the customer's call in the shortest time possible. The CPA suggested that the owner should de-emphasize using technology as a way to cut costs. Instead, future technology investments should support the company's differentiation strategy to create the ideal customer service system.

Technology and Information

Chapter 5 drew a distinction between data (raw facts) and information (knowledge derived from facts). That chapter focused solely on information, how to identify information needs and present information in a way that is most helpful to its users. But what about the data underlying the information? Those data are captured, stored, and processed by computers. Thus, computer technology provides the critical link between data and information.

Different users have different information needs. To respond to those needs, many companies mistakenly end up creating several different stand-alone computer systems. For example, accounting may have one system, marketing another, and operations a third. Multiple computer systems are far from ideal. Duplication of data entry and data redundancy lead to inefficiencies and increase the chance for error. Additionally, stand-alone systems pose a different set of computer security risks.

Stand-alone systems are not necessary. The needs of different users can be met with a properly designed, integrated computer system. Such an integrated system is comprised of two components:

1. The data (data architecture)
2. The processes for accessing that data (process architecture)

A data architecture specifies the information needs of the business, regardless of the functional and geographical boundaries of the company.
Chesapeake Cable focused only on the customer service activity of the company’s value chain. To perform that activity, customer service representatives need data on a variety of matters, including—

- Customer billing records.
- Repair history.
- Service availability.
- Current programming.

Other business activities need access to data, some of which are the same data used by the customer service representatives. For example, Chesapeake Cable’s accounting department needs access to customer billing records; the marketing people need access to service availability.

The concept behind creating a data architecture is to identify all the information needs of the company and to enter them just once into the computer system. This will cut down on redundancy and help ensure the reliability of information.

Data architecture should be comprehensive and also quite stable. Over time the information needs of the business should be relatively unchanging. What changes are the ways in which that information is accessed and used.

A process architecture describes what a user does with the information specified in the data architecture. A process architecture represents the activities of the business. Unlike the data architecture, the process architecture should be flexible and able to adapt quickly to changes in the organization. For example, if the marketing and sales department of Chesapeake Cable decided to target a new market for specified service, it would still need access to customer, programming, and service information, but the ways in which this information was organized and pulled together would have to change.

The distinction between data and process architecture is important for technology planning. Data architecture (the data people need to carry out their business activities) should be comprehensive and inflexible. Process architecture (how users access the data) should be specific to the business process and flexible. In that way, one computer system can provide information to a diverse group of users.

The following diagram illustrates how an integrated computer system supports all the information needs of a company’s value chain.
The diagram shows an integrated computer information system supporting all activities in the company’s value chain. The integrated computer system itself is comprised of two elements: the data and the way those data are accessed.

The ultimate goal of an integrated computer technology system is for the system to become woven into the fabric of the business. A truly integrated system offers many advantages, including—

- **Quicker delivery of new products.** Information that can be moved quickly so decision makers can reduce the amount of time spent making decisions. For example, the physical movement of a paper-based purchase order can take days using interoffice mail. That same purchase order can be delivered immediately using email, allowing for a much quicker approval.

  A study by McKinsey & Co. found that high-tech products delivered six months late earn 30 percent less profit over five years. On the other hand, products delivered on time but 50 percent over budget reduce profit only 4 percent.\(^2\) Entities whose competitive advantage lies in delivering new products quickly to the market must have the ability to make decisions quickly. This ability can be made possible through technology.

- **Team building.** In the past, departmental “silos” have been built according to function. For example, in a public accounting firm, the traditional functions were audit, tax, and consulting. Many companies are now moving toward establishing cross-functional teams. These teams are organized according to business processes and information.

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As information is shared throughout the organization, each part of the company can easily see and better understand how other parts of the company works. An integrated information system demands that each person give, receive, and act on information received from others, and this in turn can facilitate team building.

Flatter organizations. A recent trend in business management is to make organizations flatter by eliminating middle managers and moving decision making to the field. The idea is that field personnel are better equipped to respond quickly to the needs of customers than someone more removed from the process.

But the key to decision making is information. The only way field personnel will be able to make good decisions is if they have the information they need when they need it. For that reason, technology is one of the keys to creating flatter organizations.

Chesapeake Cable, continued

The CPA agreed to help Chesapeake Cable find a solution to its customer service dilemma. He started by calling colleagues who worked for companies that might face similar issues. After several calls, he was told of a software product called Resume Router, which probably could solve the problem, and he contacted the vendor.

The CPA did not consider himself a computer expert by any means, but after spending time talking with a sales rep, he believed the software had promise. He reported his findings back to the owner of Chesapeake Cable, who then engaged the CPA to act as a “project manager,” supervising the design and installation of the system. “I don’t have anyone on staff to do the job,” the owner said. “You’re smart. I trust you.”

Using the software, the CPA and the vendor were able to design a system that linked customers with the most highly qualified customer representatives. Under the new system, a customer’s call comes into the phone system, which sends it to the computer. The computer, a Pentium-based personal computer (PC) maintains a database of information about all the customer reps and their areas of expertise. The software then matches the caller to the most qualified rep and transfers the call. Customer reps can see the waiting calls on their own PCs.

With this new system, the company is handling the same volume of calls with 20 percent fewer people. More importantly, they are providing better responses quicker to their customers.

The next step is to integrate the system even more into the company’s other value-chain activities. The company has a telemarketing program, and they are trying to add a feature to the software that would help with telemarketing. For example, the software would monitor the volume of calls and if, say, five reps had not
received a call during the previous half hour, then three of them would receive notification over their PCs to begin making outbound calls to potential customers.

The CPA also recommended that the company integrate the system with the database that keeps track of its customers’ accounts, the services they subscribe to, and any problems they have experienced in the past. If customer representatives had immediate access to that information they would be able to provide even better service to their clients.

TECHNOLOGY USE

Not all of your clients will have a need for technology planning and design. For these companies, focus your attention on the way existing technology is being used. The following section describes some commonly encountered technology use issues that (1) should be addressed by your client and (2) could provide you with an opportunity for additional services.

The broader issues associated with planning and design usually must be recognized and addressed by higher-level engagement team members. In contrast, computer use issues oftentimes are identified by staff auditors during the performance of fieldwork.

Hardware and Software Acquisition

Many companies shop for computer equipment based solely on price. Unfortunately, as an acquisition strategy, this can create problems. In addition to price, your clients should consider compatibility and technical support.

When acquiring computer hardware and software, you can help your client develop sound policies, including the following:

- Establish vendor relationships. Work to establish long-term relationships with a select group of vendors. Look for vendors who are reputable and can offer high-quality technical support. Even if you have to pay a little more for the equipment up front, maintaining compatible machines and having access to good service will save you much more over the long term.

- Set standards. The company should establish standard hardware configurations for different groups of users. They also should establish software standards for the entire organization.

- Match computers and people. The most powerful computers should go to those with the heaviest computing tasks. This may seem obvious, but in many organizations, the newest, most powerful computers are allocated according to organizational rank, which

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frequently has nothing to do with computing needs. (In fact, usually there is an inverse relationship—the highest-ranking members in an organization have only minimal computer needs.)

- **Rotate computer purchases.** Rather than replace all computers at once, develop a rotation program. Replace a half to a third of the computers each year. Give the new machines to those who require them and rotate their old machines to others.

- **Train Users.** Any computer implementation plan must provide for adequate training of the users. A common mistake for most small businesses is a failure to adequately train employees on the use of new computer systems.

Many CPA firms have formed alliances with accounting software vendors to become a value-added reseller (VAR). As a VAR, the CPA firm becomes trained in a vendor’s products and then works to recommend, install, and sell that product to the firm’s clients. The margins on reselling are high, generally ranging from 30 percent to 50 percent. In return, most vendors require the VAR to produce a minimum volume of sales.4

**Spreadsheet Use and Design**

Electronic spreadsheets have become ubiquitous. One of the most powerful features of spreadsheets is that end users can design them relatively quickly and easily. Spreadsheets also are flexible and essentially freeform in design, which allows them to be used for a variety of purposes.

Unfortunately, these same aspects of spreadsheet programs that make them so powerful also make them susceptible to error. Even the smallest error in a spreadsheet can produce greatly erroneous results. For that reason, companies should have spreadsheet design policies and procedures. These policies and procedures should cover the following basic areas:

- Spreadsheet layout and design
- Documentation
- Review of spreadsheets and spreadsheet templates
- Security
- Formula design and use
- Imbedded controls to check for consistency and reasonableness
- Creating and using macros

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4 A good summary of VAR programs can be found in Paul Demery, “Providing a Technological Edge to Businesses,” *Practical Accountant* (March 1996): 36. Additionally, *Accounting Technology* offers a monthly column devoted exclusively to VAR.
Modifying and deleting spreadsheets

Transferring data

When your staff is in the field, they should take note of how the client designs and uses spreadsheets. Be alert for signs of poorly or improperly designed spreadsheets. Audit differences, even minor ones, should be investigated to determine if they were caused by faulty spreadsheets. Diagnostic Tool 6-B is a questionnaire to help the staff identify spreadsheet design weaknesses.

As your client's business adviser, you can help your client in a number of ways, including—

Designing spreadsheet policies and procedures.

Training the client's staff in proper spreadsheet use and design.

Developing a spreadsheet template library.

Another problem with spreadsheets is that they often are used in situations they should not be, which creates inefficiencies and errors. The most common mistake is using a spreadsheet in a situation in which a database would be more appropriate.

In a database, data are stored independently of each other and accessed via queries asked of the program. For this reason, a database is flexible and can respond to the needs of many users. A database also cuts down on the amount of data redundancy and increases data consistency.

Help your client determine whether a spreadsheet or database would be the best tool for the job. The flowchart on the next page provides a decision tree to help determine which software is appropriate.

Data Structure. If the relationships between the columns and rows of data are known in advance and will not change, a spreadsheet is a good choice. If the intended use of the data is not fully known and subject to change, a database is more appropriate.

Update Frequency. This measures how often data and formulas are added, changed, or deleted. Spreadsheets work best if the update frequency is low, no more frequent than monthly.

Primary Use. Spreadsheets are excellent for performing "what if" analyses involving various formulas and assumptions. Spreadsheets also work well for analyzing summary data. Databases are best if the primary purpose of the application is to provide management with fixed and ad hoc reports generated from existing stored data.

Data Control. If the application is being used to capture source data, and control over the accuracy and integrity of these data is important, then a database is a better choice.
Flowchart
When to Use a Spreadsheet

Data Structure  Update Frequency  Primary Use  Data Control  Best Solution

Fixed

High

Analysis
High
Database
Low
Spreadsheet

Low

Reporting
High
Database
Low
Either

Low

Reporting
High
Either
Low
Spreadsheet

Low

Analysis
High
Either
Low
Spreadsheet

High

Reporting
High
Database
Low
Database

Low

Analysis
High
Database
Low
Spreadsheet

Low

Reporting
High
Either
Low
Spreadsheet

Variable

High

Analysis
High
Either
Low
Spreadsheet

Low

Analysis
High
Either
Low
Spreadsheet

Low

Reporting
High
Database
Low
Either

5 Taken from James E. Hunton and M.K. Raja, "When Is a Database Not a Database? (When It's a Spreadsheet)," *Journal of Accountancy* (June 1995): 89.
Security

Traditionally, most entities have approached computer security by describing the computer system as a collection of hardware and software. This chapter introduced the notion that a computer system is really a vital link in gathering raw data, processing it, and disseminating information. Viewed in that light, what your clients need is not necessarily a data processing security plan, but an information security plan, one that identifies potential information security risks and offers ways the entity can protect itself from such risks.

The traditional approach to computer security says that any computer security system must monitor and control physical and logical access. Although physical and logical access are important, they are not the only elements to a comprehensive information security plan. In their book The CPA’s Guide to Information Security, John Graves and Kim Hill Torrence describe the following attributes of an information security plan.

- **Privacy and Isolation.** Users of the computer system, together with the entity, should be considered the owners of the information they enter onto that system. Like any other asset the user owns (for example, a house or car), the right to use that asset is vested in the owner. Absent express permission to use that asset, non-owners are prohibited access.

  Information must be protected from unauthorized access, both within the entity and outside the entity. Although “hackers” and unauthorized users outside the entity tend to get more recognition in the press, the biggest threat to unauthorized access comes from within the entity.

  For a stand-alone PC, restricting access usually is a matter of restricting physical access to the computer. In a network system with multiple users, restricting access is more difficult and requires an access control software system.

- **Data Integrity.** Owners of information and the programs that process or create that information need to be assured that the information is safe from tampering. Deletion and alteration of information should be possible only with the consent of the information’s owner.

- **Availability and Consistency.** The computer system and the information it contains must be protected against threats that degrade performance or eliminate or reduce access. That is, the owners of information must have the ability to access their information quickly, whenever they want it. Additionally, they should be able to count on the system to function the same way every time. Users of a computer system require the system to behave as expected.
➤ **Auditability.** The system administrator must be able to identify the parties responsible for actual or attempted breaches of security. The ability to identify and possibly prosecute those responsible for security problems is essential if the entity is to enforce its information security policies.

With unlimited time and money it would be possible to devise an information security policy that was virtually foolproof in every area. But of course, no one has unlimited time and money, and the goal of a security policy is not to make every area impenetrable. Instead, you should work with your client to put measures in place that are the most cost-efficient and least inconvenient, while still protecting the value of the computer system to the entity.

The starting point for developing a cost-effective information security plan is to analyze the risks that threaten your client’s data and information system. By performing a risk analysis, your client can determine—

➤ Which assets need to be protected.

➤ How these assets can be protected.

➤ The severity of risks that threaten the assets.

To perform a risk analysis, start by identifying all assets in the information system which need to be protected.

➤ **Hardware.** List all hardware items necessary to get work done.

➤ **Software.** List all software programs installed on the system, including operating system software and utilities such as backup programs.

➤ **Data.** List all data files and on-line documents contained on the system.

Once these items are listed, the users should rate the importance of each item on a scale of 1 to 10. Items that are of critical importance to the functioning of the entity should rate a 10.

Next, assign a cost value to each asset. For the purpose of a risk analysis, replacement cost usually is the most relevant cost for hardware and software. For data, cost can be assigned by estimating what it would cost to recreate the data. Multiplying the two variables results in a product that can be used to rank the relative value of each asset to the entity. The result of such an asset analysis might look something like the following table.
Remember that the risk analysis is a function of both value and importance. If something is important but relatively cheap to replace (such as the database management software above), the entity need not devote a great deal of resources designing a security system to protect it. Likewise, if the asset is expensive to replace but of little importance to the entity, for example, the graphics software in the above table. Entities should devote most of their time and effort to protecting assets that would be expensive to replace or reproduce and that are of vital importance to the information processing function. In the example above, the company should focus its security efforts on protecting its computer and its customer list.

Once the entity has identified the assets that need protection, it can begin to identify threats to achieving its security objectives. The specific threats will vary depending on the structure and complexity of the entity’s computer system. For example, an entity with mostly stand-alone computer systems will have a different set of risks from a system based on a company-wide intranet and interconnected local area networks (LANs).

Possible threats include—

- Unauthorized access to data.
- Unauthorized access to programs.
- Unauthorized changes made to data, for example, through the use of utility programs.
- Theft of information.
- Theft of computer hardware.
- Improper denial of authorized access to data or programs.
- Hardware or software failure, for example, those caused by viruses.

The information security policy should address each of the significant risks that threaten high-value/high-importance assets. In addition, the policy also should address the following issues.

- Authorized Users. The security policy should explicitly define who is authorized to use which resources.
Acceptable Use. The security policy should provide guidance to users as on what is considered appropriate usage of the system. For example,

— Users should not share accounts or passwords.
— If file access permissions are in place on the system, users should not assume they have permission to read a file simply because they have permission from the file system to do so, nor should they think that they have the right to modify a file they do not own simply because the operating system allowed them to do so.
— Breaking into accounts should be prohibited.
— Password cracking should be prohibited.
— Users should not be permitted to disrupt service to other users.
— Copyrighted software should not be duplicated.

Responsibilities and Rights. Both users and system administrators should be informed of their responsibilities and rights for system security. For example, users should be given guidelines on how to establish and maintain their passwords. System administrators should be told what their duties are for performing backup procedures. All employees should know what company information is considered proprietary or sensitive.

Policy Violations. The entity should clearly spell out the consequences for violations of the information security policy. There are two basic ways an entity can proceed once it determines its security controls have been compromised.

1. "Protect and proceed." An intruder’s processes are immediately terminated once an intrusion is detected.
2. "Pursue and prosecute." An intruder is allowed to continue activities while the system administrators trace the intruder’s identity.

Of course, key to both of these strategies is that the entity have a strong auditability feature to its security policy which allows it to detect and identify the presence of unauthorized activity.

IMPLEMENTING THE IDEAS CONTAINED IN THIS CHAPTER

You don’t have to be a computer expert to implement the ideas contained in this chapter, but you should have working knowledge of the current capabilities of computer technology.

Start by understanding the big picture—as a strategic business partner to your clients, this is how you add value. Understand your client’s approach toward technology and whether that approach
lends itself to long-term strategic planning. If your client has no technology plan, this is your chance to help develop one.

Understand your client’s key business processes and how technology is used in those processes. Focus your client on linking its technology plan to its differentiation strategy. If your client views technology merely as a way to cut costs, it will not realize all the benefits technology has to offer.

Coach your staff to use the audit fieldwork to look for ways to improve the client’s use of computer technology. There are many telltale signs that can lead you to a stand-alone consulting engagement, including incompatible computer systems; a computer purchasing plan that focuses exclusively on cost, spreadsheet misuse, and errors; lack of spreadsheet policies and procedures; and ineffective computer security measures.

To help you develop the in-house expertise necessary to provide advice on technology matters, identify one or more firm members who are knowledgeable about computers and enjoy working with them. These people may have skills your clients lack. With a minimum of training and direction, firm members with an aptitude for computers can begin to provide consulting services in areas such as training, spreadsheet design, and computer system selection.

**Summary**

Most gains from technology result from using the technology as a way to differentiate the company from others. Companies that focus exclusively on using computers to automate tasks and cut costs will not realize the same benefits as companies that use technology to improve quality, customer service, flexibility, or speed.

Technology serves as the critical link between raw data and information. The structure of the data and the way the data are accessed are the two key components to creating an integrated computer information system, which should be the goal of all clients, large and small. To create such a system and to link this system to the company’s overall business strategies require both foresight and long-range planning. Many small businesses lack such planning, which provides a service opportunity for CPAs.

To realize the full benefits from their technology, companies also should develop policies and procedures pertaining to the acquisition of computer hardware and software, the use of spreadsheets, and computer security. Entities that fail to do so provide additional service opportunities for the business adviser CPA.
Chapter 6—Diagnostic Tools

Diagnostic Tool 6A  The Partner’s Game Plan
Diagnostic Tool 6-B  Checklist for Technology Use
Diagnostic Tool 6-C  Checklist of Spreadsheet Policies and Procedures
Diagnostic Tool 6-D  Checklist of Error-Checking Procedures
Diagnostic Tool 6-E  Summary of Stand-Alone Consulting Engagements
Diagnostic Tool 6-A

THE PARTNER’S GAME PLAN

Partner commitment and involvement are essential for an audit firm to successfully implement the business adviser approach to auditing. Engagement partners should be able to answer the following questions about their client’s technology. If they can’t, they should get answers by talking to their clients. If necessary, additional research may be needed to prepare for the discussion with the client or to supplement the answers provided.

➢ How does the client plan to use technology to implement its business strategy?
  •  Follow up. If the client has trouble articulating a coherent technology plan, this is an opportunity to suggest ways to help your client develop such a plan.

➢ Does the client’s technology plan have a sufficient focus on differentiation? Does it identify ways to use technology to improve customer service, quality, flexibility, and speed?
  •  Follow up. Most productivity and profit gains in technology come from a differentiation strategy. If your client has focused strictly on cost savings, this is an opportunity to explore ways to use technology as a means of differentiation.

➢ Has the client realized all the gains it originally planned from recent technology investments? If not, why?
  •  Follow up. As indicated above, your client may have focused exclusively on automating existing tasks without thinking strategically about how technology can improve existing business practices. Another common error is the failure to invest adequately in training. Look for opportunities to help the client redefine its business processes or train its employees more effectively.

➢ Which business activities are most dependent on computer technology? How so?
  •  Follow up. During the performance of audit fieldwork, the staff can be directed to focus on the computer use policies and procedures in these areas, for example, by considering the questions contained in Diagnostic Tool 6-B.

➢ Does the client have a comprehensive information security plan?
  •  Follow up. An information security plan considers the computer to be a part of a broader information system. As such, a security plan should address the security of information, not just computer hardware and software. If your client lacks such a plan, this is an opportunity to explore ways to develop one.
Diagnostic Tool 6-B

CHECKLIST FOR TECHNOLOGY USE

The following checklist should be used to evaluate the client’s use of computers and technology. These questions can be asked of the client by audit staff members during the performance of fieldwork. The questions should relate to specific user groups or business activities. (See the “Spreadsheet Use and Design”, section in this chapter for further guidance.)

1. Do any of the following conditions indicate that the client could benefit from the development of a computer acquisition policy?
   - Purchasing decisions based solely on price
   - Compatibility problems between machines
   - Old equipment that lacks the capability (hard drive capacity, random-access memory (RAM), processor speed) to run required applications
   - Lack of established standards for hardware configurations and software

2. Do any of the following conditions indicate that the client could benefit from improved computer training?
   - Inefficient use of computer resources or inability to take advantage of computer system capabilities
   - Errors in end-user computer applications (for example, spreadsheets)
   - Lack of formal training programs

3. Do any of the following conditions indicate that the client could benefit from the development of spreadsheet design and use policies? (See Diagnostic Tool 6-C for a checklist of spreadsheet policies and procedures and Diagnostic Tool 6-D for a checklist of error-checking procedures).
   - Poorly designed or documented spreadsheets
   - Spreadsheet errors
   - Inappropriate use of a spreadsheet in a case in which another application (for example, a database) would be better
   - Lack of a spreadsheet template library
4. Do any of the following conditions indicate that the client could benefit from the development of a computer information security policy?

➤ Loss of information due to a breach of security

➤ Lack of an existing policy that adequately addresses—

— Unauthorized access to data

— Unauthorized access to programs

— Unauthorized changes made to data, for example, through the use of utility programs

— Theft of information

— Theft of computer hardware

— Improper denial of authorized access to data or programs

— Hardware or software failure, for example, those caused by viruses
Diagnostic Tool 6-C

CHECKLIST OF SPREADSHEET POLICIES AND PROCEDURES

The following checklist should be used to evaluate the design and accuracy of individual spreadsheets. In determining which spreadsheets to review, focus on the ones used to make important decisions in the client's key activities. The review of spreadsheets should go beyond the accounting department to include all significant spreadsheets, even if they do not have financial statement implications.

This checklist requires the preparer to have a good understanding of spreadsheet design techniques. For additional guidance on spreadsheet design, refer to the AICPA Consulting Services Practice Aid No. 93-6, Assisting Clients in Developing Policies and Procedures for Electronic Spreadsheet Applications.

A significant number of "No" responses indicates that the client could benefit from a stand-alone engagement to develop policies and procedures for spreadsheet use and design.

Spreadsheet Validation

Is a spreadsheet the proper tool for the application (compared with other programs such as a database)?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Does the spreadsheet arrive at a logical answer with the given assumptions?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Does a simple test of the formulas prove correct?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Does a hard-copy printout of the spreadsheet exist with all formulas and documentation?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Spreadsheet Design

Does the spreadsheet follow organization policy with respect to—

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heading?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Documentation?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Input?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data storage?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formulas?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Macros?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6 Originally published in AICPA Consulting Services Practice Aid 93-6, Assisting Clients in Developing Policies and Procedures for Electronic Spreadsheet Applications.
Does the heading contain—

<table>
<thead>
<tr>
<th>Item</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client identification, title, or file name?</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Name of author?</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Date of design?</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Date of prior update?</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Record of testing?</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Spreadsheet objectives?</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Map of sections or range of names of sections?</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Date stamp?</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Table of contents?</td>
<td>___</td>
<td>___</td>
</tr>
</tbody>
</table>

Does the documentation section contain—

<table>
<thead>
<tr>
<th>Item</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>The objectives of the software and any assumptions used?</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Instructions for use and maintenance?</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>A summary of control procedures built into the spreadsheet?</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Clear labels for formulas and data input?</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>A map of the sections for large spreadsheet applications?</td>
<td>___</td>
<td>___</td>
</tr>
</tbody>
</table>

Does the input section—

<table>
<thead>
<tr>
<th>Item</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contain informative headings?</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Allow for a logical sequence of data entry?</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Provide for error trapping?</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Omit computations?</td>
<td>___</td>
<td>___</td>
</tr>
</tbody>
</table>

Does the formula section—

<table>
<thead>
<tr>
<th>Item</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have protection turned on?</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Have complex formulas broken down into small steps?</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Avoid nested assumptions?</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Take advantage of absolute and partial absolute cell references?</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Use the @SUM function rather than the + operator?</td>
<td>___</td>
<td>___</td>
</tr>
</tbody>
</table>

Does the macro section contain—

<table>
<thead>
<tr>
<th>Item</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard macro functions and names?</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Understandable instructions for their purpose?</td>
<td>___</td>
<td>___</td>
</tr>
</tbody>
</table>

Does the report section contain—

<table>
<thead>
<tr>
<th>Item</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client or file name?</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Report title?</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Relevant dates?</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Footing and cross-footing error testing?</td>
<td>___</td>
<td>___</td>
</tr>
</tbody>
</table>

Has the worksheet been assigned the correct class, drive, and location?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>___</td>
<td>___</td>
</tr>
</tbody>
</table>

Is the data confidential?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>___</td>
<td>___</td>
</tr>
</tbody>
</table>
Diagnostic Tool 6-D

CHECKLIST OF ERROR-CHECKING PROCEDURES

The following checklist should be used to assess the accuracy of your client’s spreadsheets. In determining which spreadsheets to review, focus on the ones used to make important decisions in the client’s key activities. The review of spreadsheets should go beyond the accounting department to include all significant spreadsheets, even if they do not have financial statement implications.

This checklist requires the preparer to have a good understanding of spreadsheet use. For additional guidance on spreadsheet use, refer to the AICPA Consulting Services Practice Aid 93-6, Assisting Clients in Developing Policies and Procedures for Electronic Spreadsheet Applications.

A failure of one or more of these tests may indicate that the client could benefit from a stand-alone engagement to develop policies and procedures for spreadsheet use and design.

Principal Checking Procedures

➢ Review documentation for compliance with company standards.
➢ Review macro documentation for clarity and functionality.
➢ Print results and review for reasonableness.
➢ Test arithmetic computations.
➢ Print formulas and range tables. Compare range names in table with range names in formulas.
➢ Trace linked ranges to related spreadsheets.
➢ Determine whether the “Undo” function is enabled.

Additional Checks Performed by Spreadsheet Audit Function

➢ Identify circular references.
➢ Determine consistent range references across columns.
➢ Identify cells with “ERR::”.

7 Also first published in AICPA Consulting Services Practice Aid 93-6.
Diagnostic Tool 6-E

SUMMARY OF STAND-ALONE CONSULTING ENGAGEMENTS

When obtaining an understanding of the client’s planning for and use of technology, you may identify opportunities for additional stand-alone consulting engagements. The following pages identify some of those engagements. A brief description of each engagement is provided along with signs you should be alert for which may indicate that your client is a prime candidate for the service. “Resources” indicates where to go to obtain information on how to perform the engagement, including detailed explanations, work programs, engagement letters, and other practice aids. Asterisk ratings (on a four-point scale with “****” as an excellent resource) and comments on these resources are the author’s opinion.

The possible stand-alone consulting engagements discussed in this diagnostic tool are—

1. Developing Policies and Procedures for Electronic Spreadsheet Applications
2. Value-Added Reselling
3. Installing a Computerized Accounting System
4. Review or Design of Computer Information Security Policies
## Service: Developing Policies and Procedures for Electronic Spreadsheet Applications

**Description:**
- Develop spreadsheet templates.
- Develop spreadsheet design standards.
- Train client employees in spreadsheet design and use.

**Signs to look for:** Numerous spreadsheet errors
- Improper or inefficient use of spreadsheets (for example, use of a spreadsheet instead of a database)
- Recent or planned change to a new spreadsheet program
- Lack of timely or accurate information from spreadsheets
- Management relies on spreadsheet-developed information to make critical business decisions

**Resources:** AICPA Consulting Services Practice Aid No. 93-6, *Assisting Clients in Developing Policies and Procedures for Electronic Spreadsheet Applications* (**`). Includes checklists and a good description of the policies and procedures that should be in place and why.`
<table>
<thead>
<tr>
<th>Service:</th>
<th>Value-Added Reselling</th>
</tr>
</thead>
</table>
| Description: | Develop a relationship with a computer software vendor.  
Sell and install that vendor’s products for existing clients and others. |
<p>| Signs to look for: | This service is market-driven and not necessarily driven by observed needs at an existing client’s business. |
| Resources: | “Providing a Technological Edge to Businesses,” by Paul Demery, <em>Practical Accountant</em> (March 1996) (***) Provides an excellent introduction to value-added reselling. Includes a summary of the VAR programs offered by seventeen different software vendors. |</p>
<table>
<thead>
<tr>
<th>Service:</th>
<th>Installing a Computerized Accounting System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description:</td>
<td>Describe client’s need for a computerized accounting system.</td>
</tr>
<tr>
<td></td>
<td>Select the hardware and software that are most appropriate for identified needs.</td>
</tr>
<tr>
<td></td>
<td>Install the system.</td>
</tr>
<tr>
<td>Signs to look for:</td>
<td>Client request</td>
</tr>
<tr>
<td></td>
<td>Current accounting system is inadequate due to expansion or contraction in client’s business, changing information needs of management, or technological obsolescence</td>
</tr>
<tr>
<td>Resources:</td>
<td>Practitioners Publishing Company (PPC) <em>Guide to Installing Microcomputer Accounting Systems</em> (not reviewed). Two-volume guide that includes practice aids to manage the engagement process, including understanding client needs and choosing the best computer accounting system. Second volume includes product-specific work plans and installation tips.</td>
</tr>
<tr>
<td>Other:</td>
<td>Development of skills in this area can result in developing a specialized service that can be marketed to others.</td>
</tr>
</tbody>
</table>
Service: Review or Design of Computer Information Security Policies

Description: Analyze the risks associated with the computer and information system.

Identify and describe the security policy issues.

Develop comprehensive information security policy.

Signs to look for: Lack of an existing information security policy

Ineffective or poorly designed security policy

RESOURCES


“Are Consulting Splits a Sign of the Times?” *CPA Managing Partner Report* 14 (3).


ABOUT THE AUTHOR

Michael J. Ramos was formerly an audit senior manager with KPMG Peat Marwick. Since 1991, he has worked as a consultant and author, specializing in auditing and accounting matters. He lives with his wife and their two dogs in Denver, Colorado.

Other AICPA Publications by Michael J. Ramos

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Auditing Estimates and Other Soft Accounting Information
Considering Fraud in a Financial Statement Audit: Practical Guidance for Applying SAS No. 82

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