

Conducting a practical and effective needs analysis

Increasingly, computerized business systems are a key to business vitality. It is almost impossible to name a business that could not improve operations by more effective use of information automation to design and produce goods and services, to track and respond to market demands, and to make timely and informed decisions.

Of course, computer technology is not an end in itself. It is only a means. But done correctly, this technology is the most powerful means for business to accomplish its goals and meet its needs today.

Setting the Foundation

The foundation of effective business improvement is the assessment of realistic needs. If you are the owner and/or general manager of a business, you already perform a type of needs analysis every time you evaluate your financial performance. But financial performance measures generally fail to identify the specific business processes that can be improved or maximized; and it gives no clues about how a desired change can be achieved.

To conduct effective needs analysis, start by setting aside an afternoon to focus on the task. Then put on your detective hat and try to see your company's operations with the relative objectivity of an outside consultant.

Consider what a sober philosopher, Alfred Whitehead, said:

"Necessity is the mother of invention." It is a silly proverb. "Necessity is the mother of futile dodges" is much nearer the truth.

In other words, beware of past "fixes" masquerading as solutions in your business.

Next, begin your investigation with the assumption that improvement opportunities abound in every area of your business. Even if you conduct only a fast and informal needs analysis, it can lead to the identification of major improvements, and can offer the foundation for a more formal requirements definition—leading to the successful development of new or better solutions.

Let's consider three straightforward techniques for conducting your own business needs analysis: 1) WOTS-Up Analysis, 2) Process/Function Analysis, and 3) Management Brainstorming.

WOTS-UP Analysis

The acronym WOTS stands for Weakness, Opportunities, Threats, and Strengths. This



INFORMATION ADVANTAGE

Steve Fleischmann

technique involves the systematic identification of the business needs that fit into each of these four categories.

For each functional or organizational area of your company, ask yourself:

- What weaknesses do we need to overcome?
- What opportunities do we need to exploit?
- What threats do we need to thwart?
- What strengths do we need to leverage?

You can easily apply this technique yourself or together with your management team.

Process/Function Analysis

This is a straightforward type of analysis that can be quickly conducted by a standard survey of the managers of the various areas in your company. Each manager is asked to complete a standard process/function matrix. Each survey participant is asked to mark each relevant cell of the matrix with a code that defines his or her perceived responsibility.

PR=Primary Responsibility, P=Participatory Responsibility, R=Review Involvement

PROCESS	FUNCTION / OPERATIONAL AREAS					
	MARKETING	SALES	ACCOUNTING	PRODUCTION	PERSONNEL	DISTRIBUTION
Sales Forecasting	PR	P				R
Order Processing		PR		R		P
Product Marketing	PR	P				
Billing		R	PR			
Inventory Mgt.		P		PR		P
Shipping/Receiving		R	R	R		PR
Purchasing	P	P	P	PR	P	R
Hiring			R		PR	
Financial Planning	R	R	PR	R	R	

By comparing the results of this survey, you can easily identify areas where there is a lack of management balance and where important improvement opportunities exist.

Management Brainstorming

A very effective technique for uncovering hidden or disguised needs is to conduct a brainstorming session with your key people. Ideally, you should set aside a day for an off-site meet-

ing to avoid distractions. The purpose of a session is to let your key personnel present information about needs in their respective area of responsibility as well as their observations of needs in other areas of the business.

To be successful in this effort, the session leader should present a clear set of ground rules, similar to these.

- 1) Everyone must participate openly.
- 2) Participants must contribute in all discussions.
- 3) There are no wrong answers; no silly ideas. No idea can be challenged or criticized. Complete candor is expected.

Someone who is not an active participant should be designated to take notes on all ideas that are discussed. The session leader starts the discussion with questions like: What are your area's major needs this year? Over the next three years? What are your current vulnerabilities? Current hassles? Current concerns? What is the most time-consuming activity you perform as a manager? What do you see as potential roadblocks to meeting your current goals? What factors most influence success in your area? Where can technology be put to more effective use in your area? You could have a magic box that could dig out and organize all relevant data, what output would it give you?

When the session is completed, a summary of the needs identified in each area is distributed to each participating manager. Then, you should ask each participant to submit a report that ranks each need according to its impact on both current and longer-term operations. From a compilation of these reports you can build a high degree of confidence about your company's most critical needs; the opportunity areas that offer the high payback potential.

Of course, you can use several techniques to increase the thoroughness of your analysis and bolster your confidence in the results. When all the results of your analysis have been organized, they comprise a preliminary action plan for developing your new and better solutions.

Steve Fleischmann is a project manager at Engleman Associates, Inc. EAI is a Vancouver-based consulting firm that specializes in custom business systems for small and medium-size companies. He welcomes questions or comments about the article and can be reached at 699-2300.

14 March, 2001

Mark Engleman, President
Engleman Associates, Inc.
607 East Reserve Street
Vancouver, WA 98661

EAI March 1995 Column for VBJ / Final Draft

Column Title: **Computing for Advantage**

Article Title: **How to Conduct a Practical Needs Analysis for Your Company**

Increasingly, computerized business systems are key to business vitality. It is almost impossible to name a business that could not improve operations by the more effective use of information automation to design and produce its goods and services, to track and respond to market demands, and to make timely and informed decisions. Of course, computer technology is not an end in itself. It is only a means. But done correctly, this technology is the most powerful means for business to accomplish its goals and meet its needs today.

In this monthly column we will be discussing practical techniques and procedures that can assist you in more effectively using and managing your computing resources and in gaining new business information advantages. In this first article, we are beginning at the beginning: needs analysis.

Setting the Foundation

The foundation of effective business improvement is the assessment of realistic needs. If you are the owner and/or general manager of a business, you already perform a type of needs analysis every time you evaluate your financial performance. But financial performance measures generally fail to identify the specific business processes that can be improved or maximized; and it gives no clues about how a desired change can be achieved.

To conduct effective needs analysis, start by setting aside an afternoon to focus on the task. Then put on your detective hat and try to see your company's operations with the relative objectivity of an outside consultant. Resolve to not be misled by the apparently ingenious or inventive "systems" that your enterprise has already evolved. Recall what a sober philosopher, Alfred Whitehead said:

‘Necessity is the mother of invention’ is a silly proverb. *‘Necessity is the mother of futile dodges’* is much nearer the truth.

Beware of the futile dodges that masquerade as “solutions” in your business!

>>> (Insert Figure 1 here.)

Next, begin your investigation with the assumption that improvement opportunities abound in every area of your business. Even if you conduct only a fast and informal needs analysis, it can lead to the identification of major improvement opportunities, and can offer the foundation for a more formal requirements definition—leading to the successful development of new or better solutions.

Let’s consider three straightforward techniques for conducting your own business needs analysis:

- WOTS-Up Analysis
- Process/Function Analysis
- Management Brainstorming

WOTS-UP Analysis

The acronym “WOTS” stands for weakness, opportunities, threats, and strengths. This technique involves the systematic identification of the business needs that fit into each of these four categories. For each functional or organizational area of your company, ask yourself:

- What weaknesses do we need to overcome?
- What opportunities do we need to exploit?
- What threats do we need to thwart?
- What strengths do we need to leverage?

You can easily apply this technique yourself or together with your management team. Table 1 is a brief example of how WOTS Up works.

>>> (Insert Figure 2 here.)

Process/Function Analysis

This is a straightforward type of analysis that can be quickly conducted by a standard survey of the managers of the various functional areas in your company. Each manager is asked to complete a standard process/function matrix that relates business processes with the company’s different functional or operational areas. Each survey participant is asked to mark each relevant cell of the matrix with a code that defines his or her perceived degree of process responsibility.

By comparing the results of this survey, you can easily identify areas where there is a lack of management balance and where important improvement opportunities exist. Figure 2 is an example of a process/function matrix.

>>> (Insert Figure 3 here.)

Management Brainstorming

A very effective technique for uncovering hidden or disguised needs is to conduct a brainstorming session with your key managers. Ideally, you should set aside a day for an off-site meeting to avoid distractions. The purpose of the session is to let your managers from the major functional areas in the company present information about their respective needs as well as needs in other areas of the business. To be successful in this effort, the session leader should present a clear set of “ground rules.” The basic ground rules should be similar to these:

1. Everyone must participate openly.
2. Participants must contribute in all discussions.
3. There are no wrong answers; no silly ideas. No idea can be challenged or criticized. Complete candor is expected.

Someone who is not an activate participant should be designated to take notes on all the ideas that are discussed. The session leader can start the discussion with questions like:

- What are your area's major needs this year? Over the next three years?
- What are your current vulnerabilities? Current hassles? Current concerns?
- What is the most time-consuming activity you perform as a manager?
- What do you see as potential roadblocks to meeting your current goals?
- What factors most influence success in your area?
- Where can technology be put to more effective use in your area?
- If you could have a magic box that could digest and organize all relevant data, what output would it give you?

When the session is completed, a summary of the needs identified in each area is distributed to each participating manager. Then, you should ask each participant to submit a report that ranks each need according to its impact on both current and longer-term operations. From a compilation of these reports, you can build a high degree of confidence about your company's most critical needs and the opportunity areas that offer the highest payback potential.

Of course, you can use several techniques to increase the thoroughness of your analysis and bolster your confidence in the results. When all the results of your analysis have been organized, they comprise a preliminary action plan for developing your new and better solutions.

Next Month...

In our next article, we will be discussing how to design a simple management information system (MIS) that can substantially improve your control and planning efforts. Specifically, we

will describe how to design a basic database system that captures key data and generates cogent reports for operational control and planning.

We welcome your comments or questions about this article, and we invite your suggestions for future topics. Write to us at: Computing for Advantage, Engleman Associates, Inc., 607 East Reserve Street, Vancouver, WA 98661.

Steve Fleishmann is a Project Manager at Engleman Associates, Inc. EAI is a Vancouver-based consulting firm that specializes in custom business systems for small and medium-size companies. He can be reached at: 206-699-2300.