How to measure the value of Information Technology

Have IT projects ever gone over budget and failed to meet expectations? Would you like to be able to measure and evaluate IT performance in your organization and know if it is delivering true business value? This article provides a method for assessing IT's value to your company.

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Bridging the Divide between Business and Technology

How to measure the value of Information Technology
Using the VIE IT value calculator

You know that Information Technology (IT) is essential for your business success. You know that you are spending a lot of money on IT. But do you know if you are truly getting value from your IT investments? Is it difficult to articulate IT's value in your organization? Have IT projects ever gone over budget and failed to meet expectations? Do you have this nagging feeling that something is wrong with IT in your organization but you cannot quite put your finger on it? Would you like to be able to measure and evaluate IT performance in your organization and know if it is delivering true business value?

There is no doubt that IT is complex and that IT people seem to speak a different language. However, there is no reason why you should not be able to understand and articulate IT's value in your organization. In this article you will learn about the role of IT in your organization and how you can use the IT Value Calculator to figure out how well IT is performing in your organization.

Why do I need IT? What can I do with it?

Most people would agree that Information and Information Technology are critical to business success. Why is it that many businesses find it hard to manage their IT people and systems? The answer lies partly in the fact that compared to other disciplines, IT is relative newcomer in the executive suite. IT as a discipline is only about 40 years old. Also most business executives in small and mid-size companies are simply not aware of guidelines for managing their IT assets. This results in poor utilization of IT and thus a poor return from IT assets.

Technology can play many roles but generally speaking how it is used falls into one of these four key categories:

1. IT Infrastructure - Storage and Transmission of raw bits and bytes. Devices for human interfaces with information. One of the most basic roles of IT is to store raw data or information about the business and to make it available on devices such as PCs and mobile devices in a format suitable for interaction and consumption. Without IT infrastructure you cannot have information.

2. Collaboration and Co-ordination between people - With the implementation of appropriate tools in any organization, IT allows people to communicate efficiently with colleagues over

large distances and collaborate on and co-ordinate projects in support of their work. The lack of good collaboration tools will result in much slower team communication, delays on projects and the potential for knowledge walking out of the door when employees leave.

3. Business transaction automation - IT systems automate many of the key business processes in an organization. Examples include sales order processing, manufacturing automation and customer service automation. Without quality business transaction automation systems, the speed of critical business processes such as order processing and collections will be much slower therefore directly impacting the bottom line.

4. Decision making - Using the vast stores of information available from transactions in automated business processes, status information on business metrics is extracted to understand current state of the business. Key decisions for future business strategies can be made. Not having good decision making tools is like flying a plane with only one or two gauges instead of the ten to fifteen normally available. You are essentially flying blind without the ability to react to changes in the market or business conditions. You could crash easily!

What am I getting out of IT in my business?

Since Information Technology is a relatively young discipline, many people in the executive suite struggle with understanding how to utilize IT for business success and especially how to measure the value of IT for their company. Sometimes technology seems to have a mind of its own. Sometimes it is difficult to deal with IT people who only seem to be interested in the latest tech gadget or toy but not in helping business leaders with their technology problems. Many times, IT projects do not go well and it is not clear why costs keep increasing and timelines keep getting extended with no end in sight. These factors can help develop a mistrust of technology in any organization and a gap is created between business and technology.

IT Business value is relative. It can be tangible value. It can be perceived value by customers of IT services. It can be business value perceived by executives. It can be some combination of all of these. It seems like a daunting task to create a trustworthy IT scorecard.

Definition - The business value of IT is the significant benefit provided to the business in its language of measurement.

But how to measure this complex entity? You need a tool to do this. Based on our practice experience, there are three approaches to measuring the value of IT:

1. Simple - Using the VIE IT calculator

2. Medium complexity - Using the balanced scorecard approach (based on the business balanced scorecard first introduced by Norton and Kaplan in 1992) to develop IT metrics

3. High complexity - Using a detailed approach to map out IT processes, goals and metrics and formally aligning IT metrics to business metrics

Approaches #2 and #3 above are more thorough and detailed and will be the subject of future articles in this series. In this article we describe the use of a straightforward tool - The VIE IT value calculator.

Using the VIE IT value calculator

The VIE IT value calculator is a very simple and intuitive approach that any executive team can use to understand where the company stands on its utilization of IT. Almost all business functions use IT to some degree. Therefore all functional business executives should have a view of how well IT is serving their needs as well the overall business needs. The IT Value Calculator uses a very intuitive survey approach to ask 10 questions of the executive team and aggregates results to get an aggregated composite rating of value from IT.

Please see the IT Value Calculator reproduced below. The dimensions of the IT value calculator include many different elements of the types of value that IT should deliver in any organization. Though this tool can be further customized for any business, the basic elements of IT value included in the tool are:

1. Marketing value - a measure of how IT enables marketing efforts in the organization including the company web site, use of social media, tools used for brand development and marketing spend analytics tools.

2. Customer sales value - a measure of how IT enables automation of the customer experience with purchasing company products and services. IT also includes fulfillment automation systems.

3. Customer service value - a measure of how IT enables customers to look for answers to their questions and problems in using company products and services.

4. Product/Service value - a measure of how well technology is assisting or enabling the design of existing and new innovative products and services for the company.

5. Decision making value - a measure of how well technology provides analytics information for making good business decisions.

6. Employee collaboration value - a measure of how well technology is being used for employees to collaborate in their daily work processes.

7. Business Process Automation - a measure of how well IT systems are handing the automation of key business processes such as financial, HR, sales, operations and others.

8. PCs and mobile devices - a measure of how well IT client devices perform and allow users to do their jobs efficiently and easily.

9. IT projects - a measure of how well IT projects are being executed to add new IT value in the company.

10 Overall end user satisfaction - a measure of the overall satisfaction of end users with IT services.

The IT value calculator is a survey tool taken by the executive suite. Each of the dimensions is rated on a scale of 1-10. The tool provides suitable and intuitive language for what a 1 or 5 or 10 rating would feel like. Once rating data is gathered and aggregated across executives, the results provide key insight into the value of IT.

A composite rating between 1 - 4 indicates that your organization is not leveraging IT well. A rating between 4 - 6 indicates average value from IT. A rating between 7 - 10 indicates that you are in the top 30% of IT savvy firms who take advantage of IT to win in the marketplace.

IT Value Calculator

The four absolutes about IT are that IT is pervasive, essential, expensive and hard to do right.
You can use the survey below to assess the maturity of IT in your company as well the value it is currently providing in your business.
Is your organization getting real value from your technology investments. Take the 10 point survey below to determine how much value you are truly getting.

Scale ------>	1	5	10
Marketing Value	We don't have much of an online presence. Just a plain information oriented web site that has not been updated for a while. I don't believe we get many leads from it.	We have recently improved our web site with much better content for our propective customers. Customers are able to find us easily and a good percentage of our leads now come from our web site.	Our technology is great in enabling our firm's marketing. We have a very well organized website which is well integrated with Information Systems to help us optimize our marketing budget.
Customer Value - Products	We don't use much technology to help our customers buy our products. We use traditional mechanisms to reach our customers.	A large percent of our customers use our technology to learn about our products and services. A large number of purchases are made through our online presence.	Our technology is critical in our ability to interact with our customers. Not only do they purchase our product through out online presence, they also give us great feedback for improvements.
Customer Value - Customer Service	We still use traditional mechanisms for our customer service processes. We have not yet leveraged the Internet to enable our customers to solve product related problems.	We do have an online mechanism for customers to logde customer inquiries and complaints.	Our technology support our customer service really well. Not only can our customers find solutions to problems easily online, they also collaborate routinely to better use our products and services.
Product/Service Value	Technology does not play much of a role in the design and delivery of our products.	We are just now beginning to explore technology solutions to design our products. Some of our products are delivered through online mechanisms. We need to work on making them better.	We could not deliver our products and services without our technology. We use technology tools to design our products and innovate new ideas that will serve our customer's needs.
Decision making value	We get little help from our technology in making business decisions. We cannot trust the information in our systems.	We get some good information from our systems. But it takes a long time for our technology department to develop new reports.	Our systems provide great information for decision making at all levels of the organization. They can be adapted quickly and easily. New reports are intuitive and easy to create.
Enabling Employees - Collaboration Tools	Our e-mail is not reliable. It seems to work most of the time. We have no collaboration systems to speak of. Just a shared electronic filing system.	Our e-mail works well. We are just starting to implement a basic collaboration system. Hopefully it will increase the flow of ideas and the productivity of our employees.	We have great, well-integrated collaboration and social networking systems. They allow our employees to share information electronically and also manage projects well.
Business Process Automation	Our systems are outdated, difficult to use and generally get in the way of doing our work. They seem to be down a lot.	Our systems are OK. They seem to work most of the time and do what is needed. Nothing fancy.	Our technology systems are state of the art. They are well integrated, intuitive and easy to use. We truly depend on them.
PCs and mobile devices	Our PCs are outdated, slow and get in the way of our jobs. Our handheld computers breakdown often and prevent us from accessing critical applications.	Our PCs work OK. But they are pretty old. Sometimes we have problems that seem to take a long time to resolve. We could use newer mobile devices.	Our PCs were recently upgraded and handheld devices work great. We hardly ever have any problems.
IT projects	Most technology projects are behind schedule and over budget. Many fail to achieve goals. Projects are proposed by the technology group.	We have a process for managing projects but it is run by the technology department. It works some of the time. We don't have much visibility to it.	Our process for creating and managing business technology projects is world class. We establish clear priorities for IT investments and project success.
End User Satisfaction	Our end users seem to have issues with their PCs and basic IT services most of the time. I don't really understand why that is so.	Our users are generally happy with their IT services. Sometimes we have problems but IT seems to be be responsive to their needs and get issues resolved most of the time.	Our users are quite happy with their technology solutions. They work really well. Changes are handled by the IT folks in a reasonable amount of time and at reasonable cost.
Average Score Interpretation			
1-3	Your organization is not leveraging IT to win in the marketplace. Much improvement is possible.		
4-6	Your organization is average in its ability to leverage IT. Improvements can be made.		
7-10	Your organization is in the top 3rd of IT savvy firms who take advantage of IT to win in the marketplace.		

Sample Use of the VIE IT value calculator

Paccess Global is a logistics services company based in Portland. The chart below[1] shows the results of their use of a variation of the IT value tool.
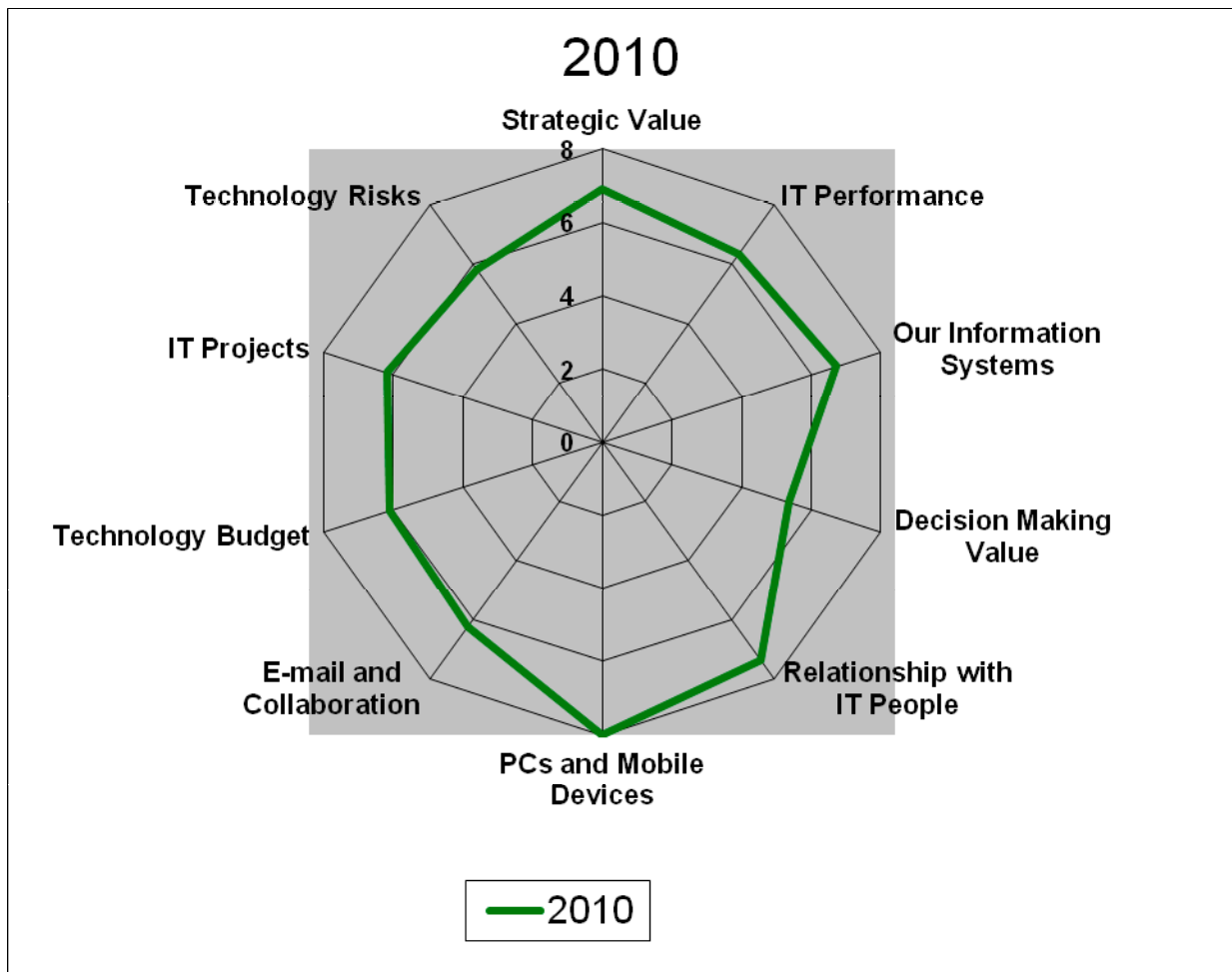
[1] Permission to publish this information has been formally obtained from Paccess LLC.

Summary Data			2010	Range	
Strategic Value			6.91	5-10	
IT Performance			6.36	5-9	
Our Information Systems			6.73	5-10	
Decision Making Value			5.36	3-9	
Relationship with IT People			7.36	5-9	
PCs and Mobile Devices			8	6-9	
E-mail and Collaboration			6.27	4-8	
Technology Budget			6.09	5-10	
IT Projects			6.18	4-9	
Technology Risks			5.82	3-9	
TOTAL			65.08		
Average			6.51		

The Paccess IT value average rating of 6.51 indicates good value from Paccess IT.

As a benefit of using this tool, we found that Paccess executives perceived that the decision making value of IT was average. This information confirmed the CIO's gut feeling that the executives did not have access to good reports and decision making information.

As a result of the confirmation from the survey, the Paccess CIO was able to "find" money for implementing an ad-hoc reporting/analytics tool for the executives. Paccess has operations in several countries including China, Vietnam and Thailand. Now that the executives have access to the new ad-hoc decision making tool, they are able to able to get information more quickly and easily to model business volumes and profitability from operations in these countries and shift and plan resources appropriately. As an example, due to the high probability of inflation in China, executives are able to plan for operations work to be shifted to Thailand where labor costs are predicted to not rise as quickly. Clearly, the use of the IT value calculator led to this bottom line business benefit for Paccess.

As another example of the power of the IT value calculator, a VIE client used the tool and found that IT projects were not delivering expected business value. In particular, the cost of a major IT systems project had ballooned from $1.8M to $2.8M. After further analysis, key reasons included lack of executive involvement and focus as well lack of an experienced business oriented project manager. The corrective action was to hire a seasoned project manager to work on the project. Within about six months, the external more experienced project manager was able to negotiate with IT vendors and bring costs back to about $2.0M. The client realized net savings of $600K as a result of taking this action. Using the IT value calculator had a direct and demonstrable impact on IT project performance!

So what can I do now? to understand how well IT is serving my needs?

Here is a series of steps you can take right now to help you understand the value of IT in your organization. And where improvements are possible.

1. Using the IT value calculator as shown in this article, construct a survey tool for your business. You can also access a copy of the tool here: http://www.viellc.com/page.php?RecordID=5

2. You can either use the tool as is or you can modify it appropriately for your business.

3. Have your company's business executives take the survey. Tabulate the results.

4. Analyze the results to get insight into where IT is not delivering adequate value and where improvements are needed.

5. Take action to make improvements in these areas. Typically issues fall into one of people, process, or technology issues. Your issues may include any mix of the wrong people in IT, weak IT operational processes or inadequate technology systems.

If you don't know how, or don't have the time to do this, hire an expert to do this. Addressing issues they may uncover has the potential to pay many times over for the cost of hiring someone to do this.

Finally, If you have serious feelings that something is wrong with IT in your company but cannot put your finger on the issue, or if there is a set of apparent complex inter-related IT issues, consider performing an IT assessment. VIE offers an IT SnapShot™ that will follow the basic methodology of the IT value calculator to perform a detailed assessment of your company's IT capability in support of your business goals and strategies. The IT SnapShot™ will clearly show what is working well and what areas need to fixed in IT. Remember, IT is essential and expensive but it does not have to be hard to do right. If you can learn how to be technology savvy, you too can learn how to measure and get the maximum possible value from your IT investments!

Author's Biography

Manoj Garg is a founder of Virtual Information Executives, LLC (VIE). He is currently the Managing Partner of VIE and brings over 25 years of senior executive leadership skills and technology management experience with domestic and international operations to VIE's clients.

Manoj's prior experience includes senior executive roles in Higher Education, Technology and Manufacturing organizations. His experience covers a broad array of skills, including Large Scale Technology Infrastructure Management, Outsourcing Management, Information Security Management, Program Management and Enterprise Resource Planning. Manoj has managed technology budgets in excess of $20M. He is noted for creating and implementing innovative solutions that assist businesses in achieving goals rapidly. He has significant outsourcing experience and has delivered successful projects in many overseas locations including Brazil, Argentina, Egypt, Australia, India and China. Manoj serves on several boards of directors and advisory groups for companies.

Manoj is an active member of the Oregon Entrepreneur Network, a non-profit organization whose mission is to provide support activities and mentoring to the entrepreneurial community to foster business growth and employment opportunities in Oregon.

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Bridging the Divide between Business and Technology

VIE is a group of business and IT executives who specialize in IT assessments and in leading IT organizations. We are a five year old company with over sixty satisfied clients. VIE clients range from education, non-profit, healthcare and charitable organizations to financial services companies to large multi-national manufacturing and logistics companies. Clients have had needs ranging from assessments, software selection, IT strategy development, and interim CIO services, to IT investment strategy. All our consultants have been operational executives with over twenty years of practical business and IT experience. Our differentiating feature is that all VIE consultants have been operational executives with responsibility for running day to day IT and business operations for organizations all while leading multi-million dollar IT projects. VIE consultants are experienced in a variety of services including IT Assessment, Project Management, IT Strategy planning, Application Software Selection and Implementation, and IT Governance.

Our primary goal is to build trusted relationships with our clients. By having no contractual agreements with any product or service vendors but being knowledgeable about many top providers, we are able to bring a very "what is best for the client" approach to our clients. This neutral approach is one level of assurance that we will always wear your hat.

We work with CEOs and other business executives who supervise the IT function to assess the state of technology in their organization and increase technology savvy substantially. Doing this enables them to integrate business and technology to gain the maximum possible advantage.

We work with CIOs to assist them with key initiatives that require senior level expertise. We mentor IT Directors and IT Managers to improve their performance and their leadership and communication skills.

Services include:

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 ❑ Interim and part-time CIO Services
 ❑ IT Strategic Planning
 ❑ IT Governance implementation
 ❑ Enterprise Software Selection and Implementation Services
 ❑ IT Due Diligence for mergers and acquisitions

 For more information about how VIE can help you, please visit www.viellc.com. Or call 503-828-1248.

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