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IT Executive Exchange

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Center for IT & eBusiness

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New Communication Methods

Security

Managing IT Innovation

Learning From Our Best and Worst IT Practices

ITIL and COBIT

College of
Business
Administration

The
University
of Akron

contents

Center for IT and eBusiness	2
IT Executive Exchange	2
New Communication Methods	3
Current Experiences with Social Networking	3
The Bad News	3
Turning Point.....	3
The Good News.....	4
How Does IT Fit In?	4
Generational and Other Business Issues.....	4
Other Points of Interest	4
Social Media is Elusive.....	4
Security	5
Is it Bad to Land on the WSJ's Front Page?	5
Case Study Presented	5
What Happened?	5
Secure State's Answer.....	6
Other Issues	6
State Sponsored Hacking	6
Phishing and Other Attack Avenues.....	7
Good Security Stories.....	7
Conclusions	7
Managing IT Innovation	8
The Present State of Affairs	8
Enterprise Architecture	8
Innovation and Where to Focus	9
The Real Deal	9
Evolutionary vs. Revolutionary Constructs	10
Balanced Scorecard.....	10
Do Whatever You Want?	10
Departing Thoughts	10
Learning From Our Best and Worst IT Practices	11
Measuring Processes	11
Best and Worst Practices	12
Identifying a Best Practice.....	12
Bad Process Examples	13
Choosing Vendors	13
ITIL and COBIT	14
COBIT	14
ITIL	15
The College of Business Administration	16
The University of Akron	16

Center for Information Technologies and eBusiness (CITe)

The Center for Information Technologies and eBusiness was created in 2000 with the mission to teach students and develop faculty in the principals and practices of the related disciplines of information technology and electronic business. The center has a business advisory board consisting of members from more than 40 companies in North East Ohio.

CITe offers tuition scholarship to information systems and eBusiness majors who demonstrate academic excellence. The scholarship is awarded to students at all levels and is renewable. CITe also grants book scholarships to students who are majoring in information systems or eBusiness. CITe's mentoring program is designed to assist in the development of mentoring relationships between business professionals and IS students. Some of the goals of the mentoring program include aiding students in developing networking skills; and increasing connections between students and area businesses.

IT Executive Exchange (ITEE)

The IT Executive Exchange (ITEE) is a group of IT Executives and College of Business Administration professors at The University of Akron that meets about every six weeks to discuss pressing and leading edge IT issues faced by IT executives. The purpose of this forum is to have a healthy exchange of ideas that will be useful to all attendees. It is sponsored by the CITe of The University of Akron's College of Business Administration.

New Communication Methods

Current Experiences with Social Networking

Generally regarded as an internal tool for knowledge management, collaboration, and marketing, social networking practices are beginning to be integrated into many local firms. Presently, utilization among everyone in attendance is limited; however, most in attendance are experimenting and attempting to break new ground.

One company currently hires prospective employees by leveraging the prospects' Linked-In profiles in its background investigations. Observing a Linked-In or Facebook profile might provide a glimpse into a candidate's tastes and sensibilities. In addition, these outlets allow creative expression that can allow a candidate to show off talent and skill levels.

A professor attending the meeting indicated that he preferred YouTube to textbooks because YouTube is current and in real time. He feels students actually learn more from YouTube and consequently utilizes YouTube in many of his classes. A contrast between textbooks (explicit knowledge) and YouTube (which may contain tacit knowledge) was made to illustrate the manner in which authors are attempting to adopt incorporate exposure to a wider range of knowledge in learning materials.

Another representative indicated that her firm has four Facebook accounts but is not sure who controls them. Recently, the company re-acquired its naming rights; however, now the company is wondering what to do next. In addition, a struggle exists as to who in the firm is ultimately responsible for managing social networks. Does marketing, public relations, IT, or the legal department handle this function?

The Bad News

In many cases, utilizing social media is not about what you can do but what you cannot do. Many companies require employees to sign detailed usage policies that explain what employees may not do regarding social media and company representation. Due to recent bad publicity, companies must take a pro-active stance to limit brand image damage resulting from individuals posting inappropriate content to social media websites.

More and more companies utilize social media as part of a comprehensive background examination. Additionally, courts utilize social media for intelligence gathering and evidence procurement. Since most of this data is uncensored, it can be particularly destructive to cases.

Facebook recently launched new privacy settings; however, if an individual downloads an application, previously established privacy settings are overridden and data mining can commence. One participant does not encourage business use of Facebook because of the potential for data mining and identity theft.

The biggest struggle faced concerns attempting to get employees to adopt the new tool and stop using e-mail for collaboration. So far, the implementation remains unsuccessful. Senior management remains the driving force behind adoptions. Many employees do not want to learn anything new. Some of the company's employees asked for a dashboard to help manage communication complexity.

Turning Point

Midway through the meeting a participant asked for advice about how to stop employees from using social media in the workplace. This individual alleged that a loss of productivity traced to the use

The biggest struggle faced concerns attempting to get employees to adopt the new tool and stop using e-mail for collaboration.

of these sites occurs and an intra-company struggle to prevent employee use happens daily. Some of the responses to the question indicated that this issue is not a tool problem, rather a management problem. Further, proper management might actually improve productivity.

Another attendee wondered if the firm that desires to ban social media such as Facebook and Twitter also wants to ban cell phones. In the not too distant future smart phones will outnumber computers and people will connect whether an employer wants them to or not. An employer cannot control all access capability. This participant asked whether this type of control promoted a “Fascist state” and further indicated that this type of control was not likely to occur.

It became quite clear that attitudes about managing employees’ use of social media changed during the course of the meeting. Attempting to ban social media is a poor and seemingly outdated approach. Rather, managing an employee’s utilization of social media to further productivity appears to be the sensible modern approach.

Using social media as a learning tool is a great knowledge management concept and allows easier extraction of knowledge from key people.

The Good News

The meeting changed direction abruptly as a participant suggested switching to positive examples of social networking. An example cited included an individual that successfully leveraged social media and created a unique brand image using informational postings and blogs. Developing tweets about brand name products that everyone reads encompasses tremendous value through added marketing opportunities. These opportunities certainly provide exceptional value for companies successfully adopting social media.

Another company uses social media positively by enabling the sales force to reach out to subject matter experts within the company. This creates a non-linear learning environment. Using social media as a learning tool is a great knowledge management concept and allows easier extraction of knowledge from key people.

How Does IT Fit In?

Does IT manage both internal and external environments? Marketing is IT application driven. Many companies are not managing it at all. Rather, the company states that if an employee uses a tool that crashes a computer then it is up to the employee to fix the computer on their own. Many companies adopt a “do what you want at your own risk” policy.

IT needs to be embedded into business processes. Progressive companies integrate business, IT functions together, and the leaders establish roles each unit plays.

Generational and other Business Issues

Procuring buy-in from the top management remains critical to effective social media implementation. Allocating responsibilities in managing the new roles created by social media is currently uncertain and requires top management involvement. In addition, top management must understand what is happening regarding technology or they might miss an opportunity for implementation.

Other Points of Interest

Litigation or tort reform might play a critical role in the future as personal accountability and responsibility move to the forefront. Protecting companies from frivolous lawsuits in this crazy culture becomes paramount. There is no sense in holding a company responsible if an employee posts something inappropriate on a social media website. Responsibility should rest with the individual in these cases. Why not change the current legal environment?

Social Media is Elusive

No one in the room really talked much about current adoptions or applications. It appears that we are all at the forefront of this emerging phenomenon, trying to wrap our collective arms around this trend, grasping at opportunities to leverage social media.

Security

The two frontiers of “black hat” and “white hat” hacking collided in the Taylor Institute as participants listened attentively to Ken Stasiak, founder of Secure State, as he conveyed intriguing stories about both sides of this mysterious profession. Secure State performs assessments, audits, SOX compliance issues, forensics investigations, and hacking risk management services for clients throughout the US. Ken explained that he becomes a virtual Chief Information Security Officer for clients as they outsource security services to his firm.

Ken indicated that three years ago, his company broke into about 90% of all firms under contract. Today the number is about 75% indicating that improvement and awareness has increased. However, regarding internal breaches, Ken still breaks in 100% of the time if access is granted.

Breaches are easier internally as opposed to externally.

Usually, Ken places a bet with the client to wager on how fast his company can break into the client’s system. To date, the fastest time is two minutes. Breaches are easier internally

as opposed to externally.

Is it Bad to Land on the WSJ’s Front Page?

One of the first questions Ken posed to the group was “is it really a bad thing to land on the front page of the Wall Street Journal.” He presented an example of TJ Maxx stock value increasing after a serious breach occurred. In order to land on the front page of the WSJ, a very serious breach must occur in a very large company. On the other hand, in the global environment, a smaller business hitting the front page due to a security breach can lead to financial devastation.

Years ago, hackers broke into systems and stole credit cards numbers and personal information for the hacker’s individual usage. Today, hacking

provides an extremely profitable opportunity to sell this data. Most breaches today still involve the procurement of credit card or personal identification. Every quarter at NASA Lewis Research Center there is a sting operation involving hackers attempting to break in to NASA’s system to procure information and sell it overseas. In order to become a hacking target, a firm must possess something the hacker wants. When initially assessing a client’s threat level, Ken asks the firm the type of data it is holding. Today, foreigners hack US companies attempting to gain usable info..

Case Study Presented

Recently, Secure State took on a bank client concerning a hacking event that occurred between the bank and one of its clients. The case is ongoing and Ken asked the group to comment and provide insights into how attendees might respond to certain scenarios. A European hacking community targets banks specifically through SQL injections. A hacker procured access to over 2,500 user accounts and transferred \$500,000 to an offshore account. Secure State was hired to determine the extent of the breach and whether or not the bank needed to issue a letter to customers indicating the breaches occurrence. In addition, the timing and content of the potential letter remained unknown.

What Happened?

The security company in charge of monitoring the bank lost sight of the SSL connection. In addition, there were no logging information records to indicate if someone was even in there looking at data. The company that had the money stolen is a manufacturing firm. Secure State visited this company, broke into the company’s system, and was able to transfer money. At this time, Secure State told the bank that it does not have entire liability concerning the breach because the manufacturing firm did not do a sufficient job protecting its own funds. Presently, it is not clear where the \$500,000 transfer occurred. Did the transfer occur because of the breach at the bank or because the manufacturing firm did not possess sufficient controls to safeguard the data? The bank needed to understand how to respond to FDIC auditors in a written letter. What does the bank tell

Security

the FDIC? It is not clear whether the information was even stolen because of the absence of logging information. If the data was stolen, has the data been used?

Secure State's Answer

Secure State adopted the pro-active response and drafted a letter indicating to consumers that their data "MAY" have been compromised. The letter recommended that customers change their individual passwords. In the event of a theft, the bank will provide identity theft protection to the consumer for one year. The bank received very few responses to the letter.

Due to the desire to provide excellent customer service, Secure State and the bank felt it better to allow the customers to change the passwords on their own. From a customer satisfaction point of view, customers may not like being forced and the helpline phone might ring off the hook. However, it might be wise for the bank to force periodic mandatory password changes. Two opposing concepts concerning customer service may be clashing concerning the need to make systems easier to use and the desire to empower customers to maintain their own personal security.

Other Issues

Additional legal issues concerning the case include the software development companies that coded the application. What portion of the blame does this company share, because this channel was the one used to create the breach?

A question came up about how prevalent SQL injects attacks occur. Ken explained that most attacks occur within the application layer. Online banking comprises a complicated tiered functionality comprising many layers including a presentation layer, business logic layer, and data layer. Mis-coding causes approximately 70% of all

attack opportunities. Coders are not perceptive with security issues and they often fail to consider the risks during coding procedures. This problem occurs in all industries according to Ken.


Another question came forward about other countries willingness and level of cooperation to prosecute offenders and recover assets. Banks do not insure transfers of funds. Worms get into systems and causes breaches affecting many small businesses seriously and the bank cannot help them recover the funds. This creates ill will and customer relations nightmares for the banks. A local CIO suggested that Secure State develop a program to help small business understand the risk and teach small business to install controls to safeguard fund transfer. Doing so will mitigate the blame the bank receives for the losses.

It takes six to eight months minimum to figure out what happened when breaches occur. Banks and countries have no input into the matter after the transfer occurs. Since fraud must be proved, it takes six to eight months to understand how the money transferred out. It is possible to figure out where the money was sent but if it was your money, it is your problem and who can help you get it back? Transferring funds is comparable to the old party lines of the 70s and 80s. It is an

open network where many people receive access.

State Sponsored Hacking

A question surfaced about state sponsored hacking. Currently, the US does not understand when a cyber event constitutes an act of war. Today, the US is looking to hire 1000 cyber security professionals within the next three to four years. Part of this recruitment effort will be directed toward setting up teams to investigate cyber warfare as a true avenue of attack. Certain countries like Canada and Israel do have state sponsored hackers that attempt to break into US government systems. Currently, the US does not collaborate with private industry to



Hackers used to desire to help companies. Today, they desire to take down companies and appear to possess a culture of bitterness.

Security

prevent cyber attack. The US possesses the technology to help private business but the knowledge is not being disseminated down to the private sector. Other countries provide much better collaboration with the private sector.

The code of ethics has been lost within the hacking community. Today, banks and other firms ask Ken whether it might become a target. It is better to identify a target ahead of time because once the attack begins it is hard to fight it off. Ken advises companies to fly under the radar and try to avoid making news that might instigate a hacking community. Hackers used to desire to help companies. Today, they desire to take down companies and appear to possess a culture of bitterness.

Another question came forward asking if companies will produce better products that resist hackers and do not require so many patches to be installed. Microsoft 7 might be better because it uses an application blocker. It is possible to specify the apps that can and cannot run using Windows 7. Presently, Microsoft is trying to build in technologies to cushion the effects on security. One solution will never fix all vulnerabilities because security costs considerable money. Security costs should be a normal part of doing business today. As consumers, we expect security to be offered at no cost. Future consumers may pay for security through higher product costs.

Phishing and Other Attack Avenues

Phishing attacks are a huge concern for one attendee. The company may be more vulnerable because the user does not know what not to do rather than with the technology itself. The company has a new training program in place; however, it is not gaining a favorable response. Some comparable issues, such as food security regarding suppliers, do receive plenty of the company's attention.

One former consultant present indicates that companies spend more money on coffee than security. Many CEO's are not aware of the problem.

Some target phishing appears so realistic that it might even be impossible for the average user to detect. Hackers are able to spoof the real thing including addresses so that spam blockers become ineffective. In addition, social media collaboration tools will create many unknown future issues and are a cesspool for attackers.

One solution will never fix all vulnerabilities because security costs considerable money. Security costs should be a normal part of doing business today.

Mobile devices pose another avenue of attack. The airways offer more opportunities for hacking. CEO's are targeted in their homes and travel plans are often hacked. High profile individuals are targets. Today, we do not understand the rationale behind these attacks

or all of the technologies involved.

Good Security Stories

A question surfaced regarding positive security stories or companies that are doing everything right. Ken indicates that the entertainment industry handles security the best. Entertainment businesses, such as casinos, understand that they are a target and they have learned to break fraud and corruption due to extensive experience. Most casinos have far better security measures in place than most banks. Security awareness among casino employees is very high and even suspicious looking customers are quickly escorted out of casino buildings. Conversely, within most banks, most employees do not ask questions and are naïve.

Conclusions

At the conclusion of the meeting, a question surfaced as to what individual participants might do as a result of the presentation. Changing banking passwords ranked the highest amongst the group. Another participant suggested a thorough investigation of vendor systems and other strategic partners of their firm. Worry about social networking tools like Facebook and Linked-In also prevailed. Ken indicated that he has a great social networking policy, investigated by several lawyers, available for the group to review.

Managing IT Innovation

The Present State of Affairs

According to a recent Info World magazine article, a new paradigm shift is taking place. Formally, the concept of customer service involved letting the customer come to you and then giving the customer what they want. Instead, IT is getting much more involved and proactive in its position in the company.

Formally, the IT department's task and internal focus involved reducing costs of doing business. Now concentration is on strategic planning aspects with key objectives. For example, a strategic plan might involve how to use social media to drive outreach and education. There is less chance of IT experiencing budget cuts if it is actively involved in strategy. IT needs to participate and improve core competencies of the firm and co-author strategy. IT needs involvement in far more than just cost cutting.

If IT has a seat at the executive table then they can see what is happening and have a chance to stay ahead of the business instead of always being in a reactionary mode. IT should be an asset instead of an expense. IT needs to be proactive. Collaborating with the business can help the business achieve goals sooner and improve workflow.

The best approach involves allowing IT to be present from the beginning with the executives as they formulate the strategy. If IT is not involved from the beginning then the IT department might feel threatened by the strategy and believe that job loss may follow. If there is cohesion from the top down then good execution will follow. From a technology perspective, anything is possible and all IT needs is a budget and political support. A project needs technology, budget and political support for success.

Regarding the implementation of listening processes, one company has an initiative registry

where any employee can add entries. Cross-functional teams review these entries to see if the initiative can formalize into a charter to gain buy-in. This moves the integration of an initiative up to the conceptual level in order to understand its feasibility. Virtual teams then form to review initiatives making this idea generator more than just a suggestion box. Initiatives drive team creation in order to test feasibility.


The IT ship is led by enterprise architecture and cannot be turned in a square box. Instead, it needs to be turned in the direction where the business is going. An example might entail government healthcare and its influence on strategic direction. IT needs to be able to react to new strategic directions. Vision teams can form from each functional area. Putting together blue sky and green grass initiatives does not necessarily mean the firm will adopt these initiatives but the negative consequences of non-adoption are available to

the team for review.

Enterprise Architecture

Enterprise Architecture is not a function of business strategy because it is a part of IT. Business strategy is built with the participation of IT executives. The insurance industry is trending toward self-service so IT needs to follow this trend and implement complimentary training and technology. A business cannot remain with batch processing on a mainframe system. The business is operational but the product cannot be improved without following trends in order to gain market share and bring about reform.

Business units working in silos will respond differently to trends and this will cause chaos, as the silos will move in different directions. In IT,



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Managing IT Innovation

strategy is about capability not solutions. Capability translates into solutions.

Innovation and Where to Focus

The participants unanimously confirmed that there are no line items on the budget consisting of IT innovation. Most of the IT budget is dedicated toward operation and maintenance and innovation occurs when the firm collaborates with a customer that can afford innovation.

Income statements have a line differentiating income from expense. If what IT does contributes to the top of the line, then IT is in the right camp. If IT is about minimizing expense then IT is operating below the line. It is suggested that if IT desires to make an impact then the focus should lie above the line and innovation dollars should be spent here.

The group was divided about what actually encompasses innovation; however, a few ideas appeared to gain support. The confusion lies in whether the IT technology is new to an individual firm or something new and never seen anywhere. In general, innovation is something new to the firm. It can be a process or something unique and never done before. True innovation is hard for most companies to do because of risk. Change within an organization using benchmarking is less risky and benefits are viewable ahead of time.

True innovation might belong in the realm of a technology company like Intel that comes up with a new chip. Most companies are not going out on a limb to do something never done before. IT remains in the shadow of Y2K. C-Level people feel betrayed by IT and the credibility is limited because of the costs involved with fixing Y2K problems. None of the attendees present has ever implemented something new and never done before.

For IT to matter, innovation must position the firm differently in the marketplace. What really matters is the bottom line of the organization. This is the practical test. If the innovation does not improve the bottom line then it is not successful. If a firm can innovate through systems of collaboration like Twitter or various social networks then the firm has the best chance of success. Innovation is a new way

of doing something or incremental progress. Innovation is relative to a company and depends on the company's risk tolerance. If IT makes changes in a firm with low risk tolerance then that change is innovative. Major companies cannot handle the same level of risk exposure as Yahoo or Google.

A firm needs to take on some risk if it is to make gains. A firm must carefully pick its opportunities for innovation because if it does not then the firm will not be successful or move forward. IT needs to adopt the mentality to pick an opportunity, minimize risk, and go after it.

IT innovation, such as IT R&D, might be the first cut from the budget when times get tough. If the innovation supports competitive differentiation then it may survive but discretionary spending on an R&D innovation is liable to be cut from the budget.

Collaboration is a prerequisite for innovation. It is part of IT being a partner in business innovation and you bring your tools with you to support business innovations. If technology comes first then the project is likely to fail or become contrary to what the rest of the executive team wants to do. The successful CIO is business savvy first and helps to solve the business problem. Functional processes are primary needs and technology comes second. In many instances, technology comes first and this is not a good way to build innovation.

The Real Deal

How IT can collaborate with the executive team is the real issue. The desirable outcome is that the other executives say that the CIO is an integral part of driving the business and what he brings with him are just tools of the trade. Instead of the view that "this is what technology can do for you" it is desirable to adopt the view that IT can partner with the business and these are the tools we have to help.

If IT innovation has no end result justification, like a failed ERP implementation, then that is worse than doing no innovation. If the innovation is a success then it is looked upon, as a business innovation that IT was a partner on and the business cannot do without IT because it is an

Managing IT Innovation

integral part of the innovation. IT must collaborate with the business as it moves toward the goal. IT must use its ability to understand innovation in its area and apply it to the goal of the firm.

Evolutionary vs. Revolutionary Constructs

Evolutionary innovation involves reducing costs and revolutionary innovation drives competitive innovation. Business can concentrate on both aspects of innovation. Another term for revolutionary innovation might be disruptive technology. Another construct involves taking painkillers or vitamin pills. Some innovation is a painkiller and it is similar to getting the cost down, meeting competition, or industry regulations. Taking a vitamin pill peps up the firm and is more discretionary. Only so much incremental innovation can be accomplished before diminishing returns sets in. At some point, the new disruptive technology needs adoption. Analysis is necessary to determine an appropriate cross over point. In addition, it may be important to understand where the business is concerning the growth stage.

Some innovations have surprised us because of how far we can take them. This is evolution as opposed to revolution. Improvement comes at a stable comfortable pace. If the price drops low enough, people will switch. Technology users might switch but the business might not care about the new technology if it functions in the same way. In this case, the physics of the product might be revolutionary but the result turns out to be evolutionary to the end consumer.

Balanced Scorecard

The next question concerned whether or not firms are utilizing balanced scorecards to evaluate the aspects of the new technologies to underscore particular importance or significance. In most cases, scores are arbitrary and opinion biased. Some may score an innovation as a ten while others score it a five. In some cases, the innovation might be popular but provide no real value. A better approach involves finding out what people like and dislike about the technology. When technology is presented and everyone is exposed to different points of view, similar to how customers perceive a

product or service, then a forum for discussion can proceed. It is important to understand what people need.

Do Whatever You Want?

The next question involves whether or not firms allow time for employees to investigate whatever they want. Some present do allow time until the budget is cut. Others do this in their own time due to individual passion. In most cases, companies do not allow any free time for innovation. Firms will utilize the services of a consultant rather than utilizing existing employees to discover and implement new technologies. If firms started allowing time for individual innovation, it would have a valuable impact and provide engineers with something interesting to work on rather than having to fix and repair all the time. Practicing creativity, sharing, and listening to problems provides significant value to both the firm and employee.

Organizations should focus on the transparency of an employee by fostering an environment that allows an employee's outside interests to enter the workplace. Without this transparency, there is a certain disconnect. Business problems do not go away when the budget is cut so innovative solutions are a great idea and need to become more efficiently enabled. As business problems become increasingly pronounced, budgets should not be cut, otherwise the business will run into a typical countercyclical problem.

Business problems do not go away when the budget is cut.

Departing Thoughts

How are you viewed by equals at your level? Are you business savvy or tech savvy? Ask your counterparts how they perceive you. If they say you are tech savvy over business savvy then something is wrong. It is a great idea to state your position or commitment to the company. Indicate that you are here to make a difference.

Learning From Our Best and Worst IT Practices

ITEE participants gathered in the Murphy Room to discuss best and worst practices in order to benchmark performance, gain fresh insights and avoid pitfalls. After a brief period of exchange, the group agreed that efficiency and effectiveness comprise two different dimensions. Effectiveness does not denote efficiency and efficiency does not denote effectiveness. It is difficult to have both efficiency and effectiveness; rather, one generally comes at the expense of the other.

The first responder indicated that the conclusion was good but the question is not really whether the process is efficient; rather, the question regards whether or not there is a better way of performing the process. If an organization is getting the results it wants but an opportunity exists to get the same result more efficiently, then that process becomes an ideal. Receiving an effective result the most efficient way is critical. Both measures are relevant.

Efficiency and effectiveness are based entirely on a cost structure in most firms. High cost equates to high efficiency and high effectiveness and low cost equates to low efficiency and low effectiveness.

Measuring Processes

The moderator then asked if the participants had any other ways of measuring the performance of processes within their organizations. Coming up with convoluted metrics to measure efficiency and effectiveness provides distorted views of reality. Metric obsessive organizations theoretically can point the company in one direction but in practice push the company in the opposite direction. One participant gave an example of a development manager's evaluation on an effective development rate. The cost of labor was either an average rate or an actual cost and using both rates separately to form different portions of the analysis skewed the results dramatically. The skewed results caused the firm to hire outside consultants as opposed to using internal employees because the cost comparisons were inaccurate.

Another responder measures cost and includes cost with efficiency and effectiveness regarding change management practices. This practice allows the

firm to ascertain the value of upgrading a software package. The firm uses COBIT to hit the right target regarding the maturity of the process. The higher you go in the framework indicates higher cost.

Another responder mentioned a dashboard perspective using red, yellow, and green lights. Green is optimal but might not be cost effective. Cost is only dealing with efficiency and not effectiveness. Effectiveness measures might include how well the firm does with customer service.

The moderator then asked how participants go about measuring processes and checking whether the processes are working or adding value for the customers. In addition, do firms check each process and determine whether it is a value added process for all the firm's stakeholders? Can this be a good measure of best and worst practices?

One participant responded that his firm measured the quality of change management practices by measuring the quality of the change by the number of system hours. He notes that as system time goes down, the process is becoming increasingly efficient. All process definitions include a metric section indicating efficiency or effectiveness. All processes must include measurable metrics.

Processes link to business outcomes. One participant links change control to systems availability. Importance of process should have a one-to-one relationship with the key outcomes the business is trying to achieve. This allows the business to focus on key processes that affect outcomes. It is possible to have great internal control but the business may be going downhill. The business may be operating in the upper right quadrant but still go down if it is not measuring the right things or becoming too metric obsessive and losing site of what the business is really about. There are many qualitative considerations as opposed to quantitative.

Regarding IT, it is easy to lose focus. A business must focus on leading indicators of the causes rather than the lagging effects of the outcomes. A firm must measure what it can control. It is easy to manipulate the statistics to say what you want. This might be an airline advertising a 98% on-time

Learning From Our Best and Worst IT Practices

arrival by padding an extra 15 minutes to every schedule instead of actually solving the reasons for the delay. The airline will list an hour flight as a flight lasting one and a half hours in order to guarantee the 98% on-time arrival. This is a good example of the necessity to measure CSI instead of on-time arrival.

The biggest problems with metrics involve trying to figure out how people will attempt to manipulate them. An example was given of the Burger King drive through window where the attendant informs the customer to pull up while the food is being prepared. Pulling up disables the sensor in the drive-through and effectively alters food delivery rates. Sometimes problems occur for reasons out of your control so some manipulation is understandable in these certain cases.

One respondent indicated that it is important to know what the metric is used for. Is the metric used to improve the business or is it used to evaluate individual performance? A sales quota is a classic example and indicates the need to use metrics geared to business performance for ultimate success. Both the individual performance and the business performance need tied together. Another problem involves the negotiation of service levels.

It might be best to solicit customer feedback that really hammers the business so that the business can determine sources of inefficiency and ineffectiveness. People who actually take the time to fill out surveys are worth a listen. Most of what the customer is saying is probably true and should be considered to maintain proper responsiveness to the customer and continuous improvement.

Best and Worst Practices

At this point, the moderator asked if the group had any best or worst practices to share. One example came forward of a participant fixing an internal problem regarding system back-up. The firm had two back-up systems in place that were overlapping and very expensive. Moving to a simple tape recovery system saved the firm hundreds of thousands of dollars by eliminating unnecessary

services. The problem resulted from the firm feeling like they needed the most sophisticated recovery system on the market when in fact they did not. Once the firm realized the gross overkill, they agreed to a simpler cost effective recovery system.

Getting professors to adopt change is one of the hardest things to do.

Regarding the purchase of services, it might be a good idea to measure line items as opposed to metrics because ROI is critical from an executive standpoint. Value or ROI should be evaluated

on all service purchases. A responding participant argued that there might be strategic considerations like deciding to do things in house or a branding decision. Metrics should be established to measure the qualitative aspects and that is difficult to do, especially in regards to communication with executive management. Processes must have executive level support and process terminology and mapping must use easily understood business lingo as opposed to process engineering lingo. Do not attempt to make a process idiot proof. Store all information on a website because everyone understands how to access the information in this manner.

Identifying a Best Practice

The moderator asked the group how to identify a best practice and if there were value added metrics used to measure best practices. The first responder indicated that the best way to compare a process calls for benchmarking the process against a vendor's process to determine if equality exists. Another responder indicated that "generally accepted best practices" exist to form a measurable standard. An organization receives a "win" when comparisons are made against the standard and the firm discovers its processes are better. This situation encompasses a desirable business advantage. A firm must have key performance indicators and metrics. Some of the measurable metrics must be qualitative in nature as opposed to strictly quantitative measures.

The moderator then asked if participants utilize Gartner to view best in class measures. The first responder indicated that this is the life of ITIL.

Learning From Our Best and Worst IT Practices

ITIL indicates that a firm is executing a process but does not indicate how to execute a process. On the maturity side, COBIT is used because it provides better measures. A firm must pick from these tools and decide which tool makes sense for the firm to use. The firm needs to compare frameworks and choose the best fit. If a firm does not accept the ITIL way of doing things, the implementation will take much longer than advertised due to the need for customization. A firm needs to adopt its own success measures for implementation. The firm should take pieces at a time rather than taking the whole package at one time. Measure against the maturity model to understand if what you are doing is good enough.

In order to implement a process or project, the firm needs a dedicated implementation team because it is a 3-5 year process. Some participants are using ITIL for change processes and continuous improvement initiatives. ITIL is a way to a means. Positive people willing to collaborate and take on added responsibility are necessary for positive results. People will leave if they do not want to follow and those people need identified quickly to keep from poisoning the whole group.

Bad Process Examples

One professor indicated that the College of Business Administration has many bad practices to share regarding a proposed distance learning initiative. Getting professors to adopt change is one of the hardest things to do. Professors do not want to add distance learning because they do not want to change and their tenure places them in a position of power. Twenty-five percent of faculty cannot be fired because of tenure. The professor indicated that universities are cesspools regarding the implementation of best practices

At this time, the smiling moderator asked if anyone else had a worst practice they would be bold enough to share. One responder indicated that he experienced a situation of under-utilized servers within a company and this fact caused the company to decide to implement VMware in order to consolidate servers. Several application groups did not think the plan was a good idea, so they had

people write programs that ran in a loop just to ensure 100% server utilization.

On the other hand, you must be open to individual concerns in order to prevent an escalating situation from stopping the entire process. It may become necessary to negotiate on an individual basis and this is a tough balancing act. Another problem involves setting unrealistic expectations and not discussing what is “coming down the line” with the employees. Expectations need to be broken into pragmatic pieces that can be absorbed in small bites.

Another pet peeve involves sales people from software vendors indicating that their company’s tools will work perfectly with all of the firm’s existing software. In reality, this never happens. Instead, look at best in breed and perform due diligence on vendors. The vendor might have all the applications due to all the vendors’ acquisitions, none of which is integrated. Tools might actually add complexity-causing problems. Be aware of the free tools. A best practice might involve asking someone who uses the tool how it is really working.

Choosing Vendors

The moderator asked if there was a web site where people can log complaints about certain tools or software packages. Checking a site like this might provide a benefit to firms considering adopting a tool or software package. One comment surfaced that there is a current lawsuit regarding a website that does evaluations. The lawsuit alleges that the website only provides positive reviews to companies engaged in advertising with the website.

The moderator asked the group what they thought was the best way to select a vendor. The first responder indicated that no one does this very well. No one understands lead-time in regards to sourcing. The process for choosing vendors needs improvement. Another response indicates that third parties can provide this service. Social media might provide another opportunity to do this free of charge although it might be best to hire a consultant because they will take ownership of the process.

ITIL and COBIT

COBIT Overview

A COBIT (Control Objectives for Information and Related Technology) 4.0 overview begins this session of the ITEE. COBIT is not a prescriptive framework. Instead, it is a high-level vanilla picture of what an IT organization should be doing -- it is the what and not the how. Other processes like ITIL and 2701 are more specific oriented. ITIL consists of 34 control objectives, which are like high-level processes that should exist in a IT organization.

COBIT focuses on achieving efficiency, effectiveness, availability, integrity, compliance, and reliability control maps to each business process control is supporting. It focuses on five areas: strategic alignment with business, value delivery, resource management, risk management, and performance enhancement. COBIT has been around since the early 90's. It is an Open Source set of best management guidelines.

The COBIT manual indicates that COBIT is a clear and understandable way to communicate with non-IT people, provide a better business focus, provide clear accountability, what role is accountable for what process, and acceptability with third parties and regulators. The ODI (Ohio Department of Insurance) uses COBIT as part of its auditing structure. COBIT has a standardized language and provides a reasonable assurance that there are no gaps. COBIT prompts discussions of whether or not you should be doing something if you are not and provides an opportunity for dialog.

COBIT is not adopted. Rather it is a yardstick to assess an organization's level of maturity and implement the appropriate level of controls. COBIT is also a cheat sheet with recommended metrics and charts. It provides a glimpse of what an organization's maturity level looks like so the firm can see where it is currently and if it wants to move to another level. It is also a proven structure to provide transparency and alignment with the business. If a company does not have a framework, COBIT can be used as a template or overlay to map out a plan.

One important benefit COBIT asks is how far we should go when developing the maturity of a control. This can be in terms of number of processes or significance of process; it depends on the level of effort placed on the process. Change control might be more effort intensive and COBIT allows an organization to look at the maturity level and see if it makes sense for that firm to move up to the next maturity level.

COBIT provides very clear maturity conditions for assessment with your team. If we move into a different level, will that unintentionally affect other processes with the company. It provides unbiased discussions on the maturity of firm, making it easier to arrive at maturity agreements. Several metrics levels include process metrics, recommended metrics and metrics at control level.

There are four domains internal to COBIT following a systems development life cycle: planning and organizing, acquiring and implementing, delivering and supporting and monitoring and evaluating. Planning and organizing is about IT strategy and alignment with business. It is also about communication concerning the IT department's activities and its transparency. In addition, it covers IT objectives, risk management and making sure quality is where it belongs.

The acquire and implement domain focuses on solution identification and ensuring that the solution meets business needs and objectives. The deliver and support domain covers IT operations, cost effective usage and is the largest COBIT level. The monitoring and evaluating domain is where governance and regulatory compliance lie.

When implementing the COBIT plan, start by getting a copy of the plan by downloading it from the company's website. Second, map the organizational structure against COBIT controls to establish accountability. Each control objective is about four pages and starts with description of high-level intent. It is clear, concise and easy to understand. Every control has a description of what it is about, its goal and the what, why, and how issues. Establish current maturity level and target

ITIL and COBIT

maturity level then establish a gap analysis. There are no tools to do this, therefore the organization must do it on its own. This allows the team to focus on the goal. Not every company needs a level 5 (top level) maturity. COBIT allows you to figure out where you need to be.

COBIT is a loose sanity check rather than a quantitative measure. Use it as a framework only. The value is not knowing the maturity number but having the discussion. Why is there a variation? Discussion is most important. It allows an organizational impact of its assessment.

ITIL

IT service management is about meeting the needs of the customer. When you are an IT shop in a business enterprise it is easy to lose focus on the businesses needs so IT services reminds IT people that they are a service to the business and everything they do supports the employee's ability to do the real work of the company. Focus on the customer problem rather than technology problems.

The ITIL IT Infrastructure Library is an extensive library of books. ITIL and COBIT are not competing plans, and a company can use both and use COBIT to measure ITIL process maturity. COBIT is what you need to do and ITIL is how to do it. ITIL is a best practice and helps in implementation. ITIL requires change management roles that can be overlapping. The books are organized in a lifecycle view in version 3. ISO 20000 covers same things as ITIL v3. The biggest difference between the two is that with ITIL, you become certified as an individual while in

ISO, the company becomes certified. There are more processes in version 4 than in version 3.

Rogue implementations are tricky situations when implementing frameworks. Participants acknowledge that there are things going on they are unaware of, meaning maturity level in these areas has not been reached.

A new speaker begins and provides a background on his company. It is an old firm with long tenured employees; change is tough. He goes over several company statistics and an org chart and discusses how this company established its maturity level.

ITIL and COBIT are not competing plans...COBIT is what you need to do and ITIL is how to do it.

The first step in implementing ITIL is to receive an outside perspective from the Infrastructure Executive Council. This firm has information on ITIL maturity levels of various companies based on surveys. Second, the firm assessed itself to see where it stood in comparison. Assessed where it is today and where it wants to be in the future. Once current maturity was established, the firm mapped a plan to get to the desired future state. The firm leveraged COBIT to establish criteria for evaluation of the mapping of processes. It is better to use established criteria than to make it up yourself because then an easily understandable benchmark exists. The next issue is scoring criteria. COBIT provides scoring criteria also. A firm must not establish its own scoring criteria. Then a spreadsheet develops that aggregates everything and establishes a score. This might require a third party auditor to establish a score, then compare, and validate the two.

Summaries were prepared by Prof. William McHenry, Prof. B. S. Vijayaraman, Ryan Knotts and Paul Evans of The University of Akron's College of Business Administration.

College of Business Administration

- Accredited to the highest attainable levels for both the undergraduate and graduate programs by AACSB International - the Association to Advance Collegiate Schools of Business. Also, the CBA is one of only 171 schools worldwide that have attained additional specialized accreditation for their accounting programs.
- Graduate program recognized as one of the top programs in the nation by the Princeton Review.
- Undergraduate program named by BusinessWeek magazine as one of the top 100 (76th) in the United States.
- Housed in a modern four-story 81,000 square foot building.
- Enrolls more than 2,700 undergraduate students and 400 graduate students.
- Offers graduate and undergraduate degree programs in e-business technologies and information systems, and a certificate program in e-business technologies.
- Develops and trains students in the managerial and technical aspects of the design, development, and application of information systems.
- Program content shaped by the recommendations of the CITE curriculum committee.
- Advisory boards made up of more than 200 senior executives from regional businesses assure that our curricula remain fresh, relevant and rigorous.
- Classes offered in state-of-the-art facilities that include computer teaching laboratories, enterprise software and application development tools.
- Participant in the SAP/R3 enterprise software educational alliance program.

The University of Akron

The University of Akron is the public research University in North East Ohio. It is the only public university in Ohio with a science and engineering program ranked in the top five nationally by U.S. News & World Report. Serving 28,000 students from 46 U.S. states and 80 foreign countries, the university offers approximately 300 associate, bachelor's, master's, doctoral and law degree programs and 100 certificate programs at sites in Summit, Wayne, Medina and Holmes counties.

