MIS Case Studies

CASE 1

SystemX Inc. withdraws ₹ 1 Billion SoftGuide Acquisition Offer

The following is an excerpt from a news article in the *Daily Update*, March 07, 2010

"SystemX Inc., called off its acquisition of SoftGuide Knowledge Consultants, Friday, saying that 1 Billion was too high a price." (SoftGuide has a considerable market share in Training and Development services and would therefore help SystemX to diversify and expand its range of services to customers.)

"Although SystemX officials would not comment further, several observers said that problems discovered at SoftGuide probably lay behind the decision…. The article said that SystemX feared that SoftGuide's data-processing system was inadequate to handle the new products planned for the SoftGuide sales staff. SystemX officials were also concerned about the 30 percent annual turnover among sales personnel… Tabrez A., SoftGuide CEO, responded that the SoftGuide's data-processing was quite competent and has absorbed at least one new product a month for two years."

Questions:
a. Why should SystemX be so concerned about the capabilities of SoftGuide's data-processing?
b. What competitive advantages to a Training and Consultancy services company may be provided by an information system?

CASE 2

Professor Challenges Basic Assumption about Planning and Control

Professor A. Van Cauwenbergh of Antwerp University, in a paper presented at the Tenth Anniversary Conference of the European Institute for Advanced Studies in Management, presented four revisions to traditional Management Theory. In summary, the revisions are:

(1) The initiative for the renewal and adjustment of the activities of a firm should come from the different levels in the management hierarchy. "Strategy is not a privilege of top management".

(2) Firms, especially big firms, are incoherent systems (goals of the different component systems are not simply subdivisions of an overall goal; there are individual, conflicting goals as well). Some of these differences are manifestations of organizational initiative and vitality. Using information systems and central planning and rulemaking to suppress all differences is destructive to organizations.

(3) The most vital "fluid" of an enterprise is the aggregate of its entrepreneurial values. The most fundamental and motivation and control come through these shared values relative to work, quality, efficiency, etc. Management often neglects these values and assumes that the collection and dissemination of information will provide sufficient motivation and control.

(4) Enterprises are open systems; their structure and operating processes are determined by their environment. This means organizations must be designed to continually adjust to the environment.

Questions:
a. If these revisions are correct, how is planning to be organized? How should the information system support the planning organization?
b. Can the information system aid in achieving shared values?
c. How might a comprehensive system be used to stifle initiative?

CASE 3

Ten Guidelines for Strategic MIS Planning

Robert V. Head, a consultant on MIS planning, provided ten guidelines to help MIS executives who are on the threshold of experimenting with strategic MIS planning:

(1) Make provisions in the systems plan for taking small steps rapidly. "Don't have a plan with goals extending so far into the future that there is no way of tracking it."

(2) Develop alternative plans when significant contradictory trends are discerned in business objectives or technology.

(3) Interface the systems plan with the corporate plan, modifying both appropriately.

(4) Document the systems plan in a format intelligible to top management and arrange for personal presentation.

(5) Establish a formal mechanism for review and reiteration of the systems plan.

(6) Develop a system for tabulating and forecasting utilization of installed data processing (DP) equipment.

(7) Fix the organizational responsibility for systems planning.

(8) Rotate the assignment of technical personnel to the planning staff in order to avoid an "ivory tower aura."

(9) Budget for research and development.

(10) Set up a comparative systems intelligence activity.

Questions:
a. What can be the drawback of having a formal system as mentioned in point 5?
b. Can transparency make organizational responsibility more effective?

CASE 4

Unraveling the Jargon

The consultant's reply was: "In my investigation of your applications portfolios, I've applied … to the logical data structures and have discovered a very high frequency – approximately 93.286% - of data embedded in application program logic which is largely responsible for the integrity and synchronization problem currently being encountered. As a solution, I would recommend the design of a master database each of which would employ relational technology to reduce the database to third normal form. This would eliminate the possibility of semantic dis-integrity upon querying the database."

Questions:
    a. Try to guess what the consultant said.
    b. Justify the use of technical jargon.

CASE 5

Information System in Restaurant

A waiter takes an order at a table, and then enters it online via one of the six terminals located in the restaurant dining room. The order is routed to a printer in the appropriate preparation area: the cold-item printer if it is a salad, the hot-item printer if it is a hot sandwich or the bar printer if it is a drink. A customer's meal check-listing (bill) the items ordered and the respective prices are automatically generated. This ordering system eliminates the old three-carbon-copy guest check system as well as any problems caused by a waiter's handwriting. When the kitchen runs out of a food item, the cooks send out an 'out of stock' message, which will be displayed on the dining room terminals when waiters try to order that item. This gives the waiters faster feedback, enabling them to give better service to the customers.

Other system features aid management in the planning and control of their restaurant business. The system provides up-to-the-minute information on the food items ordered and breaks out percentages showing sales of each item versus total sales. This helps management plan menus according to customers' tastes. The system also compares the weekly sales totals versus food costs, allowing planning for tighter cost controls. In addition, whenever an order is voided, the reasons for the void are keyed in. This may help later in management decisions, especially if the voids consistently related to food or service.

Acceptance of the system by the users is exceptionally high since the waiters and waitresses were involved in the selection and design process. All potential users were asked to give their impressions and ideas about the various systems available before one was chosen.

Questions:

a. In the light of the system, describe the decisions to be made in the area of strategic planning, managerial control and operational control? What information would you require to make such decisions?

b. What would make the system a more complete MIS rather than just doing transaction processing?

c. Explain the probable effects that making the system more formal would have on the customers and the management.

CASE 6

Security Loopholes

Utpal had just joined SystemX as Systems Manager. But he was a worried man looking at the current state of affairs at SystemX. As a part of assessing hardware and software requirements, it was found that out of the 364 desktops at the corporate office; more than half did not have their anti- virus software updated with recent virus signature files. Three - fourths had not changed the default e-mail password (it was the user name) and no one had installed OS patches. And one of its local mail servers seemed to be an open relay! For a fleeting moment, he wondered about the situation at the seven branch offices across the country.

SystemX used the Net extensively in dealing with its branches, customers and suppliers. Information like contract documents, marketing plans, Cheque and Draft numbers, bank account details and collection details were regularly transmitted by e-mail. Utpal's first thought was that he would recommend that SystemX bring in a security consultant. But the budget constraints meant that his recommendation was unlikely to find favour. He was beginning to feel a bit out of depth and was wondering what he should do to ensure that SystemX's data remained safe and secure.

Questions:

a. What security loopholes come to the fore in the situation described? How can these be plugged?

b. What is the importance of a "security budget" in the context of the given situation?

CASE 7

Web Portal Benefits

At Du Pont Co.'s (www.dupont.com) $4 billion performance coating group, the critical issue was content management. "We have a very large number of documents for marketing: brochures, press releases, warranty information on products and general support content

for our distributors and car repair body shops", explains Catherine March and, the groups e-business strategy manager. "Our salesmen were driving around with 23 kg of obsolete literature in their trunk."

Du Pont opted to deliver the information through a web-based intranet/ extranet portal, using technology from Bow-street, a portal s/w and web development tools company. Du Pont wanted the ability to customize information about its half a dozen coating brands. It also wanted each of its 2500 distributors and repair shops worldwide to see the information displayed in almost 4000 different site views; which the technology would allow it to do.

Since the content capability was initiated, Du Pont's site has grown rapidly. The body shops can now get training, bench marketing tools, and can paint colour formulas via the portal. There are also job-posting and resume services. And for the distributors, Du Pont is researching adding order-tracking and order accuracy capabilities soon.

Questions:
a. What are the business benefits of the web portal? Make a critical assessment.
b. What is the importance of a "security budget" in the context of the given situation?

CASE 8

Building the IT Infrastructure

Alfred is a do-it-yourself entrepreneur who built up his fortune in trading. He traded in anything and everything, and kept close control of every activity. That was how he had grown rich enough to indulge in his one dream — to build a college in his hometown. A college that would be at par to the ones in the better cities, the ones in which he could not study himself.

Work started a year back and the buildings were coming along well. He himself did not use computers much and became hooked to the Internet and e-mail only recently. He was determined to provide a PC with Internet connectivity to every students and faculty member. He was currently engrossed in plans for the 100 - seater computer lab.

What was confusing him was the choice of Internet connectivity. He had about a dozen quotes in front of him. Recommendations ranged from 64 kbps ISDN all the way to 1 Gbps (Gigabits per second, a data transfer speed measurement for high-speed networks such as Gigabit Ethernet) leased line to Guwahati, which was almost 200 km away. Prices ranged from slightly under a lakh all the way up to ₹ 25 lakh and beyond. He did not understand most of the equipment quoted — firewall, proxy server, cache appliance. Nor was he sure what the hidden costs were. Although it went against his very nature, he would have to identify a trustworthy consultant who would help him make sense of the whole thing.

Questions:
   a. In the context of the given case, what managerial issues need to be addressed by Alfred? Why is it important for managers to be *tech savvy*?
   b. What is the importance of a 'systems consultant' to an organization? What skills should he/she possess?

CASE 9

IT Strategies

Having spent considerable time paring back staff, consolidating servers and storage equipment, rendering servers and storage equipment, renegotiating vendor contracts, and conducting selective outsourcing, CIOs are struggling to find new ways to reduce costs while still developing and implementing the new or improved business systems their companies need. In their quest to come up with even more ways to keep lid on costs, dauntless IT leaders are exploring everything from barter agreements with vendors to reselling services and joining purchasing consortiums for volume price discounts on equipment. At amazon.com, CIO Rick Dalzell followed the following strategies:
   • Embrace open source
   • Recognize when you have to spend to save
   • Help your partners help you
   • Use a tight budget as an excuse to get creative

Questions:
   a. What are the business benefits and limitations of Rick Dalzell's strategies?
   b. Why are business houses finding it difficult to keep costs down in spite of the fact that technology is getting cheaper?

CASE 10

Overhauling the Information Systems Environment

Multibase Company Limited is a diversified business group with interests in fabric and yarn manufacturing, paper and pulp, and cement. Its manufacturing units are located across the country and number eight- one for fabric, two for yarn, two for paper and pulp, and three for cement. While the head of each unit has considerable operational autonomy, strategic decisions considering these units, such as capacity expansion, procurement of new technology involving substantial investment, etc., are made at the headquarter located in Delhi. The HQ monitors the performance of every unit though weekly and monthly reports are which are prepared by CBIS installed at each unit. Often considerable amount of time of the senior executives based at the headquarters is taken away in analyzing these reports and drawing inferences for planning and control. The result is that the senior executives

have little time for strategic thinking which they feel is a must in the present competitive environment. The CEO of the company has thus proposed to develop suitable computer based systems which might be helpful in understanding the current status of various manufacturing units in terms of their overall performance, the type of environmental constraints that operate in the three business that exist for enhancing capacity in these business areas.

Questions:
a. What systems would you propose that would serve the company's needs?
b. Considering that the company already has CBIS installed, will you contemplate complete overhaul of the systems or add functionalities of the existing systems? Justify your line of action.
c. Justify the requirement of a Chief Information Officer (CIO) in the context of the given caselet.

CASE 11

Reaching Out

Rosenbluth, a privately held, family owned company, is the second largest travel services firm in the world, with American Express being number one. Rosebluth's Global Distribution Network (GDN) is a worldwide telecommunications network through which the airline reservation systems are accessible. All Rosenbluth agents are connected to GDN as most of the company's travel software applications. Client's planning trips can either use the network to research or book their travel arrangements, or they can work through a Rosebluth agent. Moreover, clients can choose to use a local Rosenbluth agent, or they can turn to specific agents of their choice anywhere in the world.

Hal Rosenbluth of the company had this to say, "…Now we will not only connect people by planes or trains but we will connect them through technology."

Questions:
a. How has technology helped companies like Rosenbluth deliver customized services?
b. Is it possible for small companies to adopt technology similar to Rosenbluth's? Why or why not? Justify.
c. What is the significance of Rosenbluth's statement? Give your viewpoint.

CASE 12

System Failure!

Read the following news snippets:

- On 20 November, 1985, the Bank of New York lost over $ 5 million as a result of an error in the software of the digital system that registered all the bank's financial transactions.
- In 1992, a software problem created total chaos in the communication system of ambulance services in London. The delay in communications caused the death of 30 people.
- On 7 August, 1996, the computer system of Internet-provider America Online (AOL) failed for 19 hours when new software had been installed. Over 16 million subscribers were affected. Before this took place, the AOL experts had strongly suggested that the system was immune to this kind of disaster.

Questions:

a. Is it justified to say that digital systems are unreliable and carries enormous risks?
b. What countermeasures should be put in place to minimize damages due to failure of digital systems? Give your answer for each of the above three situations.

CASE 13

IT in the Construction Industry

Many people think that the most widely used tool in a construction project is the hammer, but it's probably a filing cabinet or fax machine. The $ 3.4 trillion US construction industry is highly paper intensive. A complex project such as a large building requires the coordination of many different groups and hundreds of architectural drawings and design documents, which can change daily. Costly delays because of misplaced documents could make or break a company in an industry with razor-thin profit margins of 1 to 2 percent.

Web technology is starting to address this problem. New web-based construction project management systems enable project managers to exchange documents and work online wherever they are using web browser software. Auto Desk Building Corporation Services, for example, offers customers a shared central space where project managers can exchange documents with engineers and architects, track scheduling and performance, and hold online meetings.

Questions:

a. What are the management benefits of using web-based construction management software?
b. How can the systems as mentioned be used to share knowledge and experiences for better management of projects and tasks at hand?

c. What problems might be associated with such web-based systems? How can those problems be tackled?

CASE 14

Too Many Information Systems!

X University has of late expanded very rapidly introducing a number of programmes and increasing student intake capacity. It has recently computerized its examination process based on some off-the-shelf software. The library had already been computerized a couple of years back using a freely distributed Library Automation System. Daily cash transactions are also handled by computers in the Finance and Accounting Division, using an accounting software. For further improvement of efficiency, the new governing body of the University have entrusted the task of developing an MIS for the University to a Software Company.

All these developments were welcomed by a cross-section of the University Community except a few. One of them is a faculty member at the Management Science Department who commented that the University is burdening itself with too many independent information systems. He strongly favoured an integrated information system on the lines of an ERP for a business organization.

Questions:
a. Do you agree with the faculty member? Give reasons.
b. What do you understand by Integrated Information System, the faculty member is talking about? Elaborate in the context of the X University.
c. Visualise that the University governing Body decides to drop the MIS plan and agrees to the idea of developing an integrated IS. What problems are likely to creep in?
d. Assess the role of Information System specialists and consultants in situations as described in the caselet.

CASE 15

Emergence of Social Media

New Delhi, May 18, 2011: In less than a year, the Twitter account of India's Ministry of External Affairs (MEA) has collected over 10,000 followers, pioneering the outreach of government organisations on social media platforms. On July 9, 2010, MEA's Twitter account "Indiandiplomacy" started to tweet. It possibly marked the first time that a major Indian ministry was using a social media platform to create awareness about its activities. The Ministry's Facebook page is followed by 1179 people. Further, about 24 Indian embassies, high commissions and consulates have also opened their own separate Facebook pages. The Ministry's public diplomacy division also has a Youtube channel, where it has

uploaded excerpts of its commissioned documentaries. Currently there are over 80 videos on Youtube, which has been viewed by over 28,000 visitors. (*IANS News Service*)

Questions:
a. What are the differences between the three social media platforms mentioned in the caselet?
b. List the advantages and disadvantages of such platforms.
c. Prepare a promotion strategy for a business house using the three social media networks.
d. How are social media platforms being used as information systems by organizations?
e. "Organizations are using these platforms to cut cost, increase visibility and engage customers". How?

CASE 16

Google Docs

Google Docs is a free web based office suit through which documents, spreadsheets, presentations, forms, etc. can be created. Additionally, it also acts as a data storage service. By default, anything that is created is stored in Google servers. Google Docs serves as a collaborative tool for editing amongst users and non-users in real time as documents can be shared, opened and edited by multiple users at the same time. Its popularity among businesses is growing due to enhanced sharing features and accessibility. A mobile version of Google Docs also exists.

Questions:
a. What advantages does a product like Google Docs provide to an organization for managing and disseminating information?
b. Elucidate on the potential disadvantages of such a system.
c. In your opinion, should an organization use something like Google Docs in place of office automation software like MS Office? Why or why not?

CASE 17

Microsoft Dynamics

Microsoft Dynamics is a line of enterprise resource planning (ERP) and customer relationship management (CRM) software applications developed by Microsoft. Microsoft Dynamics work like familiar Microsoft products which we already use, thereby reducing the time required to learn how to use it and helping people to be more productive. For example, Microsoft Dynamics CRM works inside Microsoft Outlook, the email client, so that sales, marketing, and customer service tasks can be completed as easily as processing email or adding an appointment to the calendar. Microsoft Dynamics delivers a compelling suite of

software solutions to help improve financial, customer relationship, and supply chain management. Solution providers build on the standard Microsoft Dynamics ERP and CRM functionality to deliver powerful industry solutions that meet industry-specific needs. Delivered through a network of channel partners providing specialized services, these adaptable business solutions work like and with familiar Microsoft software to streamline processes across an entire business. Microsoft Dynamics increases the value of an organization's technology investments because it works with existing systems, lowering the total cost of ownership (TCO) while scaling as the organization grows and evolves in the future. With Microsoft Dynamics, one can monitor changing business conditions by accessing critical business data from the moment it is first captured through final reporting using centralized reporting and analysis tools. This gives the manager the confidence to make the right decisions for his business. Microsoft Dynamics software supports agility by making business processes quick to adapt, add new functionalities, easily extend the functionalities, and through a focus on the cloud, providing the ability to expand or contract capacity as business conditions demand. (*Information courtesy: microsoft.com*)

Questions:

a. How is Microsoft Dynamics trying to add on the capabilities of existing Microsoft products to manage the information needs of a business? Answer by first explaining what you mean by 'information needs'?
b. How can products like Microsoft Dynamics increase employee productivity?
c. What do you mean by streamlining business processes? How does software help? Relate this concept of streamlining businesses with Business Process Reengineering (BPR).

CASE 18

Vanguard's DSS

Vanguard's decision support system software is used by thousands of companies for enterprise decision analysis. The software makes it possible to apply decision analysis techniques throughout an organization to problems ranging from simple projects to enterprise-wide strategic plans. The Vanguard System™ is a comprehensive business solution for improving the quality, reliability, and speed of management decisions. It does this by helping collaborate with colleagues on important plans, analyze alternatives using state-of-the-art modeling and simulation techniques, automate routine decisions using expert system technology, and improve overall management effectiveness by adding structure to a normally chaotic process.

Vanguard's collaboration abilities go well beyond simple communication strategies like Web conferencing. Rather, Vanguard is based on principles of knowledge capture. The Vanguard System can combine the knowledge captured by many individuals to create a Collective Intelligence that is useful for testing business plans and automating routine operations. Vanguard combines all of the most powerful and essential quantitative methods in management with features of spreadsheets, artificial intelligence tools, and math

applications to produce an advanced business modeling system. Vanguard improves the speed, reliability, and quality of routine decisions by combining its business modeling capabilities with Expert System technology. Vanguard has the potential to transform business by improving management team decisions rather than simply analyzing operational data. Vanguard supports a wide variety of methods for integrating data and it can connect to virtually any business system, such as: Support for Customizable Functions, Databases, Enterprise Systems, ODBC, WSDL/SOAP, Excel integration, File read/write for XML, CSV, TXT, RTF, HTML, and others. (*Information courtesy: vanguardsw.com*)

Questions:

a. Identify the main capabilities of the DSS software from the narrative?
b. Why should DSS support data integration as mentioned?
c. The Vanguard System™ has been dubbed also as a KMS and an Expert System. Why do you think a DSS should also be a KMS / Expert System?
d. Based on the information provided, write a brief as to how can the functional areas of HR, Marketing and Finance leverage the capabilities and functionalities of a DSS?

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