Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

MBA (PART TIME) – SEMESTER (2) – EXAMINATION – SUMMER 2018

Subject Code: 3529903 **Date: 25/05/2018**

Subject Name: Management Information System (MIS)

Time: 10:30 AM To 01:30 PM **Total Marks: 70**

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q-1(a)	Definitions A. Non-Programmed Decisions B. Adhoc Reports C. Malware D. Feedback and Control E. Define MRP F. CBIS G. DSS	**14**
Q-2(a)	Give 5 negative impact of IT/IS	**07**
Q-2(b)	"The transaction processing system records all the transactions of an organization, it is the back bone for all the other Information System". Justify	**07**
Q-2(b)	**OR** Elaborate the concept of Office Automation System	**07**
Q-3(a)	Describe the Simon Model Of Decision Making	**07**
Q-3(b)	"Reports made in MIS helps in Decision Making". Comment	**07**
	OR	
Q-3(A)	Explain Robert Anthony's Hierarchy?	**07**
Q-3(B)	What are functional Information System and explain any one type of Functional Information System.	**07**
Q-4 (a)	Describe the different types of decisions based on different levels of Management	**07**
Q-4 (b)	Explain the concept of SCM	**07**
	OR	
Q-4(A)	How does the use of the Internet, intranets, and extranets by companies today support their business processes and activities?	**07**
Q-4(B)	Discuss the merits and demerits of and ERP System	**07**
Q-5	**Case Study**	**14**

Visitors to the eCourier Web site are greeted with the words *"How happy are you* ? Take the eCourier happy test today!" Those words and the playful purple Web site represent the company's customer satisfaction focus. And the company achieves that happiness through its focus on operational business intelligence. Business intelligence is moving out of the ivory tower of specialized analysts and is being brought to the front lines. In the case of eCourier, whose couriers carry 2,000 packages around London each day, operational business intelligence allows the company to keep real-time tabs on customer satisfaction. "This is a crucial differentiator in London's competitive same-day courier market, where clients are far more likely to take their business elsewhere than they are to report a problem to their current courier," says the company's chief technology officer and cofounder Jay Bregman. Just one online directory, London Online, shows about 350 listings for courier services. Before implementing operational business

intelligence, eCourier sought to define IT as a crucial differentiator. Cofounders Tom Allason, eCourier's CEO, and Bregman ditched the idea of phone dispatchers and instead gave their couriers GPS-enabled handhelds so that couriers can be tracked and orders can be communicated electronically. They also focused on making online booking easy and rewarding, and much was invested in user-friendly applications: Customers can track online exactly where their courier is, eliminating the package delivery guesswork. Today, 95 percent of deliveries are booked online; this means that eCourier needs a much smaller staff for monitoring, tracking, and placing orders, which in turn makes the company more scalable. Bregman says this is notable in a market where many courier companies use telephone dispatchers and guesswork about package whereabouts. Booking and tracking automation—although innovative—did not complete the customer happiness puzzle.

Without leading edge business intelligence, account managers could miss the same issues that plagued other courier services—late deliveries, surly couriers, or even an unnoticed ramp-up in deliveries. "We're only one delivery away from someone deciding to use a different delivery firm," says Bregman. So eCourier started to use software from a company called SeeWhy to try to generate customer data more quickly. "What's unique about SeeWhy," says Bregman, "is its ability to report what's happening with customers instantly." When a new booking enters eCourier's database, the information is duplicated and saved into a repository within SeeWhy. The software then interprets the data by comparing it with previous information and trends, and if it notices an anomaly, it takes action. If a customer typically places an eCourier order every Thursday morning between 9:30 and 10:00 and there's been no contact during that time, eCourier's CRM team will receive an alert shortly after 10:00 that includes the client's history and the number of bookings it typically places in a day. Bregman says there's a fair amount of fine-tuning to get the metrics right. For example, the company had to tweak the system to recognize expected shifts in activity so that it doesn't send a slew of alerts once the after-Christmas drop in business occurs. Getting that perfect balance of when to send alerts and how best to optimize the system is an ongoing process, he says.

The SeeWhy software is designed to establish a "normal" client booking pattern from the first use, which is deepened with each subsequent booking. A sharp drop-off in bookings, an increase in bookings, or a change in dormant account activity generates an alert that is sent to that client's account manager; the manager uses the opportunity to problem-solve or, in the case of increased activity, upsell to overnight or international services. "These capabilities have provided a big payoff," says Bregman. He also believes the system saves his company the expense of having to hire people to monitor "who's happy and who's not—we're able to do a lot more on our customer team with a lot less." Other approaches to judging customer dissatisfaction exist. Cablecom, a Swiss telecom company, used SPSS's statistical software to mine customer data, primarily from trouble tickets—such as the average duration of a ticket, or how many tickets had been opened for a customer over a specific time period—to build a model that could flag when a customer was at a high risk of leaving. "But the model proved to be only about 70 percent accurate," says Federico Cesconi, director of customer insight and retention. So Cesconi used SPSS's Dimensions survey research software to create an online customer survey, and from that he was able to determine that customer dissatisfaction usually begins around the ninth month of service, with the bulk of the customer losses occurring between months 12 and 14.

Cesconi then created another survey that he now offers to customers in the seventh month of service, which includes an area where they can type in specific complaints and problems. "Cablecom calls customers within 24 hours of

completing the survey," says Cesconi. "The two approaches together provide the best view of customers ready to bolt, and the best chance at retaining them." In 2002, global law firm Bryan Cave faced the milliondollar question: How do you make the most money with your resources while simultaneously delivering the highest customer value? The problem was pressing. Clients of the firm, which now has 800 lawyers in 15 offices worldwide, were demanding alternatives to the traditional hourly fee structure. They wanted new models, such as fixed pricing and pricing that was adjusted during a project. But making money from these new billing strategies required the complicated balance of staffing and pricing. Projects weighted too heavily with a law partner's time would be expensive (for the law firm) and not optimized for profit.

Devoting too little of a partner's time would leave clients feeling undervalued. Optimizing profit and perceived value had to be achieved by spreading partners' time throughout a number of cases and balancing the remaining resources needed for a case with the less-expensive fees of associates and paralegals. "Clients are most likely to stay with you if you deliver just the right mix," says Bryan Cave's CIO John Alber. The law firm's traditional method of analyzing collected fees and profit used a spreadsheet that was complicated and took too long. "Spreadsheets provide a level of detail that can be valuable for analysts," says Alber, "but the information in a spreadsheet can be confusing and difficult to work with." Alber says he decided it was better to build an easy-to-understand interface using business intelligence tools. Although the company will not release specific figures, both profitability and hours leveraged—the hours worked by equity partners and all other fee earners at the firm—have increased substantially since the company implemented its first BI tool in 2004, according to Alber.

The tools also allow lawyers to track budgets in real time so that they can make adjustments quickly. The BI tools even provide a diversity dashboard, which tracks the hourly mix of women and minorities working on the firm's cases, a feature the company will license to Redwood Analytics for sale to other law firms. The firm developed this diversity tool to bring transparency to the diversity reporting process required by many clients. In other words, the tools provide Bryan Cave with a method of customizing its fees and helping clients better understand what they get for their money. As an illustration, Alber points to the customized pricing one lawyer gave to his real estate client. "Developers think in terms of square feet," says Alber, "and this client couldn't understand why legal fees for a 400,000-square-foot building might be the same as for a 4,000-square-foot building, though it required the same amount of the lawyer's time." So the lawyer used the pricing and staffing modeling tools and historical analysis tools to determine whether it made sense for the law firm to charge clients based on the size of their projects.

He found that while there was risk of underpricing large buildings, the deal volume in small buildings offset that risk for the law firm. The result made per-square-foot pricing possible. "It may be possible that someone with enough willpower or manpower could do that using traditional analysis," says Alber, "but this lawyer had the information right at his fingertips." Business intelligence enables "us to be in touch with clients and shift things around in response to what customers are asking," says Alber. Adopting new and improved project management, pricing, and customer service capabilities required planning, appropriate pacing, and user buy-in. "In today's environment, you can't do value innovation without being in touch with the economics of your business, without really understanding where you make money and where you don't, and that's what business intelligence tools do," says Alber. "Our goal," he says, "is to build the best longterm relationships in the world."

A. How do information technologies contribute to the business success of the companies depicted in the case? Provide an example from each company explaining how the technology implemented led to improved performance.

B. In the case of law firm Bryan Cave discussed above, the use of BI technology to improve the availability, access, and presentation of existing information allowed them to provide tailored and innovative services to their customers. What other professions could benefit from a similar use of these technologies, and how?

OR

A. Jay Bregman, CTO and cofounder of eCourier, notes that the company hopes their innovative use of technology will become a differentiator in their competitive market. More generally, to what extent do specific technologies help companies gain an edge over their competitors?

B. Why do some companies in a given industry, like eCourier above, adopt and deploy innovative technologies while others in the same line of business do not?

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