

UNIVERSITY OF ESWATINI

FACULTY OF COMMERCE

DEPARTMENT OF BUSINESS ADMINISTRATION

MAIN EXAMINATION PAPER

APRIL, 2021

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TITLE OF PAPER : MANAGEMENT INFORMATION SYSTEMS

COURSE CODE : BUS615

TIME ALLOWED : THREE (3) HOURS

- I  
INSTRUCTIONS:
1. THE NUMBER OF QUESTIONS IN THIS PAPER = SIX (6)
  2. SECTION A IS COMPULSORY
  3. ANSWER ANY THREE (3) QUESTIONS IN SECTION B
  4. THE MARKS TO BE AWARDED FOR EACH QUESTION ARE INDICATED ALONGSIDE THE QUESTION.

NOTE: MARKS WILL BE AWARDED FOR GOOD COMMUNICATION IN ENGLISH, AS WELL AS ORDERLY AND NEAT PRESENTATION OF WORK. FURTHER MARKS WILL BE AWARDED FOR USE OF RELEVANT EXAMPLE.

SPECIAL REQUIREMENTS: NONE

THIS PAPER IS NOT TO BE OPENED UNTIL PERMISSION IS GIVEN BY THE CHIEF INVIGILATOR.

## SECTION A

### CASE STUDY

#### Can This Bookstore Be Saved?

Barnes & Noble (B&N) has been portrayed in the past as a big bully that drove small independent bookstores out of business with aggressive pricing tactics and an unbeatable inventory of books. Today, B&N finds its role reversed as the company fights a fierce battle to survive in the inevitable era of e-books. Booksellers were one of the many industries disrupted by the Internet and, more specifically, the rise of e-books and e-readers. B&N hopes to change its business model to adapt to this new environment before it suffers a similar fate as many of its competitors, like Borders, B. Dalton, and Crown Books, or their peers in other industries, like Blockbuster, Circuit City, and Eastman Kodak.

More than ever, consumers are reading books on electronic gadgets—e-readers, iPods, tablets, and PCs—instead of physical books. Although B&N still depends on its physical, brick-and-mortar stores to drive its business (B&N operates 691 bookstores in 50 states, as well as 641 college bookstores), the company has thrown its energies behind development and marketing of the Nook series of e-readers and tablets. Once simply a bookseller, B&N now styles itself as a seller of e-books, devices to read them on, and apps that enhance the reading experience. The company has had success gaining market share, but at a steep cost, and to stay afloat, it will need to contend with increased competition from Amazon, Apple, and Google—not exactly feeble opposition. B&N has a market capitalization of \$1 billion. Amazon, B&N's current top competitor, has a market capitalization of \$98 billion. How can B&N compete against these tech titans?

The answer remains to be seen. B&N was likely the only bookseller big enough to complete the considerable task of developing an e-reader, marketing it, and setting up manufacturing and retail operations for the device. Even if its competitors had been faster to react to consumer demand for e-books, it's unlikely they would have made the inroads that B&N has achieved into the e-book space. Reaction to the Nook has been positive, as B&N has grabbed a significant market share from Amazon and Apple in the e-book marketplace. In 2011, analysts estimated that B&N controlled approximately 27 percent of the digital book market (Amazon held 60 percent).

B&N's progress with e-books has come at a steep cost, however. The company incurred a loss of \$73.9 million in 2011, compared to a \$36.7 million profit the previous year. The investment required to launch and promote the Nook was the primary reason for the shortfall, and expenditures are expected to continue to climb. In response, B&N canceled its stock dividend. The key questions for B&N are whether the Nook will eventually bring in revenues that justify its steep development and marketing costs, as well as whether the Nook can help drive traffic to B&N's brick-and-mortar stores.

The economics of e-book sales are very different from traditional book sales. Customers who visit B&N's Web site buy three digital books for every one physical book, but booksellers still make more money on print books than e-books. Still, B&N's Nook business has been growing rapidly, and traditional bookstores are not. Total e-book sales were nearly \$970 million in 2011, more than double from the previous year, and the percentage of e-books within the total number of books sold is still on the rise, measuring 14 percent that same year. Ironically, one of the first companies to realize the potential of e-books was B&N itself. As early as 1998, the company had partnered with software companies like NuvoMedia to develop prototype e-reader called the Rocket, but in 2003 it nixed the project because there didn't appear to be any money in it. At the time, B&N was right, but technology has come a long way since 2003, and so too have e-books.

B&N clearly took notice of the fate of Borders, its chief rival. Borders stubbornly refused to adapt to the Internet, first handing over its entire Internet operations to Amazon, and waiting to relaunch its own Web site until 2008, at which point the company was already on the road to bankruptcy. Borders had a devoted following, but it wasn't enough to combat the company's \$350 million debt and dwindling profitability. B&N is the only national bookstore chain remaining in the United States, and while the company saw a bump in store traffic in the immediate aftermath of the Borders collapse, it also knew it would need to shake things up to avoid a similar fate.

Other companies also have a stake in B&N's transformation. Publishing companies have been forced to adjust their allocations of printed books and new titles for stores, and books are beginning to be released as apps in addition to physical books. Apps for books are adding more features all the time, including the ability to manipulate and enlarge images, flip through photo albums, watch videos, read instant messages, and listen to the music of characters within the book. These books, called "enhanced e-books," are considered to be the next step in the growth of digital books, but thus far, the performance of enhanced e-books has been mixed. Publishers and e-reader manufacturers both are teaming up on enhanced e-book projects. Penguin will release 50 enhanced e-books over the course of 2012. Apple is working with publishers to create interactive digital versions of textbooks. But do readers really need these features? Some publishers believe that these apps cost more money than they are worth, and worry that there is not a big enough market for enhanced e-books to justify the expenditure of time and money. However, this is the same line of thought that was used about e-books themselves in the early 2000s, and e-book skeptics turned out to be dead wrong.

Publishers are doing anything they can to support B&N's efforts to stay afloat, because the survival of physical book retailers is important to effectively market and sell books. Bookstores spur publisher sales with the "browsing effect." Surveys have shown that only one-third of the people who visit a bookstore and walk out with a book actually arrived with the specific desire to purchase one. According to Madeline McIntosh, Random House president of sales, operations, and digital, a bookstore's display space is "one of the most valuable places that

exists in this country for communicating to the consumer that a book is a big deal.” Brick-and-mortar retail stores are not only essential for selling physical books, but also stimulate sales of e-books and audio books. The more visibility a book has, the more likely readers will want to purchase it. With the demise of B. Dalton, Crown Books, and Borders, B&N is the only retailer offering an extensive inventory of physical books. Book publishers need a physical presence.

Without B&N, the likely candidate to fill the void is Amazon, and publishers are not eager for that to happen. Amazon’s goal for e-books is to cut out the publishers and publish books directly, selling books at an extremely steep discount to drive sales of its Kindle devices. Editors, publicists, and other entities within the publishing business view Amazon as an enemy. Selling books at Amazon’s prices is not a tenable business model for publishers in the long-term.

Publishers received even worse news in April 2012, as the U.S. Department of Justice (DOJ) sued Apple and five of the country’s largest publishing houses for colluding to fix e-book prices. In response to Amazon’s aggressive pricing strategy, publishers and Apple had agreed to an “agency pricing” model, in which publishers set the price and retailers take a commission. (Under the wholesale arrangement with Amazon, the publishers received half of the list price, but this gave them no control over the pricing of their product.) Many books would be sold by Apple for about \$13, with Apple taking a 30 percent cut. By increasing the price of e-books by a dollar or two, publishers stood to gain an extra \$100 million. Even Amazon was under investigation for striking deals with publishers that forbade them from offering the same level of discounts provided by other e-reader manufacturers. The bottom line is that the DOJ action is bad news for publishers, who need B&N now more than ever.

Because the Nook was booming and brick and-mortar stores had been stagnating, B&N has been considering spinning off its digital business from its fading bookstore business. On April 30, 2012, Microsoft announced that it would invest \$300 million for a 17.6 percent stake in a new company consisting of B&N’s Nook tablet and e-reader business and its College division. As part of the deal, a Nook application would be included in Microsoft’s Windows 8 operating system. This arrangement will provide B&N with additional points of distribution from hundreds of millions of Windows users around the world, and both companies will share revenues from sales of e-books and other content. B&N might eventually spin off this new company.

The deal also furthers Microsoft’s strategy of investing in new businesses to move beyond its Windows and Office software franchises. A Nook e-reading app could also enhance Microsoft efforts to establish a digital storefront to market e-books, apps, and other content for Windows 8, which is critical to plans for entering the tablet market.

B&N has also experimented with ways to drive traffic to their physical stores using apps on the Nook. Although this is a seemingly impossible task, they are at least coming up with some inventive ideas. For example, if you connect to a Wi-Fi network in a B&N store with your Nook, you can get free extras in many apps and games like Angry Birds, where you can unlock a bonus character that normally costs a dollar. Other companies are using similar techniques to

promote board games, toys, movies, and of course, physical books. B&N has also expanded its store space for toys and games and added new display space for its Nook devices. There are also plans to experiment with slightly smaller stores.

These promotional campaigns probably won't be enough to stop B&N's dwindling in-store sales. What will the future hold? Will B&N be able to succeed as a digital company, and is there a future for its brick and-mortar stores? Is there a way for e-books to help sell print books, just as print books have stimulated demand for their digital versions? Although B&N has made a spirited effort to revamp its business and go toe-to-toe with several tech titans, it's possible that it might be too tall an order for the storied bookseller.

### Questions

1. Use the value chain and competitive forces models to evaluate the impact of the Internet on book publishers and book retail stores such as B&N. **20 marks**
2. How are B&N and the book publishers changing their business models to deal with the Internet and e-book technology? **20 marks**

## SECTION B

### Question 1

Despite aggressive campaigns to attract customers with lower mobile phone prices, T-Mobile has been losing large numbers of its most lucrative two-year contract subscribers. Management wants to know why so many customers are leaving T-Mobile and what can be done to entice them back. Are customers deserting because of poor customer service, uneven network coverage, wireless service charges, or competition from carriers with Apple iPhone service? How can the company use information systems to help find the answer? What management decisions could be made using information from these systems?

20 marks

### Question 2

How does building new systems produce organizational change?

20 marks

### Question 3

Dealerships for Subaru and other automobile manufacturers keep records of the mileage of cars they sell and service. Mileage data are used to remind customers of when they need to schedule service appointments, but they are used for other purposes as well. What kinds of decisions does this piece of data support at the local level and at the corporate level? What would happen if this piece of data were erroneous, for example, showing mileage of 130,000 instead of 30,000? How would it affect decision-making? Assess its business impact.

20 marks

### Question 4

Henry's Hardware is a small family business in Sacramento, California. The owners, Henry and Kathleen, must use every square foot of store space as profitably as possible. They have never kept detailed inventory or sales records. As soon as a shipment of goods arrives, the items are immediately placed on store shelves. Invoices from suppliers are only kept for tax purposes. When an item is sold, the item number and price are rung up at the cash register. The owners use their own judgment in identifying items that need to be reordered. What is the business impact of this situation? How could information systems help Henry and Kathleen run their business? What data should these systems capture? What decisions could the systems improve?

20 marks

### Question 5

The Internet may not make corporations obsolete, but the corporations will have to change their business models. Do you agree? Why or why not?

20 marks