

## *Teaching Case*

# **Enabling Business Processes through Information Management and IT Systems: The FastFit and Winter Gear Distributors Case Studies**

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### **ABSTRACT**

The *FastFit Case Study* and its companion, the *Winter Gear Distributors Case Study* provide undergraduate business students with a suitable and even familiar business context within which to initially consider the role of information management (IM) and to a lesser extent the role of information technology (IT) systems in enabling a business. *FastFit* is a small sports retail chain and *Winter Gear Distributors* is a key *FastFit* supplier. The day-to-day operations, control and management needs, and business innovation potential of these fictitious companies provide a rich but not overly complex starting point for the student's consideration of enterprise IM requirements. Furthermore, the information technologies mentioned or implied in these cases fall within the compass of an undergraduate's own experiences as a consumer and perhaps as an employee. These case studies call upon the student to analyze current operations, to assess the quality of corporate processes and information flows, and even to consider such subjects as the enterprise's overall IT infrastructure, the uses of/need for business intelligence (i.e. data-driven decision making), customer relationship management, supply chain management, and the Web-enabled disintermediation of more traditional business practices. In use for over four years and in more than one hundred MIS classes, this set of intentionally brief cases is thoroughly field tested. The accompanying teaching note with its pedagogical and class discussion suggestions assists MIS faculty in integrating these two cases into an established curriculum.

**Keywords:** Information Management, Integration of Information Services, Business Process Reengineering, Supply Chain Management, Customer Information Management, Business Intelligence, Decision Support Systems

### **1. CASE SUMMARIES:**

The authors introduce the *FastFit* case in the first week of our entry-level MIS class, as we begin the discussion of information management and IT-enabled business processes within the business. This case presents the scenario of a small, regional sporting goods retailer engaged in day-to-day operations. The company is a well established seller of high-end sporting goods, operating in New England through five store outlets as well as on-line through an eCommerce Web site. Since the typical undergraduate student possesses both an interest in out-of-doors exercise and a familiarity with retail business operations – at least as a consumer – the *FastFit* case poses few barriers in terms of its initial accessibility. Furthermore, the simplicity of the initial *FastFit* story makes the more detailed unfolding of its

business process needs and information flows all the more impactful in terms of the student learning experience.

Initially, students respond to the case questions that are then discussed in class. The discussion brings out the issues and opportunities presented to capture and share information across *FastFit* business processes, opening the door to an exploration of customer and supplier relationship management, individual store and enterprise-wide decision making, and more long-term corporate planning and business innovation. The case also provides any number of useful examples of how information technologies enable the capture and sharing of corporate data. It should also be noted that while we employ the *FastFit* case in the first week of the course, we return to *FastFit* mid-course, after the students have read the chapter in their textbook on eCommerce but before we discuss in detail the design and operations of a Web-enabled fulfillment service. Since

*FastFit* is familiar to the class, the case works nicely as a transition to this new subject. The eCommerce questions in the case serve as the homework for this later session.

As with the *FastFit* case, we have framed the *Winter Gear Distributors* case with an eye towards a particular approach to information management and the uses of information technologies within a business setting. Both *FastFit* and *Winter Gear* emerge as organizations whose competence in the market place relies upon customer intimacy. This strategic focus in turn drives their respective information processing and management requirements as these relate to operations, control and decision making, and innovation and corporate learning. For *FastFit*, these requirements in turn drive the organization's choices in business process design, the acquisition and deployment of IT, and the corporation's human resource and organizational structures. But for *Winter Gear*, it would appear that these choices have been left in abeyance. In the latter business context, the organization has settled into a comfortable but somewhat antiquated groove where business carries on much as it has done for years. Information management improvements and IT-enabled systems do not appear to be on *Winter Gear*'s priority list, and as the case suggests, they are certainly not in evidence as part of standard corporate operations. Indeed, one would expect that a distributor like *Winter Gear* would want to compete on the basis of low cost and operational excellence, but instead the firm has allowed these opportunities to innovate operationally to slip by. The organization must rely on its established customer relationships and outmoded but personalized processes to survive, significantly limiting *Winter Gears'* ability to grow and diversify in an increasing competitive global marketplace.

Thus, though *FastFit* and *Winter Gear* comprise two ends of a long-standing supply chain management relationship, the retail chain *FastFit* is poised for accelerated growth where as its partner the wholesale distributor *Winter Gear* is positioned only for stagnation. To put it another way, as case studies *FastFit* is an illustration of the well-measured deployment of IT to enable operations, control, and innovation, while *Winter Gear* lacks an integrated set of information systems and any sort of overall long-term strategy or approach to information management within their corporate activities. One might argue that for *Winter Gear* to maintain the current state of its business let alone to move forward in a favorable manner, the enterprise's management team needs to realign its key business processes with complementary IM processes and associated IT investments.

As learning tools, both the *FastFit* and *Winter Gear* cases provide just enough detail to paint a picture of interest to undergraduate students without in any way directing the conversation. Each narrative also leaves much open to conjecture and speculation. This too is intentional in that it allows both the students and the instructor to explore each case in any number of useful directions. Students will quickly recognize opportunities for change and improvement, leading to recommendations for various IT investments within the enterprise. In working with the class to define a successful solution set in each of these business contexts, the instructor may choose to employ the authors' MIS learning framework (see the *Teaching* Note) to explain

how both *FastFit* and *Winter Gear* might best balance the need for change against what is realizable and affordable within their respective organizations. In the end, these cases embraces many of the typical challenges confronted by many organizations, leveraging the management of information and computer automation but in a manner that does not overwhelm the newly initiated MIS student.

## 2. CASE TEXTS

### 2.1 *FastFit* Case Study

*FastFit Sporting Goods* is a successful New England regional supplier of sporting goods to the high end consumer market. They sell an exclusive selection of equipment and apparel to men and women who exercise and pursue outdoor activities on a regular basis. They operate five (5) upscale retail stores in the New England market that offer a high level of customer attention, with a headquarters (HQ) is in Burlington, Massachusetts, and a single warehouse, distribution, and eCommerce fulfillment center in Haverhill, Massachusetts. Most of their products are purchased from two suppliers, *Winter Gear Distributors* outside of Providence, Rhode Island, and *Boston Fitness Supplies* in Marlboro, Massachusetts. *FastFit* has expanded successfully in the New England area over the past five years. However to succeed nationally as a major retailer, they need to improve the scalability of their operations (stores and warehouses). A key part of their strategy is to leverage information systems to automate and improve operations, to strengthen management controls, and to enable significant growth while maintaining a "high touch" customer experience. A diagram of their complete non-Web based operations is shown in Figure 1

### 2.2. The Initial Set of Case Study Questions - *FastFit*

The simple system diagram in Figure 2 may be used to answer the following questions. The questions should be answered using your common sense and knowledge of retail processes because we have all bought things at a store. Be specific about the items of information, where they are captured, stored and used. How the information flows or is moved within *FastFit* may be shown by the student adding **labeled arrows** to the diagram below.

#### 2.2.1 An Initial Overall Question

1. Mark the main flows of goods and money in the diagram (above) and employ a key or table of descriptive elements to explain your answer.

#### 2.2.2 Customer Questions (focus on the customer and *FastFit* process flows, i.e. the front end of the diagram)

2. a) List the specific items of information that are usually gathered at the POS (Point of Sale terminal or cash register) and recorded when a customer checks out (exclude customer identity information which is covered in Q3)? b) What are three important uses of this information at the store by the store manager and by headquarters management – a total of six uses?
3. a) What are some ways to obtain the identity of the customer at the POS and to associate this "identity" with more detailed information about the customer? b)

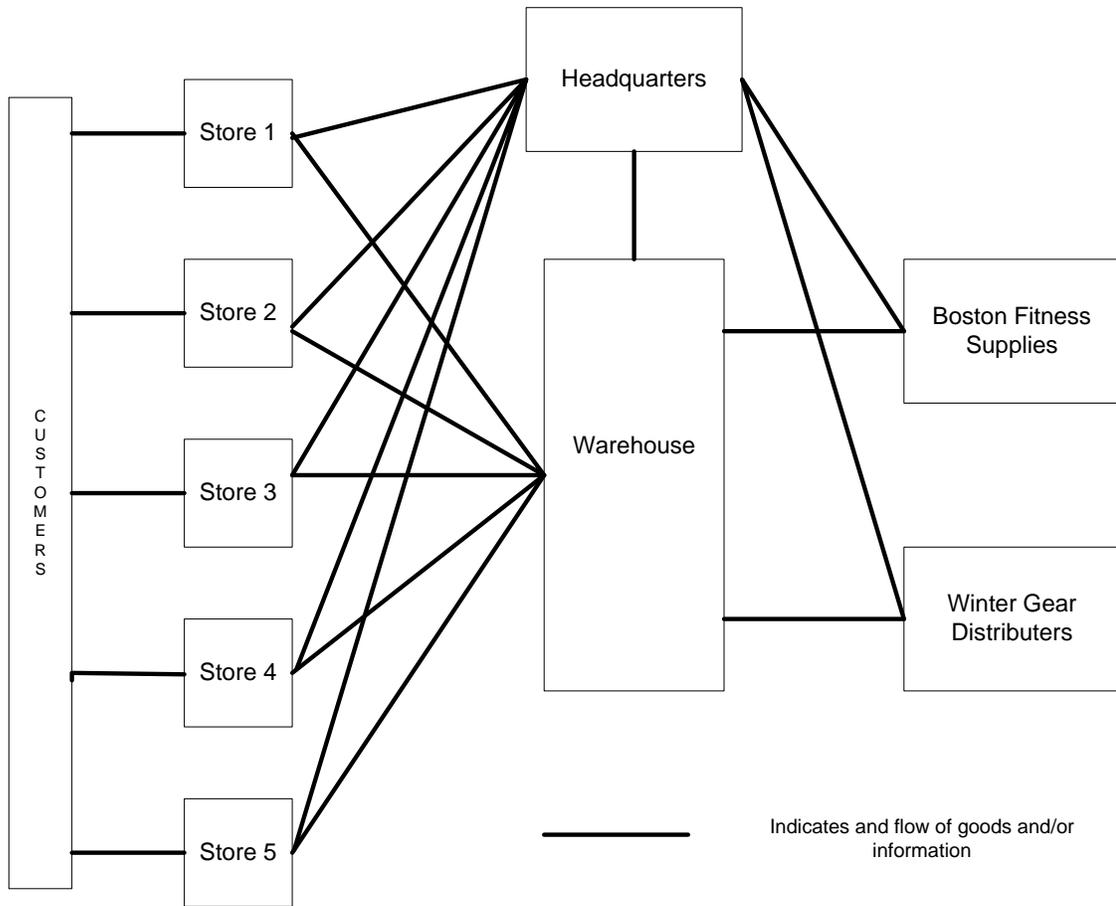


Figure 1. A Schematic Diagram of FASTFIT Sporting Goods Operations

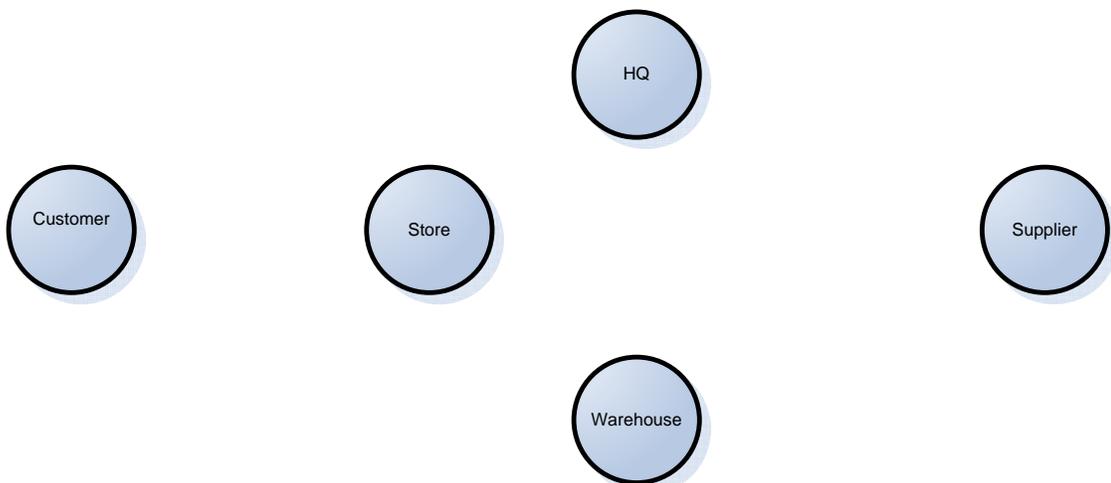


Figure 2. Starting Point for a System Diagram of FASTFIT Business Information Flows

What business actions could *FastFit* then take based upon this additional information?

4. Assume HQ is responsible for replenishing inventory at the stores. a) What information is needed and how is it used to decide what to send to each store? b) Where does the information come from? c) Why didn't we have each store decide what to order from the warehouse?

### 2.2.3 Supplier Questions (focus on the *FastFit* and Supplier process flows, i.e. the back end of the diagram)

5. a) Draw a system diagram that shows the key information and product flows between *FastFit* (HQ and Warehouse) and a supplier, including the steps for ordering and invoicing, and label each flow descriptively. This diagram will have three circles. b) Compare your drawing with the diagram showing the flows between the customer and the store, and explain why the former is more complicated.
6. Assume that *FastFit* headquarters receives and pays invoices from suppliers. a) How do they decide whether to pay and how much to pay? b) From where do they get the information to make this decision?

### 2.2.4 eCommerce Set of Case Study Questions

7. a) Where can customers enter their orders and what technologies do they need at that location to accomplish this activity?
8. a) What technology components do we need at *FastFit* to interact with our customers on the web? (Locate a detailed explanation of eCommerce system platforms in the course textbook and/or via the Web.) b) At what location within *FastFit* would you place these technology components and why?
9. a) What does the order fulfillment center do? b) Why is it located at the warehouse? c) List what information is needed at the warehouse to provide fulfillment services. d) What information is created or changed during the course of the eCommerce business process?
10. a) Why would we want to take customer returns at the stores? Where else within *FastFit* might we process customer returns, and why? b) List what information needs to be shared with what locations to support returns in both of these scenarios.

### 2.3 Winter Gear Distributors Case Study

*Winter Gear Distributors*, *WGD* for short, is one of *FastFit*'s main suppliers. They are a distributor of winter sports equipment and apparel, everything from the latest cross country skis to winter clothing that you could wear to the North Pole if needed. *WGD* has over four hundred (400) customers, deals with about forty-five (45) different manufacturers and processes an average of two hundred (200) orders a day. While their products are state of the art, *WGD*'s information systems are out of date. As part of the work on this business case, the reader will need to consider the upgrade or replacement of old *WGD* legacy systems by an integrated enterprise-wide system for both transacting and management control. Presumably this system will also improve the firm's customer responsiveness, strengthen their bottom line, and even address the challenges posed by their

competitors who are operationally far more efficient than *WGD*.

*WGD* has been in business for thirty (30) years and like many similar businesses it has three operating departments, namely: sales, operations, and accounting. The **Sales Department** deals directly with their customers, including *FastFit*. Sales personnel take orders over the phone and manually complete paper order forms. They later confirm with the customer each order and its delivery date. The Sales team is responsible for generating sales and revenues, understanding customer needs, and providing a high level of customer service. The **Operations Department** commits to delivery dates for orders through Sales, fills and ships customer orders, manages the inventory, and orders products from *WGD* suppliers, who are manufacturers of sports equipment and apparel. The major goal of Operations is to fill orders quickly, accurately and cheaply. Finally the **Accounting Department** reviews and approves all orders as submitted by Sales, issues invoices, and insures that customer pay for goods shipped in accordance with the terms and conditions of the transaction, typically net thirty (30) days. The primary goals of Accounting are to ensure customer compliance with *WGD*'s business rules, to manage the firm's cash flow, and to maintain a very accurate understanding of the financial state of the company.

While the Sales and Accounting departments are on two different floors of an office building, the Operations department is located about three miles away near the Interstate. The information systems in place include a single personal computer that the Sales Department administrator uses to create printed orders from the hand-written order forms. Operations employs an IBM ASA 400 system that runs an inventory management application. This system runs three (3) CRT-terminals, one in the loading/receiving dock, one in the warehouse, and one in the Director of Operations' office. Finally the Accounting Department has a small local area network with four (4) personal computers, a printer, and a file server attached. None of the three departmental systems currently communicate with each other. Furthermore, each of the aforementioned systems was purchased by its respective Department to serve the operational needs of that particular Department only.

### 2.4. The Case Study Question Set - Winter Gear Distributors

The following questions accompany the case and are both useful in helping the student think about *WGD* case study content and as a homework assignment due prior to an actual in-class discussion of the case.

1. Draw a system diagram showing the product and information flows between *WGD* and *FastFit*, starting with *FastFit* placement of an order through when it makes payment for goods received. This diagram will represent each company as a circle for a total of two circles.
2. Next, complete a more detailed diagram that has five distinct processes (hence five circles), two for *FastFit* (Headquarters and the Warehouse) and three for *WGD*'s three departments. This diagram should also include the database associated with each *WGD* department using the cylinder symbol, there are three

of these. Now fill in the flows from Q1 above. Then diagram all the flows of information that occur within **FastFit** and within **WGD** to support the processing of the order. Do not diagram any computer network details; just illustrate the three databases using the cylinder symbol.

3. What happens when a customer calls and asks for the status of their order? Is this a business problem and if so, why?
4. Are errors in filling orders likely, why is that and what is their business impact?
5. Estimate how long it takes from when a customer gives **WGD** an order until it is shipped? Do this by estimating the elapsed time for the order to spend in each step. Is this a business problem?
6. What changes to the Information Management processes and information technology systems (IT) would you make to address these problems? Describe the changes to the IT and then draw the diagram, as originally presented in question 2, again after these changes are in place.

**Note:** In completing your assignment, be sure to employ Word, PowerPoint and/or Visio to prepare your responses. No handwritten work please. Also note that Question 5 lends itself to employing a table to organize and present your response.

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**Richard M. Kesner** serves Northeastern University as an Executive Professor in the Department of Information, Operations and Analysis within the College of Business Administration. He was named a Center for Practice Oriented Education (POE) Fellow, 2006-7. He has also served as a senior IT executive for CELT Corp., Northeastern University, MetLife, Babson College, Multibank (now part of Bank of America), and the Faxon Company. Dr. Kesner holds CLU and ChFC certifications from The American College, a M.A. and Ph.D. from Stanford University, and an A.B. and M.B. from Oberlin College. He has also completed post-doctoral training in finance and strategic planning at the Wharton School, University of Pennsylvania. He is the author of numerous articles and nine books, including his most recent publication from Auerbach, *The Hands-On Project Office: Guaranteeing ROI and on Time Delivery Office* (2004). Richard's current research focuses on knowledge, identity, and data management within



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