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IMSE 802 Supply Chain Decision Making

Case Study: *Supply Chain Information Systems*

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**Description of the functional area**

In this case study entitled, *Supply Chain Information Systems*, the key functional area of information systems. The avenue discussed here was the way in which different types of information systems are currently and have been used historically to aid the supply chain process. Each node in the supply chain network was discussed in light of this critical functional area.

**Overview of the study**

This case study takes a historical and applied stand point on the critical role of information systems in the supply chain process. Emphasis is made on how using the internet enables the ability to link together supply chain networks in almost any business application, product, or service. After taking a look at Dell, Hewlett-Packard, Wal-Mart, and several other huge players in supply chain management, a stanch conclusion that information systems are needed to make these supply chains work. These information systems coordinate activates from design to retail through communication supported by a variety connections linking them together, even across chains.

The study also discusses the different types of applications that information systems will provide to the entire SCM process, including:

* **Planning applications**; which are capable of generating improved plans through use of mathematical algorithms.
* **Execution applications**; enable tracing goods, managing materials, and exchanging financial information.

Serval other types of systems are discussed in great detail as well, including: Advanced Planning Systems (APS), Warehouse Management Systems (WMS), Manufacturing Execution Systems (MES), and Transportation Management Systems (TMS). Additional topics such as data sharing, real-time information, and web based technologies are discussed in light of how they have made possible many avenues of SCM.

**Three important points learned from the study**

Several key points were learned from this study, namely the sheer value these information systems add to an organizations workflow. Several important details learned were:

1. The importance of IT systems

Above all, the most important take-a-way was how much stress these systems get in light of organizations at large. If huge companies are willing to pay top dollar for these systems, they must be providing some extreme utility to them.

1. How information systems play a role on every part of the supply chain process:
   1. **Product development**
   2. **Procurement** to include outsourcing or partnerships
   3. **Manufacturing**
   4. **Physical distribution**
   5. **Customer Relationship Management** (CRM)
2. The three streams of SCM:
   1. **Product**—Goods moving from sources through manufacturing processes and ultimately on to a customer, to include services such as customer returns.
   2. **Information**—Transmitting orders and updating delivery status.
   3. **Financial**—Credit terms, payment schedules, shipment, and contractual relationships.

**Conclusion**

The supply chain is a very complicated process, with flows and channels that enable each layer. Without a fluid stream of information and communication, this process that was intended to save a lot of many to producers and consumers alike, could be very complicated, overwhelming, and costlier than beneficial. Information systems are needed to make these supply chains work. There is not a one size fits all for information systems, but there are some general standards. Without information systems, the communication and profitability of the supply chain would be greatly reduced and could possibly be put to a standstill.