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Supply Chain Technology Foundations

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E-Business

Source

- ◆ ROSS, D. F., Introduction to Supply Chain Management Technologies. 2nd ed. Boca Raton: CRC Press, 2010 (Chapter 2 & 3)

Chapter Outline

- ◆ What are the goals of information technology from the perspective of the business?
- ◆ What computerized technology components (hardware, software, peripherals, etc.) are necessary to realize information goals?
- ◆ What technology toolsets need to be implemented across the supply chain if channel partners are to be closely linked to form a virtual supply network?
- ◆ What are the trends in today's information technologies and how do they impact the supply chain?
- ◆ What are the methodologies and tasks necessary to create a sustainable supply chain information technology environment?

Basics of Information Technology

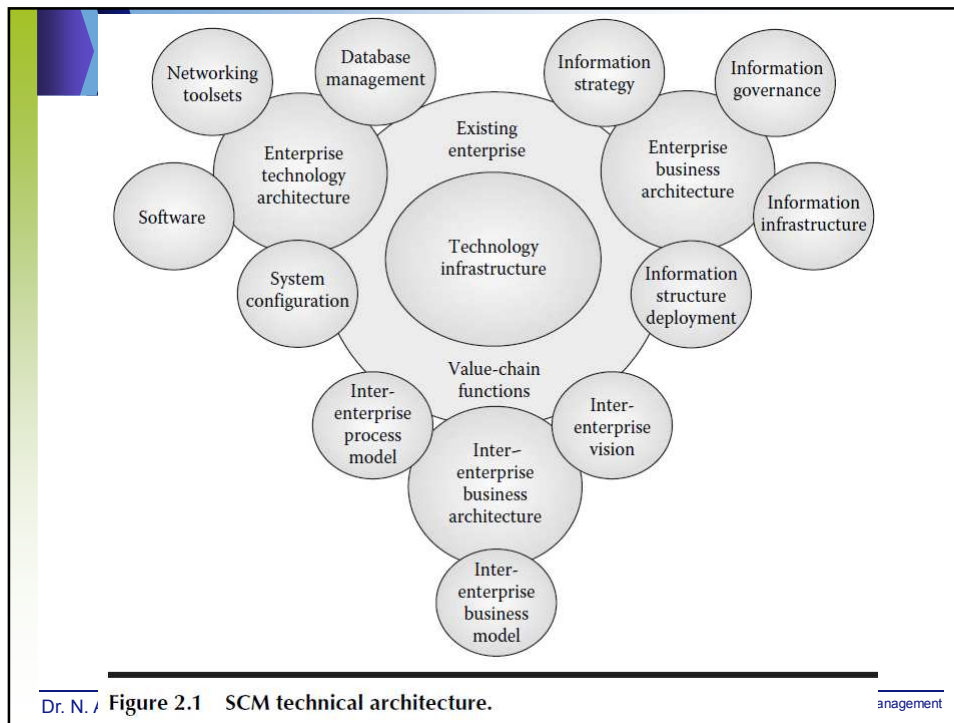


Basics of Information Technology

- ◆ the application of information technology to any human enterprise consists of three separate yet inextricably linked concepts of knowledge
 - *automate knowledge*
 - *Create Knowledge (Informats as well as automates)*
 - *Integrate and Network Knowledge*

Enterprise Information Technology Basics

- ◆ *Internally*, require companies to development integrative information technologies that can rapidly collect, analyze, and generate information about customers, processes, products, services, markets, and company and partner distribution channels to guide purposeful decision-making
- ◆ *Externally*, require companies to deploy information technologies that enable them to architect supply channels that are collaborative, agile, scalable, fast-flow, and Web-enabled



IBM's enterprise information infrastructure frameworks

- ◆ *Information integration management systems,*
- ◆ *Data master file management*
- ◆ *Dynamic data warehousing*
- ◆ *Enterprise content management (ECM)*
- ◆ *Operations management*
- ◆ *Business intelligence and performance management*

◆ Architecting inter-enterprise structures capable of synchronous information flows requires channel planners to develop and constantly attend to a joint strategy that seeks to utilize the best technology toolsets to realize targeted individual company and supply chain objectives.

- *Architecting a Shared Inter-enterprise Vision.*
- *Inter-enterprise Business Modeling*
- *Inter-enterprise Process Modeling*
- *Engineer Trading Partner Processes*
- *Degree of Process Interaction.*
- *Internal Infrastructure and System Reengineering*
- *e-Application Architecture*

Requirements for choosing software suit

- ◆ *Technology Architecture*
- ◆ *Adaptability.*
- ◆ *Cost.*
- ◆ *Implementation.*
- ◆ *User Adoption*

New Technologies

- ◆ *Software-as-a-Service (SaaS)*
 - *cloud computing*
- ◆ *Wireless Technology*
 - *RFID*

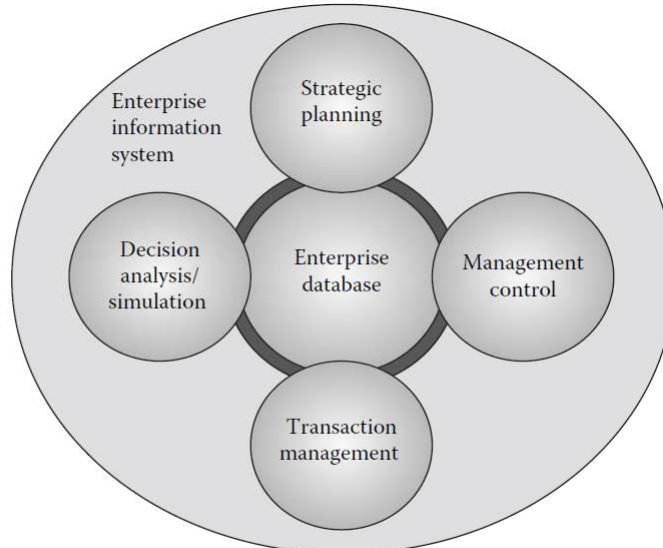
Global Trade Management Solutions

- ◆ GTM can be defined as a software solution that manages in global trade events by achieving efficiencies and excellence in four critical areas:
- ◆ *Compliance.*
 - capabilities focused on automating customs and regulatory compliance activities
- ◆ *Content.*
 - establishing accurate and complete trade content for every country a company trades with in order to successfully comply with trade regulations and prevent customs clearance delays.
- ◆ *Connectivity.*
 - Establishing and maintaining connectivity with a dynamic set of trading partners, as well as keeping up with customs modernization efforts around the world
- ◆ *Finance.*
 - the effective management of transaction financing.

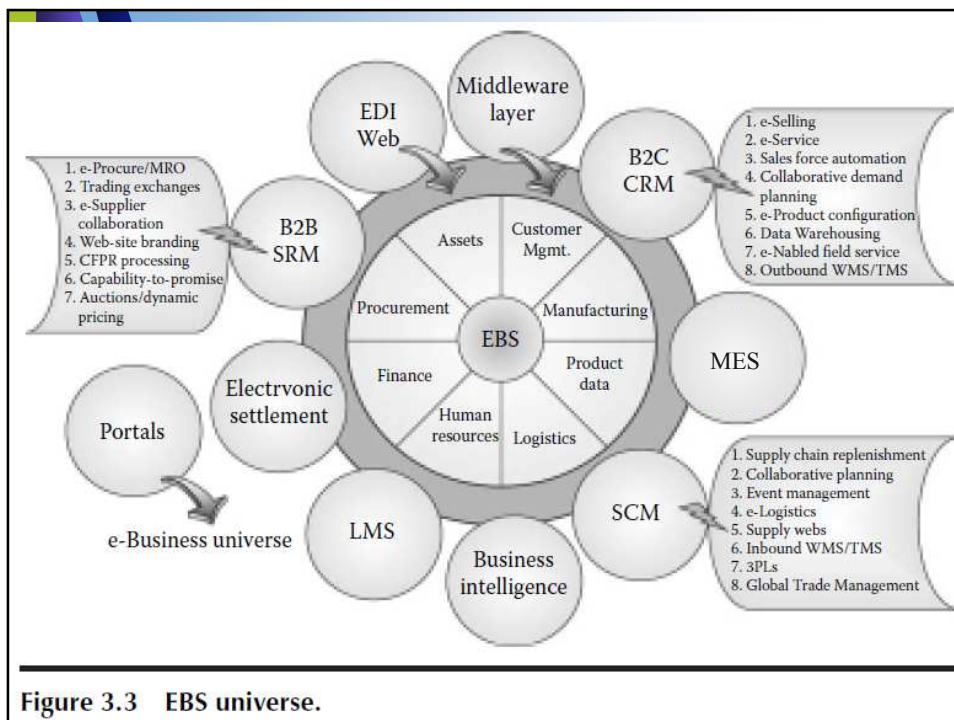
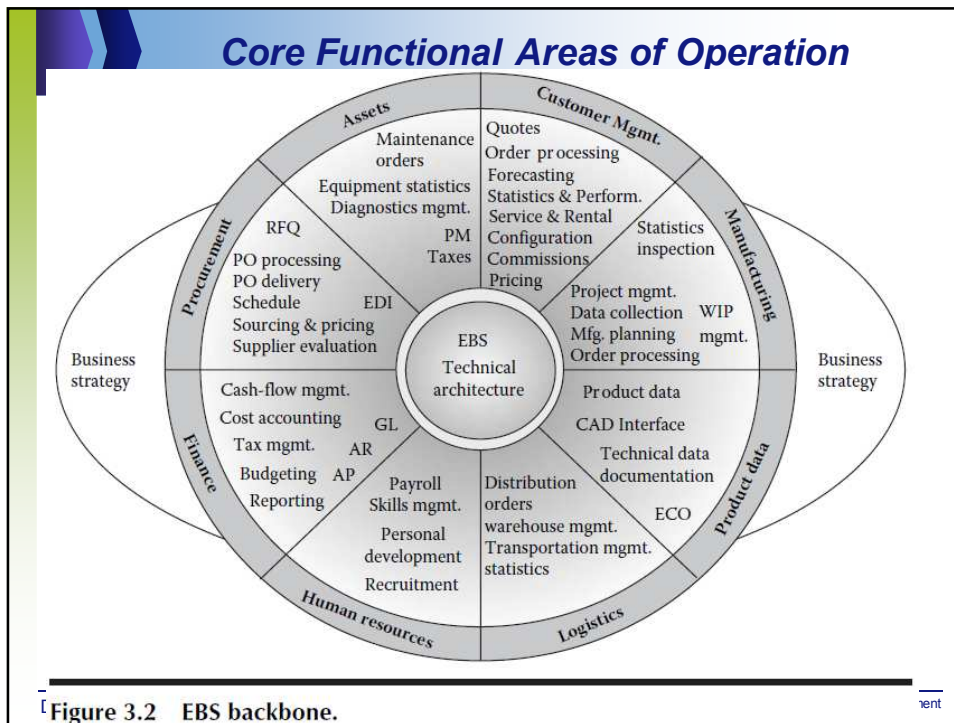
Managing information

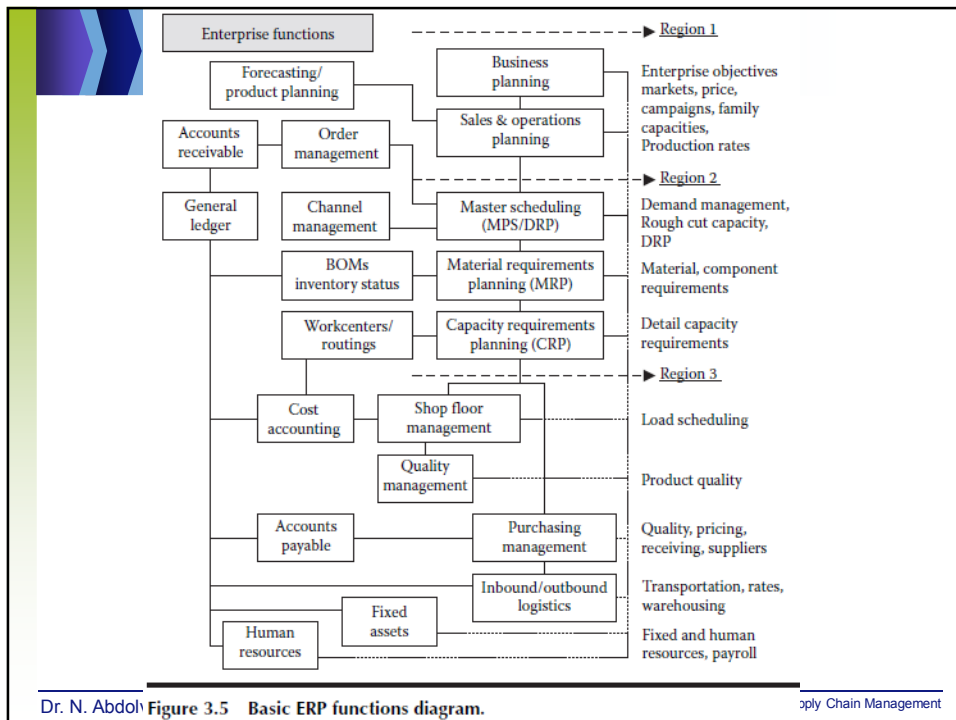
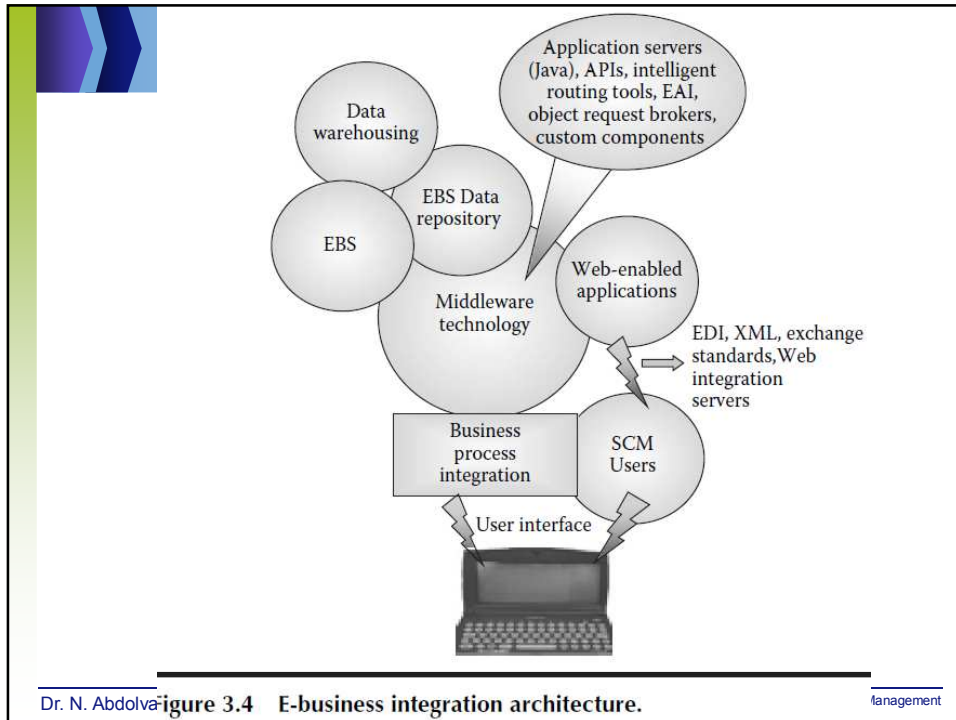
- ◆ What is the information that is needed to effectively automate, informate, and network the organization and its business partners?
- ◆ How is this information to be organized in a meaningful manner?
- ◆ What are the software applications to be deployed that enable people throughout the network to enter, access, and work with the information?
- ◆ How can the network of users ensure that the data is timely and accurate?

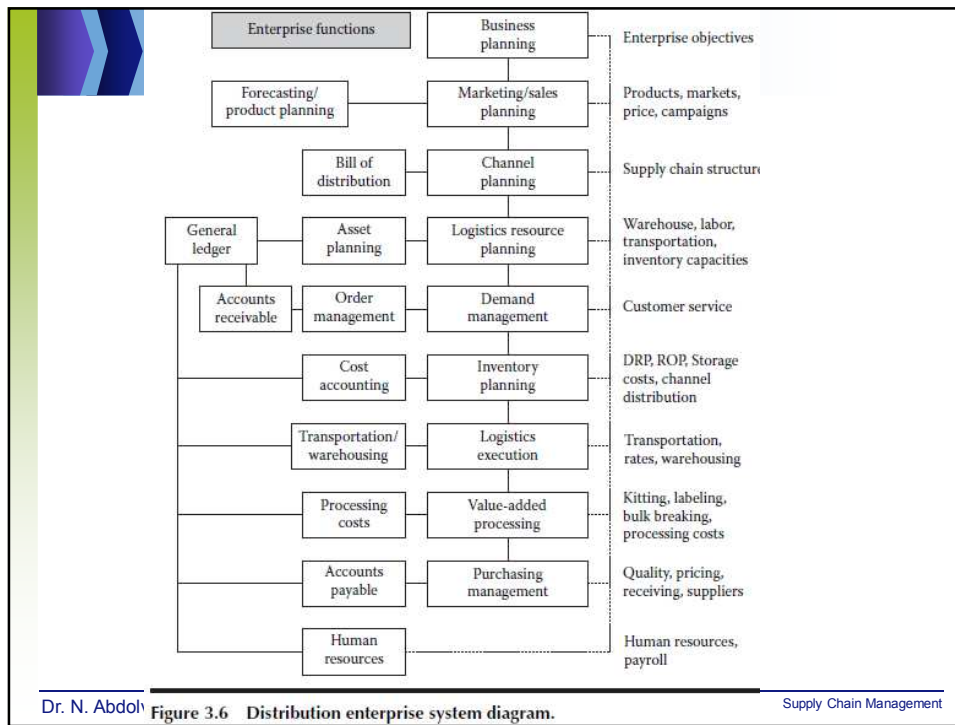
The Five Basic Functions of Information Systems



Dr. N Figure 3.1 Enterprise system architecture.

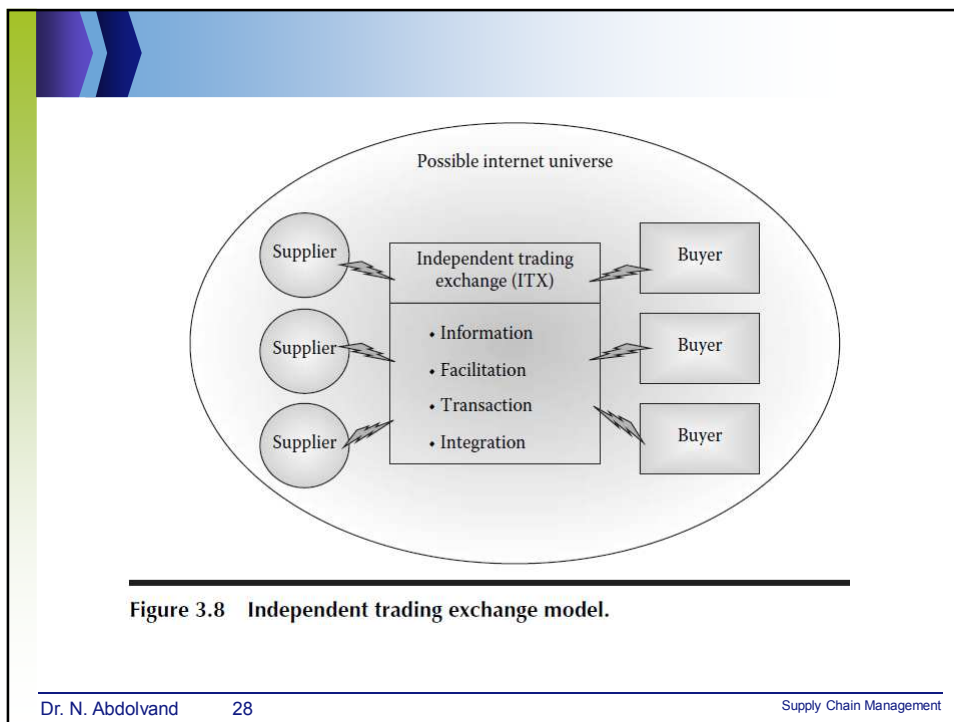
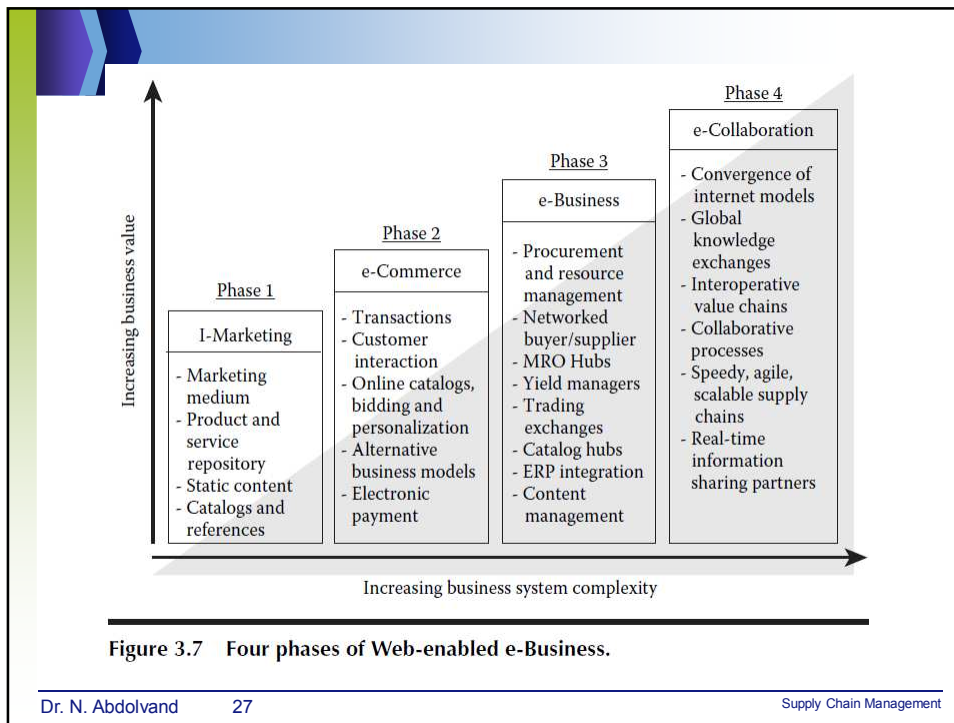


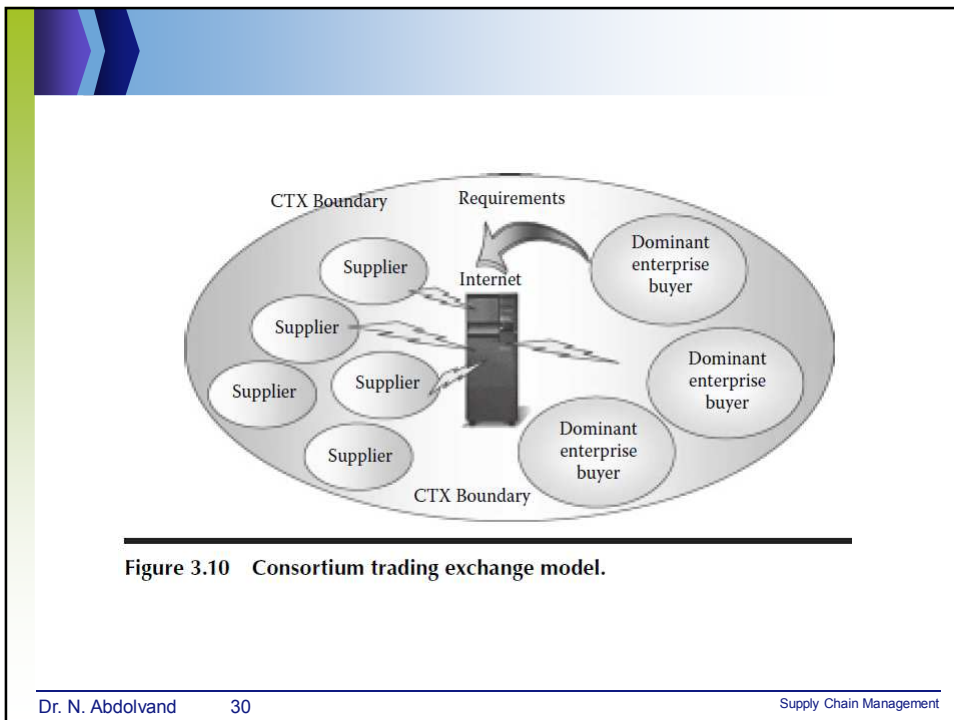
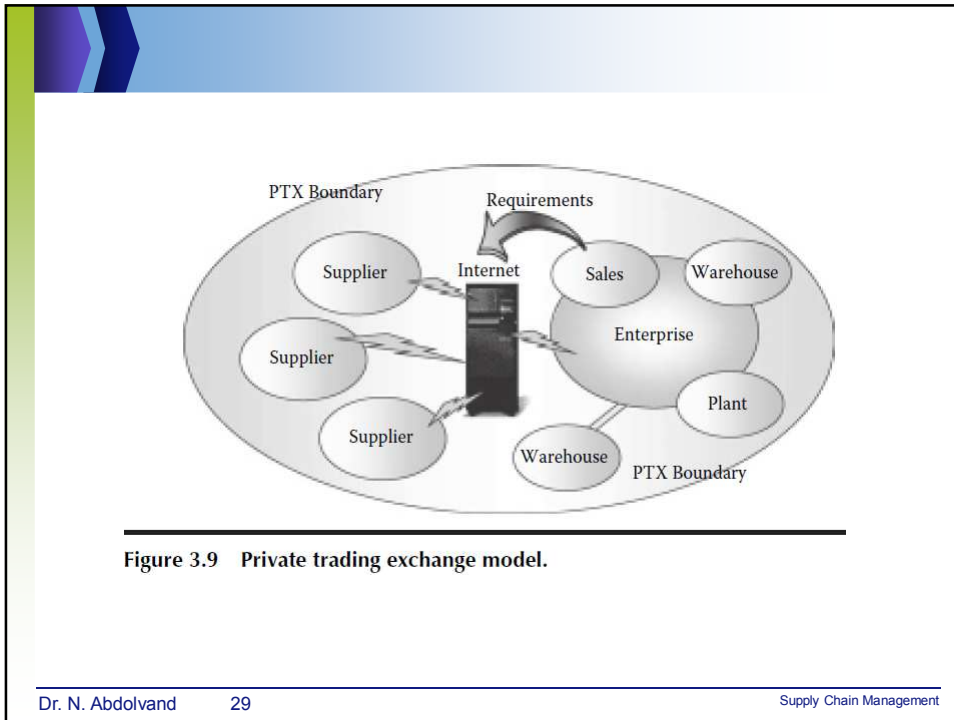


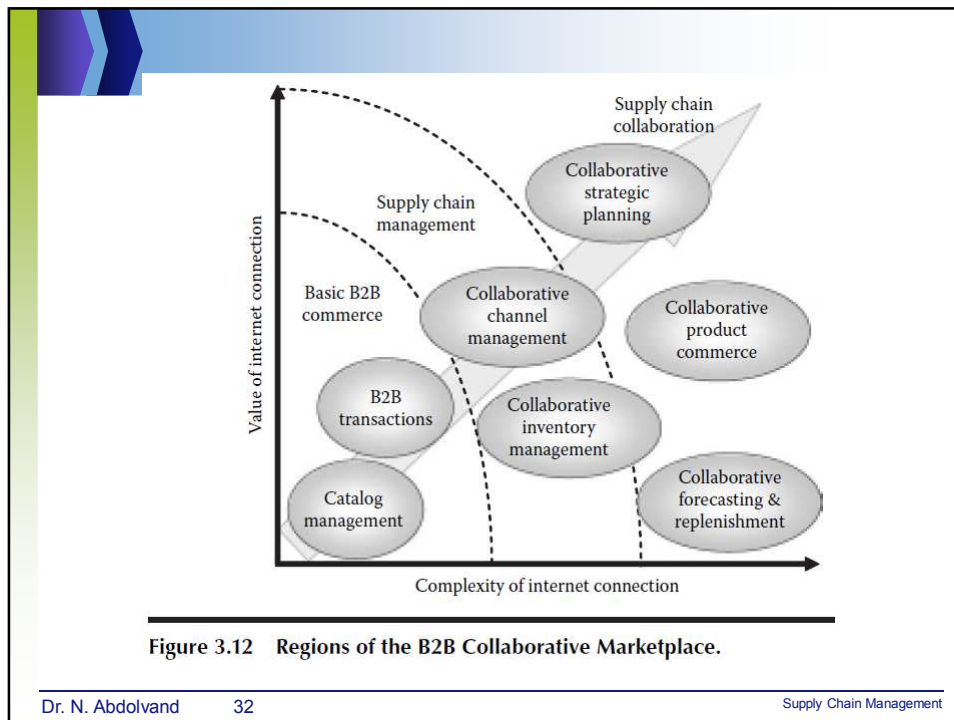


Assignment

♦ بررسی شرکت‌های ارائه‌دهنده راه‌حل‌های نرم‌افزاری ایرانی و خارجی







the gaps that prevent full collaborative commerce

- ◆ *Gap 1: Lack of Alignment and Strategic Visibility*
- ◆ *Gap 2: Lack of Supply Chain Models Including Risk Management, Optimization, and Cost Impacts.*
- ◆ *Gap 3: Inadequate Process Orientation, Including Measurements, Information, and Integration.*
- ◆ *Gap 4: Insufficient Trust and Relationship-Building Skills*
- ◆ *Gap 5: Lack of ongoing frameworks for supply chain architecture and structure*
- ◆ *Gap 6: Insufficient management talent and leadership*

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Benefits of e-business

- ◆ *Increased Market Supply and Demand Visibility.*
- ◆ *Price Benefits from Increased Competition.*
- ◆ *Increased Operational Efficiencies.*
- ◆ *Improved Partner and Customer Segmentation.*
- ◆ *Improved Supply Chain Collaboration.*
- ◆ *Synchronized Supply Chains.*
- ◆ *Efficient Payment Transfer.*
- ◆ *Impact on Cost.*

Impact of e-Business on the Supply Chain

Customer Elements

- ◆ *Product variety*
- ◆ *Product planning*
- ◆ *Shortened Time to Market*
- ◆ *Flexible Pricing, Promotions, and Product Offerings*

Service-Driven

Supply Chain Driven Elements

- ◆ *Customer Response Time*
- ◆ *Inventory.*
- ◆ *Facilities.*
- ◆ *Transportation.*
- ◆ *Information Technology*
- ◆ *Returns.*



Questions?