

## 1. Motivation

E-commerce plays a significant role in how companies execute their business in the marketplace. Information technology (IT) is thereby not only revolutionizing the way that companies do business with consumers, but also the way that they do business with each other. Experts even predict that business-to-business (B2B) transactions will exceed those of business-to-consumer (B2C) e-commerce. This makes sense, when we consider that a company selling, for instance, a book does not only interact with the consumer but also with the publisher who printed the book. The publisher, in turn, needs to interact with the paper and ink suppliers, the maintenance firm that keeps the printing presses running, the authors who submit their manuscripts online, and so forth.

Further, IT also influenced the value chain in many industries. And the resulting changes in the value chain have made companies more dependent upon business partners than ever before.

One of the key enablers for the development of new B2B e-commerce models is electronic data interchange (EDI). EDI is a standard format that is used to exchange business data including price or product identification number. With EDI technology, sellers, shippers, carriers, customs agents, and customers, all can send and receive documents electronically, thereby saving both time and money for the transactions.

Finally, B2B information exchange has become so critical that it is one of the top metrics that customers in many industries use to measure partner performance.

## 2. Learning Outcomes

### Course Contents

This course introduces information systems enabling and supporting B2B processes in e-commerce. Fundamentally, it will elaborate the characteristics of B2B e-commerce that are distinct to B2C e-commerce.

Particular focus will be given to intercorporate networks such as Electronic Data Interchange (EDI) systems and Supply Chain Management (SCM) systems. Furthermore, the course will emphasise on current and future numbering systems (e.g. barcodes, EPC) and related architectures (e.g., IOT architecture).

Main characteristics of and requirements for B2B systems in certain key sectors that strongly rely on information technology (IT) will be highlighted. These key sectors include:

- Health Care
- Transportation
- Finance, Banking, and Insurance
- Telecommunication

### Learning Outcomes

After attending this course, students are able to

- understand the characteristics of information systems, processes and standards employed in B2B e-commerce,
- understand data exchange standards and B2B architectures,
- understand current and future numbering systems (e.g. EPC) and related architectures (e.g., IOT architecture),
- discuss and reason about the strategic importance of current and future numbering systems and related architectures,
- understand the IT dynamics of some key industries that are particularly relying on IT.



In addition, this course fosters the following soft skills:

- ability to reason about B2B e-commerce issues,
- ability to comprehend the functionality and challenges of several key industries and reason about them,
- ability to express opinions in a professional way,
- ability to give constructive feedback and to deal with open criticism.

### **3. Course Description and Assessment**

#### **Mode of Teaching and Learning**

The course is a mixture of lecturing, student presentations and discussion as well as a short written case description. Students have to submit a five (5) page case description prior to their case presentation. In each class one part of the class time is dedicated to the introduction of a subject matter or an industry. The other part is dedicated to presentation of industry dynamics and subsequent discussion.

The course design allows plenty of room for discussion of the presented cases and other course-relevant topics.

Learning material will be available on the course platform.

#### **Assessment**

Performance will be evaluated according to following criteria:

- Regular attendance is a prerequisite for passing the course.
- Team case elaboration (25%)
- Team case presentation (25%)
- Final written exam (50%)
- A prerequisite for passing the course is reaching at least 50% ( $\geq 50\%$ ) of the achievable exam points.

The following grading system is used:

- 87.5% - 100% = "Sehr gut"
- 75% - 87% = "Gut"
- 62.5% - 74.5% = "Befriedigend"
- 50% - 62% = "Genügend"
- Below 50% = "Nicht Genügend"

If the prerequisite of  $\geq 50\%$  is fulfilled, distinguished participation and commitment in class and on the learning platform (discussion) is positively rewarded by pushing the respective student to the next grade level.



## 4. References

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