1 BASICS AND DEFINITIONS

Learning objectives

In this chapter you will learn,

- how the term "E-Commerce" has been defined,
- how the Internet has enabled this type of business,
- what are typical categories of making business digitally,
- what are the advantages as well as the disadvantages of digital business,
- which technical and economical challenges have to be mastered when doing business electronically.

Recommended pre-reading

- Mohapatra 2013, chapter 1.
- Turban et al 2015, chapter 1.

1.1 THE TERM "E-COMMERCE"

1.1.1 THE WIKIPEDIA CONTENT

Of course, we looked up the term "E-Commerce" and other related terms in the popular encyclopaedia Wikipedia. The outcome of our research as of October 25, 2015, is documented in the subsequent lines.

E-Commerce

"Electronic commerce, commonly written as E-Commerce, is the trading in products or services using computer networks, such as the Internet. Electronic commerce draws on technologies such as mobile commerce, electronic funds transfer, supply chain management, Internet marketing, online transaction processing, electronic data interchange (EDI), inventory management systems, and automated data collection systems. Modern electronic commerce typically uses the World Wide Web for at least one part of the transaction's life cycle, although it may also use other technologies such as E-Mail.

E-Commerce businesses may employ some or all of the following:

- Online shopping websites for retail sales direct to consumers,
- Providing or participating in online marketplaces, which process third-party business-to-consumer or consumer-to-consumer sales,
- Business-to-business buying and selling,
- Gathering and using demographic data through Web contacts and social media,
- Business-to-business electronic data interchange,
- Marketing to prospective and established customers by E-Mail or fax (for example, with newsletters),
- Engaging in pretail for launching new products and services.

Pretail (also referred to as pre-retail, or pre-commerce) is a sub-category of E-Commerce and online retail for introducing new products, services, and brands to market by pre-launching online, sometimes as reservations in limited quantity before release, realization, or commercial availability. Pretail includes pre-sale commerce, pre-order retailers, incubation marketplaces, and crowdfunding communities." (Wikipedia 2015)

E-Business

"Electronic business, or E-Business, is the application of information and communication technologies (ICT) in support of all the activities of business. Commerce constitutes the exchange of products and services between businesses, groups and individuals and can be seen as one of the essential activities of any business. Electronic commerce focuses on the use of ICT to enable the external activities and relationships of the business with individuals, groups and other businesses or E-Business refers to business with help of Internet i.e. doing business with the help of Internet network. The term <E-Business> was coined by IBM's marketing and Internet team in 1996." (Wikipedia 2015)

Comparing E-Commerce and E-Business we come to the subsequent conclusion:

E-Business is a more general term than E-Commerce. However, in this book we will only use the term "E-Commerce", because every business transaction finally is involved in selling or buying of products or services. And the term "E-Commerce" obviously is more widespread than the term "E-Business".

Digital economy

"Digital economy refers to an economy that is (substantially) based on computing technologies. The digital economy is also sometimes called the Internet Economy, the New Economy, or Web Economy. Increasingly, the "digital economy" is intertwined with the traditional economy making a clear delineation harder." (Wikipedia 2015)

We will not use the term "digital economy" further on in this book, because business is business be it traditional or digital. And boundaries are moving every day due to technical development. However, we will repeatedly use the term "digital" or "digitalized" to indicate that subjects or activities are based on ICT.

1.1.2 PRELIMINARY DEFINITION

Some authors write extremely enthusiastically like this: E-Commerce enables the comprehensive digital execution of business processes between suppliers and their customers via global public and private networks.

However, this definition rises some questions:

- What does "comprehensive" mean? Does it mean the total process? Is everything digitalized?
- What about transportation and delivery of real goods? Obviously here are some limits for digitalization, though sooner or later 3-D-printing may change a lot…
- Why should businesses be run electronically? Is enablement a value in itself? Or do we digitalize businesses because we can reduce costs, accelerate processes and increase profit?

This definition, though given in many E-Commerce books, is too much marketing-minded and not helpful to understand the advantages (and disadvantages) of "digitalized" business reasonably.

1.1.3 FINAL DEFINITION

To come to a final definition of E-Commerce let us start with some constituent attributes of E-Commerce:

- Digitalization of business:
  - This means a comprehensive usage of ICT (Information & Communication Technology) not only within a business organization (as it has been done during the last decades by traditional (internal) information systems), but now through a more and more seamless linking and cooperation of information and communication systems of all involved business partners.
  - The comprehensive usage of ICT has been enabled by some technologies and technical standards, which have been accepted globally (see chapter 2 of this book).

- Focus on business processes:
  - We support business processes, of course, as we did it for the last decades, but now the total processes, running through several organizations and crossing their boundaries, are supported.
  - We automate business processes not longer only within organizations, as it was "the" traditional objective of ICT, but now the automation is related to the total process, running through all involved organizations, and not only to the sub-process within the own organization.
  - We increase the speed of business processes. Additional potentials can be realized with the coupling of processes between different organizations.
  - We increase the economic efficiency of business processes, again through coupling of business processes at the boundaries of the business partners.

- Usage of a global network:
  - Internet plays a dominant role and has become a universal technical infrastructure. Thus it builds a global virtual place where every organization and person being interested in making business can come together without geographical and time restrictions.
  - Global networks allow the exchange of information without any restrictions in time and independently from any geographical distances.
  - We "know" (means: assume) that the Internet is always up and running (7·24h).

- New potentials and opportunities for cooperation:
  - More or less independent persons and/or organizations work together.
  - Business actors can come together whenever they want it or whenever there is a need.

These considerations lead to our final definition (Turban et al 2015, p. 7):

E-Commerce is the exchange of goods and services between (usually) independent organizations and/or persons supported by a comprehensive usage of powerful ICT systems and a globally standardized network infrastructure.

For this purpose the business partners have to couple their business processes and their ICT systems. These systems have to work together temporarily and seamlessly and have to share, exchange and process data during the whole business process and across the boundaries of the cooperating organizations.

Data security and data privacy as well as the compliance with laws and other policies and procedures have, of course, to be guaranteed.

1.1.4 E-COMMERCE WITH THE "5-C-MODEL"

Another approach to define and explain, what E-Commerce is, comes from the so-called 5-C-model (Zwass 2014). It defines E-Commerce by five activity domains whose denominations start with the letter "C":

Commerce

- In the electronic marketplaces there is a matching of customers and suppliers, an establishing of the transaction terms, and the facilitation of exchange transactions.
- With the broad move to the Web-enabled enterprise systems with relatively uniform capabilities as compared to the legacy systems, a universal supply-chain linkage has been created.

Collaboration

- The Web is a vast nexus, or network, of relationships among firms and individuals.
- More or less formal collaborations are created or emerge on the Web to bring together individuals engaged in knowledge work in a manner that limits the constraints of space, time, national boundaries, and organizational affiliation.

Communication

- As an interactive medium, the Web has given rise to a multiplicity of media products.
- This universal medium has become a forum for self-expression (as in blogs) and self-presentation (as, for an example, in Polyvore: www.polyvore.com).
- The rapidly growing M-Commerce (see below) enables connectivity in context, with location-sensitive products and advertising.
- In the communications domain, the Web also serves as a distribution channel for digital products.

Connection

- Common software development platforms, many of them in the open-source domain, enable a wide spectrum of firms to avail themselves of the benefits of the already developed software, which is, moreover, compatible with that of their trading and collaborating partners.
- The Internet, as a network of networks that is easy to join and out of which it is relatively easy to carve out virtual private networks, is the universal telecommunications network, now widely expanding in the mobile domain.

Computation

- Internet infrastructure enables large-scale sharing of computational and storage resources, thus leading to the implementation of the decades-old idea of utility computing.

1.1.5 ADDITIONAL TERMS

M-Commerce (Mobile Commerce)

M-Commerce (Mohapatra 2013, pp. 81–82) is commonly understood as the usage of mobile devices for business purposes, especially mobile phones and PDA's (Personal Digital Assistants).

Main features of M-Commerce are:

- Location independence of (mobile) customers,
- High availability of services through well established mobile phone networks,
- Increasing computing power of mobile devices,
- Interactivity of mobile devices (voice and data transfer),
- Security (when using mobile phone networks),
- Localization of customers through cell structure,
- Accessibility of customers,
- Potential of personalized services/offers.

E-Procurement (Electronic Procurement)

In general, E-Procurement (Chakravarty 2014, p. 115) is the automation of an organization's procurement processes using Web-based applications. It enables widely dispersed customers and suppliers to interact and execute purchase transactions. Each step in the procurement process is captured electronically, and all transaction data is routed automatically, reducing time and cost of procurement. Properly deployed, E-Procurement can deliver tremendous value to enterprises in different ways.

In a narrower sense E-Procurement is seen as the ordering of MRO goods (MRO = Maintenance/Repair/Operations) on the basis of Web-based application systems directly by the demand carrier to reduce process costs in the area of so-called C-articles (C-articles represent a small portion of the total financial procurement volume, but cause a significant portion of the procurement costs).

Every sales process at the same time is a procurement process or a buying process – from the point of view of the (potential) customer. Sales processes are driven by the supplier. Procurement processes are driven by the customer. However the exchange of goods or services has to be managed. Thus we will consider E-Procurement as a specific view onto E-Commerce.

E-Government (Electronic Government)

The big encyclopaedia Wikipedia says (search as of October 26, 2015) (Xu 2014, pp. 102–105):

"E-Government (short for electronic government, also known as e-gov, Internet government, digital government, online government, or connected government) consists of the digital interactions between citizens and their government (C2G), between governments and government agencies (G2G), between government and citizens (G2C), between government and employees (G2E), and between government and businesses/commerce (G2B).

This digital interaction includes all levels of government (city, state/province, national, and international), governance, information and communication technology (ICT), and business process re-engineering (BPR)."

E-Administration (Electronic Administration)

"E-administration refers to those mechanisms which convert the paper processes in a traditional office into electronic processes, with the goal to create a paperless office. Its objective is to get total transparency and accountability within any organization." (Wikipedia 2015)

E-Democracy (Electronic Democracy)

"E-Democracy incorporates 21st-century information and communications technology to promote democracy. That means a form of government in which all adult citizens are presumed to be eligible to participate equally in the proposal, development, and creation of laws." (Wikipedia 2015)

1.1.6 ROLE OF INTERNET

In the early years, E-Commerce was considered to be an aid to the business. In the meantime it has become more or less a business enabler (Mohapatra 2013, pp. 10–12).

Between 1998 and 2000, a substantial number of businesses in the United States and Western Europe developed rudimentary websites. In the dot-com era, E-Commerce came to include activities more precisely termed "Web commerce" – the purchase of goods and services over the World Wide Web, usually with secure connections with E-Shopping carts and with electronic payment services such as credit card payment authorizations.

The emergence of E-Commerce also significantly lowered barriers to entry in the selling of many types of goods; many small home-based proprietors are able to use the Internet to sell goods. Established suppliers had to close their shops and to change their business model to an E-Commerce model to stay profitable and in the business (e.g. travel agencies).

Often, small suppliers use online auction sites such as eBay or sell via large corporate websites, to ensure that they are seen and visited by potential customers.

1.2 BUSINESS MODELS RELATED TO E-COMMERCE

1.2.1 INTERNET BASED BUSINESS

In this chapter we list some typical business activities, which are based on the Internet. E-Commerce actors cooperate with those firms and use them as specific service providers.

Access provider

The access provider ensures (technical) access to the Internet. We should have in mind, that somebody has to pay the access provider so that we can get access to the Internet. Who pays? We or somebody else? In many (most?) areas of the world it is a totally privatized business, though sometimes in the political arena the access to the Internet is declared as a modern human right. Obviously there is a similarity to telephone network(s). However, it (normally) works in this privatized form.

Traditional business models, which are somehow similar to the business of an access provider, are operators of a technical infrastructure, e.g. telephone networks, car highways, or railways.

Search engine

Search engines are the most used software in the Internet. They are the starting step for many Internet-based activities, not only but, of course, also if somebody is looking for a business opportunity. Again we must ask: Who pays? The one, who wants to find something or someone? Or the one, who wants to be found?

A traditional and similar business model is given by the so-called "yellow pages", where firms are listed and grouped according to branches and locations.

Online shop

An online shop is a website, where you can buy products or services, e.g. books or office supplies.

Traditional and similar business models are direct mail selling (no shop facility, offering of goods via a printed catalogue, ordering by letters or telephone calls) and factory outlets (producer has own shop facility, does not sell his products via merchants).

Content provider

Content providers offer content, a completely digital good, e.g. information, news, documents, music. A specific variant of a content provider is the information broker, who is a trader of information.

Again the following question has to be put: Who pays? The one, who wants to have access to an information? The one, who wants to provide an information?

Traditional business models in this area are newspaper publishers, magazine publishers, radio and television broadcasting services or publishing companies.

Portal

A portal is a website, which provides a set of services to the user so that he/she sometimes thinks that he/she is using a single but very complex software system. Portals are often used in big organizations to control the access of employees to the different ICT systems; each employee gets a specific menu of "his"/"her" applications. Also content providers use portals, though in the narrow sense that they only deliver content and no application systems.

Online marketplace/electronic mall

An online marketplace is a website, where suppliers and potential customers can come together like on a real marketplace in a small town. An E-Mall is a set of online shops, which can be found on one website.

Examples of traditional and similar business models are shopping centers, omnibus orders (One person is customer of the shop and buys for a group of people), marketplaces and buying associations.

Virtual community

A virtual community is a platform for communication and exchange of experience. It is similar to a virtual club or association. We always should ask: Who is the owner? Who is the person or organization behind the platform? Who pays? The members or the visitors? The community operator?

Information broker

An information broker collects, aggregates and provides information, e.g. information with respect to products, prices, availabilities or market data, economical data, technical information.

Here we have to ask: Can we trust the information? Is it neutral or just a product placement? Who pays? The visitor? Some providers? Financed through advertisements?

Traditional and similar business models are magazines running tests of computers, cars, consumer goods, restaurants.

Transaction broker

A transaction broker is a person or an organization to execute sales transactions. Sometimes those brokers are used to hide the real customer to the supplier. A transaction broker is an agent who is an expert in a specific area and can take over parts of a business.

A similar traditional business model is the free salesman.

Online service provider/cloud service provider (CSP)

An online service provider provides services, which can be run electronically, e.g. application software services or ICT infrastructure services like storage or backup services. If this organization uses so-called cloud technologies it is called a cloud service provider (ten Hompel et al 2015; Marks & Lozano 2010).

The questions, which we have to put, are: Who pays? The service user? If not, who is the customer?

This list describes a great variety of Internet-based business models. However, it will not be a complete compilation because with new and innovative technologies new business ideas will come up and lead to new and additional offerings.

1.2.2 ADVANTAGES AND DISADVANTAGES

E-Commerce has a lot of advantages. But as we know it from every area of our life, there is "no free lunch". Of course, E-Commerce has some disadvantages (see tables 1 and 2).

Advantages	
...for the customer	**...for the provider**
• Flexible shopping hours (7·24h) • No waiting queues (if net is available and software appropriately designed) • Shopping at home (we don't have to leave our apartment, refuel our car or buy a subway ticket, look for a parking place, etc.) • Individual needs can be covered (if customization is offered) • Global offers, more competition, pressure on prices	• Better customer service can be offered • Fast communication with customer • New customer potential through global visibility • No (traditional) intermediaries, who take away margins

Table 1: Advantages of E-Commerce

Disadvantages	
...for the customer	**... for the provider**

• Security risks:
  ○ Data theft (e.g. stealing account or credit card numbers)
  ○ Identity theft (acting under our name or user identity)
  ○ Abuse (e.g. third person orders goods with our identity, gets them delivered and we have to pay for it)
• Crime:
  ○ Bogus firm (firm does not really exist)
  ○ Fraud (e.g. order is confirmed, invoice has to be paid, but goods are never delivered)
• Uncertain legal status (if something goes wrong, can we accuse the provider?)
	• Higher logistics cost (goods have to be sent to the customer's location)
	• Anonymity of customers (how to make targeted advertisements?)

Table 2: Disadvantages of E-Commerce

1.2.3 BUSINESS NET TYPES

A more abstract categorization of digital businesses has been given 2001 by Tapscott (Meier & Stormer 2008, pp. 34–46). He discussed the following business net types:

Business Web Agora

- Objective: To run a marketplace for goods and values.
- Attributes: Market information available, negotiation processes established, dynamic pricing through negotiations between market participants.
- Role of the customer: Market participant.
- Benefits: Negotiable products and services.
- Examples: eBay, auctions.yahoo.

Business Web Aggregator

- Objective: To run a digital super market.
- Attributes: Presentation of a great variety of products, fixed prices and no negotiation between supplier and customer, simple fulfilment from the customer's point of view.
- Role of the customer: Customer.
- Benefits: Convenient selection and fulfilment from the customer's point of view.
- Examples: etrade, amazon.

Business Web Integrator

- Objective: To establish an optimized value creation chain.
- Attributes: Systematic supplier selection, process optimization for the total value chain, product integration along the value chain.
- Role of the customer: Value driver.
- Benefits: Creation and delivery of customer-specific products.
- Examples: Cisco, Dell.

Business Web Alliance

- Objective: To establish a self-organizing value creation space.
- Attributes: Innovation in products and processes, trust building between different actors, abstinence of hierarchical supervision.
- Role of the customer: Contributor.
- Benefits: Creative and collaborative solutions.
- Examples: Linux, music.download.

Business Web distributor

- Objective: Exchange of information, goods and services.
- Attributes: Net optimization, unlimited usage, logistics processes.
- Role of the customer: Recipient.
- Benefits: In-time delivery.
- Examples: UPS, AT&T, Telekom.

1.2.4 WEB 2.0

Web 2.0 (Chen & Vargo 2014) describes World Wide Web sites that emphasize user-generated content, usability, and interoperability. Although Web 2.0 suggests a new version of the World Wide Web, it does not refer to an update of any technical specification, but rather to cumulative changes in the way Web pages are made and used.

Characteristic application types of Web 2.0 are

- **Blogs**: A blog (a truncation of the expression weblog) is a discussion or informational site published on the World Wide Web and consisting of discrete entries ("posts") typically displayed in reverse chronological order (the most recent post appears first). We normally see "multi-author blogs" (MABs) with posts written by large numbers of authors and professionally edited. MABs from newspapers, other media outlets, universities, think tanks, advocacy groups and similar institutions account for an increasing quantity of blog traffic. The rise of Twitter and other "micro-blogging" systems helps integrate MABs and single-author blogs into societal news streams.

- **Social networking services**: A social networking service (also social networking site or SNS) is a platform to build social networks or social relations among people who share similar interests, activities, backgrounds or real-life connections. A SNS consists of a representation of each user (often a profile), his or her social links, and a variety of additional services such as career services. SNS's are Web-based services that allow individuals to create a public profile, create a list of users with whom to share connections, and view and cross the connections within the system. Most SNS's provide means for users to interact over the Internet, such as E-Mail and instant messaging. SNS's incorporate new information and communication tools such as mobile connectivity, photo/video/sharing and blogging.
- **Online communities**: An online community is a virtual community whose members interact with each other primarily via the Internet. Those who wish to be a part of an online community usually have to become a member via a specific site and necessarily need an Internet connection. An online community can act as an information system where members can post, comment on discussions, give advice or collaborate. Commonly, people communicate through SNS's, chat rooms, forums, E-Mail lists and discussion boards. People may also join online communities through video games, blogs and virtual worlds.
- **Forums/Bulletin boards**: An Internet forum, or message board, is an online discussion site where people can hold conversations in the form of posted messages. They differ from chat rooms in that messages are often longer than one line of text, and are at least temporarily archived. Also, depending on the access level of a user or the forum set-up, a posted message might need to be approved by a moderator before it becomes visible.
- **Content aggregators**: An aggregator is a website or computer software that aggregates a specific type of information from multiple online sources.

If business wants to benefit from Web 2.0 then it has to proceed in a specific way which in many aspects differs from the traditional Web based business. The differences and conformities between the Web 1.0 ("old") and the Web 2.0 world ("new") are listed in table 3.

Area	Old (Web 1.0)	New (Web 2.0)
Business philosophy	IT enabled relationship marketing	IT enabled relationship marketing
Technology base	Web 1.0 technology (static pages, file system, communication via E-Mail separated from website)	Web 2.0 technology/ Social technology (user-generated content, usability, interoperability)
Digital part of business processes	Transaction based: one-to-one interaction	Interaction based: dynamic, many-to-many interaction
Interaction place	Defined channels: E-Mail, phone calls, websites, stores, etc.	Dynamic customer-driven touch-points realized in social media
Segmentation of users and participants	Traditional demographics	Dynamic, flexible and temporary segmentation if at all
Broadcast message flow	Push-based, inside-out	Pull-based, outside-in
Control	Firms and established organizations	Social customers
Design/analysis scope	Internal focus: one (part of an) organization	Value chain through total organization or group of organizations
Data store	360° customer transaction data	All interactions or conversations across all touch points; user contributed contents
Data analysis	Subject-oriented analysis	Network analysis
Metrics	Transaction based: Customer life-time value (CLV), share of market, RFM analysis measures (RFM = Recency, Frequency, Monetary)	Interaction based: Customer referral value (CRV), share of voice, size and engagement of communities, sentiment
Viral marketing (information is spread like a virus)	Not possible	Can easily develop a viral marketing campaign
Crowd sourcing	Not possible	Integral part of SCRM strategy (SCRM = social media CRM)
Customer loyalty	Static, repeated patronage	Dynamic, eWoM (electronic Word of Mouth), advocacy

Table 3: Comparison of Web 1.0 and Web 2.0

In the Web-2.0-world the traditional goods-dominant logic is replaced by a service-dominant logic. Its premises are:

- Service is the fundamental basis of exchange.
- Indirect exchange masks the fundamental basis of exchange.
- Operant resources are the fundamental source of competitive advantage.
- Goods are a distribution mechanism for service provision.
- All economies are service economies.
- The customer is always a co-creator of value.
- The enterprise cannot value, but only offers value propositions.
- A service-centred view is inherently customer-oriented and relational.
- All social and economic actors are resource integrators.
- Value is always uniquely defined by the beneficiary.

If an enterprise wants to be successful in the Web-2.0-world it has to move from a goods focus to a service focus. How can this be managed? The following rules may help:

- Do not produce goods but assist customers in their own value-creation processes.
- Value is not created and sold but value is co-created with customers and other value-creation partners.
- Do not consider customers as isolated entities, but in the context of their own networks.
- Resources are not primarily tangible such as natural resources but usually intangible such as knowledge and skills.
- Shift from thinking of customers as targets to thinking of customers as resources.
- Shift from making efficiency primary to increasing efficiency through effectiveness.

Obviously there is a strong focus on the customer and customer satisfaction as it should be in every business. But what is really new? Is there finally a significant difference between traditional business, Web 1.0 business and Web 2.0 business? We are not sure.

1.3 TECHNICAL AND ECONOMIC CHALLENGES

1.3.1 TECHNICAL CHALLENGES

ICT systems have to work properly not only within the boundaries of the own organization but also in combination with ICT systems of other organizations. Interfaces between the involved systems have to be defined and documented properly. But: How heterogeneous are the involved ICT systems allowed to be? Is our IT infrastructure fit for E-Commerce? How do we have to change or extend our application systems for E-Commerce?

In the digital business ICT systems are mission critical assets. How do we have to protect an ICT system so that it is not possible to destroy it, damage it or manipulate it? Are our ICT systems secure? Are unauthorized persons able to get access to our systems? Are payment procedures secure enough? Can we protect the personal data of involved people, especially customer data?

Finally we have to realize, that E-Commerce depends on people. Are the people of our IT organization qualified enough? Can we provide the necessary and significantly high technical support?

1.3.2 ECONOMIC CHALLENGES

E-Commerce is not only a matter of technology. It is primarily, because it is commerce, a matter of management and organization. The following questions have to be answered:

- Are our business processes standardized enough – at least harmonized among the participants?
- Who is allowed to participate? Are all participants trustworthy? Who makes the decision which person or organization is allowed to participate?
- How much E-Commerce do we need to keep competitive? How do we have to change our business model?
- What is going to happen after opening a new (electronic) sales channel? Will traditional sales channels suffer from it?
- How can we measure the success of our E-Commerce activities? Will costs be compensated through revenues? Will we make profit?
- How do we have to develop our relationship with customers, suppliers and other business partners to be able to realize the advantages of E-Commerce for our organization and avoid the disadvantages? How do we have to develop and change our business relationships?
- How do we have to redesign our business processes? How do the roles of our employees change? Are our employees qualified for these new roles?

1.4 EXERCISES

1.4.1 QUESTIONS FOR YOUR SELF-STUDY

Q1.01: Where do you use the opportunities of E-Commerce actually in your daily life?

Q1.02: Which companies do you know which are doing E-Commerce?

Q1.03: Consider the Internet-based businesses, which we have listed above. Are they really new business categories?

Q1.04: Find additional advantages and disadvantages of digital businesses.

Q1.05: Consider the above-mentioned technical and economic challenges of E-Commerce. Try to find answers to the various questions, which we have listed.

Q1.06: What is E-Commerce? How does it differentiate from traditional business models?

Q1.07: What are different business models available for E-Commerce?

Q1.08: How can customers benefit from E-Commerce?

1.4.2 PREPARATION FOR FINAL EXAMINATION

T1.01: We have discussed about E-Commerce, E-Business and E-Procurement. Is there any relationship between these three terms? What is the difference between E-Commerce and E-Business? What is the difference between E-Commerce and E-Procurement?

T1.02: E-Commerce is so successful, because we have the Internet. Do you agree to that statement? Why? What would happen, if tomorrow morning the Internet had been shut down? What would happen, if tomorrow we would only have traditional telephone lines?

T1.03: Please define the term "M-Commerce".

T1.04 E-Commerce has advantages as well as disadvantages. Give one example for the customer's perspective. Give one example for the supplier's perspective.

1.4.3 HOMEWORK

Apply the E-Commerce elements to the administration of your university. Who are the customers? What is delivered? What are the potentials? What are the advantages or disadvantages? Which parts have already been digitalized? What would you recommend to the top management of the university to do next?