9   ADVICES FOR EXERCISES

Q = Question/AQ = Answer

T = Test/AT = Answer

9.1   BASICS AND DEFINITIONS

9.1.1   QUESTIONS FOR YOUR SELF-STUDY

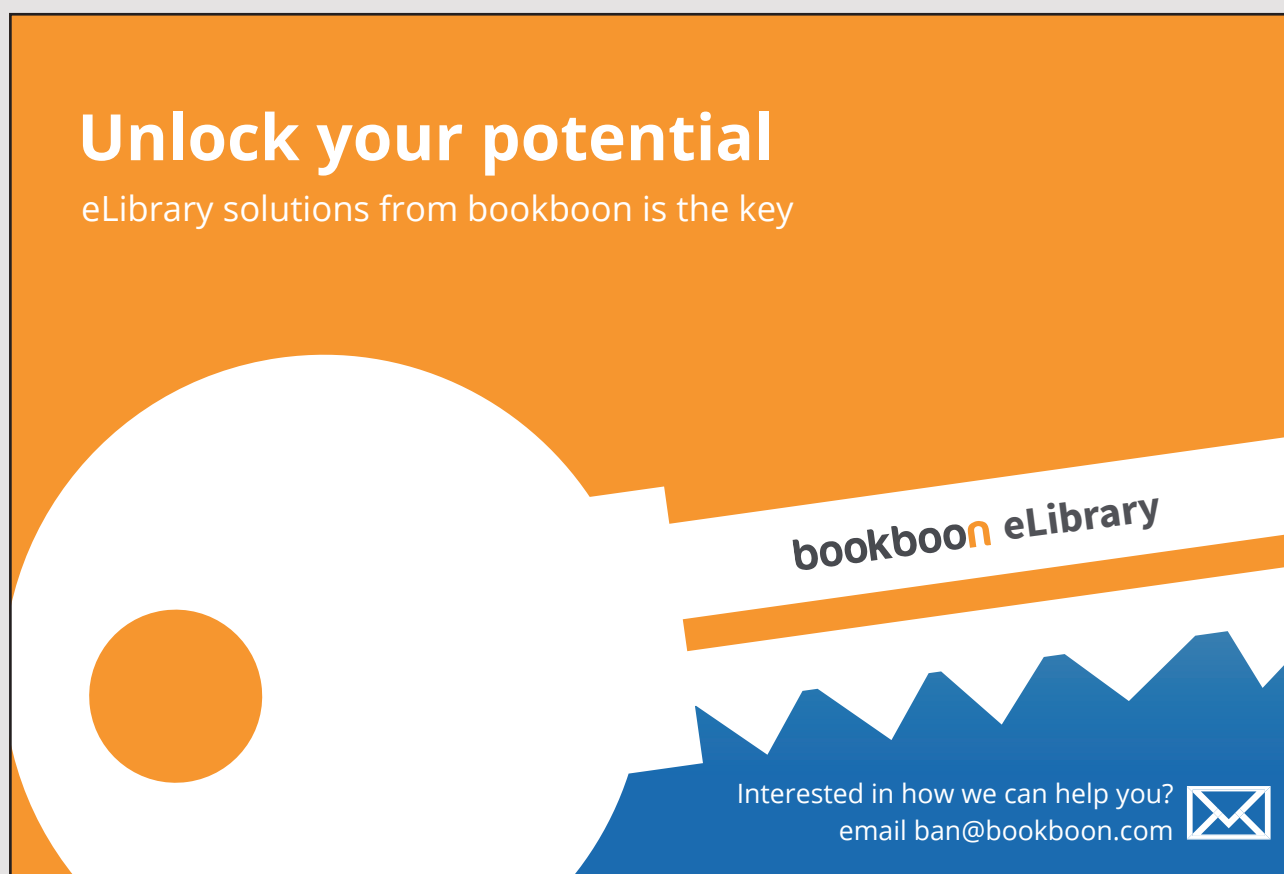Q1.01: Where do you use the opportunities of E-Commerce actually in your daily life?

AQ1.01: Examples are buying books or shoes, electronic banking. You will find further examples.

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

AQ1.02: Examples are Amazon, Alibaba, Starbucks. You will find many other examples.

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

AQ1.03: See 1.2.1.

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

AQ1.04: An advantage for the customer is, that he can get products, which would have never been offered to him in traditional business. A disadvantage for the customer is, that he might have a currency exchange risk if he buys from companies in foreign countries. An advantage for the provider is, that in E-Commerce he gets more data about his customers. A disadvantage for him is the harder competition.

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.

AQ1.05: Technical challenges – consequent orientation towards Web technologies, encryption of data when storing them, education and training of personnel in IT and user departments. Economic challenges – communication and cooperation with business partners, assessment of new business partners, making "good" contracts, researching the markets carefully, document strategies, run test markets, consequent monitoring and professional performance measurement, improving communication with business partners, changing and re-designing business processes due to new IT systems and workflows.

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

AQ1.06: See 1.1.3 and 1.2.1.

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

AQ1.07: See 1.2.3.

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

AQ1.08: See 1.2.2 and 1.2.4.

9.1.2 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?

AT1.01: E-Commerce = selling side, E-Procurement = purchasing side, E-Business = including both sides.

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 shut down? What would happen, if tomorrow we would only have traditional telephone lines?

AT1.02: Internet provides a general infrastructure, globally available (7*24), robust, reliable and flexible. Without the Internet business processes will slow down significantly, with dial-up and point-to-point connections there will be strong technical constraints for conducting business, availability of systems and providers will decrease due to lower reliability.

T1.03: Please define the term "M-Commerce".
AT1.03: See 1.1.5.

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.
AT1.04: See 1.2.2.

9.2   FRAMEWORKS AND ARCHITECTURES

9.2.1 QUESTIONS FOR YOUR SELF-STUDY

Q2.01: Compare the fundamental sales process as it has been shown here to your daily life and the "traditional" sales process. What is different? What is new? What is missing?
AQ2.01: The sequence of steps may be different. Human actors do not see each other. Mechanisms for trust building are needed.

Q2.02: How much should a business manager know about technical subjects? What is "need to know"? What is "nice to know"?
AQ2.02: The manager must understand the functionality and the complexity. It is helpful if he has a sound understanding of the technologies. This will help him to more effectively communicate with the technical experts.

9.2.2 PREPARATION FOR FINAL EXAMINATION

T2.01: Please list the seven plus one steps of the fundamental selling/purchasing process.
AT2.01: See 2.2.

T2.02: There are three basic types of software systems in the E-Commerce: online shop/marketplace/procurement platform. Characterize them by the number of suppliers and customers.
AT2.02: Shop = 1 supplier & n customers, marketplace = m suppliers & n customers, procurement platform = n suppliers & 1 customer.

T2.03: One basic technology of E-Commerce is abbreviated by TCP/IP. Was does this mean? What are the two functions, which are covered by this technology?

AT2.03: TCP/IP = Transmission Control Protocol/Internet Protocol. TCP = physical layer and data link. IP = address layer. See 2.3.1.

T2.04: Explain the two abbreviations B2C and B2B. Do you think it could make sense to define a business type C2C? Why?

AT2.04: B2C = business to consumer, B2B = business to business, C2C = consumer to consumer (can be considered as a specific variant of B2C or B2B.

9.3   B2C BUSINESS

9.3.1   QUESTIONS FOR YOUR SELF-STUDY

Q3.01: How can we get to the point where the consumer wants to buy something from us?

AQ3.01: Customer must find us and must be interested in our offerings.

Q3.02: How should we make the business, so that the customer is satisfied and that we as the supplier are satisfied as well?

AQ3.02: This similar to traditional business – good presentation of products and services, simple contracting, quick delivery, comfortable and trustworthy payment, fair prices.

Q3.03: You are a producer of a specific product, which you deliver in various packaging sizes and different trade units. What are the consequences for the identification of the product, e.g. to determine your sales quantities?

AQ3.03: We need an identifier for each product, must be able to identify each size and trade unit of the product, and must have a minimal unit so that each trade unit is a multiple of this unit.

Q3.04: Think that you run an online shop. How can you make sure that the customer, just placing an order, is a real customer, will accept the delivery and then pay the invoice?

AQ3.04: Let him pay before delivery, ask for his street address and check it carefully.

Q3.05: Think that you sell digital goods. How can you ensure that the customer does not disclaim the delivery of a digital good?

AQ3.05: For example – provide the good in an encrypted form and provide a key to decrypt it only after the customer has paid.

9.3.2 PREPARATION FOR FINAL EXAMINATION

T3.01: If you are the owner of an online shop, you can decide whether your customers have to pay before delivery or after delivery. Both variants have advantages and disadvantages for you. Assume that you can select only one of both methods. Which one would you select? Why?

AT3.01: Let them pay after delivery, trust in your customers though it will not always be successful.

9.4   B2B BUSINESS

9.4.1 QUESTIONS FOR YOUR SELF-STUDY

Q4.01: Describe the difference between B2B and B2C business.
AQ4.01: See 4.1.2.

Q4.02: Consider that you were a book-on-demand company. How could a B2B relationship to a big (electronic) bookshop look like? What is the process? What are the business rules?

AQ4.02: Requests for eBooks are forwarded automatically. Incoming request starts provision of an encrypted copy of the book. Decryption key is sent to the bookshop so that he can forward it to his customer. With the provision of the book copy an invoice to the bookshop is generated automatically and sent electronically to the bookshop.

Q4.03: We have described the advantages of the involved parties for a strong B2B relationship. What are the disadvantages for the involved parties?

AQ4.03: Disadvantages for the customer side – supplier gets access to customer's data and systems. Customer is "locked in" to the supplier, external partner influences design and change of internal processes. Disadvantages for the supplier side – supplier must be open for different customer needs, supplier is "locked in" to customer organization, and agreed business rules allow some insight into internal structure of supplier organization.

Q4.04: Find information about marketplaces. What are they offering? How long have they been in the market? Why are they successful?

AQ4.04: See remarks in chapter 4 and run an own research in the Internet.

9.4.2   PREPARATION FOR FINAL EXAMINATION

T4.01: What does the abbreviation EDIFACT mean?

AT4.01: Electronic Data Interface for Administration, Commerce and Transport.

T4.02: Consider a B2B relation between a producer of goods and a merchant. What are the specific advantages for both parties? Give two examples for both parties.

AT4.02: Producer and merchant can synchronize planning activities, reduce stocks, optimize delivery of goods and supply with goods, optimize transportation – all with respect to the needs of both parties. Examples – cooperation of consumer product producers and retail outlet firms, production and distribution of cars.

T4.03: Which consequences does a B2B relation have for the involved IT systems?

AT4.03: Data must be transferred seamlessly without media breaches. System operations must be synchronized. Development and change management must be coordinated. Legal issues must be considered, e.g. with respect to the usage of software licences.

9.5   IMPACT OF E-COMMERCE

9.5.1 QUESTIONS FOR YOUR SELF-STUDY

Q5.01: Are the statements on specific impacts of E-Commerce true? If yes, under which prerequisites? If no, what are the reasons?

AQ5.01: See 5.4. The answer depends somehow on your personal point of view. Find out, what are your assumptions (may be that they are given or determined by your political, religious or ethical orientation).

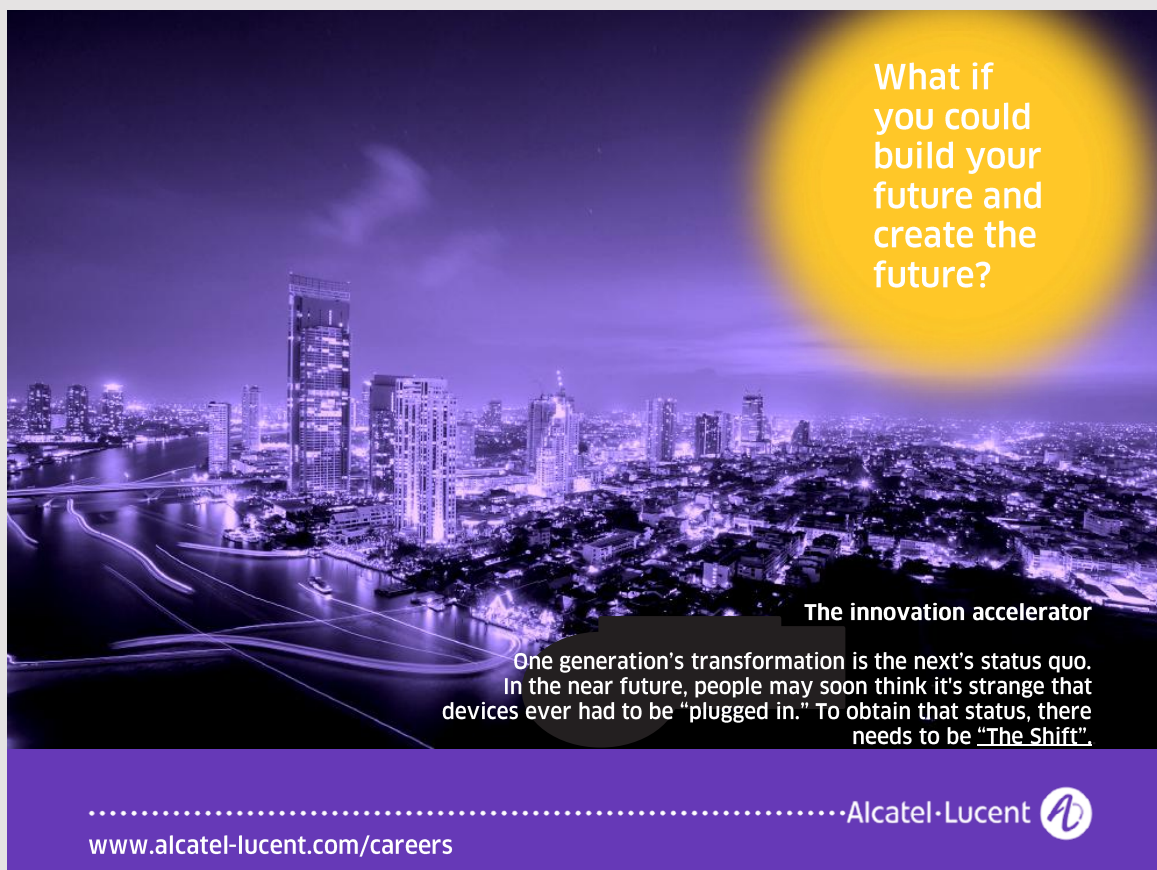Q5.02: Show examples for disintermediation and examples for re-intermediation.

AQ5.02: Merchants are eliminated because producers sell directly to customers. Portals are created to bring together the offerings of competitors or service providers with supplementary offerings. Gross or retail trade organisations are eliminated. Logistics service providers take over cashing functions.

Q5.03: Do you agree with the macroeconomic impacts described here? Is the list of the described impacts complete or can you identify other impacts?

AQ5.03: See 5.3.1. Your agreement depends on your assumptions and expectations as well as your political, religious or ethical background. Only those people can realize the benefits of E-Commerce who have access to the digital world.

Q5.04: Do you agree with the microeconomic impacts described here? Is the list of the described impacts complete or can you identify other impacts?

AQ5.04: See 5.3.2. Again it depends on your assumptions and expectations as well as your political, religious or ethical background. Medium sized business may suffer from digitalization (due to 5.4.4). Is there an optimal degree of information supply? Does a flooding with data always help the customer?

9.5.2 PREPARATION FOR FINAL EXAMINATION

T5.01: Does E-Commerce increase or decrease price levels? What are the reasons for your answer?

AT5.01: E-Commerce will lead to decreasing selling prices due to intensified competition. However, there is the danger of eliminating competition, which finally can lead to monopoly situations. The monopoly will be able to increase prices.

T5.02: Why do we have temporary monopolies? Why is their duration limited?

AT5.02: Monopolies in the digital world tend to be temporary situations due to changes in technologies and new opportunities to design new services and bundle service elements in new ways.

T5.03: Explain the term "hollywood economics".

AT5.03: See 5.4.15.

T5.04: Explain the term "externality" and give two examples of this impact.

AT5.04: See 5.4.8.

9.6   SECURITY AND COMPLIANCE MANAGEMENT

9.6.1 QUESTIONS FOR YOUR SELF-STUDY

Q6.01: Why is the access provider not able to guarantee successful access to any computer attached to the Internet?

AQ6.01: Access provider can guarantee access to the computer (address) but not whether the computer is up and running or whether the owner allows access to a specific computer.

Q6.02: Why could we see the criminal liability of search engine operators differently from access providers?

AQ6.02: Search engines do not provide illegal content; they are only looking for phrases. Many phrases can have a legal and an illegal meaning at the same time (meaning depends on context).

Q6.03: Review the threat catalogue of German BSI. Which threats are especially relevant for E-Commerce? Do you see further threats, which are not listed here?

AQ6.03: See www.bsi.bund.de/grundschutz.

Q6.04: List internal rules of a firm, which have to be followed in running the firm's online shop.

AQ6.04: Deliver only to verified addresses. Deliver to new customers only if they have paid before delivery or by credit card. Identify customers by credit card or feedback from commercial agencies.

9.6.2 PREPARATION FOR FINAL EXAMINATION

T6.01: Please define the term "security".
AT6.01: See 6.3.

T6.02: Please list the four risk management strategies!
AT6.02: See 6.1.6.

T6.03: Some people tell, that employees are one of the greatest threats of every organization. Why do they come to that opinion?
AT6.03: People know a lot about internal structures, about technical environment and about weaknesses.

T6.04: Let two organizations have an encrypted data exchange. Describe the communication protocol if they decide to use asymmetric encryption.
AT6.04: Each partner creates a key having a public part and a private part. If A wants to send a message to B he encrypts his message with the public part of B's key and sends the encrypted message to B. B decrypts the message with the private part of his key, which has never been published outside. If B wants to send a message to A he encrypts with the public part of A's key and A decrypts the message from B with the private part of his key.

T6.05: Describe the communication protocol if an electronic signature is used.
AT6.05: Electronic signature is am application of asymmetric cryptographic methods. It differs from the encryption as follows. The sender of a message creates a key with a private and a public part. He encrypts with the private part of his key. The receiver takes the public part of the sender's key and decrypts the received message. If the decryption works successfully then the receiver knows that he got the message from a specific sender.

T6.06: What is the objective of business continuity management?
AT6.06: See 6.1.6. Business operations should not completely break down even if essential parts like IT systems broke down completely.

9.7 ELECTRONIC PAYMENT

9.7.1 QUESTIONS FOR YOUR SELF-STUDY

Q7.01: What is the general approach of E-Payment providers? Can we see some general principles of their business models?
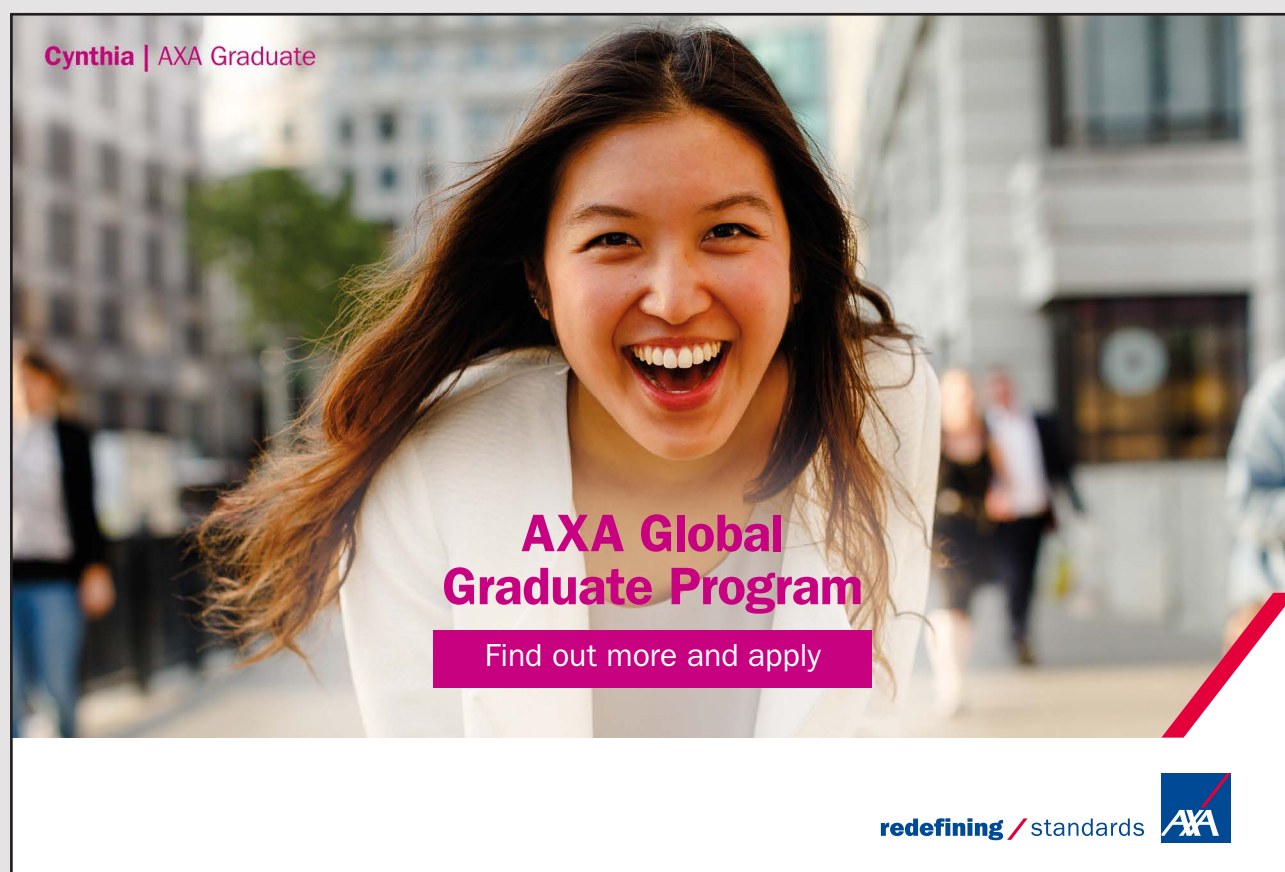AT7.01: See 7.3.

Q7.02: E-payment normally is considered from the supplier's point of view. On the other hand there is a risk for the customer that the (supposed) supplier takes his money and does not fulfil the order. Make an assessment of the payment methods with respect to a risk minimisation for the customer.
AQ7.02: All methods where payment is done after delivery. May be that supplier and customer can share risk by partial payments, one part before delivery and the second part after delivery.

Q7.03: Find out the most popular E-Payment systems. What are their advantages/disadvantages? Which payment services should a new start-up company offer to its customers?
AQ7.03: See 7.3. The relevance of a payment method depends on the specific cultural, technical and sometimes even legal environment.

9.7.2 PREPARATION FOR FINAL EXAMINATION

T7.01: What is the magic triangle of electronic payment methods?
AT7.01: See 7.2.1.

T7.02: What is the added value of payment service providers?
AT7.02: Ease of international payments, business partners do not know bank account data of other business partners, protections against shortfalls in payments, protection against delay of payments.

T7.03: If you are the owner of an online shop, you can decide whether your customers have to pay after delivery by a money transfer from their bank account to your bank account or with a credit card. Both variants have advantages and disadvantages for you. Assume that you can select only one of both methods. Which one would you select? Why?
AT7.03: You could choose payment by credit card because then you are sure to get your money. However, then you have to pay painful fees to the payment provider. Alternatively you could choose the traditional money transfer. This would avoid paying high fees but you would have to "pay" with a higher risk of payment shortfalls.

9.8 PERFORMANCE MANAGEMENT

9.8.1 QUESTIONS FOR YOUR SELF-STUDY

Q8.01: Describe the stages of the control cycle.
AQ8.01: See 8.1.2.

Q8.02: Explain the different categories of indicators and give some examples for each category.
AQ8.02: See 8.1.3.

Q8.03: Develop a scorecard to control a project.
AQ8.03: Degree of progress, related to final project result. Quality of already generated output. Degree of budget or personnel capacity consumption. Degree of adherence to schedules and milestones. Number of unresolved problems. Number or volume of change requirements. Risk value.

Q8.04: Develop a scorecard to control a service.
Answer: Service availability. Number of service breakdowns. Consumption of (financial) service budget. Service quality, e.g. number of incidents per user. Restart time in case of service breakdowns. Number of produced service units. Number of incoming incidents (service specific). Number of service specific change requests. Number of unresolved problems (affecting the service).