

# Solutions **Chapter 1:** Supply Chains, Supply Chain Management and Management Accounting

## **Review question 1.1:**

An accounting system (1) records and stores (2) the stocks and flows (3) of scarce goods and resources (4) that have a value to the company in order to (5) ensure efficient and effective use of these goods and resources. Both financial accounting and management accounting share the common traits of all accounting systems.

Generally, we distinguish the two siblings of the accounting family: financial accounting and management accounting. Management accounting denotes that part of accounting that primarily deals with the information needs of managers. Management accounting is the internal accounting system that supports managers in carrying out management tasks. While financial accounting is oriented toward the information needs of external stakeholders (investors, creditors, customers, suppliers, the general public, etc.), the management accounting function focuses on internal stakeholders with management and decision making authority. Financial accounting is subject to a tight regulatory regime. In management accounting, firms can develop and implement their respective management accounting systems as they see fit.

## **Review question 1.2:**

In German speaking countries, the term “Controlling” is typically used for MAC. Although the term might, at first sight, suggest otherwise, it is not limited to the control aspect only but comprises all tasks and activities that have been described as typical MAC functions. “Controlling” became popular in Germany in the early 1970s, when it was introduced mainly as a fashionable name for cost accounting, reporting, and budgeting. In the meantime, though, the scope of controlling started to encompass all planning and management control processes at an operative as well as a strategic level. It is, therefore, safe to say that as of today, the German “Controlling” concept can be considered to be widely synonymous with management accounting.

## **Review question 1.3:**

From its early beginnings, human civilization depended on the ability to transport and store goods effectively and efficiently. Logistics play a huge role in global economy nowadays, and its importance continues to increase. In Germany, for instance, total revenue of the logistics industry has increased since the turn of the century by 81% to a volume of 279 billion EUR in 2019. This represents more than 8% of Germany’s GDP.

## **Review question 1.4:**

The expectations of modern logistics are high and can be summarized in the “7R objectives” or “7 rights” of modern logistics:

- The Right goods (i.e. as ordered)
- In the Right quantity
- With the Right quality
- At the Right time
- At the Right place
- At the Right cost
- At the Right sustainable impact/footprint

**Review question 1.5:**

Logistics can be defined as managing the procurement, movement and storage of materials, parts or finished goods through the organization and its adjacent channels. Early discussions of “supply chains” and “supply chain management (SCM)” involved the integration of the internal business functions of purchasing, manufacturing, sales and distribution. The idea of functional integration was soon extended beyond a firm’s organizational boundaries in order to include also those value-adding tasks and activities that are performed by external partners (suppliers, distributors, etc.). These value-adding activities are by no means limited to transportation and storing tasks. The sequence – or rather network – of value-adding tasks and activities across various firms is at the heart of the supply chain concept. A supply chain can simply be defined as “... all functions involved in receiving and filling a customer request” (Chopra/Meindl 2016, p. 13).

**Review question 1.6:**

The ultimate goal of a supply chain is the maximization of supply chain surplus – defined as value to the end-customer minus total supply chain cost. Supply chain surplus can be shared among all partners in the supply chain – including the final customer.

Supply chain management (SCM) can be defined as “the management of upstream and downstream relationships with suppliers and customers in order to deliver superior customer value at less cost to the supply chain as a whole” (Christopher 2016, p. 3). Thus, the goal of SCM is to create a supply chain surplus. This can be achieved by managing the physical flows, the information flows, and the financial flows across the supply chain partners. Consequently, effective supply chain management involves the management of supply chain assets and product, information, and fund flows to grow the total supply chain surplus.

**Review question 1.7:**

Management accountants support managers in their managerial tasks – be they general managers, project managers - or supply chain managers. The key management tasks (planning, decision making, motivating, monitoring, etc.) also apply when managing the entire supply chain. However, there are good reasons to doubt whether the management accounting discipline can be easily applied to modern supply chains.

First, companies more and more compete as integrated supply chains rather than as individual firms. The success of the entire supply chain determines the economic well-being of the individual company. Given the crucial role of supply chains for company success, it is increasingly important to understand how the coordination of the supply chain relationships can be achieved and how management control mechanisms can be used to support, plan, measure and assess supply chain results and performance. The demand for management accounting support will continue to grow among supply chain managers to the same extent that their own function becomes critical for company success.

Second, management accounting as an academic discipline has seen the development of a number of concepts and tools during the past two decades that promise high potential for supply chain application. These tools and techniques show a strong process and activity (rather than hierarchy) focus, integrate non-financial aspects in their optimization approach and can be adapted for inter-organizational application.

Third, SCM poses new problems and challenges that do not occur in a single-firm management setting. Supply chain management as a corporate function requires support for fundamental business decisions such as selecting the right partners, the right processes among partners and the right management tools in the company network – tasks that are by definition not relevant within the single company. In addition, adapting management accounting systems to a cross-company scenario can cause enormous difficulties in practice. In many cases, the legal independence of the business entities involved proves to be the major source of problems.

**Exercise 1.1:****Logistics versus supply chain management**

Fast & Furious Inc. currently has separated positions for purchasing, logistics, and manufacturing. Purchasing is responsible for procuring material, logistics deals with managing the procurement, movement and storage of materials or finished goods. Manufacturing transforms raw materials and unfinished goods into finished products for sale.

Supply chain management can create benefits from integrating the internal business functions of purchasing, manufacturing, but also sales and distribution. Furthermore, supply chain management involves external partners (suppliers, distributors, etc.). One may argue that logistics is a synonymous function. However, supply chain management is by no means limited to transportation and storing tasks. The sequence – or rather network – of value-adding tasks and activities across various firms is at the heart of the supply chain concept. While there may be some overlaps with the existing functions, the new function's focus will be to integrate the individual tasks and manage and control them, so that purchasing, logistics, manufacturing, distributing and selling can be optimized.

**Exercise 1.2:****Supply chain management versus supply chain management accounting**

When Fast & Furious has implemented the new SCM function, management accounting may need to adapt as well. There is indeed good reason to doubt whether the existing management accounting set up is prepared and has the skills that is needed to fulfill their support tasks with a supply chain focus. Most probably, Fast & Furious' management accounting team is used to focus on the individual performance of the company. Cross-functional planning and control as well as controlling activities across company borders may overburden the existing organization. These functions involve support for fundamental business decisions such as selecting the right partners, the right processes among partners and the right management tools in the company network. Fast & Furious's management accounting needs to adapt to these new challenges, possibly hiring experienced controllers and developing tools to manage the entire supply chain.