Chapter 6
Accounting for Digital Products

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ABSTRACT
Digital products are “content” goods such as software, books, music, or movies which can be digitized and traded on a digital market place. With the increase in trade and ownership of digital products, several important management issues have arisen. Accounting treatment for digital products is one important management issue. It is argued that digital products require regulations in terms of recognition, measurement, valuation, reporting and taxation. Therefore, the purpose of this chapter is to discuss the accounting problems that arise as a result of the growing importance of digital products in the business environment and to propose suggestions based on the accounting concepts and standards. For this purpose, first, the increasing importance of digital products is briefly explained. Then, the challenge created as a result of expanding trading volume of digital products are discussed in terms of accounting with suggestions for the appropriate accounting for digital products.

INTRODUCTION
Electronic commerce (e-commerce) has been the main subject to emerge in recent years. With the use of the Internet and digital devices there has been a significant alteration in traditional business models (Luxem, 2000). E-commerce falls into two categories: (1) trade in physical goods such as computers, televisions or books with a physical substance and (2) the trade in digital products such as software, music and video products, and several other different services that lack any physical substance (Vincent, 2004). Therefore, e-commerce not only involves a digital process of selling or buying (as a trade process) of physical products, it also involves content based products with and without physical substance. The development of e-commerce has caused a change in traditional business methods. Companies operating as publishers, software developers or computer
programmers, banks and insurance agents have started to offer a wide range of digital products (Hui & Chau, 2002).

Recently, as a result of technological developments, the way of doing business has changed through e-commerce. Rapid development of digital technologies and use of the Internet facilitate the communication and the transfer of payment around the world eliminates the borders of trade, transportation, and marketing. However, in addition to its advantages such as simplifying the trade among different countries or improving competition among companies, e-commerce has brought uncertainty about the nature of trade and legal treatments.

According to Rayport and Sviokla (1995), products are either classified as tangible (physical) or intangible (service related). Poon and Joseph (2000) argued that goods are classified based on “tangibility” – how tangible the goods are. According to them, while highly tangible goods can only be traded or used in a physical form, low tangibility goods are content-based goods used preferably in a physical form or a digital form. For example, while a refrigerator is a highly tangible good, a software package used through physical means might be classified as low tangibility. Even though software is a content-based product, it is used or traded through other means. However, there are also intangible goods either content-based goods or services downloadable or used only in digital form. This kind of product may be consumed over an infinite life time, or it may be restricted by the seller, or produced in limited numbers for a limited time, or limited in some other respects. Depending on their characteristics, digital products may be considered as intangible according to United States (US) and International Accounting codifications.

For physical products, the case is simple. All digitally traded physical products are recognized, measured, valued, and reported in accordance with accounting standards. Similarly, as these products have a physical substance, whether domestically or internationally traded, they are taxed in accordance with legal rules prevailing in the domestic country or across borders, respectively.

However, in the case of digital products, accounting problems arise, especially in the valuation, recognition, reporting and taxation of digital products. As they are intangible, it is difficult to measure the initial or subsequent value of the products. In addition, the revenue recognition related to any digital products or services is becoming increasingly complicated as the physical delivery and the transfer of control of the products cannot be effectively observed. Similarly, goods and services traded digitally escape import duties and value added taxes (Vincent, 2004). In sum, the following questions on the accounting of digital products have been raised.

- What is the value of digital products? For the initial measurement which price is used; purchase price or subscription fee? For subsequent measurement, which valuation method will be used? Historical-based or fair value?
- What is the accounting treatment for digital products? Do they need to be expensed directly in the period of purchase or to be capitalized as an asset?
- How can the revenues generated from the sale of the digital products be recognized? How can the revenues be matched with expenses for the services provided and resources consumed as digital products?
- How can the information produced be stored and reported in financial statements?
- How can the taxation issues associated with digital products be solved?

The answers to the above questions depend on the classification of digital products as either goods or services. In this chapter, first the classification of the digital products will be explained and then the management and control of digital products will be discussed, in terms of accounting, by considering the recognition, measurement, valuation, reporting and taxation problems.
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