



## **Chapter IV**

# **Deploying Internet Commerce in Lottery Businesses: An Executive Guideline**

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## **INTRODUCTION**

Commerce is essentially the exchange of goods and services in various forms between sellers and buyers, together with associated financial transactions. Electronic Commerce (EC) is the process of conducting commerce through electronic means, including any electronic commercial activity supported by IT (information technology) (Adam and Yesha, 1996; Kambil, 1997; Yen, 1998). In this sense, EC is not totally new. Industries have used various EC platforms such as advertising on TV and ordering by telephone or fax. Internet Commerce (IC), or Web Commerce, is a specific type of EC (Maddox, 1998; Minoli D. and Minoli E., 1997). While some traditional EC platforms such as TV and telephone have been used to build “TV-gambling” and “telephone-betting” systems for conducting lottery business, Internet Lottery Commerce (ILC) has been assessed as the most promising type of EC in the foreseeable future. There are many social and moral issues relating to the conduct of lottery business on-line. However, this chapter does not debate these but deals only with business and technology issues.

The purpose of this chapter is to provide a structured guide to senior executives and strategic planners who are planning on, or interested in, ILC deployment and operation. The guide consists of several stages: (1) an explanation of the industry segment’s traits, value chain, and current status; (2) an analysis of the competition and business issues in the Internet era and an evaluation of the strategic resources; (3) a planning framework that addresses major infrastructure issues; and (4) recommendations comprising the construction of an ILC model, suggested principles, and an approach to strategic deployment.

The chapter demonstrates the case for applying the proposed guideline within the lottery business. Faced with a quickly changing technological context, it pays special attention to constructing a conceptual framework that addresses the key components of an ILC model. ILC fulfils the major activities in a lottery commerce value chain—advertising, selling and delivering products, collecting payments for tickets, and paying prizes. Although the guideline has been devised for lottery businesses, it can be applied to many other industry sectors.

## BACKGROUND – LOTTERY BUSINESS

To introduce new IT into a company effectively, it is first necessary to understand the company's business in terms of inherent traits, the value chain, IT heritage and current status.

### Inherent Traits of the Lottery Business

The lottery business has obtained significant commercial benefits from using EC, mainly due to its inherent traits that have positive and negative influences on deploying and operating ILC applications. These traits are as follows:

#### ***Digitized Goods***

A *lottery product* is a combination of digits, which entitles people to participate in a particular game within a certain period of time and under certain rules. A typical lottery product consists of a ticket number associated with particular game data such as the drawn number and date, security code, etc. While various forms of ticket numbers represent different products, the associated data are essential for identifying the availability and uniqueness of a lottery product.

While lottery products may be generated using diverse media, they are traditionally printed as paper tickets. Classified by their selling mode, there are two main lottery tickets, namely **static** and **dynamic** tickets. Static lottery tickets are preprinted on paper, so are also called **preprinted tickets**. When consumers want to buy preprinted tickets at an agent, they can only select the numbers from among those on the tickets available for sale. Dynamic lottery tickets, on the other hand, will be printed according to consumers' preferences. That is, when a consumer selects a preferred number the seller can produce a ticket to fit the individual's order. Fundamentally, a dynamic ticket is a customized product. While static or preprinted tickets usually are sold manually, dynamic tickets are generally sold via electronic means. The term **on-line tickets** refer to tickets sold at on-line terminals that are connected to, and controlled by, back-end computer systems.

In short, lottery products are "digitized goods." Examples of digitized goods include software, reports, CD-ROMs, and so on (Treese and Stewart, 1998). Distributing digitized goods is a "bit-moving operation" which transfers data from one place to another (Cash et al., 1992).

#### ***Value and Consumption***

The difference that distinguishes most digitized goods from lottery products are prospective value and the manner of consumption. After a predefined time a lottery game's numbers are drawn, then a lottery product will be either (1) entirely consumed and worthless, or (2) used as a claim against a prize. In the first case, the customer's investment

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