# **MASTER'S THESIS**

# E-Readiness Assessment in Iranian B2C Enterprises

## (Case: Iranian Book Publishing Companies)

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On the name of God The Compassionate The Merciful

### ABSTRACT

The recent advancement in information technology (IT) is questioning the traditional forms of publishing. Many publishers are following e-publication. It has changed fundamentally the publishing industry and caused rise to a new phenomenon called electronic publishing (e-publishing). E-publishing aims at generating, maintaining, keeping, and diffusing electronic data using computers and information networks. Changing from traditional to electronic publishing raises a number of opportunities. It provides the developing countries with appropriate opportunities for development and progress. These countries should reap the benefits of e-publishing and have access to necessary technology.

E-readiness assessments are intended to direct development attempts by allotting some suitable tools for comparison and gauging progress. Many e-readiness assessment models have been created and applied by different groups. However, critical issues related to e-readiness assessment for publishing companies have not been systematically investigated. Some existing studies have derived their critical factors from macro perspectives at country level and have not considered the important factors at micro level for SMEs in an integrated way.

This research is probably the first to support the perspective of critical issues for e-readiness assessment in publishing companies based on macro models. Its purpose is first to make e-publishing model and then implementing the model in Iranian publishing companies. Consequently, finding the appropriate model, we confirm it to be sure that the model is the appropriate one. Then, we try to find the status of each indicator in each factor and at last each factor in publishing companies to find the overall status of founded model in publishing companies toward e-publishing. Furthermore, it is tried to investigate the status of the Iranian academia toward e-publishing. Accordingly, a questionnaire based on Social factor will be made and send out to two famous and important Iranian universities, Tehran and Tarbiat Modares Universities. After that, it is tried to see whether the related laws toward e-publishing are enacted .Therefore, a questionnaire based on the Legislation factor will be made and ask the management of Ministry of culture and Islamic guidance in e-publishing sector, as a legislator toward e-publishing, to fill out the questionnaire. At the end, some suggestions based on the findings will be proposed to remove challenges toward e-publishing.

Keywords: E-readiness, E-publishing, E-publishing readiness, CFA, Iranian Publishing Companies

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# Chapter 1 INTRODUCTION

#### 1. Introduction

In this chapter we are going to present the problem area. Initially, an introduction, and a background is provided in order to motivate the importance of the subject. Next, the problem discussion is included, which result in a formulation of the research problem and research question. Finally, a disposition of this study is provided to guide the reader through the rest of the report.

#### 1.1. Background

The Knowledge Economy (KE) is emerging from two defining forces: the rise in knowledge intensity of economic activities, and the increasing globalization of economic affairs. The rise in knowledge intensity is being driven by the combined forces of the information technology revolution and the increasing pace of technological change (Beig et al., 2006). With the current trend toward globalization of e-business, e-readiness assessments are becoming of

increasing importance for diagnosing problems, and directing future development efforts(Bakry, 2006). If any country wants to gain the benefits offered by IT, It has to implement technology and use it effectively across society and the economy. Moreover, countries face the threat of being left behind if they do not address the growing digital divides both between and within countries (Beig et al., 2006). E-readiness is the "state of play" of a country's information and communications technology (ICT) infrastructure and the ability of its consumers, businesses and governments to use ICT to their benefit (EIU, 2006). An e-readiness process based on an objective assessment that leads to sound e-strategies can offer a path for converting good intentions into planned action that brings real changes to people's lives (bridge.org, 2005). Electronic publishing (e-publishing) is the process of creating and disseminating information via electronic means including email and via the Web. Electronically published materials may originate as traditional paper publishing or may be created specifically for electronic transfer (about.com, 2003 ;cited by Kozak,2003).Furthermore, Aluri(1996) has defined electronic publishing as the dissemination of information in electronic form and its distribution to potential users either on electronic networks such as Internet and local area networks or in stand-alone formats such as CD-ROMs. Electronic publishing products may include text, graphics, audio, video, numeric and textual databases; reference sources such as directories and atlases; and computer programs. The greatest benefit of electronic publishing is the richness of information that is available to the end-user (Aluri, 1996). Today's global changes dictates a new model of thinking as a basic requirement.

The number of electronic books rose from 1,000 (in August 1997) to 2,000 (in May 1999), 3,000 (in December 2000) and 4,000 (in October 2001). Project Gutenberg had 5,000 books online in April 2002 and topped 10,000 in October 2003, when it had a team of 1,000 volunteers around the world making 350 new books available every month (Lebert,2004). Up to know, there have been made 1,227,000 e-books in the world (worldebookkfair.org, 2008). The revenue of just e-book selling was 11,875,783\$ and procrastinated to increase 23% each year (Lebert, 2004).

The entrance of e-publishing in Iran was begun from 1996 with the imported compact discs. These compact discs were generally databases of the abstract of the most famous scientific researches in the world, and encyclopedias. By 2007, more than 4300 e-books in different branches like education, religions, culture and art were made in the forms of CDs (Enayat,2006). We have to notice that from 2006 to 2008 ,149981 books were published (Ketab.ir,2009) while up to the 2006, 4300 e-books in different fields were made which shows a lot of efforts needs to

be done to diffuse e-books among the society. The publishers in Iran have to reorganize their insight toward digital publishing which is currently more based on their traditional view concern to texts which they think it should be tactile.

#### 1.2. Research Problem

In fact, since most of the publishers are now requiring their authors to send in their manuscripts in electronic format, it is relatively simple to load them on computers and make them available to readers and libraries (Aluri, 1996). It allows faster dissemination of information than print technology because the step of printing is eliminated. Recent empirical evidences from several countries show a strong tendency toward IT investment in general and e-publishing in special. However, most publishers in Iran still use their traditional business strategies and resist to any changes. As e-publishing is in its infancy in Iran, it is necessary to begin the introduction of ICTs in micro and macro levels to bring and ease the related changes of Iranian publishers. We need to know in which section they have done weekly or even vice versa. The first step is assumed to be an e-publishing readiness assessment to evaluate their e-publishing level.

Nowadays, Publishers around the world are embracing electronic e-publishing. In every region of the globe, from developing countries to industrialized ones, national and local publishers are selling their books online, changing their books to e-books and interacting electronically with their customers. Consequently, publishers in Iran as a developing country have been embracing e-publishing to meet the mentioned aims.

Moreover, the outstanding issue with e-readiness assessments is the lack of a common standard assessment policy that would provide integrated assessment measures, support relative analysis and comparisons, and help identifying problems and deriving solutions. It is needed to review some of the main e-readiness tools to see if we could find the model which could cover all the domains of e-readiness in e-publishing. In addition, we need to evaluate the e-publishing readiness of publishers based on founded model.

#### 1.3. Research Questions

To fulfill the purpose of this research questions shall be addressed,

RQ1. Is there any suitable e-readiness assessment tool which could be used in e-publishing?

RQ2.Do Iranian publishers have the ability to be e-publishers (what are the strong and weakness of them toward e-publishing)?

RQ3. Which guidelines could be offered to improve e-publishing readiness of publishers?

#### 1.4. Hypotheses

- H1. There are not any suitable e-publishing readiness tools,
- H2. We could make a suitable model based on prior tools

#### 1.5 Disposition of the Study

In the first chapter a broader problem has been narrowed down to research problem and main hypotheses. It aims at introducing the reader to the area investigated. The literature review in chapter two, will give the reader an overall review of different models connected to the hypotheses. This chapter starts with an introduction for e-publishing. Furthermore, the e-readiness concept and the existed frameworks for e-readiness assessment which could clarify the best framework to fulfill the requirements of research questions of thesis will be explained in details. Based on the literature review a frame of reference where the theoretical framework is selected to assist the data collection is presented .In chapter three the methodology of this study is presented. Chapter four presents the data analysis and results draw from the study and finally chapter five indicated discussion, and conclusions. A visualization of the disposition of this study is showed in figure 1.1.

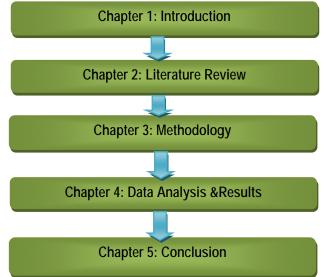


Figure 1.1 Disposition of the Study

### Chapter2 LITERATURE REVIEW

#### 2. Literature Review

This chapter will have a review on literature and related models to the research problem. In this chapter we will introduce the concepts of e-publishing, e-readiness and different frameworks to assess e-readiness in general as a fundamental theory. Based on prior models, new e-readiness framework regarding to e-publishing will be presented.

#### 2.1. E-publishing

#### 2.1.1. Concept of e-publishing

We are in the middle of another revolution in knowledge communication. The complacent publishing industry that has been in deep slumber for 550 years since Gutenberg invented the printing press in 1452 AD is now being shaken up with the advent of e-media (Moira, 2002). Electronic publishing (e-publishing) is the process of creating and disseminating information via electronic means including email and via the web (Kozak, 2003). Electronically

published materials may originate as traditional paper publishing or may be created specifically for electronic transfer. Electronic publishing is the dissemination of information in electronic form and its distribution to potential users either on electronic networks such as Internet and local area networks or in stand-alone formats such as CD-ROMs and diskettes (Aluri, 1996). The information so disseminated is intended for the user to read, print, and download for later use, within the limits imposed by copyright laws, including incorporation of selected information into other electronic documents. Electronic publishing products may include text, graphics, audio, video, numeric and textual databases; reference sources such as directories and atlases; and computer programs. The products of electronic publishing are seen everywhere (Aluri, 1996). These include indexing, abstracting, and full-text databases; computerized library catalogues (also referred to as online public access catalogues or OPACs); national and regional union catalogues of library collections such as OCLC (Online Computer Library Center, Inc.); digital libraries; encyclopedias, dictionaries, thesauri, directories, bibliographies, and other reference sources; refereed and non-refereed electronic journals and newsletters; multimedia sites such as museums; and news sources which display graphic, audio, video, and textual information. The vastitude and diversity of these sources is impressive and we are just witnessing the unfolding of a major technological revolution. Most such resources are readily accessible to users who have access to Internet. Also, According to Aluri (1996) electronic publishing is the culmination of a number of treads that Rave been emerging for the last four decades. First is the rapid development and widespread use of computer technology& especially the advent of microcomputers, and word processing and typesetting software which brought desktop publishing to millions of people. The second trend is the growth of computer networks which resulted in Internet-the global networks of networks- and opening of internet to commercial enterprises and citizens. The third trend is the merging of computer and telecommunications technologies which, with the help of microcomputers, telephone Bines, modems, and fiber optic networks have converted educational institutions, businesses, and homes into information centers and electronic publishing houses. The fourth trend is the development of information industry that demonstrated the feasibility and advantages of electronic information for managing library functions and serving library users, the greatest benefit of electronic publishing is the richness of information that is available to the enduser. Users now have access to information that print technology could not deliver. For instance, encyclopedias and dictionaries can provide audio information which shows how certain words are pronounced-which is much simpler and more straightforward to understand than trying to read and decipher complex pronunciation guides provided in dictionaries. Electronic publishing allows

faster dissemination of information than print technology because the step of printing on paper is eliminated altogether. Information may be made accessible on electronic networks weeks or months before it can appear in print form. It is clear that electronic publishing will slowly gain supremacy over print publishing in the near future.

#### 2.1.2. Publishers' Viewpoint toward e-publishing

Publishers embraced electronic publishing technology in recent years because it speeds up the publishing process, makes editorial changes easier to accomplish, and enables the relatively small publishers to effectively participate in publishing activities (Harnad, 1995). Electronic publishing has opened up new markets such as publication of encyclopedias in CD-ROM format, creation and distribution of electronic databases of indexing and abstracting services, and electronic journals. In fact, since most of the publishers are now requiring their authors to send in their manuscripts in electronic format, it is relatively simple to load them on computers and make them available to readers and libraries. By the end of 1980, these trends converged and the explosive phenomenon of electronic publishing started taking shape. The dust has not settled yet but it is already evident that scholarly communication, the publishing industry, and library and information centers will be affected irrevocably. The traditional print-based publishing industry, which developed over hundreds of years, served scholars in furthering scholarly communication, libraries in preserving and disseminating scholarly communication, and publishers in obtaining reasonable returns on their investments (Harnad, 1995). Scholars, subsidized by educational institutions, state and federal government, and research-supporting foundations, created the information; publishers evaluated, published, and marketed that information; and libraries acquired, catalogued, stored, preserved, and helped in disseminating electronic publishing is likely to upset this neat picture. All the prayers-scholars, publishers, and libraries-will be affected by the electronic publishing revolution. The generic term "e-publishing" covers a variety of publishing models and formats. E-books include downloadable books that can be transferred to your computer, a PDA (such as a Palm) or a handheld e-book reader; books on disk or CD-ROM; and books that are printed out in "print-on-demand" format. Some publishers offer e-books in a wide range of programs, including Adobe PDF and HTML, and formats tailored for handheld devices. (Some also offer books in Word or .exe files, but these formats are less popular) (Moira,2002).

#### 2.1.3. Classification of different e-publishers

E-publishing companies include commercial electronic publishers, subsidy publishers (which includes most print-on-demand publishers), "distributors", and self-publishers (Moira, 2002) which will be described below in details.

#### 2.1.3.1. Commercial E-publishing

Commercial e-publishers operate much like commercial print publishers, accepting books on the basis of quality and marketability. While authors do not receive an advance, they do receive royalties (often as high as 40 percent), and do not pay anything toward the cost of producing the book. Most commercial publishers provide the same process of review, editing and proofreading before publication as a print publisher. Most also accept fewer than 10 percent of submissions. Commercial e-publishers typically sell their books through their own Web site, as well as through Amazon.com, Barnes and Noble, and other electronic bookstores. Some also produce editions for hand-held e-readers and other handheld formats (such as the Palm). Some offer both electronic downloads and disks or CD-ROMs, and some also offer print-on-demand services. Most provide such service as obtaining ISBN numbers, copyright registration, and (sometimes) a Library of Congress listing. While it is generally possible to order a commercially published e-book by ISBN through a bookstore, most bookstores do not actually carry them on the shelves.

#### 2.1.3.2. Subsidy E-publishing and Print-on-Demand

Subsidy e-publishers, like their print counterparts, produce and distribute books for a fee (generally ranging from \$200 to \$500 per book). Authors receive a royalty, which is usually comparable to that offered by commercial e-publishers (around 40 percent). Most subsidy publishers will accept any book, regardless of quality, except for pornography or hate material. Books are not edited or proofread, but published "as is." Many subsidy publishers have a range of "extra" charges -- such as charges for formatting the book if the author has not done so, charges for illustrations, for cover designs, for editing, for an ISBN or copyright registration, etc. These charges can add up quickly. Subsidy publishers provide no promotion, and may offer a lower royalty rate for books that are not sold directly from the publisher's Web site (e.g., if they are sold through Amazon.com or another online bookstore). Xlibris, for example, offers 50 percent

royalties for e-books sold from its Web site, but only 25 percent for e-books sold through other sites. Another form of subsidy publishing that is becoming increasingly popular is "print-on-demand" (POD) publishing. This is considered a form of "electronic" (or "digital") publishing in that a book is submitted to the publisher electronically, and is stored as an electronic file, to be printed out in "book format" only when it is actually ordered by the customer. Many publishers offer both electronic and print-on-demand editions of the same book. While a handful of commercial publishers offer both print-on-demand and electronic editions, most POD publishers (including iuniverse and xlibris) are subsidy publishers. Prices for POD publishing range from \$200 to \$1000 or more. [UPDATE: Lulu.com is the outstanding exception to subsidy POD publishing. The author pays no up-front fee; to order one's own book, one pays only for the cost of printing (around \$4 plus 2¢ per page for black and white or 15¢ per page for color printing). Lulu charges a small commission on every copy of your book that is sold.]

#### 2.1.3.3. No-fee "Distributors"

A type of electronic publisher that is difficult to categorize is the "publisher" who accepts electronic manuscripts "as is," usually already formatted by the author, and provides a "bookstore" where those books can be purchased. Generally, such a distributor charges no fee to the author, but takes a percentage of royalties (usually around 25 to 30 percent). A distributor generally does not get involved in editing, designing or producing the book and the author can usually set the price (though the distributor may have a minimum price limit). Some distributors, like Booklocker.com, are highly selective about what books they will offer for sale; others will accept most manuscripts. This type of e-publisher/bookseller provides an excellent alternative for the author who is primarily self-published, but doesn't wish to go to the hassle of setting up his or her own online "bookstore," accept credit cards, fulfill orders, etc. This also enables a self-published author to avoid registering as a retail business, as the author receives royalties from the distributor rather than direct sales from customers.

#### 2.1.3.4. Electronic Self-publishing

Many authors choose to electronically self-publish their books. This offers an excellent, inexpensive alternative to print self-publishing -- for the obvious reason that one does not incur the cost (which usually runs to several thousand dollars) of getting one's book printed. Marketing costs are usually lower as well, as a self-published e-author generally does the majority of

marketing via the Web. Distribution costs are minimal (if the book is offered as a disk or CD-ROM) or nonexistent (if it is offered as a download). In addition, if one offers only downloads, rather than providing a "tangible" product such as a diskette or CD-ROM, one may be able to avoid the need to establish oneself as a "publisher" and a "retail business" (for which a business license is needed). Most self-published e-authors publish in PDF or HTML format. Self-published e-authors are also eligible to participate in Amazon.com's "Advantage" program; however, they must be able to provide a disk version of the book, with an ISBN. It's important to be aware that many subsidy publishers attempt to promote their services as a form of "self-publishing." There is, however, a profound difference between subsidy publishing and self-publishing. The primary difference is in ownership. A self-publisher owns all rights to his or her book; no rights are licensed to another publisher. A subsidy publisher, however, receives a license of rights just like a commercial publisher. Another key difference is revenue -- the self-publisher receives 100 percent of book sale revenues, while the subsidy-published author receives only a percentage of those revenues in the form of royalties. The self-publisher also retains complete control over the book -- its cover, its design, its marketing process, its price and discounts -- while the subsidypublished author may not have any say over these matters.

In this section we investigate the electronic subsidy e-publishing companies to find the epublishing readiness model .Since they are in the mature level ,we could find whether each variable related to e-publishing could be useable or not.

Definition of e-publishing and enumerating some its advantages, we need to define ebook as an essential part of e-publishing. The novel progress made in e-book publishing industry is one of the considerable progresses in the field of e-publishing during the last decades(Rao, 2004). There have been many important technological advances since the book industry began, but until the advent of the internet and electronic commerce, the book industry remained in essence unchanged. The appearance of e-book technology in recent years has been a significant development, and the continued presence of electronic books or e-books as an information stock medium throughout this time has significantly influenced the publishing industry (Rao, 2004).

The e-book can be defined variously as: a text in digital form ;as a book converted into digital form; as digital reading material; as a book in a computer file format or electronic file of words; or as images with unique identifiers – the metadata may be displayed on computer screen or read on a computer through a network or viewed on a desktop/notebook/dedicated portable