



Strategic Maneuvering in Healthcare Technology Markets: The Case of Emdeon Corporation

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ABSTRACT

Healthcare technology markets have been recently identified as potential investment targets. Having survived a major environmental shock, the dot.com bust, firms in the healthcare technology industry are presently experiencing an impressive revenue growth. In this study, we investigate the strategies of Emdeon Corporation, a healthcare technology firm whose e-business model provides clues for achieving a sustained revenue growth and profitability. We trace the current sustainability of Emdeon's e-business model to a related diversification strategy that the firm's upper management has pursued via mergers and acquisitions (M&As). We also address the motivation behind current restructuring of Emdeon's e-business model. We argue that maturation of diversified e-business models leads to the transformation of individual segments into distinct entities focusing on specific technology markets.

Keywords: case study; e-business model; healthcare technology industry; mergers and acquisitions; related diversification strategy

INTRODUCTION

A growing specialization of e-business models has offered a variety of new services that create business value for the healthcare industry (Parente, 2000; Payton, 2003; Singh, O'Donoghue & Soon, 2002). These diverse services can encompass online execution of medical transaction processing, health information retrieval, and/or online enrollment to health plans, to name a few examples. Recent publications in the trade press have reflected a growing sense of optimism on the part of investors in e-business firms that

serve niche technology markets. In particular, healthcare technology markets have been praised as potential investment targets (*New York Times*, 2006; *Wall Street Journal*, 2006). Investors presently focus on funding start-up companies that provide access to health-related information as well as offer Internet-based capabilities to compare quality and outcomes of healthcare services.

The gigantic size of U.S. healthcare industry presents many opportunities for technology firms that have a potential to improve value

chains. According to the National Coalition on Health Care, the total healthcare spending in the United States reached \$1.9 trillion or about 16% of the gross domestic product in 2004. The fact that healthcare is a data-rich industry creates opportunities for technology firms to make health data exchanges more efficient and reliable. The other distinctive characteristic of healthcare is that it is strictly regulated. In this regard, the value proposition of technology firms is evident in their capability to decrease complexity of medical-transaction processing and reduce the number of data-related medical errors.

U.S. healthcare organizations first began to build proprietary information systems in the 1960s (Collen, 1991). At that time, hospital networks were most prolific adopters of information systems given that they possessed sufficient capital bases to do so. Only recently has it become cost-effective for physician practices to embrace medical software systems. Mass adoption of broadband Internet and decreasing costs of worldwide delivery of digital materials offer opportunities for technology firms to interconnect hospital information systems and connect to software systems of physician practices.

In addition to improved affordability of information systems and technological advancements, healthcare institutions could potentially benefit from incentives offered by the regulatory agencies to digitize the exchange of health-related information. In the mid-2000s, the U.S. government intensified efforts to raise the adoption rate of electronic health record (EHR) systems. This technology enables caregivers to collect and circulate digitized patient data across the network of authorized healthcare providers (Goldschmidt, 2005; Ford, Menachemi & Phillips, 2006). The U.S. government plans to link individual EHR systems in a centralized network, allowing access to patient data on a national basis (Office of the National Coordinator for Health Information Technology, 2005). The planned centralization of EHR systems would be a massive undertaking on the part all the stakeholders of the U.S. healthcare

industry. The increased quantity of digitized patient data would fuel further demand for medical-transaction processing services. Such a scenario indicates greater revenue-growth opportunities for the healthcare technology industry. Firms that are capable of building EHR systems, processing digitized data, and facilitating health-related decision-making would benefit from proliferation and centralization of EHR systems.

In the light of these important developments in the U.S. healthcare industry, we investigate the strategies of Emdeon Corporation, a healthcare technology firm whose e-business model provides clues for achieving a sustained growth of revenues and earnings in the emerging healthcare technology industry. Whereas e-business models built on a single source of revenue are dominant in this industry, Emdeon Corporation relies on a variety of revenue streams to sustain a leading market position. This case study explores the evolution of Emdeon's e-business model from a strategic management perspective. We trace the current sustainability and profitability of Emdeon's e-business model to a related diversification strategy that the firm's upper management has pursued through mergers and acquisitions (M&As). We also address the motivation behind the current restructuring of Emdeon's e-business model. The time period for this investigation spans 1998 to 2005.

We will discuss the literature on healthcare e-business models in the second section. Research method and data sources will be addressed in the third and fourth sections, respectively. In the fifth section, we analyze the evolution of Emdeon's e-business model. This model went through a number of development phases, which were reflections of the changes in the firm's strategy. In the sixth section, we offer conclusions in the form of lessons learned from Emdeon's strategic maneuvering in the emerging healthcare technology markets. These lessons point to the factors that contributed to the firm's sustained profitability in the observed period.

LITERATURE ON HEALTHCARE E-BUSINESS MODELS

There have been a number of academic and practitioner-oriented accounts that shed light on e-business model types that have emerged in healthcare technology industry. Given that e-business in healthcare is a recent phenomenon, this literature is at the early stage of development. The authors writing on this phenomenon largely investigate how healthcare technology firms add value to medical processes. The literature on trans-industry e-business models, on the other hand, has been plentiful. Timmers (1999, p. 2) advanced his definition of business models that is applicable for electronic environments: "A business model is defined as the organization of product, service and information flows, and the sources of revenues and benefits for suppliers and customers." Given that the focus of this article is on healthcare e-business models, we will focus on the current state of research on healthcare e-business models. In addition, we will selectively address research on general e-business models that complements our discussion on healthcare e-business models.

Parente (2000) distinguished four categories of healthcare e-business models: e-commerce portals, e-commerce connectivity, business-to-business (B2B) e-commerce, and business-to-consumer (B2C) e-commerce. In the first category, the author recognized that healthcare portals primarily obtained their revenue through advertising fees. Parente (2000) also acknowledged that healthcare portals offered information retrieval capabilities to both providers and recipients of healthcare services. Portals originated their value proposition through provision of up-to-date and in-depth medical information. Payton (2003) analyzed the features of a number of healthcare Web portals to identify needed enhancements for information services targeting consumers of health plans.

The second category advanced by Parente (2000) in his taxonomy of healthcare e-business models was e-commerce connectivity.

This model was primarily supported by revenues originating from transaction-processing activities. Provision of online accessibility to electronic medical records (EMR) and delivery of information on quality and outcomes of healthcare services were the other revenue sources for e-commerce connectivity model. The e-business model of Emdeon Corporation was cited as exemplary for the e-commerce connectivity category. Parente (2000) emphasized that Emdeon's primary value proposition was based on minimal investments in information infrastructure by users of transaction-processing systems. The author also noted that the major hurdle for Emdeon in terms of advancing this e-business model was a low rate of acceptance of new technologies by healthcare organizations. Parente (2000) explained Emdeon's strategy of aggressive acquisitions of healthcare technology firms as a reaction to this impediment. Abrams (2004) conducted a cross-sectional analysis of M&As in the healthcare technology industry and concluded that e-commerce connectivity firms were behind a rise in spending on M&As in 2004. In particular, production of EMR solutions was an area posed for growth. Abrams (2004) noted that e-commerce connectivity firms benefited from an increasing interest, on the part of healthcare institutions, in adding Internet- and software-based components to their services.

Healthcare B2B and B2C e-commerce models function similarly to a general e-commerce model that facilitates efficient market exchanges of goods and services. Parente (2000) described a B2B e-commerce model that offered services unique to healthcare settings. Such B2B platform would facilitate procurement processes involving employers and health insurance companies. A firm deploying this e-business model would act as an agent for employers seeking competitive health plans for their employees. An agent firm would handle a variety of tasks, including assessment of alternative propositions and setting online accounts for individual employees. Singh et al. (2002) described benefits and shortcomings of B2B healthcare e-commerce models. In particular,

they addressed cost savings that B2B models delivered to healthcare institutions which had procured medical supplies online. The authors also identified a number of key e-commerce firms specializing on sales of healthcare supplies. The value proposition of the healthcare B2C e-commerce model is based on facilitating online transactions between organizational sellers and individual customers. According to Parente (2000), this e-business model is represented in the healthcare industry by applications that support filling prescriptions online as well as remote management of health plans.

A number of research accounts that have focused on general e-business models have been influential in shaping our analysis of strategy development and implementation at Emdeon Corporation. In particular, taxonomies of Afuah and Tucci (2003) and Weill and Vitale (2001) have complemented findings of the literature assessed above by stressing importance of economic factors for successful exploitation of e-business models. The taxonomy of e-business models devised by Afuah and Tucci depicted various economic dimensions of e-business models: profit site, revenues, and pricing. Our study relies on the "traditional" approach when evaluating business value creation by emphasizing revenue generation and profitability of the firm. When discussing revenue sources, Afuah and Tucci noted that e-business models could rely on commissions, subscription and advertising fees in addition to production, markup and referral revenue bases. These insights are helpful in distinguishing the revenue bases for the e-business model of Emdeon Corporation.

While the distinctive feature of the e-business model taxonomy by Afuah and Tucci (2003) was revenue bases, Weill and Vitale (2001) illuminated several other dimensions of the e-business model. They recognized such dimensions as strategic objective, value proposition, critical success factors, and core competencies in addition to sources of revenue. Weill and Vitale identified these dimensions for each of their eight e-business models, including content provider, intermediary, virtual community, and value net integrator. The dimensions of

core competencies and value proposition have also been useful for our analysis of strategy development and implementation at Emdeon Corporation.

Finally, the taxonomy of e-business models developed by Timmers (1999) shed light on the influence of electronic business environments on enterprise value-chain activities. Having placed a major emphasis on Internet instigated value chain modifications, the author distinguished such categories of e-business models as e-procurement, value-chain service provider, virtual business community, collaboration platform, and value-chain integrator in addition to six other categories. While the taxonomies of Weill and Vitale (2001) and Timmers offered a high-level view on various distinct e-business arrangements for value creation, we find it difficult to apply these taxonomies to the case of Emdeon Corporation. The taxonomy of Afuah and Tucci (2003) provided a clearer path for our discussion of strategy development and implementation at Emdeon due to the fact that we decided to focus on the dimensions of revenue generation and profitability when assessing the effectiveness of strategizing.

METHOD

This study primarily aims to explore competitive strategies in the emergent healthcare technology industry. We employ the case study approach to investigate the evolution of the e-business model of a healthcare technology firm. Benbasat, Goldstein, and Mead (1997) argued that the case study method could be used in information systems (IS) research for both exploration and explanation. Benbasat, Goldstein, and Mead (1997) noted that "a case approach is an appropriate way to research an area in which few previous studies have been carried out" (p. 370). The literature on e-business models in healthcare technology industry has not gained a critical mass yet. Healthcare technology markets have been undergoing a period of formation from the mid-1990s to the present day. Only recently, leaders have emerged in respective technology markets. We aim to trace the evolution of interactions between a

leading firm in healthcare technology industry and pertinent client bases to identify lessons that we can learn from inception and implementation of a sustainable e-business model.

DATA

The data used in this research was primarily compiled from U.S. Securities and Exchange Commission (SEC) 10-K quarterly and annual reports provided by Hoover's Online. In particular, we collected the data on revenues and earnings in 1998-2005 as well as in the first quarter of 2006 for the individual segments of Emdeon's e-business model. SEC 10-K quarterly and annual reports from Hoover's Online also provided the data on the M&As that Emdeon completed in the period of study. The second source of research data was Standard & Poor's Market Insight database. We used analytical reports contained in this database to collect the data for the analysis of healthcare technology industry.

EVOLUTION OF EMDEON'S E-BUSINESS MODEL

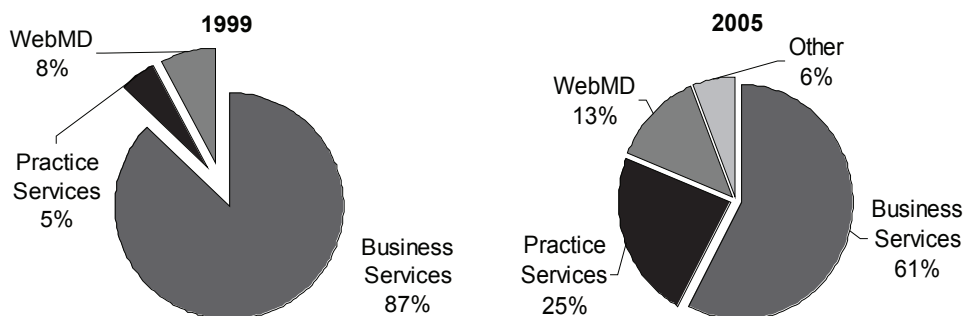
Emdeon Corporation has evolved from a company that relied on a single source of revenue with 648 employees and \$48.8 million of an-

nual sales in 1998 to a leading multi-segment firm with 6,100 employees and \$1,277 million of annual sales in 2005 (SEC Reports, 1998, 2005). Currently, the firm controls a 17% share of the market for healthcare technology services (GICS Sub-Industry Profile, 2006). We argue that the key factor to achieved sustainability and market success has been a related diversification strategy that Emdeon carried out via M&As. This strategy has enabled the firm to build a sophisticated e-business model that relies on several robust sources of revenue.

Entry to Healthcare Technology Markets

Emdeon acquired electronic transaction-processing capabilities by purchasing ActaMed Corporation in 1998. In the next year, the firm made an IPO on the NASDAQ under the name of Healtheon. At that point, healthcare transaction processing services (Business Services according to Emdeon's terminology) constituted Healtheon's primary source of revenue, which accounted for 87% in 1999 (see Figure 1). The same year, Healtheon merged with WebMD Corporation aiming to expand into healthcare portal services (WebMD segment according to Emdeon's terminology). The addition of Medical Manager Corporation

Figure 1. Emdeon's Annual Sales (Revenues) by Segments in 1999 and 2005



Note. From Securities and Exchange Commission 10-K annual and quarterly reports available from Hoover's Online database.

formed the other core competency: software development services (Practice Services according to Emdeon's terminology) targeting healthcare providers. Therefore, by pursuing a related diversification strategy, Emdeon laid a foundation for its e-business model that largely remains intact to the present day. Through the key acquisitions made in 1998-2000, Emdeon achieved the economy of scope effectively building a diversified e-business model that relied on multiple sources of revenue.

When Emdeon entered the market for medical portal services following the merger of Healtheon and WebMD Corporation in 1999, the portal services market was still in the experimentation phase. Elfenbein and Lerner (2003) outlined the two milestones for the early phase of development of portal services. The inception of portal services is traced back to 1994 when the users of the World Wide Web began to actively adopt the Internet browser. Portal services at that time attracted users through agglomeration of hyperlinks leading to the Web sites of interest, Web search capabilities, and proprietary content. In 1997, portal services entered a new phase of development, which denoted a boost in new content offerings such as online news and stock price information. Later, portal firms also expanded service offerings by adding such features as Internet-based auctions and electronic mail. According to Elfenbein and Lerner, Web portal firms primarily received revenue from two sources: fees for placing advertisements on portal Web pages and alliance agreements. In the portal services market, Emdeon chose to target a specific audience: providers and recipients of healthcare services.

In the 2000s, the Healtheon/WebMD portal has gained a noticeable position on the World Wide Web. A number of commentaries assessed the impact of this portal from a variety of perspectives. According to one commentary (Singh et al., 2002), the visibility level that Healtheon/WebMD portal achieved made it a much-discussed destination for online medical services (e.g., transcription). Another commentary (Damsgaard, 2002) pointed to the general popularity of Healtheon/WebMD portal. The

author viewed this portal as successful, noting that the survival rate in the portal services market was very low. The model of portal management that Damsgaard advanced pointed to the importance of building a strong customer base and proactively responding to changes in the external environment.

Emdeon Corporation entered the medical software market in 2000 when the firm acquired Medical Manager Corporation, whose most established unit was a practice management system. Emdeon pursued opportunities in an emerging technology niche that served physician practices. It is important to note that the market for software development services in healthcare at that point had reached maturation for large institutions. U.S. hospital networks began to deploy information systems as early as 1960s. Initially, hospitals invested their own resources in the development of such systems. For the most part, affiliated academic research centers provided the required computer resources and professional expertise (Collen, 1991). In the 1970s and 1980s, the number of software development firms serving U.S. hospitals considerably increased (Michell & Singh, 1996). By the early 1990s, the market for hospital information systems reached maturity in terms of both cumulative sales amount and number of firms offering information systems solutions. According to Michell and Singh, 491 firms offered such solutions to financial and business office operations of U.S. hospitals in 1991. In addition, 218 firms brought IS solutions designed to manage patient records to the hospital software market in the same year.

The Medical Manager set of applications targeted a different niche by offering practice management software to physicians. Its integrated software solutions served major business aspects of a doctor's office and consisted of clinical, financial, and patient data management modules. Prior to the acquisition by Emdeon, Medical Manager had been installed at 25,000 businesses representing 80 medical specialties, according to the 1999 SEC 10-K annual report of Medical Manager Corporation. Acquired software development capabilities produced \$120

million, which accounted for 24% of Emdeon's total revenue in 2000 (see Table 1).

Emdeon gained an additional revenue stream from an unrelated segment: production and distribution of plastic materials. These materials primarily target customers in the healthcare industry. This segment was inherited from Medical Manager Corporation acquired for its software development line of products. For the two years following the acquisition, Emdeon tried unsuccessfully to divest this unrelated segment. This fact presents evidence that the firm focused on a related diversification strategy upon the entry to healthcare technology markets.

Strengthening a Diversified E-Business Model

For the three e-business segments, Emdeon pursued two strategies to advance its market positioning: economy of scale and economy of scope. The former strategy dealt with customer base expansion while the latter focused on quickly adding new technologies and services. Emdeon Corporation skillfully mastered the art of expanding its customer base as well as scope of technologies and services via M&As. Table A1 summarizes the history of M&As completed by Emdeon for the software development segment in 2000-2005. In the period of 2001-2003, Emdeon acquired 38 small software development companies that provided technol-

ogy services to physician practices for the total amount of \$24.9 million. This allowed Emdeon to reach the level of critical presence in the market of physician technology services.

Table A2 illustrates the dynamics of acquisitions made by Emdeon for the segment of electronic medical-transaction processing services. The first series of additions were made in 1999-2000. Emdeon acquired firms that had closely related e-business models, including Envoy Corporation, Kinetra, LLC (a joint venture of EDS and Eli Lilly), and MEDE America Corporation. The next wave of acquisitions for this segment, performed in 2003-2004, signaled a change in strategy. Emdeon sought and acquired targets that would expand its scope of technologies and services. The firm added print-and-mail services through the acquisition of Advanced Business Fulfillment, Inc. The addition of Medifax-EDI, Inc. provided a new capability for transaction processing services: real-time eligibility verification. In 2004, Emdeon acquired Dakota Imaging, Inc. and ViPS, Inc. to add capabilities in the areas of fraud detection and predictive modeling. At the same time, these acquisitions expanded the customer base of Emdeon. The addition of ViPS, Inc. resulted in entering a technology market serving healthcare government agencies and large insurance companies. The acquisition of Claims Processing Systems, Inc. brought in the clientele consisting of dental practices.

Table 1. Emdeon's annual sales by segments in 1998-2005 (millions of dollars)

	2005	2004	2003	2002	2001	2000	1999	1998
Business Services	759	687	506	467	384	269	46	34
Practice Services	304	296	303	275	260	120	3	
WebMD	168	134	111	84	75	102	4	
Other	79	77	72					

Note. From Securities and Exchange Commission 10-K annual and quarterly reports available from Hoover's Online database.

Emdeon faced a greater challenge for strengthening the portal services segment. This segment differed from the two other segments as it primarily relied on advertisement fees, and was a new e-business model at the time. Emdeon's portal services experienced losses for a number of years. The segment first became profitable in the third quarter of 2003 (see Figure 2). To this end, Emdeon made several acquisitions to provide enhancements to the portal's features as well as to diversify its customer base. Initially, portal services targeted online consumers of health information with such services as enrollment to health plans and health information retrieval. In 2001, Emdeon acquired Medscape, Inc. to penetrate a new customer base: providers of healthcare services. This development required addition of new portal features. Emdeon embarked on a series of acquisitions to offer additional Web site content: an online drug directory, online capabilities to compare costs and quality of healthcare providers, and online databases

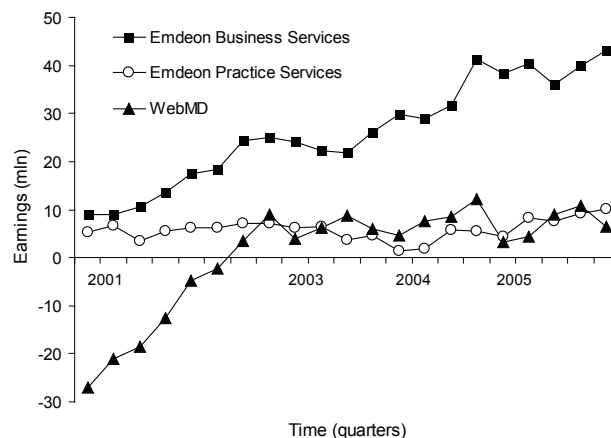
containing physician contact information and medical treatment guidelines. Table A3 displays the M&As that Emdeon pursued to carry out these changes.

Figures 2 and 3 display a steady growth of revenues and earnings for each segment. The M&As that Emdeon executed in 1998-2005 resulted in achieving sustainability and profitability of its e-business model.

Organizational Restructuring

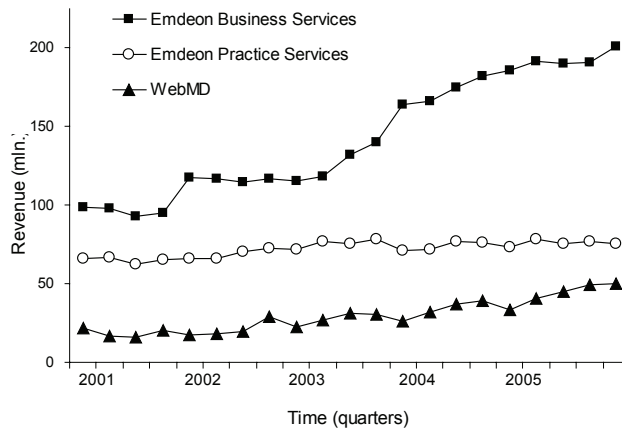
In the period of 2001-2005, Emdeon aggressively acquired companies that would fit the profiles of its three e-business segments: online medical-transaction processing, software development and portal services. Currently, the largest fraction of revenue for Emdeon comes from the transaction-processing segment. Development and sales of specialized software targeting healthcare providers make up the second largest source of revenue. The portal services segment generates the smallest amount of revenue. Changes in the breakdown of revenues

Figure 2. Emdeon's quarterly earnings before interest by segments in 2001-2006



Note. From Securities and Exchange Commission 10-K annual and quarterly reports available from Hoover's Online database. Quarterly sales and earnings data by business segments prior to year 2001 are not available because Emdeon Corporation started to distinguish sales and earnings by business segments for quarterly reporting only in year 2001.

Figure 3. Emdeon's quarterly revenues by segments in 2001-2006



Note. From Securities and Exchange Commission 10-K annual and quarterly reports available from Hoover's Online database. Quarterly sales and earnings data by business segments prior to year 2001 are not available because Emdeon Corporation started to distinguish sales and earnings by business segments for quarterly reporting only in year 2001.

by segment and distribution of revenues by segment over the observed period are displayed in Figure 1 and Figure 3 respectively.

Having built a sustainable e-business model, Emdeon embarked on a new strategy: organizational restructuring. In 2005, the firm spun off its portal services division under the name of WebMD Health Corporation. Realized profitability and a greater revenue growth rate in the recent years made this development possible. As evident in Figure 3, a revenue growth of the portal services segment enjoyed a healthy rate. The earnings of WebMD Web sites have been positive for a number of years as shown in Figure 2.

WebMD Health Corporation has been very active in pursuing M&As. The firm added Summex Corporation in July 2006 to supply information about wellness and health education programs, effectively expanding its array of services. In addition, WebMD made an announcement about its intention to purchase Medsite Inc., whose e-business model offered services in the areas of interactive medical

education and physician recruitment. WebMD evidently continues the tradition of its parent, Emdeon, aiming to expand its market share and diversify its array of services through aggressive M&As.

CONCLUSION

The healthcare technology industry is dynamically evolving. Having survived a major environmental shock, the dot.com bust, some firms in this industry are experiencing an impressive revenue growth. The industry currently enjoys a 21.8% revenue growth based on the 12-month period compared with a 13.4% growth for the rest of the market¹. The firm in our study, Emdeon Corporation, emerged as a market leader in the healthcare technology industry by being able to adjust quickly to evolving market conditions. The key to the firm's success was its e-business model, which relied on multiple sources of revenue.

To enter healthcare technology markets, Emdeon Corporation pursued a related diversification strategy. In the span of three years,

Emdeon made key acquisitions that formed distinct revenue segments of its e-business model: electronic medical-transaction processing, software development and portal services. The first lesson learned from Emdeon's experience is that a related diversification strategy creates a competitive advantage upon the entry to emerging niche technology markets.

Emdeon implemented a related diversification strategy by the means of M&As to achieve the economies of scope and scale quickly. Although Emdeon has entered a number of strategic alliances, the firm invests more aggressively in acquiring companies. The second lesson learned from Emdeon's experience is that firms in emerging niche technology markets can use M&As to sustain revenue growth and to increase market power.

Emdeon's upper management made a major strategy shift by spinning off one of the segments, portal services. Having secured a great deal of market power for this segment, Emdeon currently focuses on strengthening market positioning of the other segments. This change in Emdeon's organizational structure points out that the firm's e-business model has reached a certain level of maturity. The lesson learned from Emdeon's restructuring strategy is that maturation of diversified e-business models in niche technology industries leads to the transformation of individual segments into distinct entities focusing on specific technology markets.

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APPENDIX

Table A1. Emdeon's acquisitions made for its Practice Services Segment in 2000-2005

Company	Date	Price (in mln)	Profile
Medical Manager Corporation/ CareInsite Inc.	2000	2907	Medical Manager® practice management system.
10 small physician services companies	2001	8.2	Services for physician practices.
21 small physician services companies	2002	14	Services for physician practices.
7 small physician services companies	2003	2.3	Services for physician practices.
Conceptis Technologies, Inc.	2005	19.6	Medical education and promotion services aimed at physicians and other healthcare professionals with a strong online presence in the cardiology community.

Note. From Securities and Exchange Commission 10-K annual reports available from Hoover's Online database.

Table A2. Emdeon's mergers and acquisitions made for its Business Services Segment in 1998-2005

Company	Date	Price (in mln)	Profile
ActaMed Corporation	1998	n/a	Electronic data interchange via proprietary non-Internet network.
MEDEAmerica Corp.	1999	417	Automated transaction operations.
Kinetra LLC	2000	292	Electronic clinical transactions.
Envoy Corporation	2000	2,440	Electronic medical-transaction operations.
Advanced Business Fulfillment, Inc.	2003	113	Paid-claims communications services for third-party administrators and health insurers; print-and-mail capabilities.
Claims Processing Systems, Inc.	2003	5.6	Clearinghouse for dental practices.
Medifax-EDI, Inc.	2003	268	Real-time medical eligibility transaction services and other claims management solutions.
Dakota Imaging, Inc.	2004	39	Automated claims processing and business process outsourcing services; advanced data scrubbing.
ViPS, Inc.	2004	167	Information services to government and commercial healthcare payers, including provider performance measurement, fraud detection, disease management and predictive modeling.

Note. From Securities and Exchange Commission 10-K annual reports available from Hoover's Online database. All acquisitions were accounted for as purchases, except for ActaMed Corporation, which was accounted for as a pooling of interests.

Table A3. Emdeon's acquisitions made for its portal services segment in 1999-2005

Company	Date	Price (in mln)	Profile
WebMD, Inc.	1999	3,660	Portal services business and automated transaction operations.
Greenberg News Networks, Inc. (also known as Medcast)	1999	113	Medical news services.
OnHealth Network Company	2000	363	Portal services business.
MedicaLogic/ Medscape, Inc.	2001	9.8	Healthcare professional-focused Web site.
WellMed, Inc.	2002	19	Healthcare information technology applications development.

Note. From Securities and Exchange Commission 10-K annual reports available from Hoover's Online database.

Table A3. continued

Optate, Inc.	2003	4.1	Online healthcare benefit decision support tools.
The Little Blue Book	2003	13	Online database and reference book containing physician practice information.
RxList, LLC	2004	5.2	Online drug directory for consumers and healthcare professionals.
MedicineNet, Inc.	2004	17	Health information Web site for consumers.
HealthShare Technology, Inc.	2005	30	Online tools to compare cost and quality of hospitals for use by consumers, providers and health plans.
eMedicine.com, Inc.	2006	26	Medical reference information and clinical knowledge base for healthcare professionals in 59 medical specialties; a consumer site with articles written by physicians for patients.
Summex Corporation	2006	10	Online and offline health and wellness information and lifestyle education.

Note. From Securities and Exchange Commission 10-K annual reports available from Hoover's Online database.

ENDNOTE

¹ Public companies trading on the New York Stock Exchange, the American Stock Exchange, and the NASDAQ National Market. Data obtained from Hoovers Online via <http://www.hoovers.com>.

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