Strategic Report for Cerner Corporation

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Executive Summary

Cerner is the leading U.S. supplier of healthcare information technology solutions, offering over sixty services to more than 6,000 clients worldwide ranging from single-doctor practices, to emergency rooms, hospitals, pharmacies, and other health care providers and departments.

Although somewhat affected by the economic slowdown, Cerner finds itself in a very strong position, both strategically and financially. The Health Care Information Technologies (HCIT) industry by nature has a high degree of rivalry, which is only amplified due to the government's proposed $20Bn stimulus package. The conditions of the stimulus were left ambiguous, increasing the uncertainty in the market. Cerner faces a number of options and needs to decide how to use their efforts in the most effective way to retain the leadership within the industry.

We recommend that Cerner concentrates their efforts on the following four initiatives:

- Ensure effective and timely completion of the National Health Service digitization project in the United Kingdom.
  - A success on this front would give the company a very strong lead in terms of the experience gained automating a national healthcare provider. Conduct a comparative analysis of all the services Cerner offers.
- Analyze the Selling, General and Administrative Costs to improve operational efficiency
- Conduct a comparative analysis of all the services Cerner offers.
  - Investigate clients' opinions of Cerner's solutions in terms of reliability, ease of use, effectiveness, and relative pricing.
  - Identify a batch of five to ten initiatives that have high demand potential and optimize its Research and Development to improve these products.
  - Identify a batch of five to ten initiatives and try to use the marketing team to work on sales of the these particular services to increase product penetration levels for current customers
- Once penetration levels reach the average of 47%, consider increasing its client base, both domestically and internationally.

Company Overview

Inspired by a short consulting project for a medical lab, former Arthur Andersen information systems consultants Neal Patterson, Clifford Illig, and Paul Gorup broke away from Arthur Andersen to form Cerner in 1979. Their motivation was to fill a void in the healthcare industry, namely its lack of automation, by developing and supplying healthcare information technology solutions (HCIT). Cerner's name stems from the Latin word *cernere*, translated as "to sift or understand."

Cerner's vision of a Community Health Model evolved from a fundamental thought: Healthcare should revolve around the individual, not the encounter. The Community Health Model encompasses four steps:

- Automate the care process by offering a longitudinal, person-centric electronic medical record that gives clinicians electronic access to the right information at the right time and place in order to achieve an optimal health result.
- Connect the person by building a personal health system. Medical information and care regimens accessible from home empower consumers to effectively manage their conditions and adhere to treatment plans, creating a new medium between physicians and individuals.
- Structure the knowledge, by building systems that help bring the best science to every medical decision.
- Close the loop by building systems that implement evidence-based medicine and reduce the average time from the discovery of an improved method to the change in the standard of care.

Driven by innovation and an entrepreneurial spirit, Cerner introduced its first product, a laboratory information system called PathNet, in 1984, almost five years after being formed. Shortly thereafter, Cerner went public in 1986 (NASDAQ: CERN). After going public, Cerner continued to build upon its product line, creating systems for various medical specialties and needs, and building each system from the same foundation, to ensure combined harmony and information sharing among all of Cerner's systems.

Today, Cerner is the leading U.S. supplier of healthcare information technology solutions, working with over 6,000 clients worldwide ranging from single-doctor practices, to emergency rooms, hospitals, pharmacies, and other health care providers and departments. Cerner offers a wide range of products through its two main framework architectures, *Cerner Millennium* architecture, a person-centric solution framework that combines clinical, financial, and management information systems, as well as secure access to an individual's electronic medical record at the point of care and a proactive information delivery system to meet the specific needs of the care providers, and *CareAware* architecture, a device architecture which is designed to bridge the gap between medical devices and patient information by connecting information from various devices to the clinician workflow and electronic medical record. Cerner also offers a variety of services including implementation and training, remote hosting, operational management services, support and maintenance, healthcare data analysis, clinical process optimization, transaction processing for physician practices and employer health plan third party administrator (TPA) services. First announced in October 2004, Cerner strategically entered the diabetes market through its commencement of the Cerner Diabetes Initiative, an online diabetes management tool—including a personal health record, secure connection between care providers and consumers, and an online management diabetes condition center—available to all children in the United States with type I diabetes. Since its launch, over 37 hospitals, 500 clinicians, and 7,000 children have joined the initiative throughout the country. To further expand the quality and depth of services of its solutions, Cerner established strategic alliances with Dell, HP, IBM, Oracle, Sprint, and BMC Software.

Headquartered in Kansas City, MO, Cerner employs 7,300 associates worldwide in 27 locations across 14 different countries, including the U.S., Australia, Belgium, Canada, France, Germany, Hong Kong, India, Ireland, Singapore, Spain, United Arab Emirates, United Kingdom, and its most recent expansion, Malaysia.

TIMELINE

1976	• Cerner is founded.
1984	• Cerner introduces its first product, PathNet. • Cerner secures $1.5 million venture capital funding from First Chicago Capital Corporation.
1986	• Cerner goes public on the NASDEQ.
1992	• Cerner Vision Center opens.
1993	• Cerner purchases Megasource, a pharmacy information systems specialist.
1998	• Cerner purchases Multum Information Services, a drug knowledge database supplier.
1999	• *HNA Millenium* Phase 1 is completed • Cerner makes *Fortune* list of "Best 100 Companies to Work For"
2000	• Cerner acquires CITATION Computer Systems, a maker of information systems for healthcare providers.
2001	• Cerner acquires Dynamic Healthcare Technologies, a medical information technology firm.
2003	• Cerner purchases BeyondNow Techonologies and expands into the home heath care information technology market. • Cerner and Atos Origin awarded U.K. National Health Service Choose and Book contract
2004	• Cerner purchases VitalWorks' Medical Division, which provides practice management and electronic medical records software.
2005	• Cerner acquires Axya (French IT provider of financial, administrative, and clinical solutions in Europe) • Cerner acquires Bridge Medical (leader in point-of-care software market) • Cerner acquires Medical Division of VitalWorks (physical practice solutions) • Cerner signs a contract with Fujitsu for southern region of NHS Connecting for Health program in England.
2006	• Introduces *CareAware* device architecture and line of devices. • Cerner signs contract with BT for London region of NHS program. • Cerner acquires Galt Associates (safety and risk management software for pharmaceutical, medical device and biotechnology companies) • First *Cerner Millenium* site in France. • Delivered *Cener Millenium* 2007 software release.
2007	• Signed first clients in Spain and Egypt; opened office in Dublin, Ireland. • Cerner acquires Eterby Computer Company (software provider of retail pharmacy management systems)
2008	• United Arab Emirates Ministry of Health Selects Cerner to Automate Healthcare Processes. • Cerner acquires LingoLogix (computer automated coding technology used to improve revenue cycling offerings)

Competitive Analysis

The economic downturn did not leave the Healthcare Information Technology (HCIT) industry unaffected. As a result of a tightening budgets healthcare organizations are becoming increasingly selective with regards to capital investments. Current HCIT solutions are considered to be more strategic to healthcare organizations than other purchases, as the solutions offer quick return on investment. Moreover, HCIT plays an important role in healthcare by improving safety, efficiency and reducing cost. Besides, most healthcare providers also recognize that they must invest in HCIT to meet the regulatory, compliance and government reimbursement models.

Force	Strategic Significance
Rivalry	
Entry and Exit	
Substitutes and Complements	
Buyer Power	
Supplier Power	

High Medium Low

Rivalry

Extent of product differentiation

- HCIT industry is highly fragmented along a couple of different lines. First, the industry is fragmented by types of applications offered. While some companies offer a full suite of products, the vast majority of HCIT vendors are specialized in a limited number of product categories. Further fragmenting the industry, there are a large number of players even within a single niche area. Unlike other sectors in healthcare, such as distributors, or managed care, the universe of public companies in HCIT does not compose a significant share of its respective market. As a result, these companies cannot necessarily be taken as a proxy for the market, and conversely, one cannot simply apply overall market trends to the group. Given the fragmented nature of the HCIT industry, it is important to identify which of its sub-sectors are more likely to outperform relative to the others.

- There are a large number of companies that offer proprietary solutions that are generally not compatible with the products of the competitors.
- There is an overall trend toward standardization of the healthcare service. Increasing the homogeneity of the information is essential for the preservation of records and facilitation of the storage of records. The large degree of product differentiation is a long term issue that needs to be addressed in order to allow standardization of the healthcare service.

Who are the main competitors?

- Cerner competes with a large number of companies along all sectors of HCIT. Here are some of the major competitors:
  - McKesson Corporation (NYSE: MCK)
  - Allscripts-Misys Healthcare Solutions(NASDAQ:MDRX)
  - Quality Systems (NASDAQ: QSII)
  - HLTH Corporation (NASDAQ: HLTH)
  - MedAssets, Inc.(NASDAQ:MDAS)
  - Eclipsys Corporation (NASDAQ:ECLP)
  - MedQuist Inc. (NASDAQ:MEDQ)
  - Mediware Info. Systems (NASQDAQ: MEDW)

First mover disadvantage

- Free riding problem becomes evident when considering reasons for the lack of a single standard that connects all hospitals, physicians, and patients.
- If a buyer decides to invest in creating a single standard that connects it with all the hospitals, physicians, and patients in its area, and then spends the time and money getting these same hospitals and physicians to adapt their existing systems to the new standard. The company would then need to price its services to recover the costs of its investment over time. However, a competing buyer could simply adopt the same standards but price its services

lower, as it did not have to make the initial investments. Because of this first-mover disadvantage, there is little incentive for a single player in a fragmented industry to make the initial investment. Meanwhile, it is the buyer who really accrues most of the benefits of increased adoption of HCIT. Implementation of HCIT reduces medication errors that can result in shorter length of stay for patients, which reduces payments by the buyer.

Exit barriers

- Barriers to exit are relatively high in HCIT and are mainly driven by the contractual agreements to provide the service to the healthcare providers. Besides, due to the heterogeneity of the solutions generated, it is very hard for the HCIT providers to sell their specialized assets at exit. This effect has been diluted to the certain extent, as companies like Cerner choose to outsource some of the services to alternate industry leaders.

Established Partnerships

- Cerner's partners are leaders in their respective industries and they bring in a reputable track record of innovation and accomplishments, which make the company's solutions even more effective. Cerner has established alliances with the best in the business companies such as Dell, HP, IBM, Oracle, Sprint and BMC Software.

Entry and Exit

Access to inputs

- The main factor of production in the HCIT industry is the human capital. Computer scientists that develop the applications may be accessed easier by the more established firms than the start-ups. However, it remains the case that anyone with a sufficient level of expertise is capable of entering the market in a given niche and developing a product to meet the hospitals demands.
- Long term success depends on the ability to recruit and retain key personnel.

Government policy

- The Health Insurance Portability and Accountability Act of 1996 (HIPAA) has been impacting the healthcare industry by requiring identifiers and standardized transactions code sets, as well as, security and privacy measures to ensure the protection of health information.
- President Obama's stimulus package of $20Bn that will be spent on HCIT is likely to attract competition. However, language in the House bill does not suggest speedy dispersal of funds, which are scheduled to come in no sooner than 2011. While $20Bn is a significant number, it is important to note that not all of it is intended for the subsidy of electronic health records for providers or hospitals, and is intended to be used over a number of years. One area for investment includes the establishment of HCIT policy and standards committees that will establish recommendations for the creation of initial standards, implementation specifications and certification criteria. The general goal here is to create the framework for a national health information infrastructure.
- While the large financial stimulus does serve as an attractive incentive for the firms to innovate and for new firms to enter the market, the current ambiguity in the government policy limits the extent to which companies are willing to expand production. The industry is holding off making any bold moves, waiting to gain more clarity in terms of the specificities of the government spending.

Economies of scale

- With more than 7,500 associates worldwide, including 900 clinicians, Cerner has installed nearly 6,400 Cerner Millennium solutions in more than 1,100 facilities worldwide. Considered the most aggressive R&D investor in US markets, Cerner's cumulative R&D is set to exceed $2bn by 2010.
- The size of the company allows it to benefit from the lower network infrastructure costs. In the economy where cost saving becomes increasingly

important with the deepening recession, being able to produce at a lower average cost is vital not only for the firms trying to enter the market, but also for the existing companies trying to weather the financial storm.

- Large size allows maintaining low average production, as well as, marketing costs. This is a very strong advantage Cerner has against its smaller competitors. However, this is by no means a permanent advantage and could always change, should the larger IT companies like Siemens or Oracle choose to acquire a smaller HCIT company and grow it to the size comparable to Cerner.

Capital requirements

- There are a number of costs involved with starting a HCIT company. One of the main costs that will be discussed further in the report is research and development. Moreover, healthcare is a highly regulated industry and requires a great degree of compliance, as well as extensive certification. Besides being costly from financial perspective, it is very time consuming and may be outside of the investors' horizons given the risks and ambiguity of the long term success.
- Large up-front costs associated with the development of the solutions may deter the potential entrants. This is not as much of a problem for large well-capitalized, multi-industry companies such as Siemens AG and General Electric who recognize HCIT as another attractive market.
- Hospitals have a very small margin for error as any mistake can cost a human life. Hence, a high level of sophistication is expected from the HCIT provider. The smaller companies entering the market are unlikely to have the same sophisticated appeal as their more established competitors.
- When clients elect to have Cerner host their Cerner Millennium applications, they no longer need to purchase the hardware up-front. Hence Cerner records lower initial revenue from hardware sales, while gaining the opportunity to benefit from a higher margin recurring CernerWorks Managed Services revenue stream.

Brand identity

- In 1994 Cerner developed the vision to create a unified technology platform at a time when its competitors were selling modular, best-of-breed solutions. Since then, all the competitors have followed suit in trying to offer an integrated, full suite of products, which serves a testament to Cerners's vision. Moreover, such a shrewd strategy will offer a significant advantage in case the question healthcare nationalization arises in the US.
- In the light of the economic downturn, hospitals and medical practices are actively trying to cut all possible costs, while maintaining high standards of service. In such an environment, new and unknown companies are unlikely to be able to enter and take the place of the established and proven companies, like Cerner.

First mover advantage

- Through being able to penetrate the market at the early stage of the development, Cerner developed a profound understanding of the hospital workflow issues. Hospitals and medical practices are unlikely to be willing to dedicate their resources to a number of competing enterprises that work on developing similar solutions.
- The company has recently established its presence in the UK. Though the company's bids for the National Health Services (NHS) IT modernization projects did not realize in contract wins in 2003 and 2004, its competitors, like British Telecom and Fujitsu, who won the contracts, have later replaced their subcontractor with Cerner. IDX Systems, a healthcare information technology provider, which won subcontracts for NHS projects from British Telecom and Fujitsu was acquired by GE Healthcare in September 2005. However, in June 2006, IDX was dropped out of the NHS contracts due to failure of timely delivery of solutions. Later, Cerner was chosen as the replacement for IDX Systems.
- Experience with NHS gives Cerner an edge to become the company of choice if the US government chooses to nationalize healthcare. Cerner needs

Cerner need to ensure that the work is the UK is done to the best standard of quality and in a timely manner in order to strengthen its position vying to provide for possible US National Health.

High R& D costs

- Cerner has internally developed almost all of its roughly 60 software applications and can satisfy the technology needs of virtually any type of healthcare provider. The company has strong clinical roots with its original applications targeting a hospital's lab, pharmacy and radiology departments. Cerner is attempting to leverage its relationships with hospitals to promote within the area of private practices.
- The company spends significantly more on software development than any of its and is expanding its technology offerings into non-traditional areas of healthcare IT like life sciences, personal health records and connecting medical devices to electronic health records.

Substitutes

Product differentiation and Rivalry

- There are a number of companies each offering proprietary solutions that fall short from being compatible with the products of the competitors. The heterogeneity of the offered solution makes it hard for the healthcare providers to choose between the offered solutions purely based upon the price. Hence, many HCIT firms choose to concentrate on a particular niche and a particular sector of the healthcare providers. Cerner is an exception to this rule and has attempted to target a large number of sectors with a large line of products. As a result, Cerner witnesses intense competition for the rival smaller competitors who concentrate all their energy and efforts on delivering a particular service. Moreover, the rivalry may intensify if the larger companies (e.g. GE Healthcare Technologies and Siemens Medical Solutions Health Services) decide to become more aggressive in entering HCIT industry. There has also been an increased discussion about the IT companies, such as Cerner's current partner- Oracle, entering the field.

Buyer Power

Bargaining leverage

- Hospitals usually purchase from 14-20 vendors of the HCIT products. Healthcare providers may be of different sizes, which significantly affects the bargaining power they possess. The larger hospitals and hospital chains may have more leverage in terms of negotiating the conditions of the HCIT services or the bundle of services they purchase. However, buyers also realize that there are large switching costs and hold-up problems are quite likely.

Buyer information

- The vendors provide extensive information about their products to the buyers. Moreover, there is a great extent of regulation that forces HCIT companies to comply with certain standards. Hence, high quality of the service is guaranteed and the hospitals may need to make a decision based on ease of use, compatibility, and strategic reasons.
- Cerner has by far the largest sell-force in the industry and is able to use that to demonstrate a considerable strong contract growth year-over-year.

Substitutes

- Cerner has chosen to provide a large scope of products rather than concentrate on the development of a single solution. This forces it to compete with a number of different companies across a varied product line. Consistent with the theory of specialization, the competitors are able to concentrate all their efforts on developing the single product resulting in the better solution. However, the substitute is not perfect, as Cerner's solutions offer compatibility amongst the product line.

Price sensitivity

- The current economic conditions have forced hospitals and healthcare providers to seriously consider cutting costs in order to reach reasonable bottom line results. This has increased sensitivity to the prices offered by HCIT companies. However, the sensitivity has been limited due to the heterogeneous nature of the offered solutions combined with the unwillingness of the professionals to retrain and readjust to the new equipment.
- Cerner offers an alternative, more frugal solution- *CernerWorks*. This is a remotely-hosted, managed services offering that allows the healthcare providers to reduce the upfront hardware costs and ongoing technology risks. This is an important advance on behalf of Cerner and is likely to have rather lucrative prospects.

Buyers' incentives

- Buyers have the incentive to cut costs and ensure a high quality service. HCIT is of a special strategic importance to the healthcare providers, as it allows them to improve administrative efficiency, ensuring higher degree of collections and reducing the costs.
- Credibility and reliability is also an important issue for HCIT companies. Although this is partly taken care of by the government regulations, healthcare providers may choose to avoid taking risks with the smaller HCIT providers and work with the more established ones. This does not only offer more security about the quality of the product and ensure more confidence that the provider will exist in the future and provide frequent updates, but also serves as a business image statement.

Supplier Power

Supplier concentration

- The HCIT industry is intensely competitive, with a large number of players. This forces the industry to evolve rapidly while maintaining thin margins.

Differentiation

- Most of the vendors specialize in a few particular products within HCIT. As a result, they have very little leverage in terms of the supplier power. Cerner has an extensive product line that is able to target a number of needs of their client. Nevertheless, Cerner on average provides merely six to eight solutions from their product line to a given client, which limits their current supplier power.

Switching costs

- Cerner provides a number of integrated solutions that together represent sticking points. By the virtue of being able to offer a number of solutions that are compatible with each other, Cerner makes it considerably harder for the new entrants to gain a foothold by offering, although at times a superior, but singular product.
- Switching to an alternate solution also requires retraining of medical staff. Unless the newcomers are able to provide significant cost savings or a much higher quality solution, it may not be worth the investment for the medical practices to switch to the new product.

SWOT

Strengths

- Largest, most strategic worldwide healthcare IT client footprint (Over 6,000 hospital, health system, physician practice, clinic, laboratory, employer, government, and pharmacy client sites)
- Broadest and deepest solution portfolio with over 60 different services
- Robust financial performance over the past five years
- Increased revenues represent a 16% annual growth rate and operating income grew at 27% annual rate.
- Highly scalable CernerWorks Managed Services
- Strong partnerships and alliances with about 60 major information technology players
- Established Presence in the UK through realized bids for National Health Service (NHS) contracts
- Industry with significant barriers to entry
- Healthcare historically resilient to recession
- HCIT ranks high among client priorities, as it is needed for patient safety, regulatory reporting, and reimbursement requirements (pay-for-performance, RAC audits)

Weaknesses

- Significant dependence on the government, as hospitals derive a significant percentage of revenue from Medicare and Medicaid.
- Dependence on third party suppliers.
- Historically weak and erratic free cash flow.
    - Free cash flow has been hindered in recent years by the construction of a new data center to support growth in Cerner's rapidly-growing Managed Services remote hosting business. However, Most of these expenditures are complete at this point.

Opportunities

- Acquisition of Etreby in 2007 allows Cerner to expand into a broad range of services for the retail chain pharmacies. This represents as an addition of 1,200 pharmacies to Cerner's client base.
- Expanding facilities in the Middle East by opening a new office in Dubai in 2007.
- Further exploration of the "white space" represents a significant organic growth opportunity: Cerner's average customer has just six of the company's 60 applications installed.
- Experience automating NHS may be useful if the US turns to a similar health care model.
- Grow market share, as competitive pressure could decline as smaller vendors lose market share or are consolidated.
- Expected increased integration within health care industry, with a high possibility of consolidation (which may also serve as a threat).
- Computerized Physician Order Entry (CPOE) adoption still low at 17.5% (KLAS).
- Healthcare industry spending expected to grow significantly for the next five years, even given the current market turbulence.
- The $825 billion American Recovery and Reinvestment Act, drafted by Obama and House Democrats, includes $20Bn for healthcare IT.

Threats

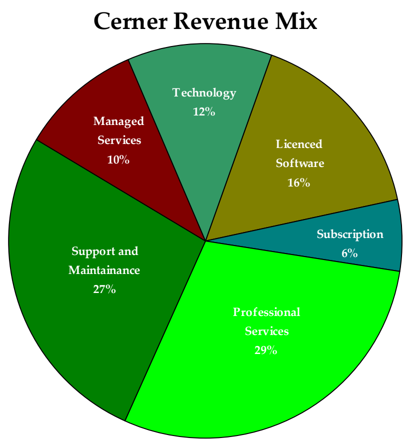
- Dependence on third party suppliers.
- Intense competition due to the rapidly evolving HCIT industry.
- Occasional design defects or software errors that are difficult to detect, failing to meet warranty requirements would hurt reputation.
- Stringent regulations.
- Possibility of industry consolidation.
- Credit crunch
    - Rising unemployment has caused admissions and elective procedures to decline while uncompensated care increases.

        - Credit to finance IT initiatives has become more expensive and more difficult to secure.
        - Investment losses and shrinking endowments have reduced non-operating income in an industry that already generates very thin margins.
    - Dependence on the government
        - The average hospital derives more than 40% of its revenue from government entitlement programs such as Medicare and Medicaid.

Financial Analysis

Although Cerner posted fairly solid forth quarter results, there are clear signs of business deterioration. The 35% drop in large deals, as well as the 18% drop in total contracts year over year, indicate that the macroeconomic turmoil did not leave HCIT unaffected. Fall in revenues, attributed to the general weakness in the overall broader economy.

Meanwhile, managed services business continues to grow dramatically, and has demonstrated almost 50% y/y growth in 2008. This is a highly promising segment of the company and is likely to be the source of the long term growth.



Source: Company Filings

Reported numbers were primarily driven by the NHS catch-up payments of roughly US$29 million and some foreign exchange and tax rate benefits. Thanks to strong cash collections, Cerner was able to post record levels of operating cash flows of $98 mil. The ability to collect becomes increasingly important especially in the current economic conditions and Cerner appears to do well on this front.

There is no question whether the stimulus package will benefit the HCIT industry. However, analysts do not see major benefit until at least 2011. Although the stimulus serves as a significant incentive for the new entrants, the ambiguity of the proposal leaves many projects waiting by the sideline.

PROFITABILITY RATIOS	2008	2007	2006	2005
Revenue Growth	10.3	10.3	18.7	25.3
Net Income Growth	48.4	15.7	27.4	33.4
Return On Equity	15.8	12.3	12.5	12.7
Return On Assets	11.0	8.5	8.4	8.1
Profit Margin	11.3	8.4	8.0	7.4
Cost of Goods Sold Pct Sales	7.5	8.4	12.0	12.1
Selling, General & Admin Expenses Pct Sales	65.7	68.1	66.8	65.4

Source: Company Filings

Cerner's profitability performance has been largely consistent with the rest of the industry. The company was able to record strong revenues and solid return on equity. Cerner completed development of the *CernerWorks* platform and began to recognize profits from their international projects, doubling the net income growth 2008. Meanwhile, the margins remain to be fairly low, as the market is highly competitive. It is also remarkable to note that most of the costs Cerner incurs are due to the Selling, General and Administrative expenses. These levels are twice as high as their competitors' and may be an indication of a source of inefficiency.

ASSET UTILIZATION RATIOS	2008	2007	2006	2005
Asset Turnover	0.89	0.90	0.92	0.89
Capital Expend Pct Total Assets	6.40	12.12	10.09	10.24

Source: Company Filings

Asset turnover ratio is rather high and on par with the rest of the industry. On average, every dollar of assets generates $0.90 of revenues. This serves as another indication of the high extent of competition within the industry that maintains low margins. Cerner's capital expenditure has been fairly high compared to the other companies and has been largely driven by the research and development initiatives.

LEVERAGE RATIOS	2008	2007	2006	2005
Total Debt Pct Common Equity	10.8	16.9	22.6	29.3
LT Debt Pct Common Equity	8.5	15.7	20.4	25.5
LT Debt Pct Total Capital	7.8	13.5	16.9	20.3
Working Cap Pct Total Capital	36.4	40.5	40.2	41.0

Source: Company Filings

LIQUIDITY RATIOS	2008	2007	2006	2005
Quick Ratio	2.3	2.6	2.2	2.3
Current Ratio	2.5	2.8	2.5	2.5
Cash And Equiv Pct Curr Assets	36.0	42.1	41.4	42.1
Receivables Pct Current Assets	54.6	47.8	48.4	48.6
Inventories Days Held	30.3	41.3	30.5	22.0

Source: Company Filings

Since 2005 Cerner has been pursuing de-leveraging efforts and was able to reduce the Debt to equity ration by 64%. As the inventory turnover is rather high, it is not surprising that the current and quick ratios are rather similar. Even by the more conservative measure of the quick ratio, Cerner has more than enough liquidity to meet its short term obligations. Both from the liquidity and solvency perspectives, Cerner is in a very strong position both relative to its historical performance and in comparison to its competitors. This is especially important in the current economic downturn when credit is no longer easily available.

Overall, Cerner is in a rather strong financial position. It is on of the largest players of the HCIT industry and has valuation multiples that are consistent with the industry average. Cerner is a technology company, which explains its capital structure's heavy skew towards equity. With a low Debt/Equity ratio, the company is well-positioned to survive the current market turmoil. Moreover, Cerner has over $270 mil in cash, which could be used in merger and acquisition projects going forward.

Company	Market Cap	P/B	P/E	Debt/Equity
CERN	$3,670	2.8x	24.0x	0.1x
MCK	9660	1.6	11.8	0.3
MDRX	1650	2.3	69.0	0.4
QSII	1400	9.3	30.2	0.0
HLTH	1120	4.4	5.1	1.1
MDAS	821	2.1	71.9	0.6
ECLP	616	1.5	6.1	0.3
MEDQ	90	0.6	NA	0.0
MEDW	33	0.8	30.9	0.0
Industry Average	6518	2.6	22.1	0.4

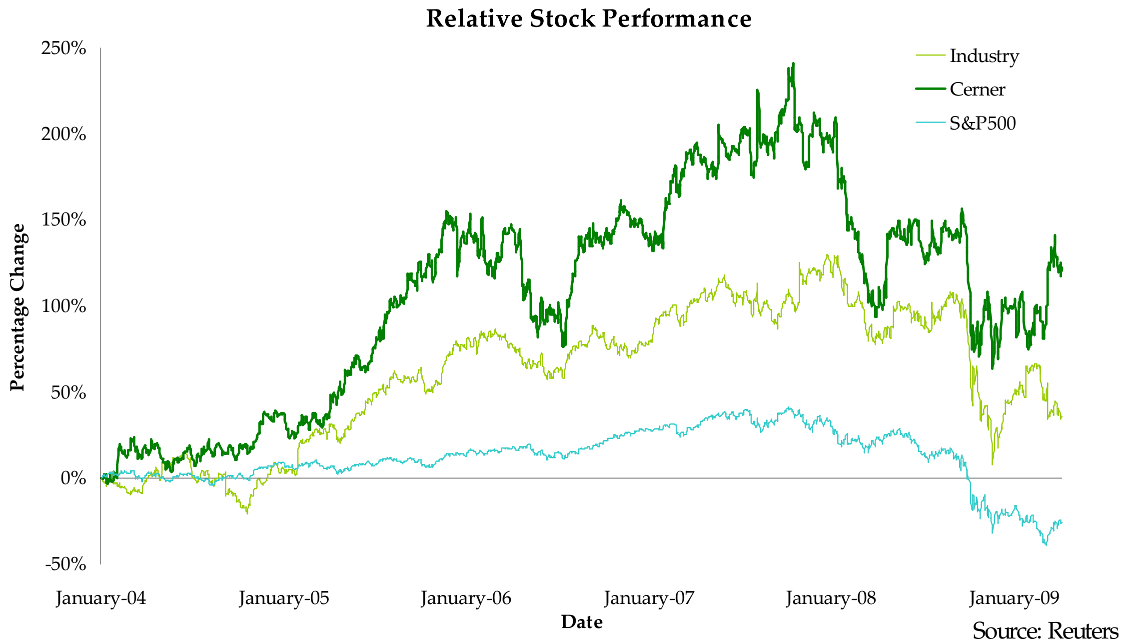
Source: Company Filings (Market Cap in $ mil)

The table above compares Cerner to some of its closest competitors. As you can see, Cerner is one of the larger companies in the industry, yet it has a fairly high valuation relative to the other players. The market seems to have a strong faith in the stock and believes in good growth opportunities going forward.

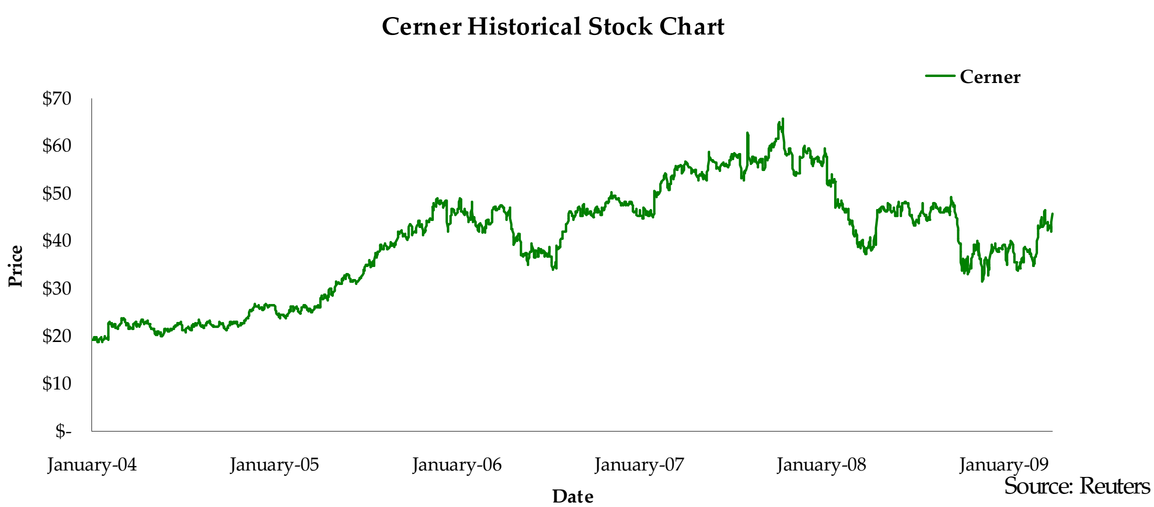
The Health Care IT business is inherently unpredictable due to the large average deal size and long sales cycle, which can stretch 12-18 months or more. Cerner began generating meaningful free cash flow in 2004, with the reported $112 mil. Since then Cerner has been reporting rather weak and erratic cash flows, which is consistent with the industry overall. In particular, the recent weakness was driven by the spending on construction of a new data center to support growth in Cerner's rapidly-growing Managed Services remote hosting business. Since most of these expenditures are now complete, the cash flows are expected to strengthen. Moreover, Cerner is set to begin recognizing profits from its UK operations, which should only improve the financial position of the company.

Cerner does not pay a dividend, which keeps it from depleting its cash reserves and, hence, puts Cerner at an advantage in the current market. The cash has previously been used to complete targeted acquisitions to broaden its product portfolio or geographic presence. Cerner does not have the history of stock repurchases, but has recently authorized a $45 million repurchase program to be completed from time to time.

The stock chart below shows relative performance of Cerner, the HCIT industry and the stock market overall. Cerner has clearly outperformed both benchmarks and has delivered strong growth over the last five years. This serves as yet another indication that the market recognizes Cerner as a true industry leader. Considering a shorter time horizon of the last 3 years, we notice that the stock price has remained fairly flat, while experiencing a substantial amount of volatility. This is a fairly impressive result given that the market was down 35% in that period. While Cerner has a fairly low correlation with the stock market (0.66), the financial crisis has had a significant impact on both Cerner and the HCIT industry overall, especially in the September of 2008 with the collapse of Lehman Brothers.



In short, Cerner's stock performance reflects the fact that it is a large-cap growth stock in the software services industry. Over the past year the stock has pleased investors by producing strong relative performance recording a 50% rise in earnings per and 10% rise in sales.



It is remarkable that Cerner was able to demonstrate *consistently* strong earnings results throughout the last five years. As the market fear settles and confidence regained, investors will recognize the strong earnings history and drive up the stock price. Please, refer to the appendix for an annotated stock chart.

Strategic Recommendations

Current Strategy

In 1994, Cerner management has made an important decision to spend over $350 mil to rewrite 13 million lines of software code in order to create an interactive architecture capable of electronically linking all health care constituents. The company made the strategic decision to create the Millennium platform that offers a single data model approach to managing information across the various care providers. Even today, Cerner continues to spend close to 20% of its revenue on software development and upgrades.

Cerner's fundamental strategy has traditionally been development of the person-centric solution framework that combines clinical, financial and management information systems. The vast majority of Cerner's software functionality has been developed in-house. The company spent on software development almost four times the amount spent by one of its main competitors, Eclipsys. Meanwhile, Cerner does make small acquisitions to gain expertise or increase its share in a market segment where it did not have a strong position.

Every so often rumors arise that Oracle is looking to acquire Cerner to meaningfully increase exposure to the healthcare market. Nevertheless, Cerner's management has been very clear that the company is not seeking a sale, especially since each of its founders is still involved with its operation. With the generous $20bn stimulus package, the interest towards HCIT has risen dramatically. In this light, Oracle may consider it to be a particularly good time to increase its presence in the industry. Cerner needs to consider the options it is facing and decide whether merging with the tech giant would be beneficial to it in the long term. Oracle may serve as a prolific partner and allow Cerner continue along the organic growth path. Also, if Cerner does not act upon this option, it risks facing Oracle as a dangerous competitor in the long term. The HCIT market has a large number of players who would definitely benefit from cooperating with Oracle and gaining from the tech giant's prevalent position.

Today, Cerner is a true leader in the Health Care Information Technology industry and is well positioned to continue its growth. It still benefits from its large Research and Development investment and is well positioned to remain a dominant player in the industry. However, maintaining leadership, especially in an industry like technology, is a task that cannot be overlooked. There are countless examples within technology where the prevalent company was replaced by a newcomer who quickly took over the market share. There are a number of initiatives Cerner can begin, but the question that they need to ask is: how to prioritize?

Long Term Objectives

We begin by noting that economists consider HCIT industry to be a natural monopoly. Hence, the largest company with the most experience and the largest customer base is likely to become the sole company in the industry. There are substantial profits associated with that, which create an incentive for large investments into the sector in an attempt to become *the* monopoly. Moreover, the stimulus package raises a lot of interest towards the industry overall, causing the competition to intensify in the short run.

Cerner needs to decide upon the strategy to maintain leadership in the industry positioning it to be the natural choice for the monopoly when the time comes. There are a number of options available that need to be analyzed closely before the decision is made.

Strategic Considerations

Executing on the UK Project

Firstly, Cerner has a great reputation and is involved in a rather visible project with National Health Service in United Kingdom. It is *vital* that Cerner executes on this commitment. A success on this front would put the company far ahead in terms of experience gained digitizing national health records. This will be both important for future international growth opportunities, as well as in case of the US HCIT standardization.

Reducing Selling, General and Administrative Costs

As the financial analysis highlights, Cerner has unusually high SG&A. Although, as a percentage of sales this number has remained fairly consistent for the last four year, it appears that the competitors have identified less costly way to run their businesses. Oasis Consulting could offer our services to investigate this issue and offer strategies to resolve the problem.

Increasing the customer base vs. eliminating white space

Cerner needs to decide whether it is more worthwhile to concentrate on increasing the penetration of the existing customer base or if it is more important to gain access to new clients. This choice is instrumental in determining future strategy for the company. Besides the management's general vision of Cerner's market position, it is also important to consider the state of the economy. Aggressively pursuing new clients may be rather costly and ineffective. It is much easier to convince the existing customers of the Cerner, who already have a developed relationship with firm, to increase the amount of business conducted that it would be to bring in a brand new client. Especially with the current downturn, hospitals may be more reluctant to start new ventures and may be interested in conservation rather than growth. Another factor to consider is the extent of the current penetration of the existing clients. At the most, Cerner provides six services to any given client, out of the suite of sixty. Such a low penetration creates "white space", an area that could very easily boost the returns to Cerner. It may be more important to fulfill this capacity than to grow the business by expanding the client base. The answer would also be greatly dependent on the government's decision on how the stimulus money will be distributed, which currently remains rather ambiguous.

Focusing Research and Development

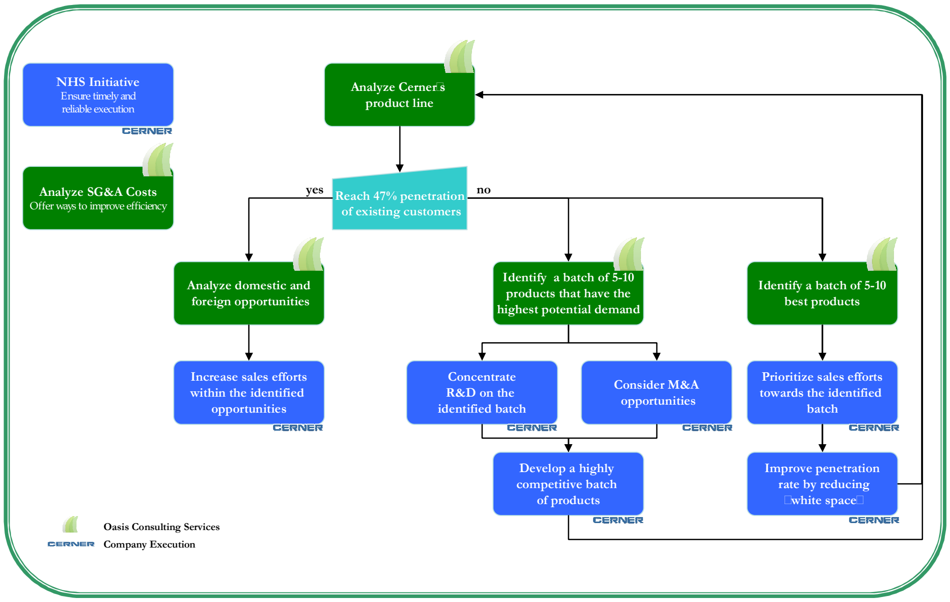
We believe that some further research is necessary to determine the reasons behind these low levels of penetration. It is important to determine whether this inefficiency is driven by the poor marketing techniques or whether the services offered by Cerner are considered sub par and are, hence, in the low demand. Understanding where Cerner stands relative to the rest of the industry regarding the quality of each of its services is essential. Moreover, Cerner needs to figure out which services are actually in a greater demand. Once the weaker services are identified and it is established that there is demand for these, Cerner may choose to reorient its Research and Development efforts towards improving such services. Cerner has sufficient cash on its balance sheet to consider both internal efforts, and acquisition of the competitors, if the valuations are reasonable and technology is compatible with the Millennium Platform.

Upon a closer consideration, it may become evident that the government bases its subsidy on the number of HCIT companies' clients. Then growing the customer base would become a priority. In particular, Cerner may decide to expand into midsize hospital market (hospitals with 200 to 350 beds) with its capital non-intensive hosted solutions model. Again, this can be achieved organically by emphasizing a more aggressive sales effort, or by acquisition of competitors with an already existing client base.

The first approach appears relatively more time consuming than the latter. However, the latter poses a number of questions. Cerner would need to investigate the extent of compatibility of the other company's technology with Millennium Platform. Even in the case of high compatibility, Cerner would need to convert the existing customers of the acquired firms to a common platform. This would not happen overnight and may result in some substantial problems. Also, valuation of the other companies would be an important factor in this decision. Adding another level of complexity, it is essential for Cerner to weigh in the problematic potential of mergers and acquisitions. Firms sometimes run into the danger of failing to successfully integrate the companies, experiencing culture clashes between the offices, and failing to project synergies thus resulting in the diversion of management's attention from the primary business concerns. Hence, it is important evaluate the relative urgency of the necessity of growth versus the risk of running into the problems outlined above.

The same analysis applies to Cerner's international ambitions. Although there is a lot of potential in tapping into the foreign markets, it seems that there is a lot capacity that can be fulfilled closer to home. We would advise Cerner to seriously consider staying domestic for the next couple of years, before they look into the further expansion overseas. That being said, if the foreign opportunity does come up, Oasis Consulting will be very happy to offer our impartial analysis of the opportunity.

Recommendations



First and foremost, Cerner needs to ensure effective and timely completion of the National Health Service digitization project in the United Kingdom. A success on this front would give the company a very strong lead in terms of the experience gained automating a national healthcare provider. Since little can be done to gain more clarity on governments' intentions regarding the stimulus, we would recommend Cerner to start with a comparative analysis of all the services they offer. It is important to find out what the clients think of Cerner's solutions, in terms of reliability, ease of use, effectiveness and relative pricing. Once this study is conducted, Cerner needs to look into optimizing its Research and Development efforts. Creating and maintaining over sixty applications could be rather costly in terms of time, money, and effort dedicated to it. This seems to be especially true given the current size of the so called "white space", spare capacity of additional services that could be provided to the existing clients. Rather than spreading themselves too thin, we advise that Cerner concentrates its efforts on a batch of five to ten initiatives and try to use the marketing team to work on sales of the these particular services. Once opportunities in this niche are exhausted, Cerner may begin developing another batch of services. Such an approach would allow the company to deliver a gradual increase in the penetration of its client base, as well as offer a better quality of service. Only once Cerner achieves this goal, should they look into increasing its client base, be it domestically or internationally.

Appendix

Revenue Mix[1]

Cerner is at its core a provider of software applications targeted at the healthcare industry, although the company has also built a significant services organization around that core. When a contract is signed with a client, the company generally agrees to provide a combination of software and services.

Licensed Software
includes revenues that Cerner generates when it sells clients a perpetual (permanent) right to use software applications. These revenues are recognized upon delivery and installation of the software, which may be broken down into multiple milestones with large implementations.

Professional Services
includes revenues derived from advising clients on the implementation of Cerner's software applications and educating the client's employees on how to use those applications. Revenues related to these services are recognized on an as provided basis.

Support and Maintenance
includes revenues related to the 24x7x52 access that Cerner provides to clients who are seeking support related to the company's applications, some third party applications and some third party hardware. This service begins once the implementation ends. Almost all clients who purchase a software license from Cerner also sign up for support services. A subscription to the company's support services entitles the client to any future update to that software application, which Cerner believes is a key differentiator for the company and has contributed to the development of long-term relationships with clients.

Managed Services
consists of the company's CernerWorks organization, which provides remote hosting, application management and disaster recovery services to clients. This business was originally targeted at community hospitals that have a difficult time recruiting qualified IT staff and are more inclined to opt out of the significant up front hardware cost and can be associated with internally hosting application software. Clients could essentially buy the software license, but then have the application and related information hosted at a Cerner datacenter.

Subscription/Transaction
revenues are derived from the processing of electronic data interchange (EDI) transactions primarily for physician practices, as well as the sale of medical knowledge on a subscription basis. The EDI business largely stems from Cerner's January 2005 acquisition of the division of VitalWorks that focuses on physician practices. These fee-based transactions primarily include claims processing. Cerner also provides clients with subscriptions to the medical knowledge that it has been able to accumulate from clinical encounters recorded by its applications.

Technology
primarily consists of revenues derived from the re-sale of third party hardware and software by Cerner. The company is one of the largest resellers of HP and IBM equipment into the healthcare sector, which it leverages to give its clients access to low cost hardware solutions. As the company's managed services offering continues to gain traction, it is throwing up headwind for Cerner's attempts to sell hardware to its clients. This does not bother management, who would prefer to replace low margin hardware re-sale business with a more profitable and stable Managed Services offering where the client generally signs a 5-7 year contract. Cerner is going to continue to pursue hardware sales where available and believes the growth of this segment may get a boost as the company gains traction with its CareAware architecture for connecting medical devices to the personal health record. Management wants to explore broadening the company's re-sale efforts within the medical device arena.

At the core of Cerner's product and service offering is a set of roughly 60 software applications that are priced on a per user basis and have been built around a patient centric architecture known as **Millennium**. The vast majority of these applications have been developed internally and work together seamlessly to capture and manipulate medical information in virtually any healthcare provider, payer or consumer setting. When the company originally diversified its product offering outside of the laboratory setting in the mid 1980's, management was focused on automating the creation and capture of medical information for each random clinical encounter (diagnosis, treatment and monitoring) under its classic Health Network Architecture (HNA). As Cerner's product portfolio broadened and the technology demands of hospitals evolved, the company shifted its focus to a more holistic view of the care that was being provided to each individual patient. In 1994, it began work on the Millennium architecture with this patient centric view in mind and completed the transition of its applications to that platform in 1999.

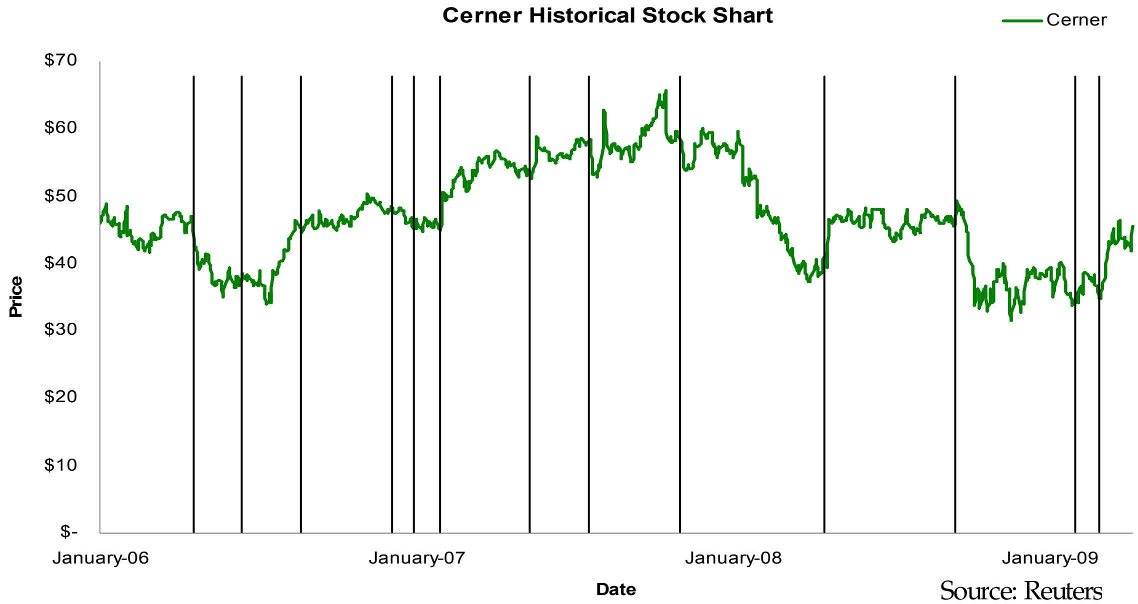
Cerner Millennium. Cerner's core software architecture is known as *Millennium*. Cerner *Millennium 2007*, the fifteenth major release of the software, became generally available in November 2006. Cerner offers one of the broadest sets of modules for the Millennium platform, with 29 distinct solution areas. We describe several of them in more detail below.

- ***Computerized Physician Order Entry*** allows clinicians to save time and streamline workflow through the automation of the order entering process. Clinicians can evaluate patient status, consider evidence, enter orders, check orders, communicate effectively, and document actions.
- ***Access Management*** helps hospitals streamline scheduling and patient registration, validate eligibility, benefits and copays, and improve revenue.
- ***PathNet*** is Cerner's laboratory module for the Millennium system. PathNet enables lab technicians to process larger quantities of specimens, reduce instances of lost or misplaced specimens, and seamlessly integrate lab results with the patient's electronic medical record.
- ***PharmNet*** is Cerner's medication management system. *PharmNet* links pharmacists, nurses, and physicians from the time caregivers order medication through its administration, ensuring efficiency, continuity, and safety.
- ***RadNet*** is Cerner's radiology information system that, together with Cerner *ProVision PACS*, enable clinicians to collect, display, manage, and instantly deliver vital patient information.
- ***FirstNet*** is Cerner's information system for the Emergency Department. *FirstNet* assists with registration, triage and tracking, order entry, discharge planning, and management reporting.
- ***Revenue Cycle***. Cerner's Revenue Cycle application assists in documenting clinical actions, which in turn helps hospitals submit more accurate, complete claims, and improve cash collections.

Cerner PowerWorks. Cerner *PowerWorks* encompasses the company's broad suite of clinical and administrative tools for physicians' offices. These tools include the *PowerWorks* electronic medical record with e-prescribing, practicemanagement, EDI transaction processing, and the IQHealth patient portal.

Cerner Services include Professional Services (health care consulting), Managed Services (remote hosting), and SupportServices (implementation services).

Stock Performance



Source: Reuters

Date	Event
4/20/2006	Cerner Reports Earnings
6/14/2006	Cerner to Acquire Galt Associates, Leader in Drug Safety and Risk Management Solutions
7/20/2006	Cerner Reports Earnings
10/19/2006	Cerner Reports Earnings
11/15/2006	Cerner Announces Availability of Millennium 2007
2/1/2007	Cerner to Acquire Etreby Computer Company Cerner Delivers Strong Revenue and Earnings Growth
7/24/2007	Cerner Reports Earnings
9/18/2007	Cerner Reports Earnings
1/31/2008	Cerner Reports Earnings
4/22/2008	Cerner Reports Earnings
9/15/2008	Lehamn Brothers files for Chapter 11 bankruptcy protection
2/10/2009	Cerner Reports Earnings
3/3/2009	Cerner director DeParle resigns after appointment as health czar

Source: BusinessWire

Relative Financial Performance

CERN

INCOME STATEMENT	2008	2007	2006	2005
Net Sales or Revenues	**1,676**	**1,520**	**1,378**	**1,161**
Cost of Goods Sold	126	127	166	141
Depreciation & Amortization	170	153	125	114
Gross Income	**1,380**	**1,240**	**1,087**	**906**
Selling, General & Admin Expenses	1,101	1,036	921	759
Operating Income	279	204	166	147
Non-Operating Interest Income	14	13	12	4
Earnings Before Interest And Taxes	**292**	**216**	**180**	**145**
Interest Expense On Debt	11	12	13	10
Pretax Income	281	204	168	135
IncomeTaxes	93	77	58	49
Net Income	**189**	**127**	**110**	**86**

Source: Company Filings

PROFITABILITY RATIOS	2008	2007	2006	2005
Revenue Growth	10.3	10.3	18.7	25.3
Net Income Growth	48.4	15.7	27.4	33.4
Return On Equity	15.8	12.3	12.5	12.7
Return On Assets	11.0	8.5	8.4	8.1
Profit Margin	11.3	8.4	8.0	7.4
Cost of Goods Sold Pct Sales	7.5	8.4	12.0	12.1
Selling, General & Admin Expenses Pct Sales	65.7	68.1	66.8	65.4

Source: Company Filings

ASSET UTILIZATION RATIOS	2008	2007	2006	2005
Asset Turnover	0.89	0.90	0.92	0.89
Capital Expenditure Pct Total Assets	6.40	12.12	10.09	10.24

Source: Company Filings

LEVERAGE RATIOS	2008	2007	2006	2005
Total Debt Pct Common Equity	10.8	16.9	22.6	29.3
Long Term Debt Pct Common Equity	8.5	15.7	20.4	25.5
Long Term Debt Pct Total Capital	7.8	13.5	16.9	20.3
Working Cap Pct Total Capital	36.4	40.5	40.2	41.0

Source: Company Filings

LIQUIDITY RATIOS	2008	2007	2006	2005
Quick Ratio	2.3	2.6	2.2	2.3
Current Ratio	2.5	2.8	2.5	2.5
Cash And Equivalents Pct Current Assets	36.0	42.1	41.4	42.1
Receivables Pct Current Assets	54.6	47.8	48.4	48.6
Inventories Days Held	30.3	41.3	30.5	22.0

Source: Company Filings

MCK

INCOME STATEMENT	2008	2007	2006	2005
Net Sales or Revenues	**101,703**	**92,977**	**88,050**	**80,515**
Cost of Goods Sold	96,323	88,345	84,017	76,799
Depreciation & Amortization	371	295	266	251
Gross Income	**5,009**	**4,337**	**3,767**	**3,465**
Selling, General & Admin Expenses	3,536	3,074	2,703	2,455
Operating Income	1,473	1,263	1,064	1,010
Non-Operating Interest Income	89	103	104	41
Earnings Before Interest And Taxes	**1,578**	**1,373**	**1,232**	**-137**
Interest Expense On Debt	142	99	94	118
Pretax Income	1,436	1,274	1,138	-255
IncomeTaxes	468	329	421	-83
Net Income	**990**	**963**	**738**	**-157**

Source: Company Filings

PROFITABILITY RATIOS	2008	2007	2006	2005
Revenue Growth	9.4	5.6	9.4	15.8
Net Income Growth	2.8	30.5	-571.0	-124.0
Return On Equity	13.7	15.0	15.2	14.2
Return On Assets	4.5	4.3	4.1	-0.5
Profit Margin	1.0	1.0	0.8	-0.2
Cost of Goods Sold Pct Sales	94.7	95.0	95.4	95.4
Selling, General & Admin Expenses Pct Sales	3.5	3.3	3.1	3.0

Source: Company Filings

ASSET UTILIZATION RATIOS	2008	2007	2006	2005
Asset Turnover	4.13	3.88	4.19	4.28
Capital Expenditure Pct Total Assets	0.81	0.60	0.89	0.86

Source: Company Filings

LEVERAGE RATIOS	2008	2007	2006	2005
Total Debt Pct Common Equity	29.3	31.1	16.6	22.8
Long Term Debt Pct Common Equity	29.2	28.6	16.2	22.6
Long Term Debt Pct Total Capital	22.6	22.3	14.0	18.4
Working Cap Pct Total Capital	30.7	33.7	49.2	54.3

Source: Company Filings

LIQUIDITY RATIOS	2008	2007	2006	2005
Quick Ratio	0.6	0.6	0.7	0.6
Current Ratio	1.2	1.2	1.3	1.3
Cash And Equivalents Pct Current Assets	7.7	16.5	18.3	11.8
Receivables Pct Current Assets	40.6	36.8	37.6	37.4
Inventories Days Held	32.5	31.6	32.1	33.8

Source: Company Filings

QSII

INCOME STATEMENT	2008	2007	2006	2005
Net Sales or Revenues	**187**	**157**	**119**	**89**
Cost of Goods Sold	56	46	36	30
Depreciation & Amortization	7	5	4	3
Gross Income	**124**	**106**	**79**	**56**
Selling, General & Admin Expenses	65	56	44	32
Operating Income	59	51	36	25
Non-Operating Interest Income	3	3	2	1
Earnings Before Interest And Taxes	**63**	**54**	**38**	**25**
Interest Expense On Debt	0	0	0	0
Pretax Income	63	54	38	25
IncomeTaxes	23	21	15	9
Net Income	**40**	**33**	**23**	**16**

Source: Company Filings

PROFITABILITY RATIOS	2008	2007	2006	2005
Revenue Growth	18.7	31.8	34.1	25.4
Net Income Growth	20.6	42.5	44.8	54.9
Return On Equity	35.7	34.2	34.7	25.9
Return On Assets	23.8	24.6	21.2	17.4
Profit Margin	21.5	21.1	19.6	18.1
Cost of Goods Sold Pct Sales	30.0	29.0	30.2	33.4
Selling, General & Admin Expenses Pct Sales	34.6	35.3	36.6	35.6

Source: Company Filings

ASSET UTILIZATION RATIOS	2008	2007	2006	2005
Asset Turnover	0.99	1.05	0.99	0.89
Capital Expenditure Pct Total Assets	1.41	2.68	2.42	1.98

Source: Company Filings

LEVERAGE RATIOS	2008	2007	2006	2005
Total Debt Pct Common Equity	0.0	0.0	0.0	0.0
Long Term Debt Pct Common Equity	0.0	0.0	0.0	0.0
Long Term Debt Pct Total Capital	0.0	0.0	0.0	0.0
Working Cap Pct Total Capital	70.3	84.0	85.2	87.9

Source: Company Filings

LIQUIDITY RATIOS	2008	2007	2006	2005
Quick Ratio	2.0	2.2	2.2	2.5
Current Ratio	2.1	2.4	2.3	2.6
Cash And Equivalents Pct Current Assets	41.0	45.1	52.8	57.5
Receivables Pct Current Assets	51.0	48.0	42.3	37.5
Inventories Days Held	7.2	6.9	7.7	10.4

Source: Company Filings

HLTH

INCOME STATEMENT	2008	2007	2006	2005
Net Sales or Revenues	**383**	**527**	**1,099**	**1,277**
Cost of Goods Sold	138	213	624	717
Depreciation & Amortization	29	46	62	72
Gross Income	**216**	**269**	**413**	**488**
Selling, General & Admin Expenses	198	253	322	392
Operating Income	18	16	89	96
Non-Operating Interest Income	35	42	32	22
Earnings Before Interest And Taxes	**518**	**61**	**472**	**90**
Interest Expense On Debt	19	19	19	16
Pretax Income	499	43	453	74
IncomeTaxes	30	-14	56	0
Net Income	**576**	**80**	**415**	**73**

Source: Company Filings

PROFITABILITY RATIOS	2008	2007	2006	2005
Revenue Growth	-27.4	-52.0	-14.0	10.0
Net Income Growth	619.1	-80.7	468.8	85.5
Return On Equity	66.9	13.4	40.2	5.6
Return On Assets	37.1	2.1	42.8	3.7
Profit Margin	150.5	15.2	37.8	5.7
Cost of Goods Sold Pct Sales	36.2	40.3	56.8	56.2
Selling, General & Admin Expenses Pct Sales	51.7	47.9	29.3	30.7

Source: Company Filings

ASSET UTILIZATION RATIOS	2008	2007	2006	2005
Asset Turnover	0.26	0.33	0.76	0.58
Capital Expenditure Pct Total Assets	1.51	1.63	2.50	2.72

Source: Company Filings

LEVERAGE RATIOS	2008	2007	2006	2005
Total Debt Pct Common Equity	141.7	108.4	170.2	60.5
Long Term Debt Pct Common Equity	141.7	108.4	170.2	60.5
Long Term Debt Pct Total Capital	52.3	47.1	52.7	34.8
Working Cap Pct Total Capital	52.3	59.7	51.8	21.2

Source: Company Filings

LIQUIDITY RATIOS	2008	2007	2006	2005
Quick Ratio	3.1	4.6	3.9	2.1
Current Ratio	3.8	5.0	4.1	2.3
Cash And Equivalents Pct Current Assets	71.3	80.2	77.0	60.2
Receivables Pct Current Assets	10.6	11.4	18.1	32.9
Inventories Days Held	15.5	18.6	6.1	7.1

Source: Company Filings

References

Oasis Consulting Research

Company Filings

Wall Street Research Reports

Thomson Reuters Research

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