ENCOMPASS SOFTWARE: MANAGING ENTREPRENEURIAL GROWTH

David Hayes, University of North Carolina Asheville
Zahed Subhan, Drexel University
Roger Brooksbank, University of Waikato

CASE DESCRIPTION

The primary subject matter of this case concerns **Entrepreneurship, Entrepreneurial Marketing and aspects of New Product Development in an entrepreneurial context.** This case addresses key issues faced by entrepreneurs when transitioning startups into successful long-term ventures. Specifically, the case explores the key tasks needed to be undertaken in a business (a technology firm focused on the development and commercialization of software with utility in scheduling patients in a healthcare setting), and encourages students to consider the priorities needed to be established for continued success. The case has a difficulty level of three, appropriate for junior level courses in entrepreneurship. The case is designed to be taught in a 75-minute class period and is expected to require up to 2 hours of outside preparation by students.

CASE SYNOPSIS

The case is written from the perspective of the protagonist, the CEO of Encompass Software, a startup company dedicated to the development and commercialization of software with utility in scheduling patients in a healthcare setting. The CEO is faced with a challenge, one critical to the company's continued success.

In this Case, the CEO faces the dilemma of how to best position the company for continued success in an increasingly competitive environment.

[NOTE: This case is a fictionalized account of a real-life situation. Names and other identifying information have been changed. However, the applicable facts and situations are true to the real case. Additionally, the actual dates and timeframes of the industry statistics presented have been adjusted for the purpose of this case.]

ENCOMPASS SOFTWARE: TRANSITIONS

It seems like just yesterday when Jane Haywood started Encompass Software, a healthcare software company. Yet here she is, three years later, serving as CEO of a successful company.

Haywood understands the inefficiencies and complexities of the healthcare market. She knows doctors are frustrated with dealing with the manual process of hospital scheduling, where they spend on average 15 minutes per person booking needed appointments for their patients.

So, she devised a more efficient and convenient way to schedule patients into healthcare facilities, one that saves doctors, clinics, and hospitals time and money. The Encompass system, SchedEaze, the company's only product, completes what used to be a 15-minute scheduling process in less than 60 seconds (See Industry Overview for details on scheduling systems and their benefits).

Thus, with hard work, she grew her idea into a thriving, respected business. Last year, Encompass posted $3.2 million in revenue and had a profit margin of 20%, double the industry average. The company now has 30 top healthcare facilities as clients and a great team with whom Haywood is proud to work. And she's learned much along the way.

It was a lot of hard work. Taking an idea and making it a successful business endeavor required more thought and execution than Haywood had envisioned. Having a superior product offering was just the start and Haywood and her team spent much time creating a strong brand for the company. She's developed a superior vision for customer service, and her team built on this by implementing a service model universally praised for its quality and responsiveness. In fact, Encompass is ranked as best in the category (enterprise scheduling) for service and product features as rated by several prominent industry research groups.

SchedEaze customers are pleased and often serve as advocates and promoters for the company. They are eager to speak positively to potential clients. They provide Haywood and her team with valuable feedback and she enjoys meeting with them onsite at their facilities.

Together, they discuss how SchedEaze has dramatically improved their ability to meet the scheduling needs of doctors and patients. SchedEaze offers the advantage of allowing doctor staffs and patients to undertake scheduling themselves via the Internet, so they can bypass calling the hospital, if they desire. For hospitals, SchedEaze saves time and money by automating the process, thus reducing the number of personnel involved. Furthermore, because the system is completely automated, hospitals no longer need highly paid medical experts to schedule appointments. Instead, a patient's appointment can be automatically completed by simply pressing a key.

While pleased with the company's progress, Haywood learns of other issues that surround hospital scheduling and negatively impact her customers. Hospitals describe the difficulty of collecting accurate information on patient demographics (including name, date of birth and address) during the scheduling process, resulting in an inability to collect monies due. Hospitals also report significant difficulties in verifying that insurance carriers will cover the procedures requested, and in reminding patients of scheduled appointments[i].

Haywood and her team believe they have also learned how to optimize sales. They work with "gatekeepers" to gain access to hospital decision makers and develop relationships with "user advocates" to internally promote the Encompass solution. These gatekeepers tend to be hospital management involved with patient registration. In addition, the company is doing a much better job of "pre-qualifying" clients by identifying who the decision makers are and at

what stage they are in the purchasing process.

Encompass marketing efforts have also proven to be successful. In contrast to its competitors, the company uses a modern, light-hearted approach to its advertising campaigns, resulting in increased brand awareness for the product and company. As an example, Encompass' "She wants a barium enema and she wants it now" advertisements were selected as "best innovative ads" by Modern Healthcare, the leading hospital trade publication.

Finally, SchedEaze has developed into one of the most reliable systems in the market. Haywood's technical team puts in long hours ensuring the system works consistently and is bug-free. They also work to rapidly develop, test, and implement incremental improvements to improve the patient scheduling process. For example, when the Encompass customer support staff observed that it typically took the user ten keystrokes to complete a certain task, the support staff worked with SchedEaze programmers to streamline the process, reducing it to just two keystrokes. This resulted in a faster, simpler process that eliminated mistakes. All in all, Haywood is happy with the company's progress so far and the results she has achieved, and is proud of the recognition Encompass has achieved in the market. Yet, there is no time to rest on her laurels.

Competition is increasing and new companies are entering the growing market. Their product offerings are continually improving and catching up with SchedEaze; for example, some now feature automated processing capabilities, although these are still limited in functionality. This has been one of SchedEaze's primary differentiators in the market to date, and Haywood is concerned.

Growing substantially in the past three years, the scheduling market is comprised of three main vendor groups. Included are large healthcare information systems players and mid-sized companies. These vendors offer product suites with a scheduling application that can run standalone or as an integrated component to a complete hospital information system solution[ii]. However, most of these systems provide optimal functionality only when implemented with other systems offered by the vendor. Finally, niche vendors such as Encompass focus solely on enterprise scheduling.

Encompass' two primary competitors are a much larger company and a smaller one that has been in business for five years. The large competitor, MacPhearson, generates some $2BN per year in revenue and sells "complete" hospital information systems. As a part of this total package, it includes MacPhearson's scheduling module that can cost a hospital customer as much as $1MM. The smaller competitor, Patriot, was the first to enter the market and it has sold a little over 20 systems, with most of its sales in the mid-west of the US. Patriot charges around $250,000 per hospital for the system.

Pricing is also becoming more competitive. Lately, Haywood has seen several of the larger competitors dramatically reduce the price of their scheduling modules when clients, in addition to the scheduling component, select their entire hospital information system. Some of the smaller competitors have also cut prices as in an effort to increase sales.

Haywood sits at her desk and begins to reflect. "Can I have sustained success as a one-product company?". "If not, what additional products should I offer?" She knows she has work to do to ensure Encompass Software successfully makes the transition from a startup to a sustained business venture.

Industry Overview

Scheduling is one of the most basic, yet important functions a healthcare organization performs. Within most healthcare facilities, however, various departments, physician groups, outpatient facilities and other clinics all schedule appointments separately, resulting in conflicts and inefficiencies.

Although other industries, such as the manufacturing sector, have developed and used sophisticated enterprise-wide scheduling systems for decades, the first real scheduling systems began to appear in the healthcare field during the 1980s, when staff shortages required more effective nurse workload management. Many early users soon began to adapt these systems to help predict staffing needs and adjust work force resources for skill-level mix and associated costs as patient volume and workloads changed.

In today's complex health care environment, an enterprise-wide scheduling system allows a healthcare organization to better manage its business and financial needs by providing timely and accurate information capture of patient services.

The hospital market is diverse, with differing needs depending on the size (number of beds) of the facilities or the markets served.

Market Statistics

1. There are 5,724 hospitals in the U.S., according to the American Hospital Association.[iii]
2. Of these, 2,903 hospitals are nonprofit and 1,025 are for-profit. Additionally, 1,045 are owned by state or local (county, hospital district) government entities.[iv]
3. Of all hospitals in the U.S., 1,984, or 35 percent, serve rural communities and are considered rural hospitals.[v]
4. Hospitals vary greatly is size, from small rural facilities with just a few key service lines to large, tertiary care facilities. Here is a break out of U.S. hospitals by bed count:[vi]

0-99 beds	2,557
100-199 beds	1,063
200-299 beds	582
300-399 beds	348
400-499 beds	192
500 beds or more	266

Within these hospitals, doctors contract with insurance companies, and generally, they can do business with any facility in a given service area.

What Should a Scheduling System Do?

Based on industry research and member feedback, the Voluntary Hospital Association (VHA), a volunteer member-based network, identified the following core features as being critical to a successful enterprise-wide scheduling system:

- The ability to schedule patients for multiple services across the health care organization from any location.

- Convenience in scheduling personnel, facilities and equipment, thus helping to more efficiently use expensive resources.
- Access to current patient insurance and billing information.
- The ability to screen procedures for medical compliance prior to patient encounters, thereby reducing costly insurance denials and necessitating claims resubmissions.
- Real-time capability to estimate the cost of scheduling and staffing decisions and forecast staffing needs and budgets.

What Are The Benefits?

The VHA concluded an enterprise-wide scheduling system provides a number of key benefits:

- Telephone time required to schedule an appointment is reduced from ten minutes to four minutes.
- Up to a 50 percent increase in appointments starting on time.
- Rescheduling can be reduced by 85 percent, and patient delays cut by 60 percent.
- Phone time can be reduced from 20 minutes to 5 minutes through the elimination of duplicative data collection.
- All resources required to deliver appropriate care are available at the right time and in the right place.
- The potential to reduce clinicians' administrative workload and focus clinical resources on delivering patient care.
- Proper staffing improves the overall quality of care while greatly reducing costs.

Ultimately, an enterprise-wide scheduling system streamlines access to patient care and information capture, improves profitability by providing timely and accurate tracking of services and expected reimbursement, reduces waste and inefficiency, and ensures the appropriate use of expensive resources.

The Current Scheduling Environment

Overall, health care organizations spend $250BN annually on medical claims paperwork and $26BN annually on hospital "revenue cycle operations". Research shows insurance claim denial rates have risen, gross inpatient charges are down and gross days in accounts receivable are increasing. As a result, many health care organizations are correcting wasteful steps in the revenue cycle caused by incomplete or erroneous data that slows the reimbursement process.

Revenue cycle operations involve many steps including scheduling, registration, admissions, medical records, billing and collections. Scheduling or patient access specifically refers to all processes required to identify and register a patient for treatment and services. It is the patient's first point of contact with the hospital, and the entry point of information into the revenue cycle. A key objective of the patient access phase is comprehensive data compilation to ensure a "clean" claim.

Health Care Organization Needs

VHA identified a reasonably strong need for enterprise scheduling solution within its membership. VHA's Strategic Sourcing Study shows that 17 percent of VHA hospitals outsource scheduling, with 15 percent likely to outsource over the next two years. The study of 324 respondents from 254 member organizations represents 11.5 percent of VHA's total membership. Information technology functions – such as scheduling – make up the largest current segment of outsourced operations, with 13 percent of hospital technology budgets currently allocated to external vendor sourcing.

It is interesting to note VHA's research found few health care organizations have actually implemented scheduling enterprise-wide. Even in the most sophisticated facilities, implementation appears to be piecemeal. The results of a Gartner (an information technology research company) study validate these findings. According to Gartner, of the top applications that hospitals identified for acquisition or replacement in the next two years, enterprise-wide scheduling placed fourth among 35 percent of all providers surveyed.

The study also found that:

1. 21 percent of providers plan to add an enterprise-wide patient scheduling system.
2. 34 percent plan to purchase in the next 12 months, 37 percent in the next 12-24 months.
3. 61 percent of providers have an enterprise patient scheduling system. Of these only 38 percent had a fully implemented system; the remaining had partial implementation.
4. 60 percent of respondents planned to implement a patient scheduling system throughout the enterprise. The remaining 40 percent planned to implement scheduling only in some function within the organization.
5. Nearly half (48 percent) of respondents indicated that a full implementation of the enterprise patient scheduling system is 12 to 24 months away, while 22 percent indicated that full implementation was more than 24 months away.
6. 63 percent of the providers that are looking to add or replace their enterprise scheduling systems have not selected a vendor.

Purchasing Barriers

Significant barriers identified by VHA include:

1. Political issues. It is not uncommon for departments to view centralized scheduling as a loss of control due to political turf wars that make it difficult for organizations to eliminate redundant services.
2. Infrastructure barriers. Lack of automation is a significant barrier to enterprise-wide scheduling implementation. In fact, many hospitals have not been able to make the transition from paper-based processes to full automation.
3. Cost and capital funding challenges. Enterprise-wide implementation of a scheduling system can require a significant investment. Most providers are choosing to implement the application in a limited scope.

The Decision

Haywood and her team conclude, that to achieve continued success, they must expand their portfolio beyond the company's sole offering of SchedEaze to include additional products designed to solve other pressing customer needs. Additionally, they decide to reposition the Company's current product (without increased functionality or the additional products) to serve a previously untargeted sector of the healthcare industry, smaller hospitals, and to revise its pricing strategies.

Haywood's team thinks back to prior conversations about issues that negatively impact a hospital's ability to service customers. They then devise a product development plan to solve these problems by extending the company's' reach beyond scheduling.

Encompass considered how to better position SchedEaze for continued growth within the industry. The company reviewed data from the VHA Study that indicated a large number of healthcare organizations (39%) had still not implemented enterprise scheduling, and concluded there was scope for further revenue growth in the current market. The company therefore prioritized marketing activities to maximize success with current customers and to consolidate its market position to other "like" healthcare facilities. Encompass used actual improvement results from current customers, of which a number were "top 100" healthcare facilities. Because of the positive reputation of these customers, the company was able to leverage customer testimonials and results (through "white papers") combined with target focused marketing to gain increased market awareness, which led to an increased customer base.

The functionality of SchedEaze was also increased so it served as an access point, or overlay, through which all other administrative functions (such as patient demographics checking, insurance verification, and patient reminders) were seamlessly and effectively coordinated. Haywood believes by using SchedEaze in this way, the company will become a necessary hospital component for enhancing the physician healthcare interaction experience.

So, in addition to its primary scheduling software SchedEaze, the Company decides to develop and market, three other products to expand the functionality of Encompass offerings to customers. These products, "SchedEaze ID", "Medical Necessity", and "Call-Back Reminder" perform tasks instantly coordinated at the point of scheduling. Haywood feels this will result in a seamless and effortless flow of patient service throughout healthcare organizations.

SchedEaze ID automatically verifies the demographic information provided by a patient. The system checks and automatically corrects a patient's first and last name, her or his date of birth, and the patient's current billing address. The benefits of Encompass ID are a reduction in returned patient bills and improved revenue collection.

The SchedEaze Medical Necessity module verifies insurance patient information prior to scheduled procedures to ensure the insurance company will cover the appointment. This module enhances Encompass by greatly reducing the risk of denied and improperly submitted claims, thereby increasing profitability and efficiency. By automatically verifying compliance for insurance, financial responsibility is properly identified in advance of resource expenditures.

In addition, the SchedEaze Call-Back Reminder system uses interactive voice technology to automatically trigger appointment reminders for patients. Call-Back Reminder places automated call-backs to patients, enabling confirmation, re-schedule, or cancellation – quickly and easily with the touch of a telephone keypad. The benefits of the Call-Back Reminder system are significantly reduced same day cancellations and no-shows.

Haywood and her team also decide to rebrand the current system (without new product features) to "SchedEaze Lite" and market it to smaller healthcare facilities. Pricing was adjusted (reduced) for this product, from an average of $350,000 per sale to around $100,000.

Notably, the Company rolled out a "subscription-based" pricing option instead of its traditional license fee-based model. With the subscription model, customers paid a small upfront installation and training fee and then a monthly fee based on the use of the system. The advantage of this option to the customer was it significantly reduced the upfront investment costs of SchedEaze by spreading out payments. Encompass benefitted by the development of a continuing, predictable revenue source. Additional promotional strategies leveraged a well-conceived strategic marketing plan to increase both product and company awareness in an increasingly competitive market (examples included 3-dimensional direct mail pieces and advertising in major healthcare trade publications).

Finally, the Company considered taking its scheduling expertise into other markets such as physician office scheduling, veterinary medicine appointments, as well as into non-healthcare markets, including equipment maintenance scheduling. Although the Company felt the opportunities in other markets were large, it ultimately decided not to pursue these possibilities due to the Company's limited resources (at the time) and because of management's lack of expertise in these industries.

ENDNOTES

[i] Patient demographic information is used for billing purposes. Approximately 1out of 5 patient bills are returned due to incorrect address information. Insurance carriers typically deny payment for procedures due to lack of policy coverage or because ″preauthorization″ has not been obtained. Almost 2 out of 10 patients are "no shows" for hospital appointments.

[ii] Complete hospital information systems include, in addition to scheduling, clinical functions, financial applications, and electronic medical records.

[iii] American Hospital Association. "AHA Hospital Statistics."

[iv] Centers for Disease Control and Prevention. "Table 116. Hospitals, beds, and occupancy rates, by type of ownership and size of hospital: United States." Available online at http://www.cdc.gov/nchs/data/hus/2011/116.pdf

[v] Centers for Disease Control and Prevention. "Table 116. Hospitals, beds, and occupancy rates, by type of ownership and size of hospital: United States." Available online at http://www.cdc.gov/nchs/data/hus/2011/116.pdf

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