Using Information Technology as a Competitive Advantage

In the highly competitive diagnostic imaging market, radiology groups and imaging centers must have a competitive advantage to stand out from the crowd and be successful. Having qualified radiologists, good employees, and a quick report turnaround just isn’t enough.

“Everyone has that. To have a competitive advantage, you need more,” says Murray Reicher, M.D., a radiologist with Radiology Medical Group (RMG) and chairman of Radiology Service Partners (RSP), both in San Diego.

So what will make a difference? Information technology, believes Dr. Reicher, who is also founder and chairman of DR Systems, a leading supplier of radiology information systems (RIS) and picture archiving communications systems (PACS). “IT can be your core competitive weapon,” Dr. Reicher suggested during a presentation at the annual meeting of the Radiology Business Management Association (RBMA), held in Las Vegas, June 5-8.

To truly give a competitive advantage, IT must be fully integrated, he says. The days when providers had separate systems for different technology needs are gone. Now, it’s more common to see one application that includes various functions: PACS, RIS, dictation, speech recognition, reporting, scheduling, and more.

“Unified solutions are becoming the answer,” Dr. Reicher tells DIIR. “It’s more cost effective and efficient.”

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The best integrated RIS/PACS systems will allow you to customize and automate everything from output of images and reports, to delivery of images, to tracking of exams, patient flow, worker productivity, and referring doctor data.

**Re-engineering Strategies**

Radiology Medical Group and Radiology Service Partners decided to pursue digital imaging and a filmless environment in the early 1990s when the prevalence of managed care in California and an oversupply of imaging providers made it increasingly difficult to compete effectively and remain profitable. The groups set four initial goals: raise revenues, lower costs, sub-specialize, and build core competencies.

“Radiologists used to be able to increase their revenues by raising prices,” explains Dr. Reicher. “We can’t do that anymore. We’ve moved from protected economies to open economies. In this milieu, strategic planning and staying one step ahead is really critically important.”

To achieve its goals, RMG took cues from other industries that have achieved business automation (see box, p. 6). The group re-engineered processes to improve staff productivity, eliminated all non-value added business practices, and built an infrastructure that would allow it to customize services for its referring physician customers. For example, the group set up computers in doctors’ offices that would allow them to do online scheduling and receive images and reports online.

“If you really want to save money, you have to reduce the work force and automate as much as possible,” he says. “Use centralized scheduling, transfer tasks from higher compensated employees to lower compensated ones, automate output for referring doctors. Scheduling on the Web in a structured way is a big boost for radiology.”

The radiology group was able put its strategies to the test when it purchased a failing imaging center for $1 (plus assumption of significant debt). The facility needed a lot of upgrading, explains Dr. Reicher. The group upgraded
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equipment, installed a RIS/PACS system, and hired a full-time marketing person to concentrate on connections with referring physicians. By installing the latest technology and aggressively marketing its services, the group was able to turn the center around fairly quickly.

“In two years, we were generating $3 million in revenues and over $500,000 in positive cash flow,” he says. “We really focused on the customer – the referring physician. The best thing we did was to make images accessible.”

One critical component to running a successful practice, says Dr. Reicher, is to give the referring docs what they want: accurate, structured reports; fast turnaround; ease of scheduling and information input; and access to medical imaging specialists and Web-accessible guidance. The best systems will provide complete image management tools and allow physicians to compare, store, and print exams.

“The key to successful re-engineering is to position yourself where the future is moving; eliminate tasks entirely; develop ambitious goals that are delivered quickly in small steps, each moving toward the ultimate goal and building on previous successes,” he says. “Don’t fear failure. Fear inaction. And iterate, iterate, iterate.”

Calculating Costs

A basic concept in operating a successful and profitable business is to track your costs carefully and then find ways to reduce them. Dr. Reicher recommends that radiology groups and in-

Seven Steps To Film-Free Efficiency

1. Make A Commitment
   - Make a firm commitment to your vision
   - Set tangible goals and firm deadlines
   - Write a mission statement and have everyone sign it
2. Designate and Empower Leaders
   - Designate champions among the physicians, and among the administrative, technology, and IT staff
   - Assign responsibility and accountability
3. Prepare Your Customers
   - Sell early to referring staff and administration
   - Emphasize improved service and access
   - Send letter of introduction
   - Send letter to referring physicians who now receive film copies
   - Give presentation to hospital staff committees
   - Perform a physician survey
   - Institute viewing capability early to referrers
   - Get your referring doctor leaders involved in selection of technology
4. Require Full Utilization From The Beginning
   - Jettison the old system early
   - Begin “training drills” immediately
   - Make staff changes unambiguously and as early as possible
   - Rewrite job descriptions and employee standards
5. Train Your Staff How To Communicate The Change
   - Create urgency, alleviate anxiety
   - Channel problem calls to “champions” immediately
   - Script the response to questions
6. Change The Work Flow
   - Diagram current work flow
   - Eliminate all tasks that don’t add value
   - Continuously reassess and re-streamline
7. Measure, Reap, and Market The Benefits
   - If you measure it, it will improve
   - Exploit your reputation for information management
   - Market quality benefits to payers and other referrers
   - Use your early-adapter referring doctors as references
   - Integrate scheduling and Web marketing with service delivery channel

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aging centers calculate the true cost of operating RIS/PACS. By using a RIS/PACS exam index (RPEI), providers can determine how much a specific technology costs per exam and will allow a more accurate comparison of systems provided by different vendors.

The RPEI is determined by adding up all invested costs in capital, interest, upgrades, and service paid to a particular vendor. Next, subtract the depreciated value of the existing technology and divide by the number of exams performed during the time you have a contract with that particular vendor. This will tell you the true cost per exam for your investment.

“The metric allows you to compare the financial performance of any vendor or group of vendors against the benchmark,” he says. “The RPEI gives a standard way of measuring what your real cost is.”

Conventional wisdom suggests that PACS alone will cost $8 to $10 per case, explains Dr. Reicher, but it’s possible to get a unified RIS/PACS system for much less than that. “In some facilities, they’re spending $10 to $15 per case for their RIS/PACS. That tells me it’s time for them to make a change.”

By integrating systems and upgrading software rather than completely replacing old systems, it is possible to achieve an RPEI as low as $1.10 per exam. “There are ways to bring the costs down significantly,” he says, “but you have to know what your costs are to start with.”