

Improving Operational Efficiency in Manufacturing

The Benefits of Customer-Facing Business Intelligence

A White Paper

By Kevin Quinn

WebFOCUS



By Kevin Quinn Bringing more than 25 years of software marketing and implementation experience to his role as vice president of Product Marketing for Information Builders, Kevin Quinn oversees the development of marketing for all product lines.

Mr. Quinn has been credited with helping to define business intelligence (BI) end-user categories through his creation of guidelines for using and employing business intelligence tools. He has helped companies worldwide develop information deployment strategies that help accelerate decisions and improve corporate performance. His efforts in this position have helped propel Information Builders WebFOCUS and iWay Software solutions to category leadership in their respective areas. Mr. Quinn is also the founder of Statswizard.Com, an interactive sports statistics website that leverages business intelligence functionality.

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Table of Contents

1	Executive Summary
2	Simple Concept: Big Impact
3	Where Do You Start?
4	Other Reasons for Customer-Facing Applications
4	Customer Loyalty and Competitive Advantage
4	Improved Operational Performance and Minimized Expenses
5	Competitive Differentiation and Revenue Generation
6	Building Your Own Self-Service Application
6	Relevant, Reliable Information
6	Simple Web and Mobile Access
6	Scalability and Reliability
8	Information Security
9	What's Next
9	Self-Service Is About Providing Users With an Advantage
10	Conclusion

Executive Summary

Today's buyers are more knowledgeable than ever before. Thanks to the Internet, customers have a wealth of information right at their fingertips. For example, they can perform instant comparisons of the features and prices of virtually any product or service. Even the average person, with little or no technical savvy, can quickly and easily conduct shopping-related research on the web.

Whether they are searching for a certain product or service, or just gathering some background data before making a purchase, the Internet can help buyers bypass all intermediaries. They can gain direct access to the providers themselves, or learn more about available offerings from customers and other third parties.

This phenomenon is known as "disintermediation," which was defined ten years ago in a book by world-renowned author and MIT professor Nicholas Negroponte. He called it the "removal of an intermediary from a process," describing it, in this case, as a residual effect of the Internet.¹

These customer-facing websites take advantage of the same concept of using self-service to reduce costs and increase revenue that was popularized when gas stations stopped using attendants. Only one employee was needed to work the station and collect money, which provided an obvious advantage, as stations without attendants immediately became more profitable by reducing payroll. It also gave them the opportunity to grab additional market share by lowering prices.

Today's manufacturers realize that the information they have stored in their databases, data warehouses, and transaction applications is not only of interest to internal employees, but also to customers, partners, and other third-party stakeholders outside the business. Extracting this information from various enterprise data sources, and making it easily accessible to external end users, can be achieved effectively through the use of business intelligence (BI) software.

Manufacturing companies that currently leverage BI tend to focus the majority of their reporting efforts on back-office analytical projects. However, using BI in this way, while quite valuable, may not have as great of an impact as a self-service application. For example, by sharing timely information with vendors and partners, manufacturers can enhance all facets of their supply-chain operations.

Many companies have shied away from using their BI platforms in support of self-service initiatives because they lack the required ease of use, scalability, and reliability.

When it comes to leveraging enterprise data for self-service applications, Information Builders and its WebFOCUS BI platform have a proven track record of success. WebFOCUS supports some of the largest reporting and analysis environments in the world – including many successful applications in the manufacturing industry. Manufacturers of all types and sizes, including Ford, Arvin Meritor, Bunn-O-Matic, and Aqua Clara, have effectively implemented WebFOCUS to create websites that improve the efficiency of key supply-chain activities by giving external users self-service access to vital information. These outward-facing systems range in size from several thousand to more than two million active users and are allowing the companies that have deployed them to realize greater value from their BI investments.

¹ Negroponte, Nicholas. "Being Digital," New York: Alfred A. Knopf, 1995.

Simple Concept: Big Impact

Sometimes the simplest concepts can have a huge impact. There are companies that believe that when moving to an online support model, they are merely replacing the cost of a phone-based service representative with the cost of an IT professional to manage the website (i.e. develop the application and provide ongoing support for related hardware and software). In most cases, the savings will far outweigh any new costs that arise.

More importantly, websites that provide online support give companies a competitive advantage that is beyond measure. Increasing customer convenience dramatically boosts client satisfaction and retention.

For example, according to the Association of Support Professionals, the cost of a phone transaction averages approximately \$37, while typical e-mail correspondence costs about \$25 each. A successful self-service transaction, however, can cost as little as \$8, and can reduce the number of incoming calls and e-mails a company receives by up to 80 percent.

More than 10 years after the Internet began gaining popularity, a new paradigm is taking place. It's an evolution of disintermediation – or one might call it “re-intermediation.”

The middleman has been removed from many processes, and potential customers have become more informed. At the heart of all this disintermediation and re-intermediation is information. In other words, if you have valuable information in a database, and you have the means of making it accessible via the Internet, you have the potential to increase profits, drastically reduce overhead, or both.

Where Do You Start?

To succeed in self-service, the information you offer over the web needs to be useful and it must come from a consistent, reliable source. Any manufacturing company has the potential to build and operate a self-service website.

When the information provided over the Internet is typically not available through other online channels, or is unique in some way, it often has a value that is immeasurable to those who wish to consume it. In these situations, manufacturers can even consider charging a fee for access to that information.

For example, CentiMark, a leader in the northeast's commercial roofing industry, developed a web-based portal that helps more than 1,000 customers to better manage their properties. Through the portal, they can run a variety of reports that enable them to closely monitor services and maintenance contracts. CentiMark has achieved a competitive advantage in their market through increased customer visibility, service, and satisfaction. More importantly, the application also serves as a revenue-generator. For an additional fee, clients can extend their service contracts to include the ability to upload their own project data into the environment, for improved information management and reporting.

What information do you have that is of great value to someone?

Other Reasons for Customer-Facing Applications

Besides the obvious cost-saving benefits that can be realized by providing self-service access to information, there are many other reasons that manufacturing companies should be motivated to incorporate self-service applications into their business models. Some of the potential advantages may be surprising. These include enhanced customer loyalty, improved performance, reduced costs, increased revenue, and greater competitive advantage.

Customer Loyalty and Competitive Advantage

Information Builders has worked with many manufacturing companies to help them build self-service websites. These services, which are more accessible and convenient than what their competitors offer, give them a solid and substantial edge in their respective markets. As a result, clients are more likely to remain loyal, since making the switch to a new vendor will force them to give up the superior services to which they have become accustomed.

Of course, because online channels allow consumers to interact with companies around-the-clock, seven days a week, they are more convenient than phone-based services, which are typically only available during standard business hours. Certain questions and issues can also be addressed more rapidly through self-service websites, as customers will be immediately directed to the information they need, instead of navigating through an IVR system, or waiting on hold for an available agent.

Bunn-O-Matic, a Chicago-based producer of beverage equipment, shares information about its lean manufacturing, sales, and distribution operations directly with customers. Sales-related data, such as details about the status of pending orders, are automatically distributed to customers via e-mail on a regular basis. This helps enable better communication between the company and its clients.

Improved Operational Performance and Minimized Expenses

Built on WebFOCUS, Ford's Global Warranty Management System (GWMS) allows each dealer in the company's network to monitor how much its warranty performance varies from the average performance of others within the same geographic region. More than 14,000 dealers rely on the system, including all Ford dealerships worldwide. GWMS has been deployed in 14 languages. Other dialects will be added in the coming years as Ford expands the system to support new Asia-Pacific markets.

"Ford saves money when it can identify excessive repair costs and alert its dealers," explains Jim Lollar, business systems manager of global warranty operations at Ford. "We have seen savings of \$40 million to \$60 million per year by creating this website and delivering information to our dealerships so they can take action."

The application helps Ford to instantly identify numbers that are out of line. It also creates an environment of healthy competition between dealers, all in the name of delivering better service to Ford customers.

Competitive Differentiation and Revenue Generation

Aqua Clara is a Japanese producer and seller of purified water. When it deployed WebFOCUS to allow internal employees to gain insight into its sales operations, it decided to share that information with its partner community as well. Partners can perform a variety of reporting and analysis functions aimed at increasing client satisfaction. For example, they can conduct in-depth customer segmentation by property or other characteristic, detect purchasing trends among individual clients or groups of clients, determine who the best and worst customers are, and assess the results of marketing efforts.

This partner-facing environment not only facilitates the delivery of more personalized service to customers, it has had a direct positive impact on company profitability.

Building Your Own Self-Service Application

Relevant, Reliable Information

Manufacturing firms thinking about offering a self-service website must consider several things. The first is to determine which information is in highest demand by the largest constituency. Billing information is a great example. All companies, no matter how big or small, or what industry they serve, field a high volume of questions about client bills and invoices.

Manufacturers should also determine if they own information that would be in high demand if made available to outside constituents. It is through this type of self-service information that companies realize true value in terms of increased customer satisfaction and loyalty.

What makes Information Builders unique among BI vendors is that we also provide a full suite of integration solutions. As a result, WebFOCUS has the widest reach of any reporting platform on the market, and can tap into many disparate sources for self-service access – removing integration as a roadblock to self-service success. Our integration offerings also include data quality management, so the same platform that facilitates seamless information access can be leveraged to ensure consistency, accuracy, and integrity as well.

Simple Web and Mobile Access

A self-service site that is overly complex will result in only moderate benefits. Unless the site is easy to use and self-explanatory – making it fast and simple for users to find the information they need – then intermediaries such as help desk staff and contact center personnel will continue to be called upon for assistance.

For anyone that has an Internet connection and a basic knowledge of web browsing, using a self-service site should be as easy as performing a search query or buying a product online. Anything more sophisticated is likely to alienate at least a portion of the end user audience. What today's information consumers really want is to submit simple queries and receive answers that are relevant to their day-to-day activities.

Scalability and Reliability

Once you've made the commitment to self-service, you'll likely find that the website's reliability is paramount to your continued success. WebFOCUS includes built-in, load-balancing, failover, and autonomic functions that ensure the highest performance of your self-service applications at all times.

These features allow you to chain multiple servers together, guaranteeing back-up operation in case of a hardware failure. It also ensures that the service load can be balanced across multiple machines, so the site will run consistently during both peak and off-peak hours.

In addition to providing advanced business intelligence capabilities to employees throughout the company, a leading reseller of IT hardware makes key supply-chain information instantly available to its trading partners. By giving greater visibility and control to these partners, the company is building stronger relationships with the vendors whose products it resells, while reducing inventory carrying costs and maximizing efficiency.

The company is also planning to enhance customer service and gain a competitive edge by creating a self-service reporting environment where clients can go to purchase products, track orders, verify inventory, and review payments.

Information Security

One major concern about self-service websites is the protection of the data being delivered. In most cases, confidential information and records – such as billing details – will be accessible, so there can be absolutely no security gaps. Each user must be able to retrieve only their own information, and must be prevented from viewing other users' data. In some cases, there are even government regulations regarding the security of personal data.

WebFOCUS provides a multifaceted infrastructure that can work seamlessly with and synchronize multiple levels of security including website security, data and application security, and even high-levels of encryption. This ensures that people can't intercept data as it is being transferred from the self-service site to the user's desktop.

What's Next

Self-Service Is About Providing Users With an Advantage

Many manufacturers have used self-service sites to differentiate themselves from their competitors, while reducing support requirements and eliminating excess overhead. However, as more and more businesses build self-service applications, it's not just the service itself that acts as the differentiator, it's the application's content and utility. Many new self-service sites are emerging that not only serve the companies that host them, but also provide demonstrable added value to the end user.

When Arvin Meritor, a leader in the manufacture of systems, modules, and components for the motor vehicle industry, wanted to improve service to both partners and customers, it turned to WebFOCUS. Vendors in the company's Exhaust System Division have instant access to reports that allow them to track payments, check the status of receipts, receive shipment notifications, and more. Convenient services like these have led to stronger relationships between the company and suppliers.

Arvin Meritor has also deployed an e-commerce application to its aftermarket customers, allowing them to order products and track shipments. The environment has not only enhanced service and productivity, it has minimized support costs by reducing the number of phone-based orders received and processed by the company's call center.

Information Builders has added specialized features to WebFOCUS to further enhance the creation and deployment of self-service applications. Innovative active technologies allow BI functionality to be delivered inside of every dynamically published document. When a company provides self-service access to billing data, the information consumer instantly becomes an analyst.

Instead of the information being delivered as a static printable document, it now becomes an interactive analytical environment. Bills can be sorted by date, the size of the charge, or even by category. Charts can also be created to provide a better understanding of distribution.

Individual seat licenses of active technology capabilities are free. This means, the company that hosts the self-service site can deliver information as WebFOCUS Active Technologies reports to an unlimited number of users at absolutely no additional software costs. Innovations such as these are increasing the value of self-service websites and offering greater advantages to the casual end user.

Conclusion

So why do self-service websites work? For customers, they offer:

- **Accessibility** – Convenient access from home or office
- **Usability** – A user-friendly interface
- **Timeliness** – Fast access to new, relevant information

For the self-service provider, they offer:

- **More opportunities** – Customers spend more time on your website, which gives you more opportunities to interact with them
- **Competitive advantage** – You get an edge over competitors since you are the first to provide value-added services
- **Process improvement** – It reduces costs and eliminates bottlenecks in intermediated processes

If you are looking to leverage business intelligence software to create an application that will have maximum impact on your organization, perhaps you should look outside the traditional boundaries of BI. Think beyond the classic analytical application for a few back-office analysts, and envision how the wide distribution of your data to customers, partners, or even the public could have an even greater effect on your bottom line.

Information Builders is a leading software and services company with a strong history of building and supporting some of the world's largest deployments of self-service websites using the WebFOCUS BI platform.

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