From Brick to Click: E-Commerce Trends in Industrial Manufacturing

The Internet's large-scale global penetration has spawned an increasingly large number of technology- and Web-savvy consumers, creating a huge opportunity for both industrial manufacturers and their end customers. Over the past decade, e-commerce has evolved from a basic communication and transaction channel between buyer and seller, to an end-to-end collaboration medium between all stakeholders. This collaboration is driven by companies looking to increase sales by offering online product recommendations and promotions, as well as end-customers seeking the rich and personalized online experience that many retail Web sites offer.

As a recent article in *Managing Automation* notes:

> "The industrial manufacturing sector is leading the U.S. economy out of the recession on the strength of a number of key growth strategies. Selling into new industries, innovating to develop new products and services, and leveraging the Internet to pick up the pace of business are the top growth drivers. Of the 1,176 respondents to the survey, 71% said their online strategy would be important or critical. The Internet, it turns out, has taken center stage in this recovery."

The future of effective e-commerce lies in the ability to deliver a buyer-centric and engaging online experience that enables customers to interact and transact with the brand and allows manufacturers to reduce administrative costs, increase sales and improve brand loyalty. This is achieved by reducing costs through the following means: Ensuring a minimum-touch, 100% accurate order in the least possible time; understanding customer needs and behavior to deliver specific marketing messages to influence decision makers; and providing a rich customer experience by leveraging rich Internet application (RIA) technologies, easy access to data to help with buying decisions, and online post-purchase support.

To achieve the above stated objectives, industrial manufacturers will need to:

- Aggressively adopt B2C and retail best practices.
- Target customers with buyer-specific online promotions, recommendations and messages.
- Increase brand visibility by utilizing social networking tools.
- Open new markets and channels through alternate business models, such as mobile commerce.

In this paper, we will analyze how these trends and objectives align to provide an effective e-commerce solution through the adoption of the following key drivers:

- **Expedite** the shopping process.
- **Enhance** the customer experience.
- **Evolve** using future trends and tools.

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E-Commerce Challenges Faced by Industrial Manufacturers

The business-to-business (B2B) e-commerce model primarily adopted by industrial manufacturers has evolved from transactional to collaborative, closely involving the customer in each step of the buying process. This focus on customer intimacy is replicated primarily by adopting key practices of the business-to-consumer (B2C) model. The union of these two business models is driven both by supply and demand. Industrial manufacturers want to provide a B2C-like experience to the customer by offering product recommendations and promotions. Moreover, industrial customers expect the same rich and personalized experience that retail sites offer.

The adoption of e-commerce by industrial manufacturers has been unexpectedly slow, although its importance has been recognized by the industry for a long time. Over the last decade, while many manufacturers have expressed an interest in incorporating Web technology into their existing platforms, very few have actually implemented it. This slow rate of adoption is due to challenges faced by manufacturers, as depicted in Figure 1.

For the purpose of easily understanding the e-commerce challenges faced by industrial manufacturers and possible solutions, let us consider the case of a large U.S.-based HVAC manufacturer that asked us to help revamp its e-commerce portal from multiple stand-alone applications catering to functions such as "search," "order," "cart processing," etc., to a single RIA technology-based portal (see Figure 2, next page).

Some of the improved e-commerce capabilities this manufacturer realized due to this revamp were:

- Better navigation and robust cart capabilities.
- Improved pricing and availability.
- Multiple search and display options.
- Marketing tools to help cross-sell and up-sell products through promotions and features displayed on the portal.

E-Commerce Solution Framework

The success of an industrial manufacturing e-commerce solution is dependent on implementing or adopting the three key drivers named above: Expedite the shopping process, enhance the customer experience and evolve, using future trends and tools.

Figure 1

Figure 2

Expedite the Shopping Process

In today's dynamic business enviroment, it is critical to enable the customer to effectively search, identify products of his choice and quickly complete the shopping purchase. To ensure that the customer is completely satisfied with the shopping experience, it is important to provide multiple search and ordering options. In the new e-commerce portal for our HVAC manufacturing client, its customers were provided with multiple search and ordering options, with the ability to filter on the basis of specific attributes and order quickly with the quick-order and copy-paste components from the portal home page, as indicated in the screenshot below (see Figure 3). The portal also displays products that have been "recently viewed and purchased" and have been "popular customer buys" to aid in expediting the entire shopping process. The user can also compare multiple products across different attributes, including price, to help make a well-informed purchasing decision.

Enhance the Customer Experience

The two key drivers to enhancing the overall customer experience are customer-centric marketing and a rich online experience.

- **Customer-centric marketing:** Customer-focused marketing campaigns and promotions -- an integral part of B2C sites -- are slowly becoming essentials for B2B e-commerce. These campaigns can be in the form of banners, recommendations and promotions. For example, in the e-commerce portal built for the HVAC manufacturer, customer-specific promotions were displayed prominently on the home page. The manufacturer used this real estate to effectively up-sell and cross-sell products when customers searched and purchased items of their choice, as indicated in the screenshot on the next page (see Figure 4).

- **Rich online experience:** E-commerce sites are increasingly leveraging RIA technologies to deliver an enhanced and personalized shopping experience, enabling customers to easily

Figure 3

Figure 4

perform actions such as comparing multiple products, product search, adding to the cart and checkout. A well-designed RIA provides a seamless shopping experience, visually guiding the customer from one step to the next, providing the continuity that's lacking in many of today's e-commerce sites. The site should also be compatible with social media tools such as Twitter, blogs and forums to help customers make an informed buying decision.

We used RIA technology (Adobe Flex) to develop the e-commerce portal for the HVAC manufacturer to help enhance the customer shopping experience (see screenshot of the shopping cart, Figure 5, below). After implementing the new e-commerce portal, the HVAC manufacturer witnessed an increase in parts sales by close to 150% within one year and an increase in volume of online orders by 300% for the same period. The portal was available to customers 24/7 with 96% uptime.

Evolve Using Future Tools and Trends

Social networking tools, mobile capability and analytics will play a critical role in the future of e-commerce in the industrial manufacturing industry.

1. **Social networking tools:** Industrial manufacturers and stakeholders across the B2B supply chain, such as dealers, distributors, retailers, etc., have largely accepted online social media technologies as useful marketing tools and have identified them as desirable components in a majority of marketing campaigns. Industrial manufacturers can easily leverage Web 2.0 tools such as Twitter, Facebook and LinkedIn to build brand awareness and customer loyalty. This can be achieved

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Figure 5

through viral marketing, marketing through relevant blogs and participation in online business communities, which are all different social media marketing techniques.

As the sales decision in a B2B channel is predominantly relationship driven, it is critical for industrial manufacturers to determine the various social media tools (blogs, wikis, professional forums, etc.) being utilized by customers and ensure appropriate presence across these multiple mediums to initiate ongoing conversations and continuously understand customer business needs. This way, social networking tools open up an opportunity for industrial manufacturers to take a more engaging, personalized and interactive approach with their customers.

> **The key requirement for the successful adoption of m-commerce is the availability of a single-click check-out process, which will help eliminate the effort required to enter payment and shipping details by customers.**

2. **Mobile:** As e-commerce and in-store channels converge with the growth of mobile networks, customers of industrial manufacturing companies will have the ability to check the Internet for online promotions, product descriptions and reviews by past purchasers via their mobile and smart phones. Mobile devices help customers make quick decisions by helping them access online information on the spot rather than having to research an item later. The key requirement for the successful adoption of m-commerce is the availability of a single-click check-out process, which will help eliminate the effort required to enter payment and shipping details by customers. The single-click check-out process is implemented by integrating the e-commerce and m-commerce engines, allowing for a seamless flow of payment and shipping details between the two sales channels. This -- along with enhanced user experience and the flexibility offered by smart phones -- will enable m-commerce to be the sales channel of choice for industrial manufacturers.

3. **Analytics:** Reporting and subsequent analytics allow industrial manufacturers to gain valuable insights on the following aspects:

- A real-time view into the Web store and marketing campaign performance.
- Monitoring lead conversion and Web site metrics, helping to maximize site effectiveness.
- Analyzing cart abandonment and identifying up-sell opportunities.
- Performance of promotions and campaigns.
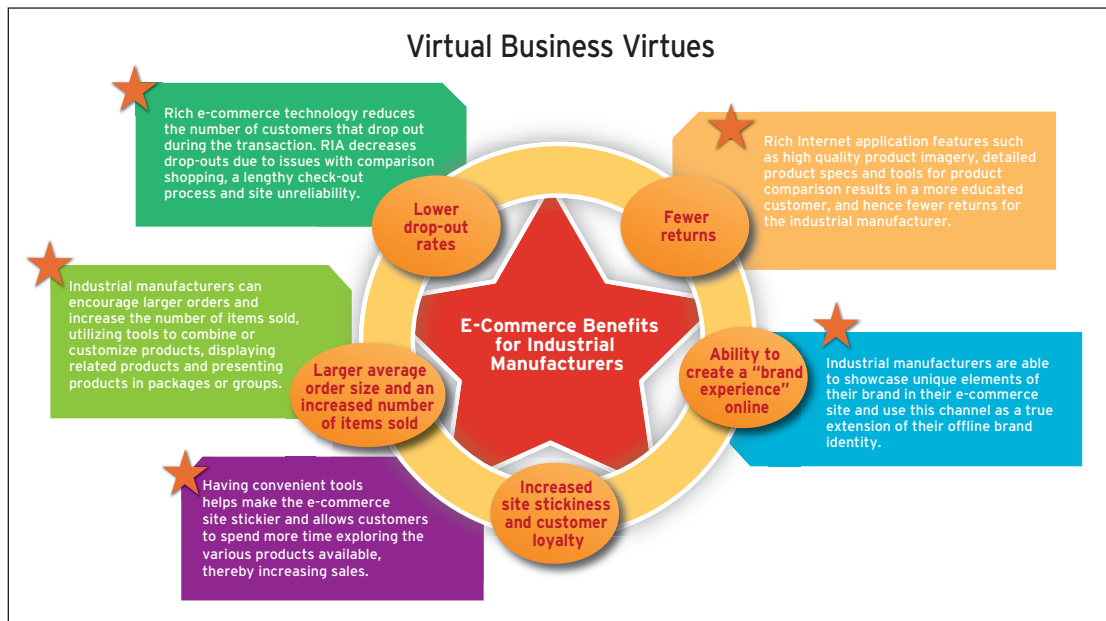- Visibility into live transactions or customer details.

Figure 6

E-Commerce Benefits for Industrial Manufacturers

The benefits from e-commerce sites incorporating the aforementioned approaches range from stronger brand building with end customers, to increased average order size. Other benefits are depicted in Figure 6 (see previous page).

The future of effective e-commerce lies in the ability to deliver a buyer-centric and engaging online experience that enables customers to interact and transact with the brand by expediting the shopping process, enhancing the customer experience and evolving using future tools and trends. This will result in increased customer utilization and conversion, as well as increasing sales through the online channel. As such, our approach is to help industrial manufacturers successfully navigate and complete the journey from "brick to click."

References

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