

The Digital Fabric: Organizing for Convergence



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Traditional organizations must be redesigned to adapt to rising consumer expectations. In this article, Jerry Wind, Vijay Mahajan, and Robert Gunther explore how the same technologies that are transforming consumer markets can be applied to organizational architecture.

Traditional organizations are not designed for the current environment of interaction and rapid change. The traditional business architecture is primarily designed for internal management and control, and it has always been a challenge to make these organizations more adaptable to changing business conditions—like taking an ocean liner down a whitewater river. To take on these new challenges, you need a fundamentally different design for the organization.

New technologies and consumer expectations have intensified these challenges. Technology allows for more interaction with customers, and now they *demand* this interaction. Consumers want to be able to interact with organizations in real time, to be offered customization, community, multiple channels, flexible competitive value propositions, and powerful choice tools. These are what we call the five C's of convergence marketing, as discussed in a [previous article](#). Consumers want to run the rapids—and even take the paddle into their own hands. But how can you create an organization that can take them where they want to go without losing control or breaking up in this turbulence, and without losing sight of the need to continuously create value for shareholders and other stakeholders?

The traditional organization was designed in tiers and silos. There were silos of business functions (marketing, finance, human resources), brands, industry, and geography. Even many corporate e-business initiatives initially were brought in as a separate line of business, creating yet another silo in the organization. Like the decks of the ocean liner, these silos helped to keep it orderly and allowed the company to seal off separate chambers if the boat sprung a leak. This allowed for clear lines of control and very efficient operations. It worked best, however, in more stable markets and organizations. As the environment demanded more flexibility and coordinated interaction with customers, and even integrated product and service offerings to customers, the weaknesses of this organization began to show.

To address the weaknesses of these silos, companies moved to matrix structures, in which one silo is overlaid upon another silo. But these matrix organizations often became very complex to manage, eroded functional expertise, made accountability more difficult to assign, and sometimes presented the customer with an even more complex and impenetrable organization.

Customers want direct access to the organization, but when they peer behind most organizational walls, the picture is not too pretty. The Web is all about openness and connection, but organizational "silos" create barriers to openness and connection. With the change in the balance of power, the walls of this "fortress" corporation need to be reconfigured. From the customer's perspective, the ideal is to organize the company around the customer. However, from the organizational perspective, such a customer-centric model makes the organization difficult to manage and creates the risk of not maximizing the value of the tangible assets of the firm, its products, and its services. Is it possible to do both?

A Browser for the Organization

The Web browser offers a fascinating model for transforming organizations. It does not require a change in the fundamental underlying architecture of the operating system. Instead, it takes as a given a cacophony of messy operating systems and networks and then places a coherent interface over them. This allows individual users to tailor the interface to their own specifications without necessarily changing the underlying infrastructure. Each person looks at the same scene and extracts a different picture, yet these individuals from different parts of the value chain can interact with one another through their

tailored interfaces.

A similar Web browser model for the organization can be used to create what John McGuire, CEO of the technology firm Trintech, calls a "digital fabric." Trintech is one of the leading companies providing software and support to financial services organizations for handling credit card transactions in offline, online, and wireless applications. As a technologist, McGuire has applied information systems to his own organization, creating this "digital fabric." Trintech has begun to create an organization that is neither a functional organization nor a matrix organization.

This architecture can be dynamically "configured" to be viewed virtually by product line, by function, or by customer, without changing the underlying organization. Finally, the organization can be opened up to customers in ways that were never possible in the past. For example, customers can directly access their accounts, design new products, or check on orders—they are invited inside the organization. The matrix can be sorted in different ways to take whatever cut of the organization is needed at that point.

Trintech is organizing interactions with each customer around a dedicated "eRoom," an online collaboration technology that allows sharing of documents and information, drawing relevant experts from different parts of the organization together in a single virtual location. This means, in essence, that every customer has a virtual microcompany within the larger organization. Trintech's functional managers retain depth in specific areas, such as law or finance or engineering, and retain their identification with these areas. They do not become generalists, but they see the organization as a collection of specialists working together to create customer solutions. The leaders of product divisions see the organization as a set of product divisions that are managed for profit and loss (P&L) by segment. The CEO and top managers see the organization as a set of key metrics on the revenue and order pipeline that can be dynamically sorted using data lenses, where they can click down for greater detail. The management team also manages by exception through operational red flags.

Combining Online and Offline Channels

This technological fabric, like a Web browser, allows the organization to bridge silos without breaking them. The underlying organizational structure can still be by traditional silos—for example, by functions such as finance and marketing, or by brands—but the customer or employee sees only the part of the picture that is relevant to the individual. "We need the traditional value of brands, and the P&L focus has to be honored," McGuire said. "You also can have functional depth and efficiency so that you have best practices across all the brands. It is through the digital fabric that we are able to break down those silos yet maintain the discipline of functional depth." At the same time, the company better meets customer needs.

Trintech also uses a clever combination of physical and virtual interactions, taking advantage of strengths and weaknesses of different channels to facilitate customer interactions. For example, on sales calls around the world, the company traditionally sent out two representatives, a sales rep and a technical expert. Now Trintech sends only the sales rep and uses technology to link back to a technical expert in its California home office. This decreases its staffing and travel costs and allows it to connect customers with its best experts in a given area, improving the insights that it can offer to customers. The centralized technical expert, called a "product evangelist," is backed up by teams of support people at headquarters, so the discussions at the meeting are quickly turned into proposals.

Under the old system, proposals generally took about two weeks to generate following the meeting. The salespeople needed to fly home, draft the proposal, and then send it through engineering, legal, and other reviews. With the new process, the home office team develops the proposal, which is reviewed by the product evangelist, lawyers, and other members of the team in real time using the electronic eRoom. The proposal is very often emailed back to the sales rep for delivery to the client the next morning. At the same time, Trintech cut its costs by about 60 percent over the old system.

In much the same way that companies have found ways to leverage online and offline channels in their consumer marketing, Trintech has looked at leveraging the strengths of its online and offline channels within the company.

Creating a "Plug-and-Play" Organization

The idea of virtual, "Web browser"-type organizations does not mean that the underlying organization structure never needs to be changed. Real organizational flexibility is also important. Companies need to bring in new capabilities and staff and develop new process—and be able to connect them to the existing organization. Sometimes creating a browser interface is not enough.

Structural changes or upgrades might need to be made, the organizational equivalent to installing a new operating system or upgrading hardware.

To achieve this flexibility, Nokia CIO Mikko Kosonen uses a modular design that he calls the "plug-and-play" organization. Individual process modules are created and placed into a library. The "best of breed" solutions are identified and are given a common interface so that they can be brought together as needed. Because they are built in a modular format, they can be rapidly reconfigured based on the demands of specific business units. The result might not be quite as individually tailored as a project starting from scratch, but these solutions can be deployed much more quickly and can offer better integration with other parts of the organization, as well as standardizing the best approaches from inside and outside the company.

Applying the Five C's Within the Organization

These are just a few examples of how the new technologies and approaches that are transforming consumer marketing—and creating substantial challenges for organizations—can be deployed to help resolve these challenges. In particular, the five C's of convergence that are transforming consumer markets, discussed in our [previous article](#) can be applied within the organization.

The five C's of convergence marketing—customerization (customizing offerings and messages), community (physical and virtual), channels (online and offline), competitive value proposition (including new pricing mechanisms as well as information and entertainment), and choice tools (including search engines and decision-support tools)—have applications within the company:

- **Customerization**—The customization in consumer markets has a parallel in modular, customized components and customized "browser-like" interfaces within organizations. These are the approaches used by Trintech and Nokia, as discussed.
- **Communities**—The physical and virtual communities that are transforming consumer markets can be created within an organization to draw together groups with common needs or interests. For example, AOL TimeWarner consolidated its diverse printing contracts through a virtual community for printing, saving the company about \$150 million.
- **Channels**—Online and offline channels can be integrated in the way that Trintech has done by combining physical visits by sales reps with virtual interactions with technical experts.
- **Competitive value**—Just as companies are rethinking pricing and other aspects of competitive value in consumer markets, they are rethinking the value proposition that they offer to employees within the organization. (These are employees who are no longer with the company for life and must be offered different incentives.) Companies also are employing much stronger market-driven transfer pricing to create internal markets.
- **Choice tools**—Just as companies are putting sophisticated decision tools into the hands of consumers, they are providing real-time information systems to business leaders and other employees within the organization. These tools allow employees to continue to add value to increasingly sophisticated and self-sufficient customers.

Applying the five C's of convergence within the organization creates tremendous opportunities to rethink the architecture of the organization. These approaches make it possible for organizations to become more flexible and responsive to the rapids of the modern business environment. But it is up to individual organizations to seize these opportunities and to apply them within the context of their specific markets and external cultures.

*This is the third of three articles exploring insights from the book *Convergence Marketing: Strategies for Reaching the New Hybrid Consumer*, by Jerry Wind, Vijay Mahajan, and Robert Gunther. The [first article](#) focused on the complex interaction between technology and people, and the [second article](#) examined the five C's of convergence marketing.*