

CDRM:

A THEORETICAL FRAMEWORK FOR IN-HOME CUSTOMER RELATIONSHIP MANAGEMENT

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Authors Michelle Hillard and Alon Israeli propose a future-state means of customer relationship management for low involvement goods made possible by the emergence of new technologies and a refocus on customer-centric activities in the manufacturing sector.

Customer Relationship Management (CRM) has forced many companies to rethink how they might serve their customers better. To date, however, CRM has prevailed solely in service companies and retailers or manufacturers of high-involvement products. The reason is simple: these types of businesses have a means of contacting the customer in various stages of the purchasing or servicing experience and tailoring the appropriate products or offerings based upon individual customer information. In the meantime, manufacturers of low-involvement goods have been left in the dust, attempting to master the art of customer relationships.

From Craft Production to Mass Production: The Industrial Revolution

In 1915, Henry Ford sold 355,276 Model T s. Ironically, every single customer chose a black one (Hounshell, 1984). The rise of the Industrial Revolution brought about a shift in perspective: for centuries prior to Ford s system of mass production, people were accustomed to having their clothes made by town tailors and their exchanges bartered and settled with a personal conversation and a good handshake. In the marketplace of mass production, however, customization was no longer an option.

At the forefront of the Industrial Revolution, companies who used mass production were revolutionary in their mass production techniques techniques that resulted in economical benefits for the consumer. Although the consumer could pick from only one color of car, that car was dramatically less expensive than the alternative handcrafted products. While consumers were anxious to buy, companies were anxious to learn how to produce and market a given product most efficiently and economically.

From Mass Production to Continuous Improvement: The Quality Revolution

While American companies moved along the learning curve of mass-producing their inventions, Japanese companies were discovering that continuous improvements of their processes were leading to lower costs and higher quality production. Enter the era of continuous improvement. The revolutionary companies that were implementing Total Quality Management (TQM) into their production processes were gaining a competitive advantage of price and quality. However, once other companies joined the revolution, the threshold for quality and price rose, and competitive advantage was no longer sustained, leaving companies in search of new ways to sustain their competitive advantages.

From Continuous Improvement to Mass Customization: The Customer Revolution

The era of continuous improvement is still at large, but our focus has shifted from the products and processes to that of the consumer. Today s consumers demand more than ever before. They are accustomed to low cost, high quality and

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variety, and if they aren't satisfied, they switch. Plain and simple. Hence, competition is steep, especially considering the fact that most competitors are producing the same high-quality product at the same low price.

For a company to remain successful in today's consumer-centric era, it must refocus its efforts from manufacturing processes and efficiencies to finding ways to satisfy and retain consumers through differentiated competencies. Shift from the Quality Revolution to the Customer Revolution: the consumer holds the power.

The challenge today is how companies can understand and fulfill each individual customer's needs, while maintaining low costs and high quality products. The answer for many is mass customization.

Learning Relationships

To mass customize, marketers must learn what their individual customers want. As a result, companies are refocusing their learning endeavors from manufacturing processes to consumer understanding. Through constant efforts by companies to establish learning relationships with their customers, companies attempt to create unique value by customizing their products or services for each customer. Customer-unique value in turn leads to a loyalty barrier, protecting the company from customer-switching and competitors' offerings.

Is mass customization a reality? Consider some examples of mass customization in the marketplace today:

- n You can purchase custom-made Levi™ jeans if you have your measurements taken at the store and submit a checklist of your exact preferences.
- n You can purchase a book that was recommended to you by Amazon based on your previous purchases.
- n You might tailor the insurance you are purchasing by answering dozens of questions about yourself and paying an amount that is uniquely tailored to your profile.

Notice a pattern here? The companies who are currently offering (and succeeding at) mass customization are selling high/medium -involvement products.

Now, think about how you purchase your pasta noodles, your ground coffee or your cereal. If someone asked you to dedicate five minutes of your day to completing an online preference survey about your most desired cereal combination, would you?

That's what General Mills (along with many other low involvement product companies) wants to know. General Mills' beta test phase for customized cereal is being conducted via the Internet at www.mycereal.com. This Web site allows selected users to design cereals with over one million possible combinations based on their individual tastes or health needs. The individually customized product will come in single-serving containers at \$1 each and will be delivered right to the user's door two to four business days after the order is requested (www.mycereal.com, 2001).

Mycereal.com is an interesting attempt to provide consumers with customized low-involvement products, but we believe that a project of this type will fail due to the same types of challenges that are causing many mass customization projects to fail painfully:

1. Making a low-involvement product a high-involvement process: Consumers won't spend time feeding manufacturers the information necessary for customization of low-involvement products. Now, more than ever before, consumers are strapped for time. A 10-minute cereal-ordering process only further intensifies their time-shortage problem.

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2. Using the Internet as a main communication channel: When the process requires a consumer to enter data via an Internet site, the prospective customer base shrinks. Not everyone or a company's customer base, for that matter has access to the Internet on a regular basis, which creates a barrier for purchase.
3. Requiring a massive change in corporate strategy and organization: Mass customization requires intense customer-focus and organization-wide adoption of required technology and processes. Large low-involvement goods manufacturers like Kraft and General Mills find it difficult to successfully manage such changes. Although mycereal.com has managed to bypass the retailer, most low involvement product manufacturers

are highly dependent on the retailer as an intermediary of information between the manufacturer and the customer.

Finding Brand-Loyal Customers

It is difficult for companies to obtain customer-specific information that can assist in mass-customization efforts of low-involvement goods. Currently, retailers have ownership of any sort of individual-level data that might assist manufacturers in customization activities, and the retailers aren't too willing to share. Neither are consumers asking an individual to complete a 10-minute questionnaire about their ideal box of cereal is quite optimistic.

For mass customization of low-involvement products to work, consumer information and preferences must be fed to the company via a means and channel that require little-to-no effort from the consumer.

Mass customization of low-involvement goods requires a new means of data collection a new way to develop a learning relationship. For mass customization of low involvement products to work, consumer information and preferences must be fed to the company via a means and channel that require little-to-no effort from the consumer. This channel we propose is a direct channel: the product itself. And this process we define is Consumer-Direct Relationship Management (CDRM): developing a learning relationship via the product as a direct channel to the consumer.

Relationships? Customers already have relationships with the products they are purchasing (e.g., coffee, pasta, soda, detergents and microwave dinners), but they are most likely not aware of it.

Take for example Cindy Smith, a single mother with two young children. On the way home from work, daycare or school, Cindy often stops at various nearby supermarkets or corner convenience stores to buy Healthy Choice™ microwave dinners or Lipton™ pasta meals. After all, it's one of the only ways she can get a meal on the table quickly and easily.

While taking these very basic and habitual actions, Cindy behaves in ways only she knows: How many times a month

she chooses Healthy Choice™ microwave dinners over Swanson™. What flavor of Lipton™ noodles she uses. What size package she buys. These details are essentially the recency, frequency and monetary value of her individual behavior. These metrics today are essential for marketers to find their most valuable customers and to keep those customers loyal by offering additional or more convenient products and services.

Now, when marketers have better databases and tracking on customers, they discover the truth behind the Pareto rule if 20 percent of your customers are actually bringing in such a desirable disproportionate revenue stream, wouldn't you like to spend more to retain those 20 percent? Most low-involvement goods marketers know the importance of customer segmentation, but they face major difficulties in finding their best customers and acquiring similar customers.

Closing the Loop

Capturing the right customer-level information is a necessity in modern marketing, and a well-implemented CDRM program will make data-capturing for low-involvement goods a reality. In his book, *Measuring Brand Communication ROI*, Don Schultz stresses the importance of closed information loops for measuring the return on investment (ROI) of marketing activities. Schultz describes how closed loops enable marketers to get financial feedback from the consumer, helping them optimize their marketing effort by analyzing the results received from the consumer. CDRM is the means for closing the loop.

Of course, some marketers are attempting to use retailer scanner data to understand more about individual transactions, but while they try to obtain information about the consumer, they face several problems (Block and Totten, 1994):

- n Dependency on retailers' goodwill and technological infrastructure decreases the ability to have complete real-time information.
- n Customers switching among multiple retailers prohibits the marketer from obtaining information about customers

How can marketers of low-involvement consumer goods capture customer-level behavioral and transactional information?

total purchasing behaviors.

- n Limited information from membership cards makes it difficult for marketers to match purchase transactions with unique customer identities.

Given the premise that scanner data is insufficient and customer-involvement is at a minimum, how can marketers of low-involvement consumer goods capture customer-level behavioral and transactional information? To capture the information, marketers must turn to new technologies that are currently in development at the forefront of the approaching wireless revolution. These technologies will track the usage of low involvement goods and will channel the information from the consumer to the marketer for the benefit of both. Customers will have the benefit of receiving the right product on time. Marketers will be able to track, individually, their best customers and thereby customize the right product and service offering to tailor to the customer's needs.

Linking Technology: The Wireless Revolution

Many leading technological companies are highly involved in the creation of new wireless innovations that will enable direct communication between consumer and marketer. We have found the following technologies to be the foundation for linking the marketer and the consumer:

Bluetooth Technology

Bluetooth technology is the result of the joint achievements of five companies within the telecommunication and computer industries (Ericsson, Intel, IBM, Nokia and Toshiba). By the year 2002, Bluetooth technology will be built into hundreds of millions of electronic devices (www.bluetooth.com, 2001). Devices equipped with Bluetooth will be able to communicate one with the other, automatically synchronizing and exchanging information. One after another, we will see the introduction of new applications and products, from handheld scanner centers to refrigerators and coffee machines, as well as

increased functionality.

Location-Based Technologies

Increasingly accurate device-locating technology will bring services that can pinpoint a subscriber's location and provide information or offers from nearby merchants. Right now, Palm offers a rudimentary version of location-based service for its Palm VII wireless handheld, which can give you the location of the Starbucks stores nearest to the wireless base station your Palm is tuned to.

Doubting the possibility? Consider this: Wireless startup GeePS.com, based in Cranbury, N.J., has already begun testing location-based commerce for phones and PDAs in New York and San Francisco, where users can request

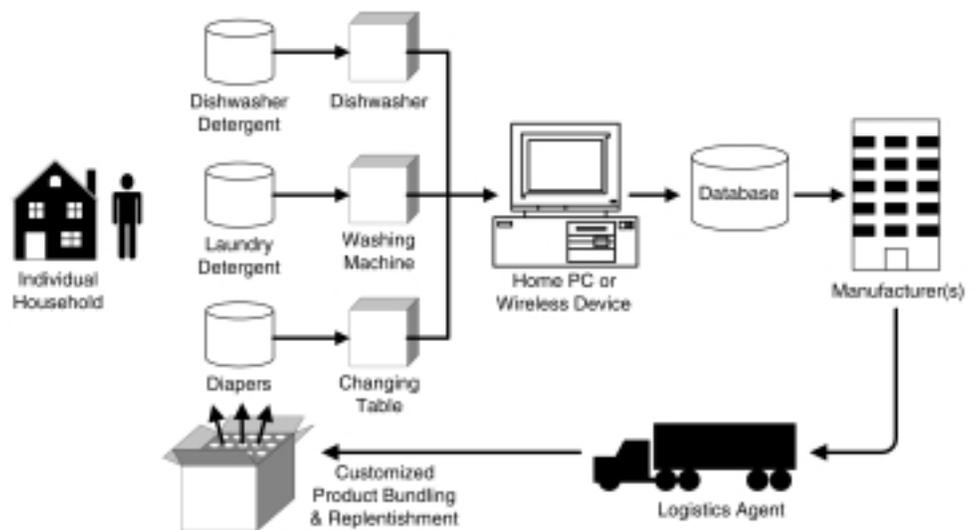


Figure 1

information and offers from more than 50,000 merchants. Even more impressive is the projection that about 3 percent to 5 percent of the products at the Comdex technology conference in fall 2001 will be Bluetooth-enabled, a number that could jump to more than 50 percent next year (Purdy). The potential for marketers is unlimited.

CDRM: The New Competitive Advantage

Calling all marketers of low involvement goods: A new competitive advantage is at your fingertips. Now is your opportunity to embrace wireless technology. Devise means of channeling information between your customers and your databases. Track your individual customer's usage and behavior. Know your customer's needs. Know, not guess. And, as a result, you'll be able to provide individual

customers with unique goods or services without requiring a direct, time-intensive dialogue a mass customization approach referred to as transparent customization (Gilmore and Pine, 1984). You will know what type of communication results in the highest ROI for each customer, and you'll be able to optimize your inventory and logistics to fit actual demand and consumption rates. All made possible by Consumer-Direct Relationship Management.

Let's take for example CDRM for microwave dinners. When Cindy Smith cooks her Healthy Choice™ dinner, she sets the right amount of cooking time by using the scanner that is attached to her microwave. The data from the product's SKU and time of consumption will be stored by the microwave scanner and will then be broadcasted to the marketer as illustrated in Figure 1. The marketer will store the information in Cindy's customer file and will know when she needs a replenishment of Healthy Choice™ products. As a result, the marketer will know the appropriate, relevant times for contacting Cindy and know when to supply her with more product or other product offers based on her actual needs.

Supermarkets and discount stores are the battlegrounds of customer loyalty for low involvement goods. Promotions, price reductions, new product launches and product placements are the ammunition behind marketers' brand-switching agendas. Consider Cindy Smith's next visit to the supermarket, when she stops in the frozen food aisle to grab her six Healthy Choice™ dinners. What happens when Lean Cuisine™ is on sale? Does she embrace the temptation to try a new dinner? Of course she does; it's fairly risk-free at that point, and she can always switch back to Healthy Choice™ if she desires. The economic benefits of incremental increases in product loyalty are quite obvious in situations like this. However, if Healthy Choice™ had known exactly when Cindy was in need of more dinners, and if they knew the best ways to promote, communicate and replenish supply, Cindy might not be standing in the frozen food aisle failing to resist the temptation to be a brand-switcher.

Emerging Consumer Interest

What types of products would be ideal pilots for CDRM? A research study by management consulting firm Peppers and Rogers Group and the Institute for the Future explored consumers' interest in direct-to-consumer automatic replenishment. In short, the study led to a key insight:

Automatic replenishment works best for products that bring no joy when shopping for them. (Peppers and Rogers Group, and

Institute for the Future). Therefore, the key to CDRM success is to offer routine products and services, not items consumers like to browse for or experiment with. As part of the direct-to-consumer study, consumers compiled a list of products and services they would be comfortable having delivered to them by automatic replenishment. The following table shows products that were commonly mentioned across consumer focus groups. The authors have added a subsequent list of complementary smart appliances that could serve as the wireless channel for

<i>Products consumers would be comfortable having delivered to them through automatic replenishment*</i>	<i>Complementary appliances that could serve as the wireless channel for CDRM activities</i>
Household items (batteries, light bulbs, detergents, etc.)	Dishwasher, washing machine, "smart" supply drawer
Meat	Refrigerator
Perishable basics (milk, bread, eggs, etc)	Refrigerator, microwave
Office Supplies	"Smart" office supply cabinet
Diapers	"Smart" changing table

* Peppers and Rogers Group and Institute for the Future, *Forecasting the Consumer Direct Channel: Business Models for Success*, p. 84-85.

CDRM activities.

Logistics and Cost Effectiveness

The fact of the matter is that low-involvement goods are currently plagued with low profit margins. Manufacturers are caught up in price wars in efforts to entice consumers to their corners of the store shelves. In order to see CDRM as a reality, manufacturers must step out of their price competition boxes and move into a new arena of profitability: customized value propositions. When a manufacturer identifies the brand-loyal customers who are interested in time-savings and convenience, the issue is no longer price competition. CDRM customers will not use coupons and won't be hunting down next Saturday's

supermarket sale flyer. Instead, they will gladly pay a reasonable (and profitable) price to have their products delivered to their doorsteps.

How can a manufacturer offer customized value propositions? By considering customized product bundling bundling products that are intuitively linked in the customer's mind and are economically viable from the manufacturer's perspective. Cindy Smith, for example, might be interested in a value proposition offering the convenient doorstep delivery of diapers and detergents. Large manufacturers may have all the products necessary for complementary product bundles manufactured within their four walls; other manufacturers may choose to form alliances with manufacturers of complementary, non-competitive brands. Value propositions such as these will improve the efficiencies of the logistics and thereby increase the cost effectiveness of CDRM.

The key to all CDRM efforts will be keeping the manufacturer highly visible and in control of the customer data. Naturally, other companies will participate in the back-end functions and logistics. A Data Agent might be responsible for maintaining the customer data and protecting both parties from privacy issues. A Logistics Agent might handle all logistical issues for the manufacturer. On the customer's end, delivery time and receipt will be of utmost concern, but will most likely be rectified once more complex delivery containers (i.e., larger, more secure mailboxes) are made available to the public.

CDRM, IMC, ROI and CAP

From a financial perspective, we assert that CDRM is a means of integrating a company's marketing communications activities to provide value propositions that increase a customer's retention rate and result in a more rewarding brand value and ROI for marketing activities of low involvement consumer goods.

Integrated Marketing Communications in the Organization

A well-executed CDRM initiative will require increased brand manager involvement in tracking customer-level data and communicating effectively. The brand manager will be responsible for analyzing real-time consumer information about usage patterns and determining which value propositions will increase customer's loyalty.

Since the brand manager will be responsible for identifying customer-specific marketing solutions, his increased involvement in customer-centric activities will lead

to a shift from traditional market share metrics to customer satisfaction and wallet share metrics. Involvement from the brand manager will greatly contribute to the success of the CDRM initiative. It will also convert the brand manager from a short-term, acquisition-based perspective to a long-term, retention-based strategic perspective. In addition to the transformation from short-term to long-term strategic perspectives, brand managers will refocus their marketing communications strategies from mass communications and mass promotions to customer-specific marketing communications strategies.

Return on Investments

In CDRM's initial stages, companies will have to invest heavily in the technological infrastructure and affiliate with companies who are involved in Bluetooth technology to set product tracking standards that will fit marketers' needs. With time, marketers will realize that the gained competitive advantage and the increase of customer lifetime value will outweigh the costs.

Brand Value and Market CAP

The integration of CDRM into the communication process can substantially enhance the value of the involved brands as illustrated by examining the projected effects of CDRM on the metrics underlying the widely-accepted Interbrand brand evaluation model (www.interbrand.nl, 2001).

The Interbrand model consists of four key elements: financial forecasting, role of branding, brand risk and brand value calculation. The customer data made available through CDRM will increase the accuracy and the credibility of the brand value and will enable the marketer to focus on marketing activities that will lead to profits and increased market capital appreciation (CAP), as illustrated in the chart below.

Concerns for the Future

The proposed CDRM movement is founded on technological and cultural changes that are challenging to predict. We believe that the following four issues will be keys for the success of a CDRM future:

1. **Accepted Wireless Standard:** CDRM is based on location-based wireless technology that is currently in the late development stage. To date, there are no evident competing technologies in such a scale, but the short history of wireless technology suggests that other technologies might compete with Bluetooth as it becomes

CDRM Influence on Company's Market CAP

<p style="text-align: center;">Financial Forecasting</p> <ul style="list-style-type: none"> n Real-time consumer consumption data enables accurate projections of future brand earnings n Closed loops enable accurate marketing performance measurements and show the effect of marketing costs on branded revenues 	<p style="text-align: center;">Role of Branding</p> <ul style="list-style-type: none"> n Reduction in intangible marketing earnings enables company to more accurately identify brand value n CDRM model increases customer retention, thereby reducing company's dependency on brand strength
<p style="text-align: center;">Brand Risk</p> <ul style="list-style-type: none"> n Increased customer retention rates reduces marketing instability and brand risk n Enhanced customer relationships build entry barriers for competitors and establish a unique market position 	<p style="text-align: center;">Brand Value Calculation</p> <ul style="list-style-type: none"> n Improved financial performance of marketing activities and stronger market position enhance brand value

more successful. An accepted protocol is essential for marketers to reach the entire consumer market, and not merely a small portion of it.

2. **Public Acceptance:** The success of a marketing system based on this technology will be influenced by wide implementation of wireless technologies into common appliances such as refrigerators, microwaves and smart appliances. This will enable economically efficient, transparent communications between the consumer and the manufacturer due to the large market share of consumers who adopt this technology.
3. **Profitable Execution:** As today's surviving Internet companies strive to find their way towards profitability after fighting the plague of dot-com bankruptcies, marketers are reminded of the importance of profitable execution. One of the dot-coms biggest failures was their belief that the public would quickly adopt the Internet channel in place of other traditional services. The reality, however, proved to be different. In the CDRM movement, consumers will have to accept new ways of receiving consumer goods into their house. We suspect that CDRM will suffer from the same barriers as the dot-coms with one substantial difference: CDRM revolutionaries could learn from dot-commers financial mistakes and build a profitable model for implementation and execution.
4. **Privacy Concerns:** Today privacy is self-regulated by companies who have access to consumers data. As more individual consumer information becomes available to

marketers, public concerns about privacy issues arise. Any Federal policy regarding privacy issues could affect companies who are using fact-based marketing and consumer data as part of their operational procedures, potentially stopping such a movement as CDRM. Even without federal regulations, consumers can choose to avoid disclosing such comprehensive data about their behavior.

Within a self-regulated privacy environment, companies that have already established strong trust-based relationships with their customers will have the competitive advantage in the implementation of CDRM, increasing consumer confidence by providing customized services and offers based on technology and consumer data.

The technological and strategic challenges facing manufacturers in the near future will reshape the dialog between consumer and manufacturer. Those who are able to embrace and overcome the technological and cultural difficulties will build a competitive advantage and an almost unbreakable relationship with their customers. Consumer-Direct Relationship Management will make this relationship all the more possible.

References

- Hounshell, David. From the American System to Mass Production 1800-1932. Baltimore/ London: Johns Hopkins University Press, 1984.
- General Mills Web site. <<http://www.mycereal.com>>.

Block, Martin, and John C. Totten. *Analyzing Sales Promotion: Text and Cases: How to Profit from the New Power of Promotion Marketing*. Chicago: Dartnell, 1994.

Bluetooth Web site. <<http://www.bluetooth.nl>>.

Purdy, Gerry. Personal interview.

Gilmore, James H., and B. Joseph Pine, II. *Markets of One*. Boston: Harvard Business School Publishing, 1984.

Peppers and Rogers Group and Institute for the Future. *Forecasting the Consumer Direct Channel: Business Models for Success*.

Interbrand Web site. <<http://www.interbrand.nl>>.

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