

Growth through analytics

How electronics firms can use consumer insight for competitive advantage



By Burak Kircali and Shaji Thomas

Today's consumer electronics industry

is in a state of heightened competition. As more and more cross-industry players emerge, consumers are becoming increasingly demanding and manufacturers are challenged to offer more product features at lower costs in shorter timeframes. As electronics firms vie for competitive advantage, we suggest they focus on getting closer to today's connected consumer to help drive future growth. Specifically, insights based on customer analytics can help electronics companies make product and service design improvements, implement more sophisticated marketing tactics to drive qualified leads and further enhance the consumer experience.

The way consumers purchase electronics is evolving. In addition to an unprecedented number of product choices, consumers also have access to more information about these products than ever before. The Internet has changed how consumers research and purchase almost everything, and electronics are no exception. Connected devices, such as mobile phones and tablets, are taking the online research and shopping experience from the home to the car, the office and inside the retail store as well.

To remain competitive, electronics manufacturers need to get closer to their customers. Being customer focused in the digital age means knowing and interacting with customers as individuals rather than as market segments. Unfortunately, the current electronics distribution model makes customer intimacy difficult. Due to the indirect sales model that dominates the consumer electronics industry, most manufacturers are not directly involved in the sales transaction with the end user.

The good news is that today's instrumented and interconnected world is flooded with data. Analytics software can help organizations better interpret masses of unstructured data – and turn that data into insights to improve decision making, redefine customer value chains and innovate new business models. We believe the combination of analytics and connectivity will enable electronics companies to establish a relationship with the end consumer – regardless of channel – and use that connection to gain significant insights.

The current electronics business model makes customer intimacy a challenge.

Change: Key to survival

The electronics industry is literally transforming the world. It is estimated that by 2015, there will be more than seven billion mobile devices in the world, both consuming and generating massive amounts of data.¹ And right now, there are more than one billion transistors for each person on the planet.²

However, the industry itself is in a state of flux. Offerings are increasingly becoming connected services. Innovation has also moved beyond device specifications into services, content and ecosystems. The result is not just more competition within the industry, but also a much more complex market environment that includes cross-industry players. And price competition has not disappeared. If anything, it has intensified as some companies launch devices intended to stimulate demand for their services and, therefore, price the devices at steep discounts.

One of the most pronounced impacts has been the blurring of online and retail channels. More and more consumers are “showrooming” – testing and “feeling” products in a store but choosing to buy their products online. Along with “showrooming,” another significant trend in consumer behavior is the rise of personal recommendation sites, which bring a social element to shopping. For many consumers, user reviews on Web sites and the opinions of friends and personally known “experts” far outweigh traditional advertising and recommendations from sales assistants.³

In terms of the exploding market for mobile Web devices and tablets, consumers are increasingly pursuing cloud and other services. Today’s electronics consumers expect much more than quality devices – they demand a quality experience. Their interest has shifted from the device itself to what they can *do* with the device.

Many of today’s consumer electronics manufacturers find themselves dangerously isolated from the end user, since most relegate the customer relationship to retailers and other channel partners. With billions of people connected by billions of devices, there is a wealth of data available that can help manufacturers better understand the consumer. The challenge is to convert this large volume of data into meaningful customer insights to drive business decisions and direction.

Analytic tools can help electronics companies mine and refine what is valuable and assemble vital pieces of information into holistic profiles of consumers. In fact, we believe customer analytics will soon become the benchmark for electronics industry firms to maintain relevancy – and hence competitiveness – in this rapidly changing market.

Embracing analytics for consumer insight

Lack of customer intimacy impacts electronics companies in three key areas – areas that are critical to their competitive position and, indeed, their very survival. We identified these areas as:

- **Product and service design:** End users and product development teams are not well connected. Obviously, the more the consumers’ needs are considered in the product development process, the more likely the end product will meet those needs. Therefore, insights about the end user need to be better incorporated into the design phase.
- **Qualified lead generation:** End users and marketing teams are not well connected. However, with more knowledge of consumer behavior patterns and preferences, marketing teams can better target their messages to the appropriate buyers.
- **Experience management:** Most electronics companies do not have information on how consumers use or feel about their products. Improving the user experience requires information on how consumers currently use the products, as well as their future needs.

At the heart of overcoming these challenges is the need to process available data to produce a 360-degree view of the consumer. This view can be created by using analytics. By consolidating and integrating various pieces of information – obtained through social, usage, mobile/Web, email, direct campaign, call center, retail channel and market analytic tools – electronics companies can help build a more complete profile of the customer. In doing, they can drive the necessary improvements in product/service design, qualified lead generation and experience management (see Figure 1).

Product and service design

Today’s engineering community is being challenged to deliver more sophisticated designs – and to do so faster and for less cost. Companies face rising design costs, as product and design chain complexities push the limits of engineering processes and computing. In addition, the development of increasingly innovative products requires a specialized set of skills and capabilities.

At the same time, today’s sophisticated consumers require more and more from their devices. With the proliferation of connected devices and continuous improvements in network accessibility, today’s consumers expect to do more with their connected devices. They demand high performance and enhanced, integrated device experiences. Unfortunately, customer insight and input are not captured in standard product lifecycle management (PLM) systems, making it more difficult to ensure consumers’ needs are met.

The issue isn’t a matter of customers not sharing their attitudes and preferences regarding electronics devices. Consumers consistently post product reviews, blog about their experiences, and share their opinions via social media and word of mouth. Electronics companies need to capture this data and use it to improve product and service design.

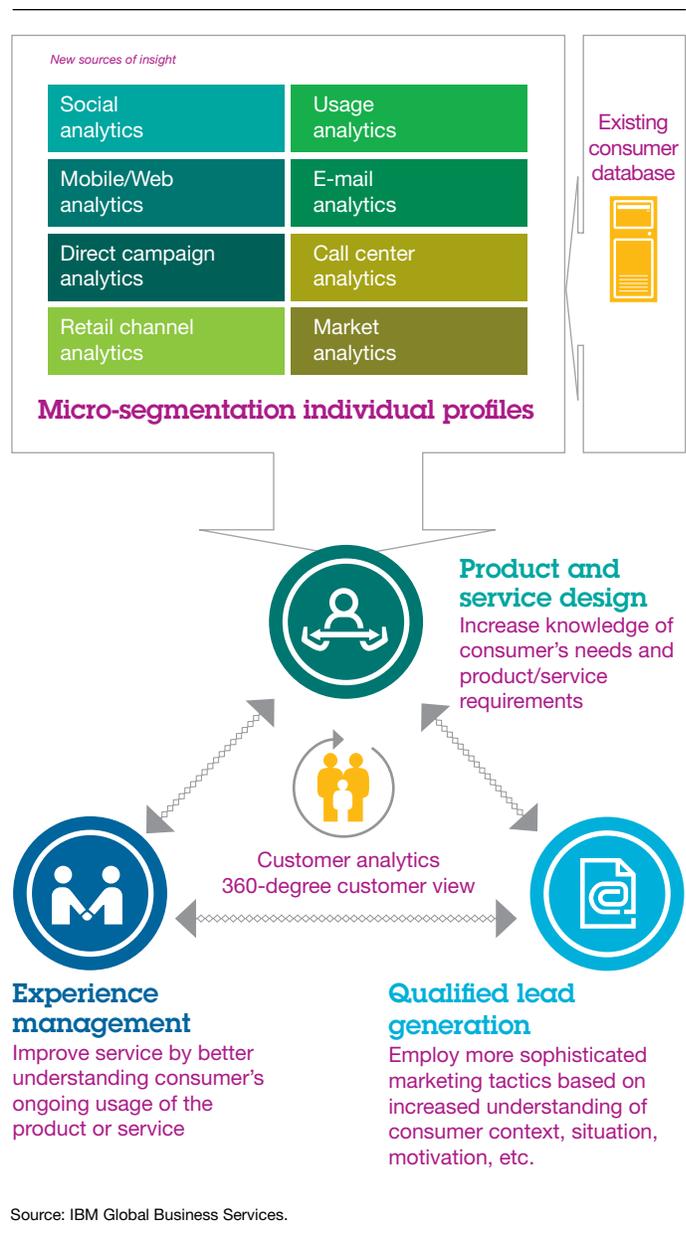
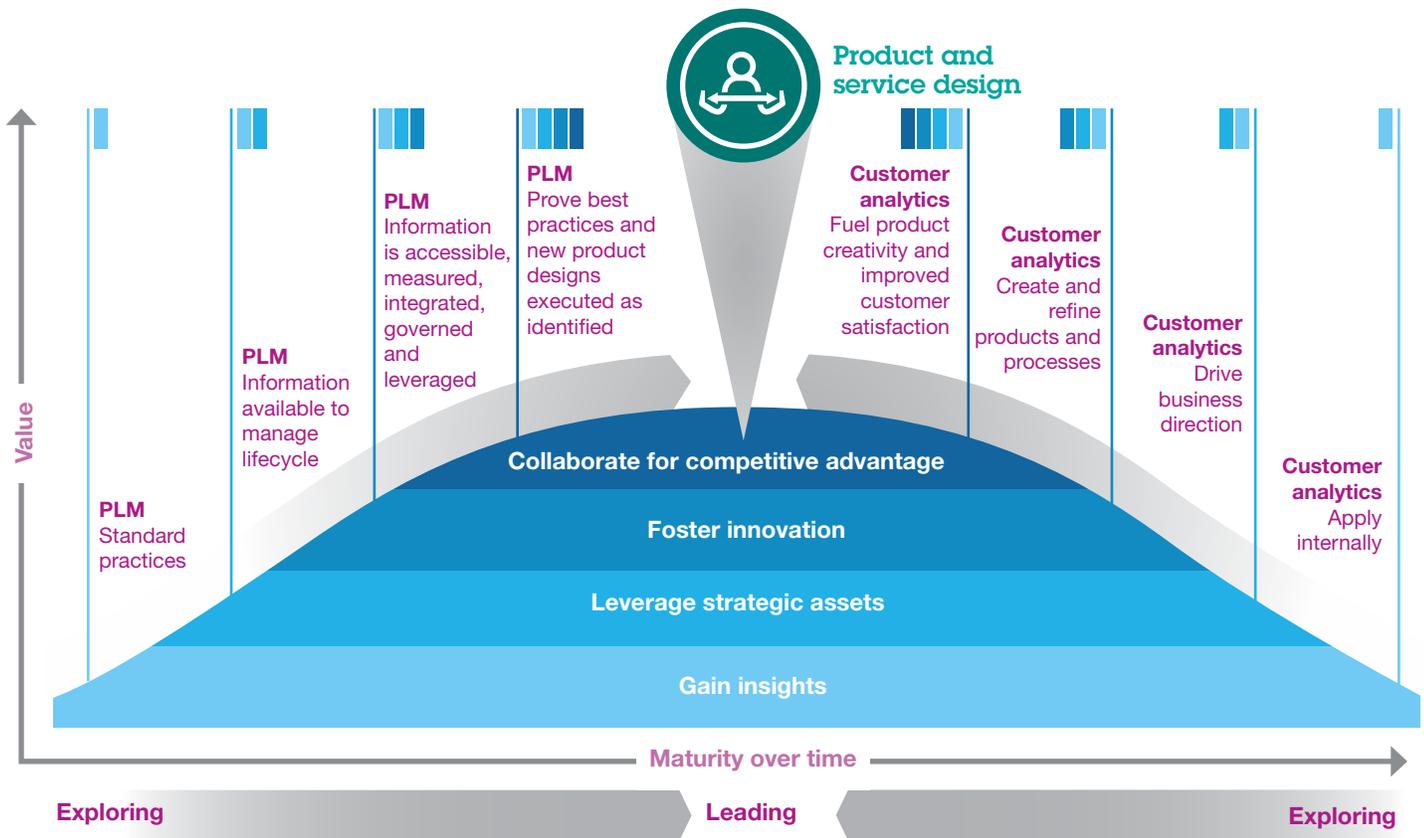


Figure 1: Analytics can help electronics companies develop a 360-degree view of the end user.

We suggest that electronics manufacturers develop their PLM and customer analytics capabilities simultaneously (see Figure 2). Insights derived through customer analytics can be fed into the PLM lifecycle, transforming how products and services are created and managed. Mature analytics capabilities can lead to the creation and refinement of relevant and timely products and processes and, ultimately, improved customer satisfaction.

As an example, an electronics company could utilize analytic tools to improve the product design of one of their refrigerator models. First, to find out what consumers think about the refrigerator, the company could use analytics software to perform “hot-topic mining,” searching for key words associated with the model in online consumer posts. If the company found “noise” to be a hot topic, it might dig further for input specific to noise.



Source: IBM Global Business Services.

Figure 2: Best-in-class product and service design can result when PLM and analytics capabilities are developed simultaneously.

If analytics revealed that a large majority of customers thought the refrigerator was too noisy, the company could then determine how to reduce noise while maintaining acceptable refrigeration standards. Analytic tools could combine data on customer attitudes about both noise and refrigeration to generate suggestions for R&D to improve the compression engine.

Qualified lead generation

As consumers increasingly rely on digital channels to make purchasing decisions, traditional marketing techniques have less influence on their choices. For years, the common theory regarding consumer decision making was based on the “purchasing funnel” model. This model purports, essentially, that consumers begin looking at a large number of potential brands and methodically winnow their choices, influenced by marketing materials, until they make a decision.⁴

New research reveals that today’s informed, empowered consumers are not traveling the funnel route. Rather than systematically narrowing their choices, consumers add and subtract brands from a group under consideration during an extended evaluation phase. In addition, the process is not linear; rather, it’s more of a circular process, and the relationship does not end at purchase. Consumers often enter into an open-ended relationship with a brand, sharing their brand experiences with others via social media and other online vehicles.⁵ In this new world, marketing strategies aimed at post-purchase consumers can be as important as those designed to build awareness and drive purchase.

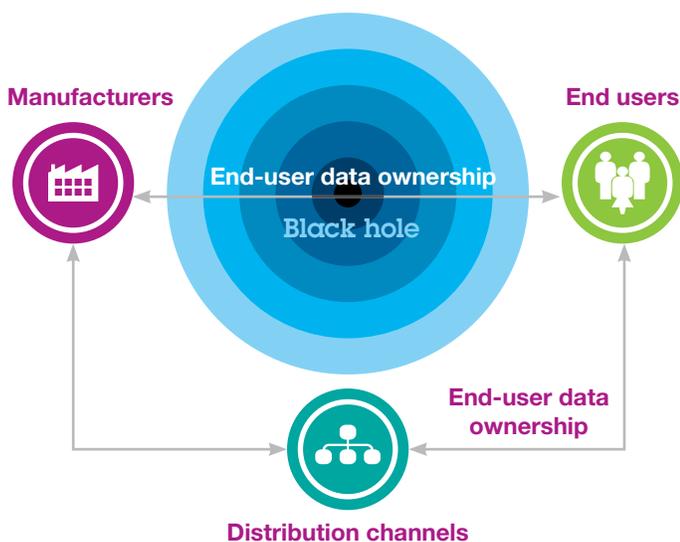
Analytic tools can help create more complete profiles by micro-segmenting consumers into action clusters.

Customer analytics can help organizations develop sophisticated marketing programs targeted toward today’s buyers. Specifically, analytic tools can use customer and purchase data to “micro-segment” customers into “action clusters,” creating more complete profiles. Micro-segmentation and action clusters offer insights on how certain groups of consumers behave in various purchasing situations, allowing for unique marketing strategies for the various clusters. Using this information, marketing teams can create more personalized and relevant offerings.

For example, consider an electronics store located in a rural area seeking to determine which promotion packages would most interest its customers. Using analytics, the store could find out which product combinations consumers in similar areas tended to buy and base its promotions on this information. As another example, a manufacturer of connected televisions could use analytics to provide program recommendations for customers based on their watching history.

Experience management

Most electronics manufacturers face a challenge in getting “closer” to their end users, primarily because they do not interface directly with them. The manufacturer’s products are funneled through its various distribution channels, which sell to the end user. This creates a “black hole” where information about the customer is lost due to a disconnect between the manufacturer and the end user (see Figure 3).



Source: IBM Global Business Services.

Figure 3: Most manufacturers have limited information about the end user.

Many PC and mobile phone manufacturers have successfully reached beyond the black hole and made direct connections with their customers by offering value-added online services. They have a history of requiring users to set up accounts online to purchase products and receive software updates. These companies have been leaders in selling directly online and in gathering data on usage activity with which to optimize the customer experience.

Service offerings provide opportunities to interact, partner and gather additional information to further enhance future experiences. Data gathered during the user experience can be utilized to drive service promotions, product usage improvements, service delivery actions and product maintenance predictions.

Consider this example of how analytics could improve the service experience associated with a refrigerator: Using the maintenance history of a refrigerator and repair records of peer refrigerators of the same type or component, an analytical engine could generate a probability curve indicating the relationship between usage duration and probability of failure occurrence. If the refrigerator manufacturer is aware that the compressor for a customer is likely to fail in a month, it can proactively address the issue before it becomes an issue – perhaps when there is service technician in the neighborhood addressing another customer’s issue.

Services offerings provide opportunities to interact with consumers, as well as collect additional user information.

Analytics in action: Using existing customer purchasing information to better promote, sell products

By consolidating and analyzing customer data, an electronics manufacturer in Asia gains a whole new view of its customers – and the ability to create and market new products based on customers' actual preferences and buying behavior. The company is using a specialized analytics solution to analyze customer buying history and preferences and then using the insights to target four key customer segments with personalized marketing strategies to increase sales.

Background

A global leader in home appliances and consumer electronics, the company has a vast product portfolio and complex sales and distribution networks that cover both online and offline channels. The company stored customer data in various systems and multiple formats, which made it difficult to use the data to guide sales and marketing, product development and after-sale services. The company needed a way to extract useful information from customer data to gain insight into customer behavior and preferences so that it could develop more personalized marketing efforts and customer services to increase sales revenue.

The solution

Customer data is only as valuable as a company's ability to use it to drive sales. By consolidating vast amounts of customer purchase information into a single repository and applying advanced algorithms to analyze the data, this

electronics manufacturer can now gain greater insight into customer buying behaviors. It can also optimize both its regional and channel distribution and sales strategies by understanding which, where and how products sell best. The company can also use this detailed customer analysis to create and target specific customer segments with more effective, personalized marketing campaigns.

For example, to promote the launch of a high-end dryer, the company created a targeted marketing strategy that focuses on product quality to reach its highest-value customers, while promoting a rebate offer to more frequent but less high-value customers. This 360-degree view into customer buying patterns helps the company continually evolve its product development, marketing, sales and service strategies.

Real business results

As a result of its analytics solution, the company expects to:

- Boost sales revenue by approximately US\$15 million per year by enabling personalized marketing based on customer segmentation and analysis of customer purchases
 - Increase sales volume and lower sales costs by improving sales forecast accuracy
 - Facilitate product innovation and new product sales by analyzing key selling features of existing products before new product development.
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Tap into the power of analytics

As electronics manufacturers reflect on how they can win market share in an extremely competitive market, they need to realize the power of customer analytics to engage in meaningful dialogue with their end-users to drive product innovation, generate qualified leads and deliver a better customer experience. As industry leaders envision how consumer insights could help them differentiate their organizations, we suggest they consider some key questions:

- What if your organization knew which products and/or product features customers liked and disliked, as well as the rationale behind their decisions?
- What if end users could directly offer new product ideas?
- What if you knew the specific attributes of the consumers who typically purchased your products and their preferred buying channels?
- What if you knew when your product was going to fail in the field?
- What if you knew in real time how consumers were reacting to a new product launch?
- What enhanced service might you offer end users if you could communicate with them directly?
- What if you knew why consumers used your products? Or what if you knew why they preferred the competition or replaced your product with a competitor's product?
- What if you knew when a consumer was considering a new product or service?
- What if you knew how consumers used your products?
- What if you knew not only consumers' basic needs, but also the needs that would attract them to leave a competitor's product for yours?

Conclusion

To succeed in the connected world, electronics manufacturers need to get closer to consumers. We recommend they embrace the power of analytics to turn available consumer data into valuable insights – and integrate these insights into their strategies and business processes.

Specifically, we believe customer analytics can help electronics companies drive improvements in product and service design, generate more qualified leads through sophisticated marketing programs and further enhance the consumer experience. By tapping into the power of customer analytics, electronics companies will be well positioned to create the products and services consumers demand.

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