Gaining an Edge from the Circle: Growth, Innovation and Customer Value through the Circular Economy

by Peter Lacy
The circular economy may be the biggest revolution in the global economy in 250 years. It represents a radical departure from the old linear, “take, make, waste” production and consumption models and instead decouples growth from the use of natural resources and environmental impact. Better yet, it’s prompting companies to rethink their customer relationships—creating unassailable competitive advantage.

For decades supply chains and products flowed in one direction: from manufacturing to consumption to landfill. In a world with limitless resources, this model worked and served as the foundation for business growth. But in a world with increasingly constrained resources and a host of environmental challenges, supply chains need to work in two directions: to take back valuable resources to be used in production loops—a circular approach instead of a linear one.

It’s the point of the circular economy: to reduce dependencies on increasingly scarce natural resources, and allow companies to generate revenue from “waste.” Waste here is not rubbish, either figuratively or literally. Waste means lost economic and business opportunity: lost resources, underused assets. Just how much potential revenue? According to Accenture research, the circular economy will be worth $4.5 trillion in the next 15 years.

On the supply side, resource supply disruptions, coupled with increasingly volatile commodity prices, make the move to circular crucial for competitiveness in the 21st century. Consider fashion retailer H&M. In 2011, the company saw first-quarter net profits drop 30 percent largely because of soaring cotton prices. Between 2004 and 2008, rising prices of steel, plastics, copper and aluminum added approximately $1.35 billion to the costs of consumer products giant, Electrolux, forcing increased cost-cutting.

Yet ultimately, adopting circular economy strategies isn’t about scarcity. It’s about abundance. Abundance in terms of driving the utmost from resources and assets. And abundance in terms of creating products and services that are much more innovative, and responsive to the most important point in the circle: the customer.

Beds to ball gowns, do you know what your customers really want?

Circular economy approaches upend existing notions of competitiveness. Consider tire manufacturer Michelin. The company now offers its products as a service. A proposition that fundamentally questions the value and desirability of ownership. Then again, customers have leased cars for decades. Why not the car parts? For that matter, do most women care if the gown hanging in their closet will be there after the next big black-tie party? Some will. But with the right incentives—getting the right product at the right price at the right time without the hassle of ownership—like those offered by online co-sharing fashion company, Rent the Runway, many will not. What’s more, keeping a product productive by extending its working life adds as much as 20 to 30 times the value than recycling does.

How important is ownership to car drivers? At any given point in time, 7 trillion dollars’ worth of cars stand unused around the
world. It’s a phenomenon that fuels car2go, a company that provides instant access to transportation through an app that then identifies available vehicles. Rather than paying by the distance travelled, users pay by the time used, with no additional charges for deposits, parking or fuel costs, and no recurring annual fees.

Circular economy business models are an opportunity for companies to fundamentally reexamine what they offer to new and existing customers, questioning long-held attitudes about what value means. Millennials (consumers between 18 and 34) in particular welcome circular economy practices, and more than half reported being open to sharing models in particular.

Circular models, over traditional ones, offer unprecedented transparency into customer preferences. How? By extending beyond traditional value chain areas (design, production and sales) into new spaces, becoming much more involved in how customers actually use what's on offer.

Consider how much information can be gleaned when a customer buys tire performance versus the tires themselves. In the linear model, all knowledge of customer habits and preferences walks out the door when the purchase is made. In the circular model, looking at Michelin as an example, sensors in the tires can be analyzed to understand performance, wear and tear and maintenance issues. Information flows again and again back to where the most can be made of it. It’s a shift in the usual company-to-customer dynamic that brings the end consumer into much closer contact, and allows companies to discover exactly what buyers care about and how exactly they’re using products and services.

Powering the circular economy: Just as the steam engine powered the Industrial Revolution, digital is powering the circular revolution.

Across every link of the value chain from the backend (providing the technical platforms that allow data gathering and sharing) to the front end (payment, customer service, etc.), Cloud mobile, social, machine-to-machine communication and big data analytics allow for new levels of automation and coordination.

The biggest change wrought moving from linear to circular is the management of resources. Tires leaving a retail store roll out into oblivion. Tires paid for based on performance need to be monitored, replaced and brought into the market in a much more dynamic fashion. Rent the Runway moves more than 65,000 dresses and 25,000 pieces of jewelry between its 5 million (and growing) members across the entire United States. The company uses big data analytics to assess customer behavior and reviews to forecast demand. What would, just a few years ago, have been a practical nightmare is now a thriving business. Clearly, digital is a game changer when it comes to making circular economy business models a reality. And those companies that don’t get on board risk losing a significant competitive advantage.

Squaring the circle

Moving from linear to circular is daunting. Especially when it comes to scaling efforts. Here are a few of the first steps to take on the journey to boosting competitiveness through circular practices.
Define your circular model
There are a number of ways to cash in on the circular economy from models that entail sharing resources, to extending products into services, creating products from fully recyclable materials, lengthening the life of a product or looping materials back into the production cycle (Figure 1).
Which one is best is determined by looking at the current product portfolio, and more importantly, the customer base. What do clients really value? What can they do without? How much will they be willing to pay if a product offer changes through co-ownership or sharing? Or if products are 100 percent recyclable? To what extent does the approach require take-back of products? What are the opportunities for enriching the customer experience in that process?

Put in place new capabilities
Gaining the perfect set-up to initiate new business models will take time. Companies should focus on growing or acquiring new capabilities to support the circular transformation. car2go was launched in 2008 as a separate business unit of Daimler, the German automotive manufacturer. Avis purchased Zipcar®, another ridesharing service, becoming the majority owner of the company in 2013. To realize its own circular ambitions of getting metals back into the production cycle, French automaker Renault built its own network that includes INDRA, a pioneer in automotive recycling; and Suez Environment/SITA, a specialist in global waste management and recycling.9
Finding the right business model. Using analytics to drive insight. Gaining new capabilities. Each makes companies who adopt circularity much more agile, and more aligned with consumers who are increasingly demanding companies do what's right for the planet.

Analytical edge
The circular economy requires companies to understand precisely the full lifecycle and flow of resources all the way through to customer use and disposal. As a knock-on effect of this lengthened view of the extended value chain, companies derive competitive advantage as they gain a much clearer view of the wants and desires of customers.
And that requires monitoring and analyzing data in entirely new ways. Big data analytics can help companies better tailor offerings to how products are being used—bundling a physical product with relevant add-on services, for example. So a car sharing model may also want to add insurance to the consumer. Which, interestingly, opens up new revenue streams in entirely new industries.

Edge of the circle
Adopting circular practices is about gaining competitive advantage by doing away with the broad concept of waste. Yes. But as important—or perhaps more—it's about gaining unprecedented insight into consumers by adopting business models engaged in every link of the value chain. Along the way, gaining an edge from the circle means getting much more agile, adaptive and aligned to customer needs.
Business Models

- **Circular Supply Chain**
  Provide renewable energy, bio based or fully recyclable input material to replace single-lifecycle inputs

- **Recovery & Recycling**
  Recover useful resources/energy out of disposed products or by-products

- **Product Life Extension**
  Extend working lifecycle of products and components by repairing, upgrading and reselling

- **Sharing Platform**
  Enable increased utilization rate of products by making possible shared use/access/ownership

- **Product as a Service**
  Offer product access and retain ownership to internalize benefits of circular resource productivity
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7 Global Consumer Pulse Survey, Accenture, 2014
9 Accenture interview with Renault, October 12, 2013.