



Packaged home entertainment products such as DVDs, CDs and video games have a set of supply chain challenges unlike those in any other retail merchandize category. It may surprise some to think of these products in terms of Fast Moving Consumer Goods (FMCG). After all, we are more comfortable with the notion of products such as toothpaste or shampoo as FMCGs: they are small, cheap and sell frequently in large quantities. Could the DVD release of a blockbuster film fit in this same category?

The answer is yes. For CDs, DVDs and video games, more than half of the sales of a product typically occur in the first few weeks after launch. Take *Avatar*, Hollywood's epic science fiction film, with its production budget of half a billion dollars. In April this year, the movie was released on DVD across Europe. The brutal reality is that the handful of weeks immediately after launch will almost certainly have accounted for 60–80% of lifetime sales. DVDs may not be as disposable as toothpaste or shampoo, but they are certainly fast-moving.

Ensuring that products are always on the shelf, during the first few weeks of the product launch, is therefore critical to maximizing the lifetime revenue for each title. Out-of-stock scenarios for CDs, DVDs and video games will typically result in a lost sale for a retailer.

As Sébastien Van Vyve, Director of Entertainment Industry Services at B2Boost — a company that specializes in providing supply chain services to the European video games and entertainment industry — points out, this acceleration and compression of product lifecycles is so new that retailers have a hard time understanding and predicting which products will fly off the shelves and which will stay stuck on those shelves without selling. With 8 out of 10 individual sales crammed into the space of a few weeks, the pressures on the supply chain are acute, and one result is that supply chain professionals are looking at some surprising new solutions to address the challenges they face.

Innovative ideas are appealing because the stakes are getting higher. Computer game

publishers, arguably, have more at stake with new product introductions than movie studios. Unlike movies, which enjoy multiple revenue streams during their lifecycle, from box office sales and licensing royalties, game publishers must recover product development investments primarily via online and retail sales. Multiple SKUs often exist for each new game title to support each of the three console platforms — Nintendo Wii, Sony PlayStation and Microsoft Xbox.

As Sébastien Van Vyve, of B2Boost, notes: “These days, computer games typically cost several tens of millions of Euros to develop, while their production requires the payment of royalties to third party providers. The challenge is to find the right balance between producing large quantities to cope with demand and not producing too much — and thereby incurring unnecessary costs, including royalties to platform manufacturers.”

A recent high profile launch was *The Beatles: Rock Band* music video game, which lets you simulate the playing of rock music with your own controllers. Released

internationally, in September 2009, on games platforms such as the Sony PlayStation 3, Nintendo Wii and Microsoft Xbox 360, the game very quickly racked up sales in many thousands. For supply chain planners, of course, the most obvious question was whether there would be sufficient inventory of the game sets to meet consumer demand? After all, offline and online retailers had been regularly hanging up the 'temporarily unavailable' signs above earlier games such as *Rock Band 2* and *Guitar*. When it came to the launch of *The Beatles: Rock Band*, my own informal survey of major retailers on the day of launch indicated that one or two were struggling to cope with demand. Some were limiting orders to one per customer, for example, while others had availability of the game for some platforms, but not for others.

Why did the supply chain planning go awry in some cases? Forecasting demand for CDs, DVDs and video games is challenging because there is no historical sales pattern on which to base your plan. As the majority of the lifetime sales of a game occur in the first couple of months, right after launch, there is minimal room for error. If the publisher relies on a bad forecast or experiences unexpected distribution challenges, the result could be significant out-of-stocks, making a detrimental impact on profitability and sales.

Historically, supply chain planners have done their best to 'guesstimate' Day 1 sales before the launch. Once the launch has happened, of course, planning is simplified — yesterday's sales transactions can be analysed to assess stock positions and calculate replenishment quantities. The trouble is that this traditional rear-view mirror approach is no longer good enough when it comes to a big-bang launch, short lifecycle and then an abrupt decay in volumes of sales. The potentially good news is that a cluster of Web 2.0 and B2C e-commerce technologies are gaining ground and helping to simplify the demand forecasting challenge for new product launches. Ever wondered, for example, why major sites such as Amazon.com encourage you to pre-order products before launch or compile wish lists of products? One reason is that such pre-order functionality enables planners to assess consumer demand weeks in advance of the actual product launch. Technologies such as online wish lists, shopping lists, gift registries and pre-order options entice consumers to tell retailers which



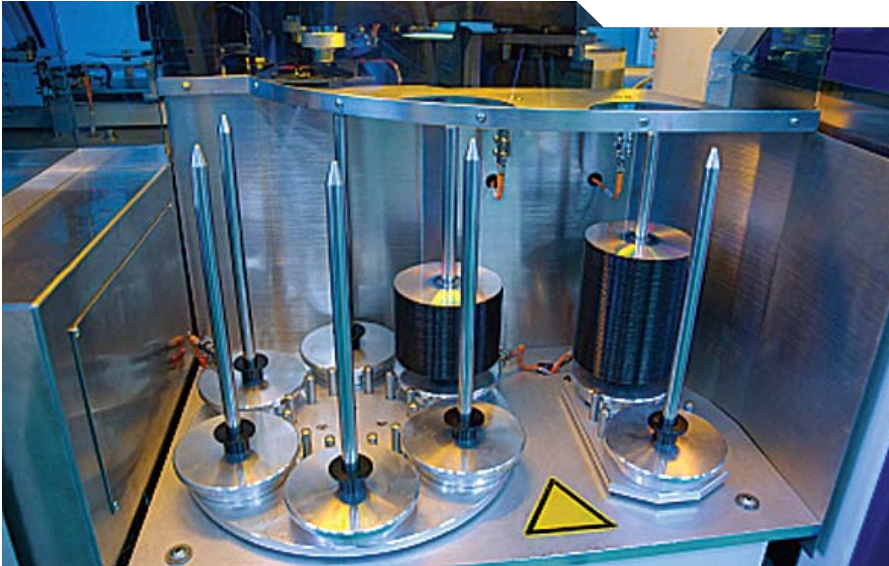
Companies which can leverage the power of forward-looking demand data will have a distinct competitive advantage in the marketplace.

products they plan to buy in advance of the purchase. Of course, only a subset of the consumer population will go to the trouble of pre-ordering the DVD in advance, but they will represent a large enough group to provide meaningful insights that can be extrapolated into broader sales forecasts.

Search engines can provide insights into future purchasing behaviours as well. Google is already moving towards this type of model with its Insights product, which allows you to compare search volume patterns across specific regions, categories, timeframes and properties. For example, you could enquire how many people have searched on the term 'Avatar,' in Germany, during the past 7 days. By comparing historical search patterns, you could have an indication of whether demand is rising or declining for Avatar within that geographic region. Such insights could be cooked into demand forecasting models along with other inputs to assess what stock levels should be in retail locations. Earlier this year, Google demonstrated the effectiveness of using search engine data to analyse behaviour patterns with its Flu Trends service. Google found a high correlation between its flu models and the actual statistics compiled by the European Influenza Surveillance Scheme (EISS) with one key difference — Google's data is several days, if not weeks, ahead of the public health authorities. Why? Google is analysing search patterns in real-time, while the public agencies are analysing historical data from clinical providers.

So what are the broad characteristics of what we have referred to as the new FMCG categories like DVDs and computer games, and what are the differences compared with soap and shampoo? First, are the cyclical buying patterns. Typically in Europe, the highest sales of entertainment products occur in the fourth quarter of the year, leading up to the Christmas holiday season. In contrast, sales are weakest in early summer. Video game sales are also highly influenced by the product lifecycles of these hardware platforms, and the anticipated introduction of a new console platform by Nintendo, Microsoft or Sony can serve to dampen demand prior to launch.

A second characteristic is the existence of multiple SKUs. In almost every case, there are several different versions of an entertainment product, which makes the



task of inventory management and demand forecasting significantly more difficult. *The Beatles: Rock Band* was available for each of the primary consoles — Nintendo Wii, Sony PlayStation and Microsoft Xbox. How many would sell for each platform? Furthermore, the game was packaged into three SKUs: one containing only the software, a second with the entire set including the specialized instruments, and a third special value bundle with generic instruments.

A third challenge is one certainly not faced by traditional FMCG products like toothpaste — digital substitution. Video games have been less impacted by online downloads than related categories such as DVDs and CDs. However, the popularity of online games is growing steadily with increased broadband connectivity and 3G mobile devices. Game publishers must try to forecast how many of each title will be sold digitally online versus physically in stores.

Companies active in the computer games and entertainment supply chain are taking new approaches to addressing these challenges. B2Boost, for example, helps companies to optimize collaboration with trading partners by automating their data exchanges 'as a service.' B2Boost provides transaction services to vendors such as Electronic Arts, Namco Bandai, Ubisoft, Bigben Interactive, Codemasters and Sega, as well as more than 150 major retail chains across Europe, including Amazon, Carrefour and MediaMarkt. The company recently announced a five-year agreement to adopt GXS Managed Services, a

comprehensive portfolio of outsourced B2B e-commerce services. The partnership with GXS aims to let games suppliers and retailers across Europe collaborate more easily and efficiently, thus improving product availability.

Asked to predict likely trends in this sector, Sébastien Van Vyve says: "The strong trend is definitely towards a closer co-operation between retailers and their suppliers. The key objectives are to improve the information flows to the retailer about new releases, advertising campaigns and support. Retailers use improved tools to report and document to suppliers actual sell-through and field inventory situations. In return, suppliers are able to better predict replenishment, inventory adjustment requirements, advertising, promotional and pricing adjustments."

As we have seen, emerging technologies such as online pre-order and wish lists can offer powerful insights into future buying behaviours. Arguably, packaged home entertainment companies have the most to gain from capitalizing on the demand signals that these Web 2.0 technologies can provide. The conundrum today is that most supply chain leaders view such Web 2.0 technologies as the domain of consumer-facing marketing people. Even those supply chain planners, who wish to embrace these new techniques, confront the fact that the data exists, primarily, in unstructured and qualitative formats as the technologies to mine data from prediction markets, wish lists, search engines and pre-order sites are relatively immature.

Furthermore, no standards exist for sharing data from online B2C e-commerce websites with upstream suppliers. And even if standards were in place, the level of collaboration and trust necessary to exploit the demand data for competitive advantage does not always exist between many retailers and suppliers. Despite the advantages that can be gained by analysing web-based demand signals, Internet channels only represent a minority of the sales volume for CDs, DVDs and video games.

Consequently, the Internet-based demand signals described above are not a substitute for POS transactions. As long as the majority of sales volume for retail purchases occurs in physical stores, POS will be the key input to forecasting models. However, supply chain planners — seeking an extra edge in forecasting models — need to begin to monitor these new demand signals as well. The Internet data should be used to augment and extend demand forecasts based upon downstream data from the physical supply chain. In the next 5 years, packaged home entertainment companies, which can leverage the power of forward-looking demand data from prediction markets, wish lists, search engines and pre-order sites, will have a distinct competitive advantage in the marketplace. •



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