The Internet, the missing link between supply and demand

Expansión
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The net allows any consumer to buy a product made-to-measure, something that also benefits companies which are able to reduce the risk of accumulating too much stock.

Adapting production to demand has been a constant challenge for companies in all industrial sectors. Only a few years ago the idea sounded utopian but thanks to new technologies that can collect information in the shops themselves it is becoming a reality. Barcodes that register items sold and their characteristics, PSTs (point of sale terminals) from where details are sent to headquarters (via EDI or intranet) are some of the possibilities. This information collected at the point of sale, together with design technologies by computer, flexible manufacturing and monitoring of the logistic chain, is allowing many companies to adapt their production to their clients’ demand.

Zara, the fashion chain owned by the Inditex group, is an excellent example of how information collected at the point of sale should be used to make up-to-the-minute responses to the needs of a client. Just before the start of the season, Zara sends fifteen percent of its collection to its shops. Subsequently, the company produces the most successful lines as well as new products inspired by the information sent from the shops on a daily basis. Through this they are able to reduce their stock considerably and, in consequence, the articles that will be sold at the sales. Mass customisation goes even further, a model that consists in individualising goods and services to satisfy the specific needs of a specific customer at a reasonable price. Electronic commerce is the ideal compliment to this trend, given that it allows any customer to order a made to measure computer with the technical requisites that interest him, or to buy a CD with a list of the songs that he wants. And all of this with some marginal costs for the company, which in the past would have been unacceptable, as an experienced salesman would have been needed to make direct contact with the customer.

The case of Dell Computer constitutes one of the most obvious success stories of mass customisation. Through a personalised web headquarters, the manufacturer of computers allows the customer to choose from among hundreds of components to configure his own equipment. This creates an illusion of control, a concept that is used to express the feeling that the online buyer has greater control and greater precision in his decisions. The active participation of the customer brings an even greater level of satisfaction than it would if he bought the same computer in a high street shop. But mass customisation does not only benefit the customer. The manufacturer is able to achieve a high level of flexibility, a decrease in the risk of accumulating too much inventory and a competitive advantage in the market. With similar advantages for both parties in the chain, it seems logical that the concept of mass customisation is being
extended to all sectors. For example, there are a lot of automobile companies that are trying to adopt the manufacturing model "built to order" (BTO), convinced that the reduction in costs that it will bring will be huge. According to a report by Forrester, in Europe demand for made to measure cars is nearly nineteen percent of the total of automobiles sold, while in the United States it is situated around seven percent. Analysts of the car industry estimate that if the majority of cars were manufactured in response to a specific request by a customer, the industry could save up to seventy percent of the capital which is lost because of the obsolescence of parts in the face of the appearance of new models, because of changes in production processes, or parts that are being manufactured to satisfy future demand. The Japanese manufacturer Nissan estimates that it could save close to 3600 dollars per vehicle.

**Consolidation**
Small volumes, competitive costs, dispatches in short periods of time and more decentralised production are four fundamental aspects needed in order for this model to be consolidated. Even so, there are obstacles that mass customisation must face up to like mechanisms to absorb fluctuations in demand, operational changes to assure the required flexibility, shorter supply chains and the implementation of new information technologies. The relevance of the interaction between customer and manufacturer is becoming greater with each transaction, the Internet being one of the best guarantees of this. Because of all of this, mass customisation is intimately bound up with e-business and with the new possibilities connected with the New Economy.

**The Question**

"Is the market prepared for low demand manufacturing?"

**A long term bet**
**Federic Sabria, IESE Teacher**
The consumer will always be prepared to request products and services produced at low demand. The new technologies are an important element to provide support to this type of strategy but not the only one. For a company to be prepared for mass customisation it must understand well the variety that the market offers (materials, designs and colours) and the nature of the interface between the customer and the channel of distribution (Internet, telephone and actual shops). Furthermore, it must know the level of vertical integration (complete production, work with assemblers and the number of suppliers) being clear about the technology of the process and knowing at what moment in the chain low demand comes into play and how it agrees with predicted sales. Finally, it will have to know the architecture of the product. Mass customisation strategies will take some time to become widely used because there are too many managers who have a lot of knowledge but of very few areas of their business.

**Towards a complete transformation**
**Pedro A. Gómez, e-business manager, PwC**
The technical and technological challenge that low demand manufacturing means is immense. The synchronisation of all the productive factors, like the gathering,
transmission, storing and use of the millions of data generated will cause the complete transformation of many businesses. The capacity of a sector to manufacture at low demand depends on the conjunction of a series of factors like the level of disintegration that a product can have, the possibilities of modularising the productive processes and the degree of atomisation and dispersion of the demand. The level of integration of the value chain will also be important, along with the speed of the performance of the service. Supply has to be characterised by visibility in the value chain, by collaboration with suppliers and customers and by a notable speed of response to changes in demand. In many markets, supply still has a long way to go.