

The industry's players, engines and trends

David Ward*



The domestic appliance business is dominated by an array of giant corporations followed by a huge cluster of small to medium business entities. Names such as Whirlpool, Bosch-Siemens, Electrolux, General Electric and Matsushita generate an incredible turnover, taking up 41 per cent of the world market in 1999, worth an estimated US\$ 73 billion at manufacturer level and topping US\$ 100 billion at retail level. The latest part of our series investigates this and other aspects linked to the supply side of the industry.

In 2000, the worldwide major appliance business produced and shipped over 265 million domestic appliances. A projection of over 323 million units for 2006 does not seem too far-fetched, especially as volume has continued to grow for the last 10 years, with three to four per cent annual growth being the norm. In the United States, in spite of the World Trade Center incident, almost 73 million major appliances were shipped in 2001, with growth of nearly 1.5 per cent being predicted for 2002.

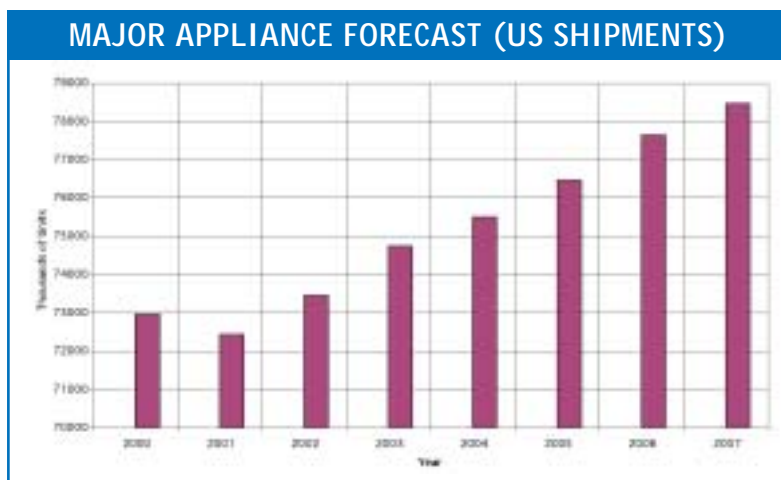
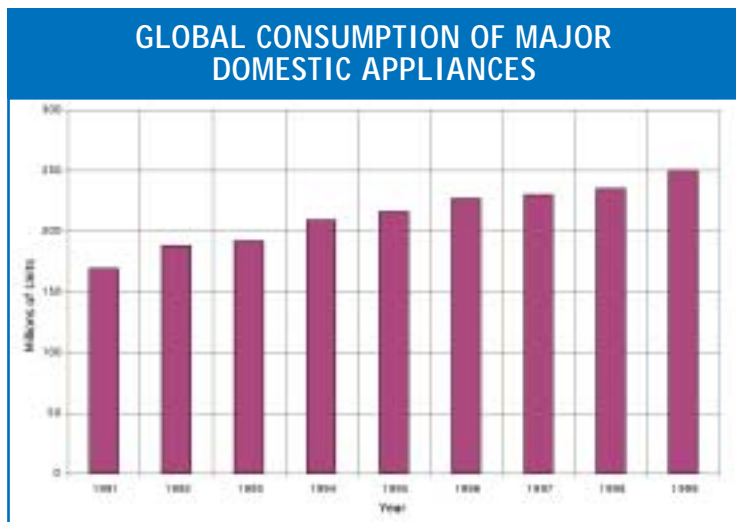
THE PLAYERS

Whirlpool, founded in 1910, continues to be the number one major global appliance maker, with almost 36 million units shipped in 2001 (14 per cent of the world market in 1999). That is 100,000 units per day: just over one appli-

ance per second. However, their competition is taking up the contest and almost all are expanding into new markets, especially Eastern Europe and East and Southeast Asia. Surprisingly, Japanese manufacturers such as Sharp and Panasonic, once feared, are being sidelined by Korean or Chinese corporations such as LG and Haier. Of equal importance is that

Asia is now the largest market for domestic appliances, with 81 million units shipped in 1999, 50 per cent of which were produced in China.

In Europe, there are few white goods brands with a strong market position in all of the main





countries: Germany, France, Italy and the United Kingdom. This market fragmentation is due mainly to different historical backgrounds behind the brands and divergent consumer tastes. The two strongest leaders are Whirlpool and AB Electrolux, with three very strong brands: Whirlpool - (Ignis, Whirlpool and Bauknecht); Electrolux - AEG, Zanussi and AB Electrolux. Bosch-Siemens, the third largest European manufacturer, is also very strong in Europe (especially Germany) but hampered by a weak position in the market. As was seen with the take-over of the Swedish white goods maker Asko by Italy's Antonio Merloni SpA (not to be confused with Merloni Elettrodomestici, owner of the Ariston, Indesit and Scholtes brands), it is very likely that consolidation will continue. More recently, the arrival of

**Whirlpool
fridge/freezer**

Haier in Italy (near the European headquarters of Whirlpool) and the buyout of the Brandt group by Elco (Israel) in France indicates that this is a real trend to watch. As an example of this activity Miele, a family-run business in Germany, and a very strong and prestigious brand for washers, would seem to be the next candidate for take-over. So, what are the driving forces behind all these trends?

ECONOMIC ENGINES (EEs)

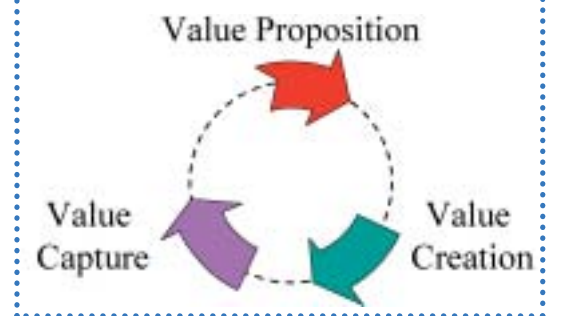
To provide a tentative answer to this question it is necessary to understand not only all the usual factors such as regional and local economies, demographics, socio-economic indicators, market segmentation, technology and innovation etc. but also the basics behind the appliance and associated industries, especially economic engines and strategies. There are many economic engines known or in use today, and as economics are evolutionary, economic engines are also volatile in nature and, hence, always under transformation. However, EEs do have a basic structure and, with a minimal amount of analysis, can be identified fairly easily. Moreover, identification of their underlying precepts can often help maintain or adapt an EE to suit prevailing conditions. Three major elements are central to engine operation: value proposition, value creation and value capture.

Value proposition

Value proposition essentially concerns customers, benefits and segments, depending on the objective or target. Some companies target a specific customer providing specific benefits and these two ingredients define a particular seg-



BASIC STRUCTURE OF AN ECONOMIC ENGINE



ment of the market: in the air-travel industry, a good example is a frequent-flyer card that provides a loyalty benefit for business people. Appliance manufacturers usually propose products to suit three broad categories of consumer: low, mid and high end. The benefits, and therefore value proposition, will depend on the category and this is often identifiable by the brand message. For example, a company that brands a product range 'easy-to-clean' is probably aiming at heavy users and not those who use the appliance only occasionally.

Value creation

Value creation may refer to skills, assets or business enablers. For example, a company like Disney can create customer knowledge - by using market research skills, for instance - to build a relationship with the consumer. In this case, Disney not only provides entertainment but also teaching and role modelling, as well as enabling other sidelines like soft toys to flourish. A company like Bosch-Siemens, meanwhile, will probably emphasise the technological content and robustness of the product, fairly typical of Germanic companies.

Value capture

Value capture is where the company makes profits and margins. Over the last 10 to 20 years there has been a gradual increase in the awareness of the importance of services. Not only do these generate better consumer knowledge and loyalty but also higher profit margins. In the appliance business, one of the major concerns of consumers is not just the reliability of the product but also the accessibility of post-sales services; providing an extended warranty programme can, therefore, often seal appliance purchase.

Undoubtedly, the whole purpose of assessing EEs is to understand vulnerabilities in advance, and develop a sustainability strategy as a consequence. This approach usually also provides a means of removing the natural brakes within the company, effectively accelerating the engine. The appliance industry uses several EEs; the following being the most common.

The Elite EE is by far the most sought-after in the appliance industry, because this is where high profits are made versus very low volumes. Here we have all the famous high-end

appliance brands such as Gaggenau in Europe, Kitchen Aid in United States and Brastemp in Latin America. These products are diverse in nature, not just in terms of price, but also as regards aesthetics, design and technology.

The Volume Addicts EE is the conventional approach, where price is dominant and driven by volume. Companies with this EE are particularly sensitive to manufacturing costs and are, thus, very high on the priority list.

More recently, we have seen the development of the Fish Hook EE, where the engine is based on renting an appliance or providing a service, thus guaranteeing customer loyalty for a set time. The consumer is thus caught 'on the hook': a good example is pay-per-view television. Another good example - in appliances - is being attempted in Italy by the

**IK 300
refrigeration
and freezer centre
by Gaggenau**





Merloni group. Instead of selling an appliance, they actually rent it to the consumer - thus introducing a pay-per-use concept. Not surprisingly, the same group is also moving into the power generation industry.

From a purely financial point of view, most appliance manufacturers strive for the Elite EE because this is usually where margins are found. The trick is to offer a high-end product but with low-end product costs. In theory, it is also possible to generate high profit margins for volume produced products, however, this is generally only feasible during an economic boom or during fad/fashion periods of the product cycle. The Fish Hook EE is an attempt to break this rule, and the objective is not only to boost revenues but also to ensure alternative returns during business troughs or stagnant periods.

So how could this be done with glass? An interesting proposition is to provide life-long glass warranty. That is, to pro-

vide a warranty on the glass that not only shows product reliability but also a company pledge towards the consumer. This warranty can be marketed as a feature and could be, for example, an extension of the standard product guarantee. Yet another example is to provide the consumer with a customer support service that looks after the consumer even after product expiry. This is particularly useful for retrieving and updating consumer research data as well as contacting consumers for circumstances such as the callback of defective products. For a glass manufacturer this might consist of introducing nothing more than a

Kitchen cabinets with glass doors



RETIREMENT, AGEING AND FERTILITY RATES

	FEMALES	MALES	AVERAGE RETIREMENT AGE	PER CENT OVER 65 (2000)	AVERAGE NO. OF CHILDREN PER WOMAN (1997)
FRANCE	82.7	74.8	59.2	16.1	1.7
GERMANY	80.5	74	60.5	16.5	1.3
ITALY	81.2	75	60.6	18.2	1.2
SPAIN	81.7	74	61.4	16.8	1.1
UK	80.1	74.7	62.7	15.7	1.7

simple bar code label on the back of the glass.

The EE of most large glass manufacturers is Volume Addict, including all the big glass companies such as *Schott, Marasco, Nippon, Pilkington* and so on. That is to say they provide glass at the best price-quality compromise. This model is also used for flat and architectural glass in the car industry. However, there are also examples of specialist glasses, but placing them in the elite EE model is debatable, at least in the eyes of the consumer. The most interesting, and probably most appetizing, is that both the markets of Russia and China seem very promising for the appliance business and, therefore, also for glass manufacturers.

THE EFFECT OF CURRENT MARKET CONDITIONS

The overall materials - metals, plastics and glass - outlook for appliances in 2002 is characterized by a search for stability. This is particularly true for the US market, where a slowdown in the economy has recently been witnessed. This fact makes it difficult to establish exactly what will happen to materials prices: it was just over a year ago that prices were heading upwards mainly due to the surge in energy costs; now they are decidedly in reverse. This volte-face is particularly true for steels and glass producers, as these materials rely on energy intensive manufacturing processes. Plastics suppliers have seen similar performances and difficulties - but for

other reasons, such as varying feedstock costs. The glass industry foresees no looming shortage of glass; on the other hand, it is highly unlikely that 2002 will be a surplus year. More recently and, in spite of a downturn in the American economy during 2001, the US appliance business has seen some optimism over recent months thanks to a rebound in sales. However, for the flat glass industry in general, a lot will also depend on the auto and architectural industries, so today's view is one of a search for stability and consolidation.

In European households, meanwhile, a whole series of scenarios are evolving not just in terms of demographics but also socio-economics. Similar complexities are evolving in Asia and the Americas, meaning that the concept of an 'average consumer' is becoming extremely more intricate and potentially obsolete. This is forcing specialization, further market segmentation and stretching businesses to cover not just more markets but also a more diversified consumer base. Demographic trends have always played an important role in establishing government planning and this habit has also been adopted by industry to help establish business strategies.

The total estimated population in Europe, as of 1 January 2000, was nearly 380 million, with annual growth of approximately one million. At the same time, the European population is ageing due to lower birth rates and longer mean life expectancy. Due to low fertility rates, the European household has

also been downsized, with an average of just 1.4 children per family (see table above).

A further interesting fact is that, as a mean, the largest European households are in Spain. This is not driven by the number of children, but by the fact that more than two generations live together. Equally worthy of note is that marriages are not only less durable - in 1998 there was an average 35 to 40 per cent divorce rate in Europe - but over half the working women (single or married) in Europe are doing full-time work (see table below).

Response to changing lifestyles

One of the implications of all these scenarios is that people have less time and energy to complete domestic chores. The outcome is that consumers are dedicating more attention to topics such as cleaning, cleanability, time management and provisioning. Ordering food over the internet or having home deliveries is now quite common. It is estimated that, by 2003, worldwide e-commerce revenues will reach over US\$ 600 billion: a sixth of this will go to retail sales in the United States alone, and another third in Europe. The Euro will also play its role, not just in price comparison, but also understanding where things are cheaper or more expensive to purchase and source.

The impact is that the consumer now has another way of provisioning, and consumer awareness of appliance performance is rising. Consumers - and white goods manufacturers - are developing the concept of both 'complete'

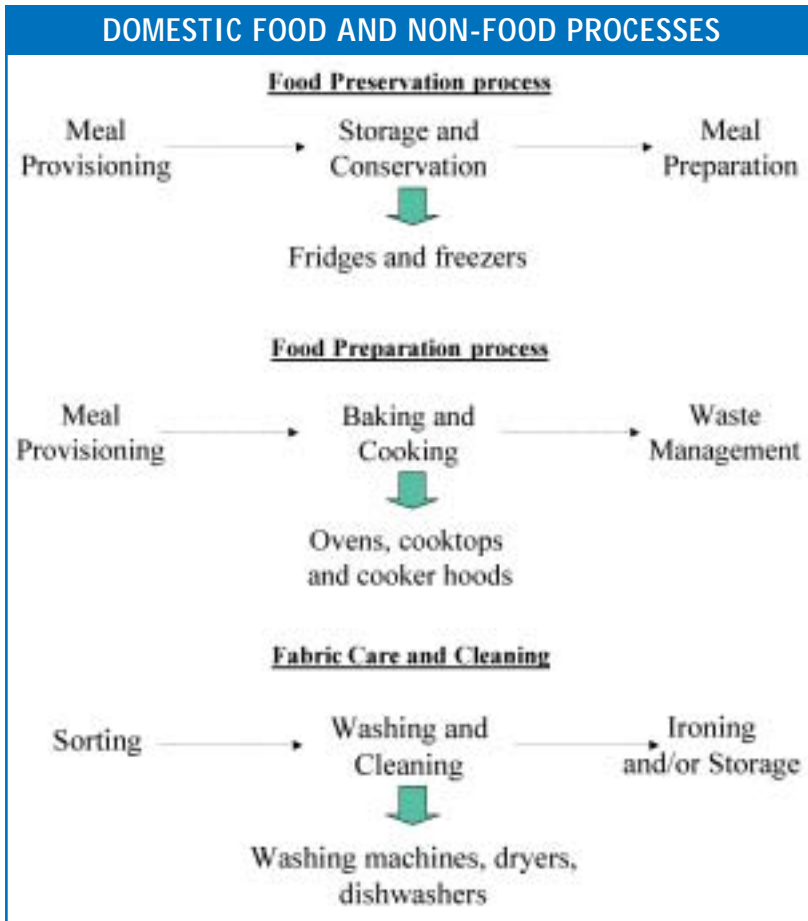
food preservation/preparation and fabric care/cleaning processes (facing page).

In other words, it is no longer a question of selling a fridge, oven or washer because many other boring, difficult and dangerous operations and devices are also part of the process. In fact, it is pointless providing a super fast washer if ironing will take you twice as long, or baking in 20 minutes if it takes an hour to buy and chop the ingredients. This is one reason why people are buying more convenience foods, small housewares, and looking for better waste disposal solutions. An example of this shift can be noticed in the launch of the Tribolite (2001) by Electrolux, the first automatic vacuum cleaner that does the cleaning for you. Clearly the purpose is to make life easier, and free up all the time the consumer usually needs to dedicate to boring and repetitive chores. It is also worth noting that, in the US alone, over 102 million small appliances or electric housewares such as coffeemakers, mixers, electric knives, deep fryers, trash compactors and so on were shipped and, in 2002, this is forecast to reach nearly 111 million units.

In 1987, over 50 per cent of EU 18 year-olds had already entered the workforce; by 1996, the average had increased to 20 years of age. The consequences are that housing is changing rapidly, further education is becoming more commonplace and households are being managed by several generations of adults. There are also very large differences in housing floor space: in Finland an average of over 140 square

HOUSEHOLD DENSITY AND WORKING RATIOS (1997-98 DATA)

	POP. PER SQ. KM	HOUSEHOLDS (000s)	POP. PER HOUSEHOLD	WORKING WOMEN PER CENT FULL TIME	WORKING WOMEN PER CENT PART-TIME
FRANCE	108	23,728	2.5	53.6	31.6
GERMANY	230	37,457	2.2	53.5	36.4
ITALY	191	20,360	2.8	37.3	14.3
SPAIN	78	12,112	3.3	35	17.2
UK	242	23,750	2.5	64.1	44.8



ing towards the area of new materials, in particular new easy-to-clean or non-stick coatings and better performing polymer-elastomers. In the first instance, coatings are not only being developed for metals such as new enamels, but also for glass. The dream is to provide a surface that cleans itself or, leastways, a surface that may be cleaned without the need for high temperature or aggressive detergents.

Generally speaking, this coatings technology is centred on organic materials and the most promising for glass seems to be SOL-GEL technology. This technology is essentially a process in which a material is grown on the surface to be protected through

a solvent and gel process. However, the outlook for this coating - and central issue as far as manufacturers are concerned - is essentially related to cost. Thus, the prospect for innovation in coatings for the flat glass industry seems promising, at least over the next three to five years and is, indeed, one of those areas of improvement often cited and targeted by appliance consumers in market research.

On the polymer-elastomers front new materials, or their combinations, mean that product aesthetics cannot only be positively impacted - as for the iMac computer - but also product development time can be reduced. This could lead to some interesting combinations of materials e.g. rubber, steel, aluminium glass and plastic in the near future. ■

meters is typical; in southern Europe, only half of that is usually available.

The family structure is also under transformation and is now more dynamic: singles in Germany account for 35 per cent and couples without children nearly 29 per cent; in Italy, on the other hand, the figure for singles is just 21 per cent. While there is a distinct fall in birth rate for certain countries, this is being offset by immigration. At the end of 1998, immigrants - both legal and illegal - in Italy accounted for nearly three per cent of the population - still relatively low, however, compared to the situation in other European states.

INNOVATING TO MEET EXPECTATION

So while the appliance industry is searching for increased revenues through product range extension and diversification, what will be the next waves of innovation to involve the glass and appliance industries? Indicators are point-

*WHIRLPOOL - UNITED KINGDOM