Hybrid products:

Successful Combinations or Misunderstood Novelties?

BY JOOST VAN KASTEREN

If a manufacturer wishes to combine two or more existing products into a new «hybrid» product, he needs to pay special attention to the way in which the product is to be marketed. The fact is that it may prove difficult to sell if consumers can’t readily recognise the new product combination. Failure to clearly define the hybrid’s position in the market and to immediately explain its purpose means a manufacturer may soon have a flop on his hands. This was the conclusion of research by Kaj Morel, psychologist at the Product Innovation and Management department of the Industrial Design subfaculty of Delft University of Technology. He was recently awarded a doctorate on the strength of his thesis on consumer response to products that are open to various interpretations. ‘Designers always play a major role in making hybrid products understandable.’

Hybrid products are enjoying increasing popularity among manufacturers. Look through any catalogue, and you will be sure to find quite curious combinations of functions, including a personal stereo/telescope, an electric hair drier/iron, and a cigarette lighter/ashtray. A recent example of a hybrid product is bmw’s C1, a vehicle that looks like a cross between a car and a motorcycle. Hybrids with a slightly longer history include the clock radio and the sofa bed. Hybrids being considered for introduction in the near future include the BMW C1, a vehicle that looks like a cross between a car and a motorcycle. BMW say that the C1 offers an entirely new form of mobility, but will consumers be able to tell it apart from either a car or a motorcycle?

A personal stereo/telescope combination by Sony. Although the two source products are easy to recognise, the hybrid remains a mysterious combination to many consumers. Photo’s: Sony Holland

Driving a car the size of a motorcycle. BMW say that the C1 offers an entirely new form of mobility, but will consumers be able to tell it apart from either a car or a motorcycle?
financial microwave, which is a microwave oven that doubles as a computer terminal for bank transactions, and the fridge with built-in display. Both are hybrid products that thank their existence to the current ICT boom. Miniaturisation and the development of common so-called platforms (processors and operating systems) have made it a lot easier to build extra functions into these appliances, or to watch a soccer match on your mobile phone.

Source product
According to Morel, the main characteristic of a hybrid product is that it combines two or more functions of existing products, the source products. These are actual, physical products, objects that you could drop on your foot. This does not mean that hybrid products do not exist in the service industry (one example is the combined life insurance and mortgage policy), but consumers regard services as different from physical products. Paradoxically, hybrid products are new since they did not exist previously, but they aren’t really new because they are a combination of two or more existing products.

It’s this «dual» nature that makes hybrid products especially attractive for manufacturers. Apparently, hybrids are a relatively simple way of marketing something new, much simpler anyway than coming up with a completely new product.

Morel: ‘There are various ways of marketing a hybrid product. The first option is to introduce it as a variant of an existing product, what we call a ‘me too’ product. In view of the relatively substantial investment involved in the development of a hybrid product, this is a highly unattractive option for manufacturers. After all, the products would not open up new markets (generating new profits), they would just replace an existing product. The second option is to market the hybrid product as a special variant of an existing category of products. This strategy is called subtyping or niche strategy. It is an attractive strategy, since it creates a new (sub)market. The risk involved is that consumers will start to buy the hybrid product instead of the original source products. If the source products are being manufactured by the same manufacturer, the result is cannibalism, with the manufacturer competing against his own products. Hence the strategy only has appeal if the manufacturer of the new hybrid product does not make the source products. Finally, a hybrid product can be marketed as a completely new product, a product that is clearly different from existing options, including the source products. This is the most attractive option for manufacturers, since they can target new markets without competing against themselves. It is the option every manufacturer would prefer, generating as it does extra turnover and highest profits.’

Glorified motorbike
Nevertheless, the «dual» nature of a hybrid product is also its weakness, as demonstrated by Morel in his thesis. It turns out that consumers are far from bowled over by what Morel calls ‘ambiguous’ products. These products are, by definition, difficult to classify, and as a
result leave the consumer confused.

Morel: ‘People don’t just look, they also classify the things they see into recognisable categories or concepts. You have to do this because if you thought that everything you see is unique, life would be pretty complicated. We have to classify our sensory perceptions simply to survive. This all happens very fast, and for the greater part without our being conscious of the process. For example, if you walk down your own street, you will notice only the things that are out of place. You do see all the other things such as houses, trees, and cars, but they are all immediately classified under «the usual things in my street».’

Very little is known about the way in which we classify ambiguous products into categories, according to Morel. This makes it very difficult for manufacturers to correctly position their hybrid product in the market. Morel: ‘To create the best marketing mix and to clearly demonstrate a product’s advantages, manufacturers prefer to know in advance how consumers will classify the product. If the marketing and consumer information fails to match the way in which consumers interpret the product, you’re not only wasting a lot of money on poorly targeted marketing, you’re also running the risk of the product becoming a flop.’

Basically, this applies to all new products. Hybrid products run the additional risk of being classified together with one of the source products. The German C1 for example, is being introduced by BMW as a ‘new form of mobility’, i.e. a new product that combines the advantages of the car (protection from the weather and other road users) with those of the motorcycle (easy to park, slips through traffic jams).

The entire strategy collapses if motorists see the C1 as a vehicle for softies, and motorcyclists see it as a glorified motorbike, with all its drawbacks. It says a lot that, as an essential part of the marketing strategy for launching the vehicle in Holland, BMW are trying to get permission for the C1 to be driven without a helmet. If the product were to be viewed as a glorified motorbike, it would lose much of its attraction in the eyes of a large group of potential customers.

**Naive theories**

To find out how people handle the idea of hybrid products, Morel first had to find out how people classify objects. Roughly speaking, the field is dominated by two theories. One is that we classify objects in a certain category based on similar properties. The more properties an object shares with the characteristic properties of a certain category, the better the chances are that it will fit into that category. An object belongs to the bicycle category if it satisfies the minimum properties required of that category, such as the presence of wheels, pedals, and a saddle.

The other theory assumes that objects are not classified according to their properties alone, but based on the combined knowledge about the object that people have stored in their memory, in so-called naive theories, which include personal experience, exceptions, and relationships with other objects. When people are confronted with an object, not only do they look at its
Basically what it boils down to is that objects have certain essential characteristics, basic properties that are stored in miniature theories, which make the objects belong to certain categories. Most of these essential characteristics of a product are connected with its function, as Morel discovered in an experiment in which subjects were shown images of various different objects and asked to think aloud while they classified them. The object’s appearance and use also turned out to play roles in the classification process, although the object’s function clearly was the deciding factor.

Morel: ‘A hybrid product by definition combines two different functions, which makes it difficult to classify.’

**Peculiar**

The classification problem also became apparent from further experiments conducted by Morel, in which the subjects were shown images of a hybrid product and a single product. In this case, they were a tv/vcr combination and a portable cd player. The subjects clearly found the tv/vcr set the more difficult to classify. What’s more, they thought it was a peculiar sort of product, at any rate more peculiar than the cd portable. ‘Ambiguity plays a particularly important role once people have some idea of what the product actually is,’ Morel says. ‘I also showed the subjects two rather unknown products, a hair drier-cum-electric iron, and a juice extractor, and the result was that the differences in ambiguity disappeared. This is what you would expect, because if you can’t recognise a product, you can’t put it in a category. You won’t be able to deal with it until it has something you recognise. As it was, the subjects thought the hair drier/electric iron combination was pretty peculiar, more so than the juice extractor anyway.’

The ambiguity diminishes once the product has been on the market longer. Morel calls this phenomenon familiarisation. The clock radio and sofa bed combinations are long past causing any confusion. They have either come into a category of their own, or they have been classified into a subcategory of an existing category, with the hybrid product moving to one of the source categories.

‘We see the latter phenomenon most often,’ Morel says. ‘The clock/radio has become a subcategory of the alarm clock category. Few people use the clock/radio as a stand-alone radio elsewhere than in the bedroom in the morning. Although the name has remained a hybrid, the product itself has become easily recognisable to consumers. The same applies to the sofa bed, which has become a subcategory of the bed category. You don’t buy one because it’s a particularly comfortable sofa, you want it as a spare bed. My guess is that the tv/vcr combination, which still is a real hybrid product, will eventually form a subcategory of the tv set category. The built-in vcr will become an additional feature, like Teletext used to be.’

**Communication**

According to Morel hybrid products seldom manage to form a new category. One example is the windsurfing
board, a combination of a sailing dinghy and the traditional surfboard used to ride waves. Another example is the Leatherman Tool, a pair of pliers fitted with a dozen or more different tools. A Swiss army knife, which contains almost as many different tools as the Leatherman Tool, is still a knife. ‘The limited number of hybrid products that manage to form a category of their own should be a warning to manufacturers,’ Morel says. ‘If you’re planning to market a product like that, you’re going to have to make a major investment to get it across to consumers. They need to understand what purpose the product serves, and in which situations it will prove advantageous. The hair drier and electric iron, for instance, might at first appear to be a pretty useless combination. However, emphasise the link with travel in your communications, and you may manage to appeal to the consumer by offering the solution to an all too familiar problem. The essential thing is to make consumers understand what the new hybrid product is about. Products that are not understood will take longer to become accepted, if at all. Designers play a crucial role in this process. Though the design of the product they can show what the product is all about and what it can be used for. So, research like this is important for designers too. Once they understand how consumers classify hybrid products, they will be able to make these products as clear as possible.’

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Hybrid products that form a combination of source products originating from the same «parent category» (computer equipment for example) appear to be easier to understand and are more readily purchased by consumers than hybrid products made up of source products from different parent categories, like the Screenfridge (a combination of a fridge and a computer) and the microwave/banking terminal (a combination of a microwave oven and a computer).
During the tests conducted at Delft University of Technology, consumers were shown four different hybrid products, together with the original source products. The experimental assignment was to determine in which category the hybrid product belonged. There were four options: (1) the hybrid product belongs in a separate category of its own; (2) the hybrid product belongs with the source product A; (3) the hybrid product belongs with source product B; (4) the hybrid product belongs with both source products, A and B.

The four hybrid products arranged according to four variables, i.e. the extent to which each product was perceived as ordinary or unusual, as easy or difficult to understand, the degree to which each product was appreciated, and the extent to which the test subjects would wish to own the product. Higher scores mean higher values for the variable indicated. The hair drier/electric iron received the lowest score on all four variables. i.e. this hybrid was very unusual, difficult to understand, was least appreciated, and practically nobody wanted to buy it. The sofa bed and the TV/VCR set on the other hand were perceived as very normal and easy to understand. These products did not receive a much higher rating than the unknown products; with the exception of the TV/VCR set, the hybrids were not high on the list of most-wanted items.

As predicted, the two unknown hybrid products (the hair drier/electric iron and the blender/scales) more often received categories of their own than the well-known hybrid products (the sofa bed and the TV/VCR set). Of the test subjects, 61.4 and 56.8 percent thought the hair drier/electric iron and the blender/scales, respectively, were in a separate category; the scores were 29.5 and 34.1 percent for the well-known hybrids. Another striking outcome was that the well-known hybrid products fitted much better into one or other of the source product categories than the unknown hybrid products. In most cases (40.9 versus 20.5 percent), the sofa bed was classified as a sofa, while the TV/VCR combination was considered to be a TV set (29.5 percent) rather than a VCR (4.6 percent). These results support the idea that the category membership of hybrid products shifts in time from a hybrid category of their own to the dominant source category.
This camera watch is a new addition to the Casio range of wrist wear. So far it remains a gadget, but perhaps it will soon emerge as a successful hybrid product. It is an attractive combination, especially as image resolution increases to improve picture quality.

Photo MA Press Office, Amsterdam