

HEAD FOR HEIGHTS



Paul Edwards discusses how in the aerospace industry design is not being used to its full potential to bring benefit to both passengers and the airline

In the current economic climate, coupled with the fluctuating cost of fuel, you can understand why airlines are fastening their seat belts in preparation for a spot of turbulence. It's a storm that's been brewing for some time and most airlines have seen it coming. Operational overheads are being scrutinised more thoroughly than any Capello England team sheet and countless strategies are being developed, all in an attempt to stimulate demand and maintain market share.

Airlines are not only focusing on reducing costs but also in creating desirable products that people will want to experience and will keep them ahead of the competition. You could consider this scenario a prime opportunity for design to prove itself and

Why is it that true innovation is so difficult to achieve?

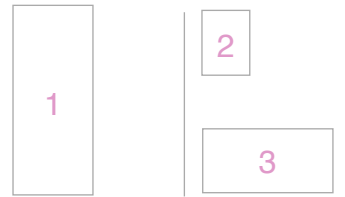
demonstrate the benefits it can bring to business. In fact, if you've attended any airline trade show over the last few years you would be forgiven for thinking that design and innovation were the saviour of the industry. A bit like the latest must have gadget, everyone talks about it and everyone goes to great lengths to tell you they are using it. However, why is it that the experience of travelling on different airlines can be very similar and true innovation so difficult to achieve?



There are examples of how design has been of benefit, predominantly in the area of seating. Virgin Atlantic's award winning Upper Class Suite seat, introduced in late 2003, not only improved market share but also brought financial gains from licensing agreements. Naturally, these flagship products get a lot of attention and, along with the next iPod, con-

cept car and classic piece of furniture, having airline seating in your portfolio is a must have for any aspiring design agency. With some

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That's service for you | 1. Virgin Atlantic Upper Class Wing - The customer experience starts sooner and continues further than many companies realise. 2. YoHotel Gatwick - In a crowded market, understanding what people value has been the catalyst for innovation. 3. Virgin Atlantic Premium Economy Seat - Integrating engineering, production and design teams ensures benefit to both the business and the passenger.

airlines stating their annual spend on new product is over \$100 million, then a profitable project too, you would think. The problem is that these projects are hugely expensive and for the majority of airlines, particularly in the current climate, fairly infrequent. As exciting as seating may be, if design is to help airlines attract and maintain customers

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then designers need to consider that there is more to flying than just a seat (after all it takes more than a good bed to entice you back to a particular hotel). The airline seat is only part of the experience, one that begins long before boarding and ends well after getting off an aircraft. Virgin Atlantic focuses on the entire customer journey through the airport from start to finish, ensuring that innovation and design are considered every step of the way - from checking in to the dining experience onboard and beyond. Understanding and investing in what people really value is what's required, and it's often the small details that have the biggest impact. Much like the Yo Hotel where good design, use of space and the re-evaluation of an existing need can provide opportunities for differentiation as well as a platform for further innovation.

The successes though are often outnumbered by missed opportunities. New aircraft types have for a while been promising more space and a new flying experience. Yet economics will always rule and if recent debuts are anything to go by, we're certainly

not seeing the levels of innovation that were predicted. Sure, this isn't the designers or often the airlines fault, as there are plenty of people out there with good ideas, as well as a desire by many airlines to stand out and be different. Manufacturers and suppliers themselves must take some responsibility for creating this sea of vanilla.

However, it's easy to understand why so many are happy to take this homogenous route. After all, innovation is risky. It's expensive and if you're not careful, easily diluted. Couple this with the manufacturing cottage industry, where a lack of supplier base and over demand has led to an innovation shy and buy 'off the shelf' mentality. It's no surprise that it's left to a few brave market leaders to pull the industry forward. With such power to influence what many airlines install on their aircraft perhaps it's these suppliers that designers should be trying to educate? Equally manufacturers should be trying to make better use of design and the unique abilities it possesses. Here we have a potential match made in heaven, these two parties just need to stop

looking at each other and get together.

This pick and mix approach may suit some airlines business model, but even at the budget end of the market, where comfort can be exchanged for low ticket prices, design can do more. Technology such as rapid manufacturing and even commonplace composite materials could help decrease weight and improve product durability. However, the lack of collaboration between manufacturers and designers ensures that the application of new or existing technology is rarely observed. A condition that with the correct structure is easily remedied. In redesigning Virgin Atlantic's Premium Economy seating, integrating designers, engineers and manufacturers resulted in significant reductions to part count and seat weight, as well as increasing passenger space and comfort.

Whether it's due to short-term cost or simply tradition, new is not good in the world of most airline suppliers and manufacturers. Boeing and Airbus are both looking to employ a catalogue system for interior definition, which could lead to less of an incentive



Virgin Atlantic Heathrow Clubhouse - Competitive advantage through the combination of product and service design.

for suppliers to innovate - if everyone has to choose between a cool or warm grey interior why introduce anything else? This may bring some commercial benefits for the me-too airlines, but for those like Virgin Atlantic, trying to push boundaries and differentiate themselves, it's another battle to fight.

What makes this all the more challenging is that much of an aircraft interior has now simply become a hygiene factor. I don't mean the state of aircraft lavatories but the fact that many features, such as flat beds in business class and mood lighting, are no longer a differentiator. What was once innovative is now the norm. In fact, in any industry innovative products don't really stay innovative for very long any more. Look at just how quickly the Walkman and iPod were imitated and how quickly cordless kettles ruled the kitchen. Therefore, long term competitive advantage through product innovation is difficult to sustain. This may be a good argument for continuous innovation, but in an industry where costs are high and timescales long, this is not always as easy as it sounds.

I don't think this problem is unique to the airline industry - mobile phone networks have been through this already. Think of when you bought your first mobile. It was a simple choice of selecting the best looking handset from a wall of grey bricks. With better looking briquettes hitting the market on a daily basis, network providers soon realised that this style obsolescence was doing nothing to attract and keep customers. Good looking phones very quickly became a commodity. Today networks go to great lengths to differentiate themselves through the services they provide. Look at Orange's recent point of sale, a bold interactive display focusing on what a phone can do for you and not what the phone looks like.

Smart companies understand that it's now about far more than just the physical. It's about combining both product and service to create a great and memorable experience. I'm sure most of us can think of an experience enhanced by good service and certainly one made worse by bad service. Equally though, service on its own is not enough - people need the right tools

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to deliver good service. Products that don't perform have a spiralling impact, starting with the customer and extending out to front line and eventually back room staff. Yet unlike other forms of design, good service is difficult to imitate and when combined with great product is a terrific and long lasting differentiator. It's why Virgin Atlantic spend so much time matching up our service and product design.

So, who would want to be working with an airline? Well, difficult times can be the most exciting and bring the biggest opportunities. If design is to help this industry, designers need to understand where they can compliment an airline's business model. Understand that what airlines need is more than traditional product design and that opportunities to instigate real change exist further down the food chain. Equally airlines need to start benchmarking themselves against the best products and services on the ground and not each other. Put processes and structures in place that identify what passengers value and use design to deliver unique cost effective solutions.

Ultimately, as in most industries, it comes down to having vision, leadership and the right people to deliver. Whether the passenger turns left or right on boarding, an increasingly design conscious and demanding public means that some elements are simply must haves for any airline - going forward, experience will rule. ■

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