Design and its management in the service sector - updating the standard.
(Practice based research)

Bill Hollins, Carol Blackman and Sadie Shinkins

ABSTRACT
The world's first standard into the management of service design was published in 1994 (BS 7000-3 1994). It followed the realisation that services are also products that have to be designed and this design managed. Since that time our theoretical understanding of design and its management have grown, especially with regard to design in the service sector.

The paper will present results from research into the work of practitioners currently working within the service sector. The results of this research reveal that there are aspects of service design that are now consciously being undertaken within various organisations within the service sector but there are others which are still not. These results also show that in most organisations there is still little realisation that services can be designed or this design managed.

The results of this research are being used by the British Standards Institution (BSI) in the update of this standard.

INTRODUCTION

The service sector is growing both in size, employment and importance to the economies of all industrialised countries as the manufacturing sector declines. In industrialised countries worldwide, there is an increase in the contribution of the GNP and in the level of employment derived from non-manufactures, or more especially, the service sector.

The service sector now accounts for almost 80% of employment in the UK and 67% GNP. The percentage of those employed in the service sector is rising throughout the EC and USA, as might be expected, but it is also rising in developing countries.

The importance of ‘services’ to the economy of countries worldwide will continue to grow in the foreseeable future and economic prosperity has contributed to this growth of services. Higher disposable incomes have led to an increase in financial services, entertainment, eating out, travel, personal health care and fitness.

There are stand-alone services but most manufactured products will also contain a large service element on which the product will be judged. Even in manufacturing organisations it is estimated that 20% of employees are working in a service role.
Like manufactured products, services must be designed and this design must be managed. As Raymond Turner has stated ‘Design acts as an interface between company and customer, ensuring that the company delivers what the customer wants in a way that adds value to both’ (Turner 2002).

Only recently have some managers in organisations involved in the service sector realised that a conscious effort in applying ‘design’ techniques to services can result in greater customer satisfaction, greater control over their offerings and greater profits. Unfortunately, there are few resources available that can assist these managers in the application of design to their service products. Although the British Design Council have gone some way to rectifying this with part of their Knowledge Cell Asset website devoted to service design management (Design Council 2002).

As services are the growth area, well-designed services can be very profitable. The opportunities for innovation through technology, marketing and throughout the life of a service are currently changing the whole way that customers are contacted, served and retained. Service design can be applied at all these stages where customers interface with the organisation to improve their satisfaction and company profits.

WHAT IS A SERVICE?

Service design can be both tangible and intangible. It can involve artefacts and other things including communication, environment and behaviours. Most services differ from manufactured products in up to five ways:

**Tangibility.** One can physically touch a manufactured product but most services are intangible. One cannot touch legal advice or a journey, though one can often see the results.

**Transportability.** Most services cannot be transported and therefore, exported, (though the means of producing these services often can) although the ability to export services is fast changing due to new technology.

**Storability.** Because services tend to be intangible, it is usually impossible to store them. For example, a car in a showroom if not sold today can be sold tomorrow but an empty seat on an aeroplane is lost once the plane has left.

**Quality.** In manufacturing, quality tends to be measured against drawings etc. The measures tend to be quantitative. Due to the intangible nature of services and as production and consumption often occur at the same time, it is difficult to ensure consistency and quality. The quality of a service is often down to the person giving it. As a result, the measures of quality in a service tend to be qualitative and there are few quantitative measures. The effect of this is a wider variability in services and it is more difficult to control the quality of a service.

**Customer Contact.** Generally, in manufacturing the customer may be unaware of how the product came about. In services, production and consumption tend to occur at the same time (Simultaneity), (Design Council 2002. Part of the material in this section was produced with the support of the Design Council and represents the personal view of the author).

FEATURES OF A SERVICE

As production and consumption occur at the same time in a service (Kelley S.W., Donnelly Jr. J.H. & Skinner S.J. 1990), customers cannot fail to notice if the service has been poorly designed (Edvardsson B. & Olsson J. 1996). Of course, this relates to the physical surroundings but, increasingly, users are looking to the ‘totality’ of the
service. That which is offered must, at least, meet their perceived expectations. These customer expectations are continuing to rise. Service that was acceptable in a shop, hospital outpatients or railway station just a few years ago is now considered unacceptable. Many of these necessary and ongoing improvements (Kaizen) can be brought into the service through the application of good design. Quality starts with design and quality needs to be built into the design of the service provision rather than being added later. The application of tools such as SERVQUAL (Parasuraman, A., Zeithaml, V.A. & Berry, L.L. (1988 and 1994), Mills P. K. (1990), Mattsson J. (1994)) is an attempt to match (or exceed) service provision with customer expectations.

Generally, in the design of services, there are more ‘customers’ (stakeholders) to be considered than in manufacturing. For example consider who are the customers /stakeholders in primary school education (pupils, parents, governors, local government, central government and even tax-payers) or even in a hospital (patients, general practitioners, government and tax-payers). This makes the design of successful services more difficult as it is necessary to understand and provide the needs and the relative importance of each of these stakeholders to succeed.

Services cannot be patented and therefore intellectual property in services is more difficult to protect and copying of competing services easier. Another reason to keep applying serial innovation (BS7000 part 1) to retain that competitive edge.

From designing just the product, companies should be moving towards designing the product, process and service interface and moving towards Whole Life Design as a method for adding value and maximising profit throughout the value chain (Porter 1985) right through to disposal (Bush & Sheldon 1993). This places a greater emphasis on the post-production stage of products, distribution, marketing, customer and market support – the service end of the process – as well as corporate development. As a result, more emphasis will be applied to service design.

By putting customer convenience and satisfaction at the forefront of Total Design, designers are forced to think (and then design) the customer experience. Often this starts by Blueprinting (Shostack 1984) the likely customer experience then improving the proposed service through the elimination of ‘blockages’ to efficiency and satisfaction.

Most services still cannot be exported (or imported) but the increase in the power and availability of information technology and ease of communication and other technological advances are changing this. It is now possible to operate services across borders and continents and this growing trend will continue. For example, insurance and telephone banking can easily operate across the World. This opens up new threats and some service companies will become vulnerable to overseas competition. But this also opens up business opportunities to home-based service organisations to ‘attack’ overseas markets.

As a result, a ‘world-wide’ dimension needs to be considered in the specification of new service designs. This will include potential threats and opportunities.

More new technology will be used in services. This will make transactions faster and more efficient and more repeatable. The repeatability will make it easier to control and increase the quality of the service.

The standardisation brought about by the application of technology may reduce the personal interaction and thus the ‘individual’ nature of services. The ‘service’ dimension could be lost from the service transaction and that may not be to the satisfaction of all customers. The difference in the ‘bespoke’ nature of some services compared with some others (the difference between a restaurant and a ‘fast food’ outlet) will result in both types of service being available. The segmentation choices will be part of the service design.
On the other hand, further ‘discrete’ applications of advanced technology (especially in communication) and IT in services can allow the benefits of apparent ‘individual’ service combined with the benefits that can be achieved with repeatability and ‘selective’ standardisation. It can also allow the service providers to spend more time with customers.

Importance to public services. Often, public services are serving large numbers of people and must operate within tight financial constraints and budgets. Although it may not be possible to increase the finance available, through service design, it is often possible to make the finance available stretch further.

Importance to charities. Most charities are both raisers and spenders of finance but from and to, quite distinctive groups. The needs of both of these are likely to be very different. When designing charities it is necessary to balance the funds raised from one group with the commitment (spending) to the other (Hollins & Hollins 2002).

In practice this requires a service design process for raising the finance and a design process for spending the finance. These two processes run in parallel (concurrency) and are highly iterative and dependent on each other.

To summarise, in the growing international market for services:
- There will be an increasing reliance on technology and automation.
- There will be a greater customer emphasis on quality.
- The importance of the service sector in terms of profit and employment will continue to grow throughout the world.
- All of these areas will benefit from an injection of good design and good design management.

THE RESEARCH

The purpose of the research was to identify whether service design was now effective in organisations and which aspects of service design management were most used.

Starting in October 2002, questionnaires were distributed to managers currently working in the service sector in and around London, 25% of the questionnaires were returned. Most (68%) stated that they were actively involved in the development of new services for their organisations.

RESEARCH FINDINGS

The overwhelming finding was that service design is still not widely managed in an organised manner in spite of there having been a British Standard guide for eight years. In fact, only 28% of those that responded used any British Standards in the development of their new services – showing, perhaps, the apparent poor marketing effort on behalf of BSI.

Only about half the respondents had a reasonable idea or definition of design or innovation. Only one third of the companies questioned have a product strategy document and only one fifth have a written process for the delivery of new services. If the management of new services is the organisation of the process for developing these services – then why no process? How do the managers given this responsibility know how to start? Those few that do have a written strategy at least review it on a regular basis to keep it updated.

It has been known for many years that market failure is the main reason for failure of products and services – not enough customers want them. Yet 48% do no research for new services prior to their development. This research would typically be done near the start – at the low cost end of the process. It is here that the most
obvious failures should be detected and eliminated. If new and improved services are designed and planned with a ‘front-end’ focus, poor ideas can be easily eliminated and better ideas more fully thought out whilst still ‘on paper’. This avoids changes later in the process - at the high cost end of design. This will result in a more efficient use of the resources available within tight constraints.

If no market research is undertaken then the designers are working in the dark when it comes to satisfying the potential customer’s wants and needs. Sadly, it is not until after these services have had all the development costs pumped into them that they will be shown up as failures when in the full view of the market. Furthermore, what some companies state as being MR can hardly be considered as adequate. One respondent’s only apparent market research was quoted as ‘cocktail parties’ – fun but not effective.

When seeking new ideas several stated that they look at their competition or the market leaders. This ‘me-too’ attitude is generally accepted as being an unsuccessful route to new product success. One cannot overtake the competition by just copying what they do. Quite a few companies seek ideas only from inside their organisations, such as ideas from Directors, senior managers and even suggestion boxes. This would be all right as long as it is backed up by some market research to show that there are customers out there who want the benefits that these new ideas may provide. Sadly, the results indicate that this is generally not the case.

Another surprising response in these times of TQM and ISO 9000 was that ‘customer complaints’ is still quoted as a source of new ideas. It is wondered if those customers will still be around for these company’s products when they have sorted out these complaints?

Unlike manufacturing organisations, in service design specifications (the controlling documents) tend not to be written. As a result, such companies are not in control of their design function. Forty eight percent of the respondents have not seen a specification for the development of a new service in the past seven years (remembering that most were actually involved in the development of new services). Of those who have, in only 16% of the companies did this specification appear to be adequate. (A guide for specifications in the service sector is currently being compiled – BS 7373 part 3). One of the main reasons for new products failing is that the full set of requirements are not considered at the early stage of the process (Hollins & Pugh 1989). It is here, right near the start, that all the compromises (new products are all about compromises) need to be resolved. For example, can the company actually produce the new service? Can they market it? Can they afford to develop it? Can it be made to work? (Hollins & Hollins 1999).

All of these decisions need to be confronted in the early stages when 80% of the management decisions are taken and 80% of the funds committed but only 15% of the actual expenditure made (Design Council 1985). It is this low cost, front end of the process where most product and service failures are rooted and yet this research shows that it is here that the service companies are most inadequate.

Innovation, being an important subset of the design process, is poorly applied in the service sector. Innovation can occur in all stages of the whole life of a product, especially (and increasingly) at the service end when customers are more likely to be directly involved with the delivery of the service. Innovation is generally easier with services as there is less of an existing infrastructure to be replaced by the new. As such, customers more readily accept changes brought about through innovation.

What the research did show was that the few companies that did appear to be effective (about 16%) were very good. This was further shown in the fact that 16% generated greater than 30% of their turnover from services developed in the past three years.

A second piece of research was undertaken in the development of the British Standard BS 7000 part 3. Although the Data Protection Act prevents the British Standard Institution from providing the committee members with a
list of purchasers of the original service standard, they are allowed to send these people a questionnaire on behalf of the committee. A short questionnaire has been sent to a sample of these users to judge their opinion on the content, layout and usability of the first version. At the time of writing the results of this questionnaire are not yet known but will be reported in the conference presentation.

**STRUCTURE OF THE NEW STANDARD**

All the information determined from this research is now being used to inform in the update of the service design management standard. The main aim of the British Standard BS 7000 part 3 ‘Guide to Managing Service Design’ is to educate service providers as to the importance of total design. To show that it needs process and leadership. To show that innovation can occur throughout all stages of the product usage. Also, to show the similarities and difference between service design and the design of manufactured products.

Although the new standard is still in preparation, it can be said that it will be based around a simplified ‘platform’ and is generally more compact. Is there a ‘dumbing down’ of the standard when compared to the ‘state of the art’ of design management? Well, yes but rather do this than have the standard presented in a form that will frighten off those practitioners to which it is aimed. Although there was some disagreement amongst Committee members, it was thought better to have a standard that would be more widely accepted than one that would express the latest thinking but may be ignored. Hopefully, we will be able to present something nearer best practice when the standard is again updated in 2009.

**CONCLUSION**

It would appear from this research that the majority of service organisations are not effectively managing their new services. They are, therefore, vulnerable. It has been said that ‘the analysis of successful and unsuccessful new services indicate that a formal and planned approach to NSD (new service development) leads to better performance…. Aside from using a detailed NSD process, the success in new service development depends on getting the necessary commitment and interaction from management and from their different functional specialities within the firm.’(de Brentani 1991).

Many senior managers involved in the service sector are still unaware of the benefits that design can bring to their offerings and, as a result, their organisations are operating at a sub-optimum level. As service design and its management tend to be poorly planned, it is quite easy for a company to gain a competitive advantage through the application of some quite simple design techniques. On the other hand, about one service company in six is very effective in this area and seems likely to thrive.

Traditionally educated designers tend not to be widely employed in service companies. As a result, there is a dearth of knowledge and understanding of design (management) techniques within most of the service sector. In a manufacturing company they may not do design well but they will know what it is. In the service sector, many people still believe that design is something to do with aesthetics and, in most cases, not relevant to them. This implies two requirements: Firstly, that the personnel in such companies need to be educated not only about the importance of design, but also how to do it. Secondly, design projects require well-trained leadership and a strong Product Champion to encourage those involved as to the realities and benefits of using design.

The main differences in the management of the design of services and manufactured products tend to be in the later stages of the process. The similarities at the important front end of design mean that those currently applying their skills in manufacturing can apply their knowledge in this much larger sector.
REFERENCES
Design Council (1985)
Biographical Note

Eur Ing Dr **BILL HOLLINS** BSc(Hons), PhD, DMS, CEng, R Eng Des, FIED, MCMI ILTM.

Bill undertakes management consultancy for Direction Consultants that he started with his wife in 1985. He also teaches, mainly postgraduates, marketing management, operations management and design management at the University of Westminster. He has worked in twenty countries.

Bill Hollins is a Non-Executive Director of Cool Logistics. He has a doctorate in Design Management from Strathclyde University and has been actively involved in all British Standards on Design Management. Bill has written four books and around 100 other publications. His latest book, ‘Over The Horizon’ (joint author Gillian Hollins) is the first to investigate long-term design management

email hollinb@westminster.ac.uk
Tel. 44 (0)208 995 9095
Fax 44 (0) 208 995 7727

**CAROL BLACKMAN**, BA (Hons), MA

**SADIE SHINKINS** MBA, PGDipHE, FMRS, ILTM
Westminster Business School
University of Westminster
35 Marylebone Road
London NW1 5LS. UK
DESIGN AND ITS MANAGEMENT IN THE SERVICE SECTOR (2)

The world's first standard into the management of service design was published in 1994 (BS 7000-3 1994). Since that time our understanding of design and its management have grown. It is the policy of the British Standards Institution (BSI) to update their standards (where necessary) every five years so, rather belatedly, work has started to align the standard with current thinking and practice.

The purpose of this questionnaire is to determine aspects of design management within companies that operate in the service sector (with some comparison with those who do not). Please answer the following questions and return the completed questionnaire to the lecturer within the next three weeks.

CONFIDENTIALITY. This questionnaire does not require you to state your name and the presentation of final results will not identify any person or organisation.

PLEASE WRITE THE ANSWER IN THE SPACE UNDER THE QUESTION OR CIRCLE THE APPROPRIATE CODE.

1. In what type of organisation are you employed? (e.g. public, private, not for profit/charity etc.)
2. What is your job title?
3. In your opinion, what is design?
4. In your opinion, what is innovation?
5. Are you involved in the development of new services within your organisation?
   Yes 1  No 2
6. Is there a document that sets out new product strategy within your company?
   Yes 1  No 2
6A. If 'yes' when was it last updated?
7. What are your company's principle sources of ideas for new service concepts?
8. In your organisation is there a written process for the development of new services?
   Yes 1  No 2
9. How does your organisation research the market for new services prior to their development?

10. Within the past seven years have you seen a design specification for a new service that is about to be developed within your organisation?

   Yes 1   No  2

10A. If yes, please describe this specification? [how many pages, was it compiled to a check list, other features?]

11. Does your company undertake Brainstorming sessions in the development of new services?

   Yes  1   No  2

11A. If yes, describe these Brainstorming sessions. [How long do they take? How many people are involved? From what departments? How are the sessions led? How are the ideas filtered and the ‘best ‘ selected?]

12. How does your company capture and harness knowledge and expertise within the company for new service development?

13. How does your company capture and harness the knowledge and expertise outside the company for new service development?

14. Does your company benchmark their new product/service performance against other organisation?

   Yes  1   No  2

14A. If yes, how does it do this benchmarking?

15. How does your company seek to learn from new service failures within your company?
16. What proportion of company turnover is devoted to developing new services?

17. What percentage of your company's turnover derives from services introduced in the past three years?

18. Is your company currently involved in alliances to develop new services?
   
   Yes 1  
   No 2

19. Does your company use the Design Council to assist in developing new services?
   
   Yes 1  
   No 2

20. Does your company use British Standards to assist in developing new services?
   
   Yes 1  
   No 2

21. Please state any views you have on what the proposed new British Standard on managing the design of new services should include?

Are there any other points you wish to raise? (Please write on the back of this form)

THANK YOU FOR TAKING THE TIME TO ANSWER THIS QUESTIONNAIRE.
Westminster Business School
University of Westminster
35 Marylebone Road
London NW1 5LS. UK

* = receipt