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Designing value and valuing design

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**Introduction**

Businesses recognise that good design can have a powerful impact on competitive advantage and profitability. It can differentiate products and services and enhance their value – while poor design can threaten the survival of an organisation.

It has been argued that good design can improve communication and integration throughout the organisation, help to reduce complexity and cost, and enhance brand value. It can also help companies to balance the needs of managers and shareholders with the cost, value and quality requirements of customers. However, good design rarely just happens, but stems from an effective development process. In the 1997 House of Lords debate on design, Lord Currie emphasised that design is a multi-skilled, multidisciplinary function:

‘Design involves not just designers and not just those working for design consultancies but also engineers, scientists and all those including senior management and – dare I mention it? – finance directors and accountants who contribute and influence the process of innovation and new product development (Lord Currie, House of Lords, 1997).’

There is growing recognition of the importance of people outside the formal design process in influencing the nature and form of new products. Nixon et al (1997) acknowledged the role of ‘silent designers’ – including specialists from R&D, production, marketing and accounting, who can influence the nature and form of new products. These silent designers provide ‘essential information and strategic links in managing design parameters.’ Research has also shown that most of a product’s life cycle cost is ‘locked in’ at the early design stage, and that any changes to the product after this point incur very high costs. If this is the case, then to ensure that products are produced at lowest cost, accountants need to set parameters and become involved at the early stage in the product development process.

The purpose of this study was to explore how management accounting can facilitate product development and effective design in order to enhance brand value. It focused on the small business sector, where companies may not have the resources to investigate design potential in the same way as large organisations do, but can still benefit from a strong design input.

The research posed two questions:

- What evidence is there to show that accountants and designers are working together to reduce complexity and cost in product design?
- Is the accountant’s role constructive, and how could it be improved?

**Project overview**

For this research 30 semi-structured interviews were held with designers, marketing staff and accountants from 16 small and medium companies in the UK. The companies came from a range of sectors, but one-third were known to have a strong design focus, one-third were technology-driven and one-third came from a random sample used in previous research.

A model developed from previous research was used as a framework for the interviews as a tool to analyse product development in the 16 companies. This model identifies four hierarchical dimensions of design; value, image, process and production (VIPP), where image, process and production dimensions feed into value, which is seen to be the key dynamic for success.

An effective innovation strategy is likely to take a balanced approach to all these four dimensions. Related to these four dimensions are a number of design attributes (benefits), which also provided a basis for discussion in interviews. Discussions also covered the use of performance measures and the relationship between finance, marketing and design.

**Key findings**

A number of key findings emerge from the research, as follows:

- Design can bring a range of benefits to companies, including:
  - The differentiation of products from those of competitors bringing competitive advantage.
  - A reduction in the complexity of products, leading to savings in costs and increased profit margins.

- Multidisciplinary teams are important to:
  - Ensure the effective incorporation of design benefits into new projects.
  - Balance conflicting requirements such as the need to improve efficiency in production and the need to differentiate products.

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These teams need to include accountants, who are able to assess performance and cost-related aspects, alongside designers and marketing professionals.

If most of the costs of products are ‘locked-in’ at the design stage, then accountants need to be involved in the design process from the earliest stages if they are to ensure that product costs are minimised.

The process of design and design attributes can be used as a tool to aid decision-making in new product development, but opportunities may be missed if project team members are not aware of all the benefits of design, in particular how it can generate, interpret, integrate and communicate ideas (Table 1).

A variety of financial, operational and perceptual performance measures are used, but value perceptions are of particular importance since they reflect confidence in the process and products for companies and customers. Such measures need to be built into performance measurement frameworks.

Some of these will now be discussed in more detail.

**Design, its attributes and role**

When various design attributes (benefits) were shown to managers, the two most often considered as important were design to reduce complexity and design to differentiate products (see Table 1). The first, reducing complexity, can lead to improved production and process efficiency and robust products. Differentiation is seen as important for brand creation and development, and maximising appeal to customers. Both of these can have a positive impact on profit margins, but may be in conflict with one another if the desire for efficiency overrides potential for differentiation.

Similarly emphasis on simplification can lead to products which are easily copied or do not have sufficient visual appeal or brand identity. If companies are to make sound decisions and achieve a balance between these two pressures, it is important that they have a clear understanding of all the issues. A multidisciplinary approach is key, involving management accountants to assess performance benefits for the company and customers; designers and engineers to evaluate differentiation and complexity issues; and marketing managers to establish the nature of product in terms of customers, competitors and market position.

Few managers considered that design could play a wider role as a strategic activity or as a competitive tool, or that the design activity was able to generate and interpret ideas or communicate them to customers. The potential for design to enhance teamwork throughout the development process was also not recognised. Again, cross-functional teams are best placed to exploit all these benefits, through a design process which considers the full range of attributes shown in Table 1.

**Prioritisation of design benefits**

Most identified by respondents:
- design to reduce complexity
- design to differentiate products.

Identified by many respondents:
- design in product styling
- design in aesthetics, fashion
- design and product quality
- design and added value
- design and product identity
- design and brand creation.

Rarely identified by respondents:
- design to generate ideas
- design to communicate ideas
- design to interpret ideas
- design as a competitive tool
- design to reduce time to market
- design and corporate culture
- design as a strategic activity.

**Value – perceptions and benefits**

This aspect of the research focused on the perceptions of value of staff from different functions within the companies. Similarities and differences were identified.

All were aware of the need to work with customers, but designers and engineers were concerned about the use and performance of products, while accountants spoke more about relationships and service. However, despite their focus on the product’s features, designers did have a good understanding of the need to make an acceptable return on the product, although accountants did express concern that designers might lose sight of the bottom line and add to complexity and cost through unrealistic proposals.
Management accountants and finance directors discerned two aspects of value, firstly the benefits for the company and secondly the benefit to the customer. In addition to the scope to improve product margins by reducing complexity as already mentioned, they also saw the benefit of developing reliable, quality products which could give credibility to the company and the customer and encourage good relationships. They also recognised that customers were often prepared to pay more if they had confidence in the product reliability, quality and ease of use. There was little evidence, however, that techniques such as value based management were used to measure or manage the design process.

The analysis of perceptions of designers and marketing managers revealed that their chief focus was on product and brand strengths and how to communicate them. It was also recognised that there is a distinction between consumer and customer values in terms of profit margin, as, for example, with an innovative product which delivers many attractive features to the customer but is expensive for the company to develop and produce, resulting in a low profit margin.

The research findings show the necessity of identifying the benefits as seen by customers and finding a balance between perceived and actual value to the customer and the company, matching resources to potential returns. Some values and benefits are difficult to quantify, but are still used by companies and customers to indicate confidence, reliability and credibility. It is important that accountants and designers have a good understanding of such measures.

Image

Company image is affected by a range of different factors, including status and market position, but also the image of the company’s products and brands. There may be a difference between actual and desired corporate image as this can be affected by factors such as performance and communications.

Product image will be influenced by performance and the benefits to the customer. Management accountants interviewed were of the belief that clever advertising alone could not create a good product image but that this would need to be earned through product performance and support. Many financial managers were aware of the need to improve the company image and the need to promote new products. Designers and marketing managers focused on positioning of the company and its products relative to competitors.

Most of those interviewed were aware that a corporate image can be created and influenced by design in so far as it determines the appearance of the company and its products. However, there was less understanding of design as a means to interpret and communicate the company’s values by reflecting these in the tangible aspects of products such as aesthetics, style and form which can provide powerful visual evidence. Only a few companies were conscious of the need to ensure that the product and its image need to be aligned with and support the corporate brand strategy. In turn the image and branding presented to customers need to be supported by the development and production processes within the company.

The process of new product development

There was general recognition within the companies that close relationships between all functions within the company throughout the design process is likely to lead to products which perform well in the marketplace and as a result to have a positive impact on the company’s financial performance. Despite this, less than half the accountants interviewed had much contact with designers.

However, although there was little formal contact, more evidence was found of close informal involvement in new projects and product development, particularly in companies with major customers in the public sector. This informal contact is made more likely by the size of the companies, and indeed as some managers multitask they will have a wider perspective of new product strategy.

Some companies recognised the importance of financial input in making decisions about new product developments, although where financial information was readily available this business analysis was often carried out without the direct involvement of accountants. It appears, however, that where financial managers took a more proactive approach to the design process they could make a positive contribution to new product development and hence to the company’s overall performance.

Production and launch
Production and launch are the means by which companies deliver or implement new products. At this stage design was seen as a means to reduce complexity and save manufacturing time and production costs, or to overcome technical problems in production which were due to specific product features. However innovations designed to differentiate products and enhance customer value can often present challenges to production and increase costs from the use of new materials and technologies. It therefore appears important to be clear about the extent of differentiation from competitors’ products which is actually needed to avoid unnecessary expense in production. In addition care should be taken to ensure that innovation potential is not restricted by the existing technology.

In launching products, blanket advertising was seen as inefficient and difficult to monitor, and most companies preferred targeted promotion. The launch was often in two stages, the first an internal launch within the company and then a launch for customers.

Measuring product and company performance
Multiple performance measures are more likely to give a clear picture of company performance than financial accounts alone. Six different categories of measure were identified in this research:
1. Costs of development, overheads and resources.
2. Benchmarks, such as product life expectancy, life cycle, market share.
3. Customer measures, such as customer benefits, speed of response and technical support.
4. Financial measures including return on investment, profit margin and contribution to turnover.
5. Operational measures, for example, time to market and number of new products developed.
6. Perceptual measure’s such as visual appeal, value perceptions of company and customer, customer feedback and ‘peace of mind’ (trust).

The approach to measuring and managing cost varied considerably between companies, with some focusing on direct and production costs and other including allocated overheads. Techniques such as target costing and value engineering were used in some companies, although it is important that the process of using these techniques does not slow the development process too much and lengthen the time to market.

Some managers pointed out that aspects such as sales and promotion are difficult to estimate in comparison with internal issues such as product development costs which are also easier to control. However a number of companies incorporated customer feedback into the evaluation process. Close contact with customers was also important in helping companies to assess how much customers are prepared to pay for product features and benefits to feed into go / no go decisions on product developments. These contacts also provide an opportunity to develop relationships which can be set against the costs of development and support.

The implications for management accountants
Design can add value, improve image and facilitate the development of new products. It can spearhead product launch, and integrate peoples’ ideas with new technologies and new materials.

Management accountants can play an important role in firms looking to gain competitive advantage through involvement at each stage of the design process particularly at the beginning. They can also develop an audit that utilises design. For example, if they examine the extent to which design attributes are currently used for product development they can identify:

- Gaps or missed opportunities to improve product value and image.
- Make development and production more effective.
- Estimate performance measures that relate to each attribute.

Such a scheme is likely to enhance brand value, and make it difficult for competitors to copy. In this way management accountants can reinforce product strategy and company performance.

Unfortunately, those in design and marketing may not recognise that accountants can make a positive contribution, even though there is evidence that many have a good understanding of design potential in new products. In other words, there is a need for project team members to encourage a proactive role for accountants in developing innovative new products. This is important for the forging of links between design, brand value, and product performance.

All of these points have implications for the training of management accountants if they are to have a good understanding of design and product value.
Management accountants should therefore:

- Recognise the impact that financial decisions can have on the nature of new products, and the impact that well-designed products can have on financial performance.

- Understand the potential for design to support decisions at strategic and product level to improve efficiency, reduce overheads and increase a product’s relevance.

- Evaluate and manage the benefits and performance of design using an analytical framework that examines value, image, process and implementation.

- Build perceptual and operational measures into monitoring processes to create a robust model of performance.

- See project teams as an opportunity to work with design and marketing functions to assess cost and performance benefits, to evaluate differentiation and complexity issues and to establish customer needs, positioning and market relevance.

- Ensure that design is used to integrate ideas, differentiate products and reduce costs.

- Ensure that they are part of the cross-functional team which influences the product design in its early stages, before costs are locked in.
CIMA (The Chartered Institute of Management Accountants) represents members and supports the wider financial management and business community. Its key activities relate to business strategy, information strategy and financial strategy. Its focus is to qualify students, to support both members and employers and to protect the public interest.

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