Does design really make a bottom-line difference? And what factors support it most effectively? The extensive survey research explores the strategies and investments that have the biggest payoff.

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Design Management and Business in Europe: A Closer Look

by Kathryn Best, Gert Kootstra, and Darragh Murphy

It's clear that the effective management of design is a commercial necessity. It enables a company or organization to innovate, to stay in line with or ahead of the market, and to identify and cater to consumer needs. When design becomes an explicit part of the management process, it can have a greater impact on business performance and help secure a market position for the long term. However, there is growing concern that most European small and medium-size businesses (SMEs) lack sufficient grasp of the role of design and that their focus on its management is still underdeveloped. With the exception of a few small-scale case studies, there has been no substantial research into how European companies handle design. To what extent do they succeed in integrating design into their operational management? What design management skills do they actually have?

The DME Survey

Design Management Europe (DME) is a network of partners across Europe that aims to demonstrate and promote to businesses the commercial benefits of good design management practices. To answer the questions above, DME undertook research into the European SME sector. The objectives were: (1) to describe the current status of design management in the European SME sector; (2) to identify factors that stand in the way

of companies' effective management of design; (3) to develop a model and tool that could be used to assess a company's design management capability; and (4) to extend this capability by identifying future development opportunities and research directions.

The Design Management Staircase

In order to assess design management capability within European companies, it was necessary to develop a clear conceptual model and a specific survey tool. The Design Management Staircase (Figure 1) conveys a company's typical design management behavior on four levels of maturity. The characteristics of these four levels are context-driven, but the staircase hierarchy suggests that the higher a company's level, the greater the strategic importance of design at that company. A number of studies show that a company is more likely to grow when it deploys design in a strategic fashion.[1]

The four levels

Level 1: Companies at this level have a limited or nonexistent design policy; often what policy there is has been only recently implemented, or else design is used on an ad hoc basis, with limited targets and guidelines. There is little to no knowledge or experience available with which to handle design activities. Design also plays a limited or nonexistent role in how the company differentiates itself from competitors. Design activities tend to be unpredictable and yield highly inconsistent results due to the lack of clearly defined procedures.

Level 2: These companies use design only to meet direct business needs—for instance, ad hoc style changes, product line extensions, or product improvement projects. Design is largely neglected as a significant tool for new product development or innovation; instead, it is used as a finishing touch at the end of the product development process. Instead of being used to create added value through new products or services, it is primarily used as a marketing tool that adds value to the existing product offering through product appearance, styling, packaging, marketing communication, or visual identity. Responsibility for design activities remains at an operational level; there is little or no collaboration between departments; and minimal co-ordination of design activities.

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1. Design Council, "Design Index: The Impact of Design on Stock Market Performance," February 2004; Danish Design Centre, "The Economic Effects of Design," National Agency for Enterprise and Housing, Denmark, 2003.
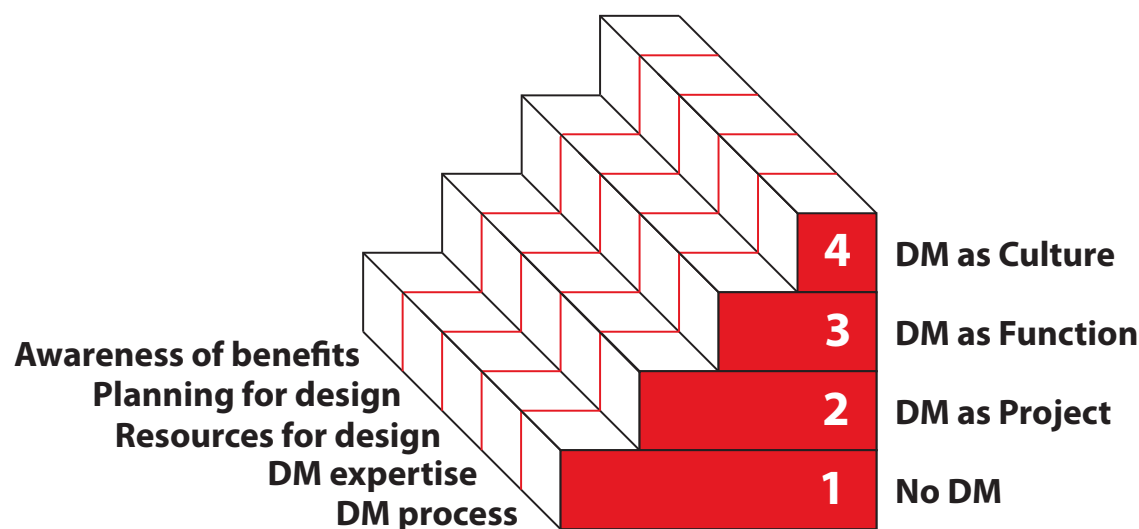

Figure 1. The Design Management Staircase.

Level 3: These companies entrust a dedicated employee or department with formal responsibility for the management of the design process. This person or department acts as an interface and point of contact for designers and other departments and company management. In order to accommodate shortening product cycles, design is used proactively and becomes a permanent feature of product development.

Level 4: Companies aspiring to establish themselves as market leaders through design innovation eventually begin to espouse design management as culture. Design innovation refers to new products or services, but it could also mean an innovative communication or presentation style or a novel marketing tacticóa new retail concept, for example. These companies are highly design-driven and stand out because they have a differentiation strategy that revolves around design. Interestingly, they often include startup companies that are founded on innovation and/or design disciplines. Senior management, as well as whole departments, are closely engaged with design, and design is part of the company's main business processes. In the view of researchers Angela Du-

mas and Henry Mintzberg,[2] this will probably leadówhen design has trickled into the fabric of the company and become part of corporate cultureóto the most successful and broadest use of design. Design is in effect a way of life within these organizations.

The five factors

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Depending on the company's nature, market position, or strategy, Level 2 or Level 3 approaches may suffice perfectly well. However, in order to get a clearer idea of what the four levels of design management entail, the DME researchers, based on an extensive search of the literature, identified five factors that bear upon the success and failure of design, making them indicators for good design management.

2. A. Dumas and H. Mintzberg, "Managing the Form, Function, and Fit of Design," Design Management Journal, Summer 1991.

Factor 1: Awareness of benefits. Lack of awareness, especially among senior management, of the possibilities and potential benefits of design keep it from being used effectively. Managers whose education and background have not included any design training, or who are dismissive of so-called soft assets (that is, brand and reputation), are not likely to value design as a competitive asset, and the employees they manage naturally follow suit.

Factor 2: Process. Is there a systematic policy for product development and innovation processes in place, one in which design is embedded from the start? Design management comprises a formal, not informal or ad hoc, program of design activities, and when set up at a process level, it becomes a connected part of a company's other business areas and wider policy-making processes. Implementation of such a program within an organization will likely depart from earlier organizational structures and ideally link all parties involved and the managers responsible for them by facilitating effective collaboration.

Factor 3: Planning. Design-aware companies develop a strategy for design. They articulate that strategy in business plans and communicate

it widely. When business plans lack objectives for design, design management can only be used in a limited way. Another key aspect of planning is that it allows a company to drive design activities in line with its business or market targets. When it is unclear what design is supposed to achieve, developing a good strategy is simply impossible. A clear busi-

ness strategy with which design can dovetail is therefore essential.

Factor 4: Expertise. This is all about the quality of the available design staff (professional designers, design managers, advisors, multidisciplinary design teams, and directorship/management) and the maturity with which the tools and methods are applied.

Factor 5: Resources. This factor describes the extent to which a company invests in design projects, deploys appropriate design staff, and invests in a creative working environment. Design investments also extend to training budgets and production facilities (for example, staff training, hardware and software for design, and an inspiring work environment). One of design management's jobs is to ensure the best possible use of the means available within an organization. A lack of resources is considered an impediment for good design management practices.

Putting it all together: The Maturity Grid

The four levels and the five factors can then be put together as a grid and used to evaluate design awareness in a given company (Figure 2).

Evaluating our European SMEs

To collect data for the survey, an invitation to participate was sent by each of the DME partners and agents through their own database of design users. Several thousand companies across Europe were emailed to participate. In order to filter the active design users the online survey questionnaire started with a number of control questions. The definition for active design users was companies

Factors	Design Management capability levels			
	Level 1: No DM	Level 2: DM as Project	Level 3: DM as Function	Level 4: DM as Culture
awareness (of Benefits)	Not aware of benefits and potential value of design (unconsious use or no use)	Some functional specialists are aware	Most are aware that it is important to remain competitive	All are aware that it is fundamentally important to gain a leadership position
DM process	No idea where design fits within current processes	Performed inconsistently and late in development process; not repeatable across projects	Performed consistently and early; formal DM process drives performance	Ongoing activity; business is engaged in continuously improving DM process
Planning	Company / marketing plans do not mention the use of design	Limited plans and objectives exist at the individual project level	Plans and objectives exist which set direction and integrate design in various activities	Design is part of strategic plans; design planning is a dynamic process that drives the business
DM expertise	Little or no skills to handle design activity; no DM tools applied	Some skills; basic DM tools applied inconsistently; lots of room for improvement	Standard DM tools applied consistently; some room for improvement	Appropriate expertise; use of advanced DM tools; appropriate metrics used
Design resources	The business has not committed resources to design activity (may not appreciate the potential return of design investment)	Limited resources are allocated for individual projects; one-off design investments with no review of potential returns	Sufficient resources are allocated on the basis of potential return, but with limited procedures in place to assist in decision making	Substantial resources are allocated, with financial procedures in place to assist in appraising investments, assessing risk and tracking returns

Figure 2. The Design Management Staircase maturity grid.

having from less than one to more than 10 years of design experience, and, therefore was not necessarily representative of European business demographics in total. A sample of 421 companies (out of 776 entries) completed the survey sufficiently for their design management capability rating to be calculated.[3] The idea was to compile a group of active design users and chart their capabilities and practices. Fifty-four percent of the sample claimed more than 10 years of design experience. Twenty-two percent of companies had 5 to 9 years

3. This article presents the findings and their implications. It does not focus on the research instrument and the validation process, as the objective of the authors is not a scientific explanation of the study. The full research report is available in pfd format on the Design Management Europe website (www.designmanagementeurope.com).

and 20 percent 1 to 4 years; only 4 percent had less than one year's design experience. Furthermore, the average number of design applications (out of six—corporate identity/branding, company environment, product development, packaging, promotion, and market retail) deployed by the sample over the past three years was 3.4, leading us to conclude that this was indeed a group of active design users.

The sample was almost evenly distributed across all company size categories: micro, small, medium, and large. The manufacturing sector accounted for 36 percent of the sample, with 45 percent from the service sector. Nonmanufacturing companies mostly included service providers, supplemented by small groups of

companies active in trade and retail, as well as agri-business. The majority of respondents operated in a business-to-business environment.

Staircase results

Scores for the five factors (awareness of design benefits, process, planning, expertise, and resources) were calculated based on three to four questions per factor. A final design management rating was determined on the average of the individual factor scores. The results showed that the largest percentage (36 percent) of companies did not score beyond Design Management Level 1(no design management) on our staircase (Figure 3). Considering that we had believed our sample would reflect active and
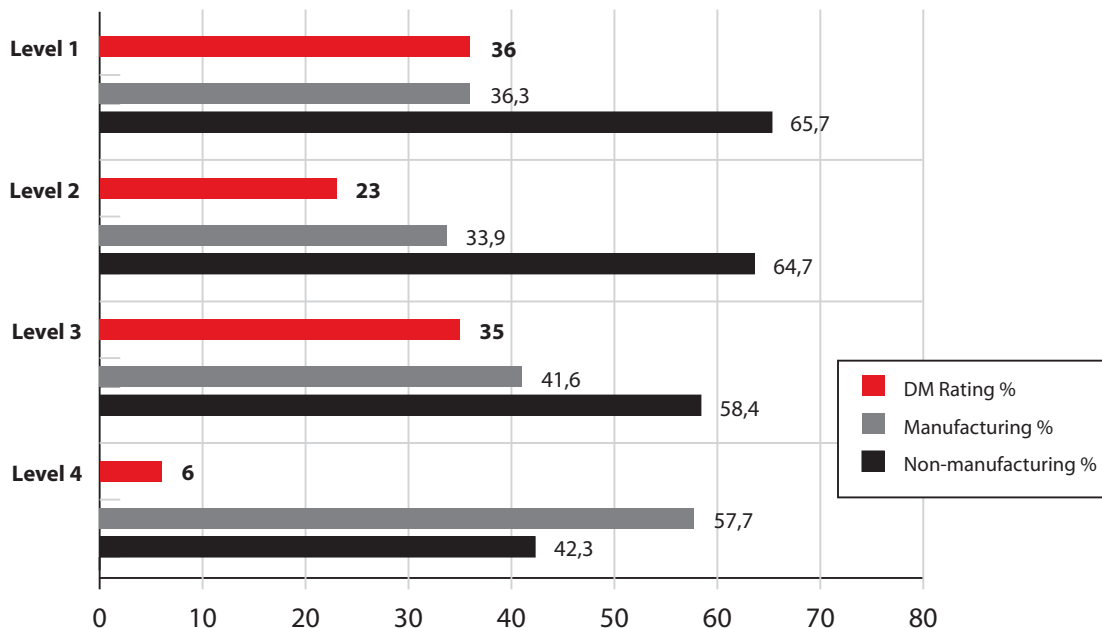

Figure 3. Design Management Staircase level scores of sample according to business activity.

largely experienced design users, this result was surprising. Within the group that achieved the three higher levels (DM2, DM3, and DM4), the majority scored at Level 3 (design management as process). Only a very small percentage (7 percent of the sample) scored at Level 4 (design management as culture), indicating that very few of the survey companies embraced design as part of the core of their strategy.

Factor results

A review of the individual five factors and their supporting data provides further insight into the design management capabilities of the sample. Figure 4 illustrates the distribution of different levels of capability (DM1 to DM4) for the five factors (expertise, awareness, planning, resources, and processes) at each level of the Design Management Staircase.

The expertise factor emerged as the weakest of the five factors, with only 3 percent of all respondents gaining a Level 4 score and no less than 39 percent gaining a Level 1 score. The link between expertise and DM level is significant: 44 percent of companies identified as having design management ingrained at a cultural level

possessed the highest level of expertise. This percentage falls drastically as the level of Design Management integration reduces.

The pattern of increasing capability along the Design Management Staircase groups is applicable to all the factors. An equally dramatic increase in capability occurs with the awareness factor. Nearly 30 percent of all respondents put in Level 1 scores, and only 10 percent reached Level 4. Respondents were most convinced of design's contribution to company brand image and to internal and external communication. Competitiveness, product development, and customer experience were also identified as areas in which design had a positive impact. But respondents were less confident of design's direct influence on business performance

(export, turnover, market share, and profit), and of design's role in increasing employment and sustainability.

A relatively strong factor was resources, where nearly half of participating companies achieved a Level 3 score. However, more than 20 percent of our respondents did not make it beyond Level 1. To give an example: 20 percent of respondents stated that "resources are not allocated specifically to design," and another 16 percent answered that "limited resources are allocated for individual projects."

In regard to the process factor, the greatest number of respondents made it onto levels 3 and 4. In fact, they make up a slight majority. Further analysis reveals that 31 percent of respondents saw process improvement as a benefit. Within this group, there are some striking differences
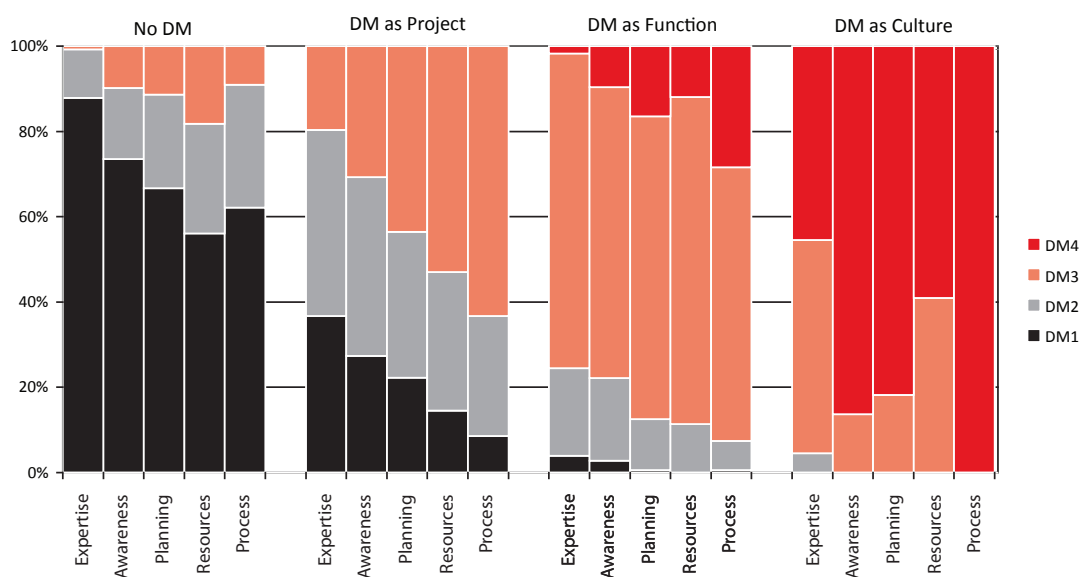

Figure 4. Distribution of factor capabilities among the four Design Management Staircase groups.

among the DM levelsóonly 17 percent of Level 1 companies regarded design process improvement as a benefit, compared to 84 percent of Level 4 companies. The obvious explanation is that Level 1 companies do not regard design as a process; rather, they see design as being about "objects," whereas Level 4 companies consider process to be strategically important. However, it should also be noted that it may be the ignorance of the importance of process that led respondents to value it more positively than they would have had they had a better understanding of the uses of design.

Main findings

The DME survey offered an opportunity to investigate the possibility of a correlation between design management capability and a number of business performance indicators. One commonly heard assumption is that companies that invest in design grow faster than companies that do not. Does the data underpin this assumed causal link between design management capability and growth?

The results showed that as the design management capability rating rises, the percentage of companies experiencing moderate and rapid growth increases. Nearly 18 percent of Level 1 companies report rapid revenue growth, but this is more widely reported by Level 3 companies (29

percent) and Level 4 companies (33 percent). Decreasing or unchanged revenue is more often reported by Level 1 and Level 2 companies. Further statistical analysis of the data reveals a strong correlation between increasing design management capability and positive business growth. The positive correlation between growth and design management capability indicates a more competent level of directorship and management and thus results in improved company performance.

We also found that revenue size correlated with better use of design management. High-revenue companies (defined as companies bringing in more than €25m) scored the highest design management capability scores more frequently. One possible reason could be that these companies generally have a greater scope for investment in design; and the more a company invests in design, the higher its level of design management.

Another positive factor seemed to involve export capabilities. Comparing the reported export share in a company's total revenues to its respective Design Management Staircase rating uncovers a positive causal link between these two variables. Companies with a higher DMS rating report higher export percentages. This rather interesting finding could be a sign that international competi-

tion is more demanding in the area of design, and that there are many more significant factors in the development of new productsófor example, working to different national standards and with varying market forcesóleading to companies simply not being able to do without design management capability. Companies demonstrating strong export figures indicate strong directorship in managing the logistical, financial, and marketing challenges that come with exporting. However, although the results from this research supported a positive correlation between design management capability and business performance, the data did not identify the causal links of the correlation.

Company size also seems to play a part. When we compared the design management capability ratings of the micro company group against those of the large company group, we saw a distinct contrast. The large company group dominates the DM4 level (33 percent large, 19 percent micro), while the micro companies dominate the DM1 level (38 percent micro, 14 percent large). However, the size/performance ratio is reversed when the small and medium company size groups are compared. Medium-size companies are marginally over-represented in DM1, and small companies are significantly over-represented at DM4. We don't have the data to

conclusively say that the larger the company, the better their design management capability. However, design management capability is another key difference between the smallest and largest design users.

Justifiable concerns

Given these findings, there is indeed reason to be concerned about the status of design management in European companies. The survey tells us that many companies fail to use design in a conscious, systematic, or strategic manner; that design is an under-employed and under-valued business tool; that there is not enough awareness of the benefits of design; and that too much emphasis is placed on its cost, and not enough on the returns it offers.

The most striking conclusion to be drawn is that neither the active use of design, nor the level of design experience achieved by a company, automatically (or necessarily) leads to the development of design management skills. Something seems to go wrong in the learning curve. There are, of course, many possible reasons for this, some of which have emerged from the survey. One potential explanation could be the lack of attention dedicated to planning, direction, and evaluation. Companies may use design in the me-too sense, without understanding its potential value.

When design is used without the appropriate managerial skills, questions are inevitably raised in the company about its relation to effectiveness and performance.

We assume that a lack of attention to innovation (and innovation management) is also an indicator for the absence of design management skills. In companies where innovation is highly valued, innovation management and design management seem to work well together. Furthermore, in companies where innovation is highly valued, effective design management also seems to be present.

The DME survey results offer additional evidence (though not causal proof) for the correlation between design management level and business performance. While engaging design can and does lead to success, it could also be true that more-successful companies can invest more heavily in design—and therefore develop greater capability for the effective management of design. Design management capability is, of course, not the only factor driving business performance. However, the survey does support the notion that good design management is symptomatic of good management.

The business approach to design is still largely underdeveloped. Respondents lean toward a traditionally restricted view of design (design

as objects), with a narrow focus on visual appearance. As for the idea of design as a process or, similarly, the idea of how design might affect and improve various performance areas, most of the respondents were either unaware or uninterested. In general, most of the respondents consider design only in the context of products and services, and not as a holistic approach toward increasing a company's competitiveness.

Conclusions

It is often said that European companies must stop trying to compete on price and concentrate more on developing products and services that offer customers and users a high level of added value. Design is an indispensable tool for such development and innovation, and this is why the findings of this survey are cause for concern.

It is not enough to encourage companies to use design; they must also develop skill in managing design. It seems risky to assume that they will eventually find their own way to design and its effective management; as an economic necessity, attention and commitment will be required from those who set business policy. The survey results suggest that improved awareness of design and the management of design will drive increased business performance within SMEs.

This would likely also trigger increased demand for effective support services to develop design management skills, and thus more jobs.

One of the study's findings is the positive correlation between increasing design management capability and positive growth. At the same time, however, cost factors are widely cited as the main obstacle standing in the way of companies implementing design management. What this indicates is that design should cease to be seen as a cost, and instead should be considered as an investment in the future. One way to improve the perception of the cost factor is to raise awareness of design's benefits. To do this, however, it is critical to find ways to measure and therefore value design effectiveness and, once it has been implemented, to measure its success in a way that can be understood by managers.

Knowledge factors also present a considerable obstacle, and as such education is a second critical success factor. The curricula of European design courses tend to dedicate relatively little time to the development of management skills or the understanding of the business implications of design decisions. And although the attention paid to ideas such as design thinking does show some movement in the world of management, things seem to be happening rather slowly. In management courses,

there is still relatively little structural focus on design, and for experienced designersóeven those with sufficient management skillsótraining in design management is rarely available.

Indeed, the relative lack of training opportunities for design management begs the question: Are we making enough progress with design management as a professional field? The gap between design management "winners" and "losers" seems rather large, and the group of companies that is left behind is comparatively too big. Progress has and is being made within the profession of design management; however, to sustain this progress, and even to turn the situation around, will require the collaborative efforts of a broader group of stakeholdersónamely, the design sector, the training and education sector, trade associations, promoters of design management honors such as the DME Award, and government bodies themselves.

Acknowledgements

Suggested Reading

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