

Marketing and Product Design: A Rocky Love Affair

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*Product Design, Aesthetics,
Design Evaluation, Design Strategy,
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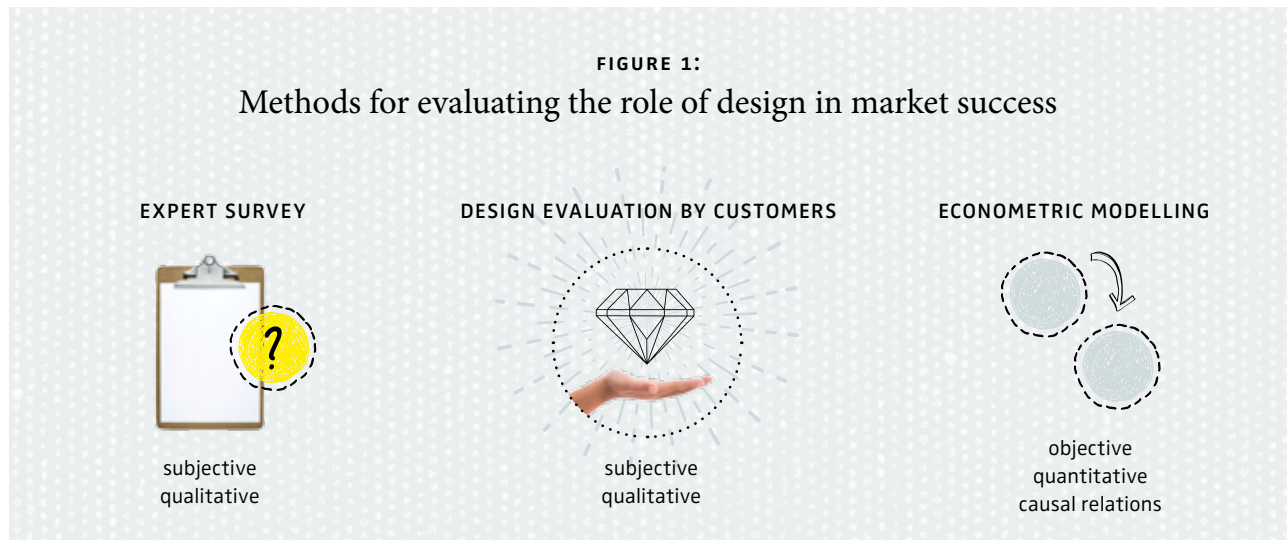
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Design's long road to the marketing agenda /// In all cultures, there have always been everyday products that have been lovingly and artistically made. Yet, the work of industrial designers was only clearly defined and recognized as its own profession at the beginning of the 20th century. Through their products, designers have significantly shaped consumers' visual experiences over the course of the 20th century and have created some timeless design classics, such as those by Dieter Rams (Braun), Erwin Komenda (Volkswagen Beetle, Porsche) and the furniture by Charles and Ray Eames.

Even though designers have been making careers out of giving products their form for over 100 years, products' selling points were structured around functionality, quality and price for a long time. In the middle of the 20th century companies like Procter & Gamble, General Foods and Unilever began developing professional brand management divisions and added branding to the list of success drivers. Instead of emphasizing purely rational product functionality, marketing increasingly turned its attention to developing and fostering customers' emotional attachments to a brand. Large investments in advertising and communication were the primary ways for companies to realize their new focus on branding. Until very recently, marketing departments had tended to treat product design as a secondary component and not as a primary focus of sales efforts. Foregrounding design is a relatively new phenomenon, and Apple stands out as the company that has implemented this more thoroughly than almost any other.



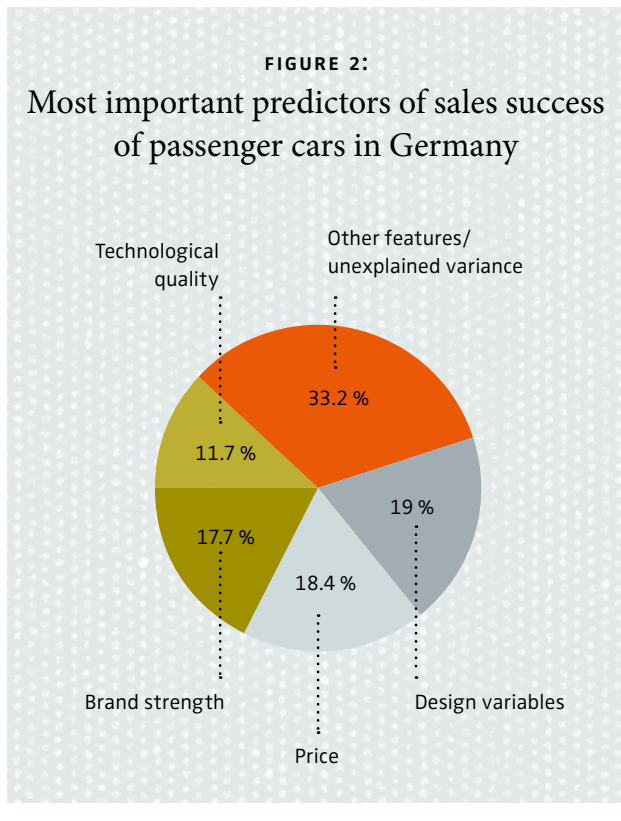
CEO Steve Jobs and his Chief Design Officer Jonathan Ive created a veritable cult around their exceptionally designed products, including the iMac, iPod, iPhone and iPad. With Apple products, the design is no longer the means to an end, but rather the end in itself. Apple's marketing consistently presents the advances in product design as a key selling point and as the focus of advertising communication.

A similar trend can be observed in the automobile industry, where advertising is focusing more and more on vehicle design. Their slogans increasingly reference design, and terms like aesthetics, form, elegance and impression have by now become everyday vocabulary in advertising. Interestingly, the increased significance of product design is best exemplified by the automobile brand whose central slogan – "Vorsprung durch Technik" – emphasizes more traditional product qualities. In 2006, when Audi first publicly presented the second generation of their Audi TT sports car, which had already become a design icon, they chose to do so not at a traditional auto show but rather at a design trade fair – the Design Annual in Frankfurt. With promotional events like this and further daring design changes, Audi has earned a reputation as a stylish and trend-setting automobile brand in the premium segment (see Interview, p. 46).

These design-oriented companies' success stories have put design on the agenda in many marketing departments, which has raised a whole series of practical questions. Accordingly, many marketing researchers have begun to study the topic of design in recent years. Above all, the six key questions (see Box on page 13) tend to characterize the discourse between the academics and the practitioners.

Product design and marketing success /// In marketing, there is a clear trend towards evaluating the effectiveness of marketing measures quantitatively using "return on marketing investment" ROI metrics. Hardly any marketing manager would be able to carry out a costly marketing campaign without convincingly forecasting its success in monetary terms. The development of aesthetically pleasing product design is no exception to this rule. After all, successful design requires highly qualified designers and thus generates high costs. Therefore it is not surprising, that market success is a central and practical concern when it comes to product design. Until recently, research was dominated by two approaches. On the one hand, there were expert surveys intended to let managers assess the importance of a product's design for its success on the market. On the other hand, there were studies that predicted market success based on subjective design evaluation criteria. Yet both approaches are problematic because neither method proves a connection between product design and market success; they just offer subjective speculation about it. These approaches are thus not considered adequate for the strict accounting of marketing costs, and furthermore they offer no specific information about which concrete design aspects contribute to market success.

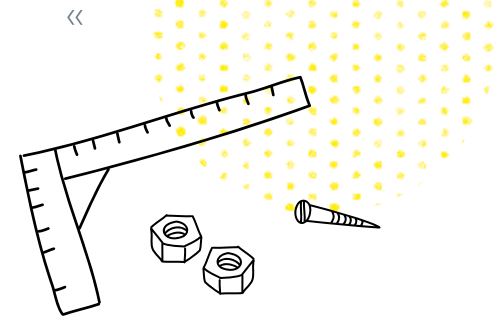
In our research groups at the Goethe University Frankfurt and the University of St. Gallen we were able to develop new approaches in the past several years that make product design more objectively measurable. These approaches allow to econometrically identify the importance of design to market success.



In the context of automobile design, we were able to develop objective metrics for visual typicality and visual complexity that allowed us to predict an automobile's success on the German market using an econometric forecasting model. These two indicators of aesthetic design quality alone can be used to explain up to 19 % of the variance in sales figures. By comparing this figure to price (18.4 %), brand strength (17.7 %) and technical quality (11.7 %) we were able to demonstrate the special importance of product design for market success (Figure 2). What's even more interesting for practical applications: Our objective metrics for product design can be translated into concrete recommendations for developing successful designs. With this, companies can assess the market potential of early-stage design drafts.

In the coming years we expect fundamental progress in objective design measurement, particularly in the areas of image statistics, pattern recognition and machine learning. It will be possible to uncover more thorough and detailed information than ever before about the most central design success factors. The fact that product design plays a vital role in market success has thus been proven so that we can now turn to the question of why product design increases the benefit to the consumer and to its role in purchasing decisions.

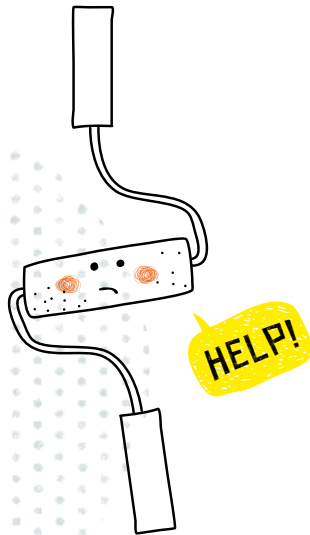
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Product design and consumer satisfaction /// Product design offers no direct or rational consumer benefits as do aspects like product functionality, but it offers other advantages.

- > **Emotion.** Product design evokes an emotional visual experience. It is hardly understandable from a rational viewpoint and can hardly be described in words, as the Head of Volkswagen Group Design, Walter de Silva, describes convincingly on page 46, Viewing a product creates a visual experience that gives the consumer pleasure, and this creates a singular kind of consumer benefit.
- > **Self-expression.** Furthermore, aesthetic product design can play a communicative role: People engage in aesthetic consumption to communicate something to their peers about their own good taste. It serves to cast themselves in a positive light and to maintain their own image.

These two properties of product design are relatively clear and do not necessitate further explanation. However, new research has identified yet another exciting and beneficial effect of product design.



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- **Self-confidence.** In her article (p. 22), Claudia Townsend demonstrates that consumption of aesthetic products does not only cause an immediate feeling of personal well-being but that it also increases consumer self-esteem and reinforces consumers' values. This then gives consumers increased self-confidence, which can have a positive effect on later situations. Today, consumption is frequently represented as something negative – something that is materialistic and not ecological. It may provide a temporary high, but in the long run it harms consumers' well-being. Claudia Townsend provides another way of looking at the consumption of high design: Aesthetic products not only increase short-term satisfaction, but they also positively affect one's sense of self over the long term. Therefore, they can be said to influence consumers' satisfaction and well-being. In addition to the immediate and temporary sensory pleasure they offer, aesthetics in product design seem to create a sustainable and long-term benefit for customers. This has exciting implications for the time frame during which product design results in positive ROI effects, for example, through word-of-mouth or repeat purchases.

Product design in market research /// The fact that product design can not only cause short-term market success but can also create long-term customer enthusiasm raises another question: How should the short-, medium- and long-term market potential of design concepts be determined? At this point it is worth mentioning the interview with Walter de Silva once again. He explains well that results from traditional surveys, like car clinics or one-time target group surveys provide no relevant information concerning future market success. In his experience, consumers can only judge the aesthetic potential of a design based on the here and now. Predicting which design could be successful on the market in three to five years is difficult for the untrained eye and therefore frequently leads to fundamental misjudgement.

As a solution to this problem, Claus-Christian Carbon developed the Repeated Evaluation Technique a few years ago (p. 34), which we successfully applied and confirmed in our own research. The method is based on simulating consumers' familiarization with a design within the framework of a survey, which otherwise would take several years. Researchers are able to more easily draw realistic conclusions from surveys about a product's long-term market success. Through intensive and repeated engagement with the details of a design during a relatively short market-research session, one can assess much more accurately whether the design will just be a brief success on the market or whether it will hold consumers' attention for a longer period of time.

Product design and other marketing factors /// Can product design alone ensure a product's success? Walter de Silva gives a clear answer from his practical experiences: No. Only when the interplay of product characteristics, brand and design is carefully coordinated can successful products be created. The past several years have also seen some interesting findings on the interplay of marketing factors and product design.

In his research, Ravi Chitturi (p. 16) convincingly demonstrates that a product's technical quality is a hygiene factor that consumers use as a deal-breaker when making product decisions. If a product cannot offer reasonable functionality, even the most attractive appearance cannot help sell it. But once consumer expectations concerning functionality are fulfilled, the principle of hedonic dominance comes to the fore. This principle states that if a product offers satisfactory functionality, design dominates the purchasing decision. Our own recent research has shown that a strong brand helps make design

aesthetics a central decision criterion. In other words: Combining quality with a strong brand creates so much trust among consumers that they will make their purchasing decisions based completely on their emotional enthusiasm for a design.

In her research on the effect of design on the perception of a product's quality, JoAndrea Hoegg shows how complicated the interaction between product design and quality can be in reality (p. 40). The key conclusion in her research is that it is often difficult for consumers to determine the objective quality of a product. A product's design can, however, subliminally communicate subjective expectations of product performance. Simply put: Consumers believe that a product with an excellent appearance will also deliver excellent quality. The purposeful design of certain features of a product's appearance evokes associations of quality and functionality in consumers, which are independent from the product's actual performance. This could convince companies to invest in design as a way to boost the apparent quality of a product while saving on actual product quality. While this type of strategy of misleading consumers may produce short-term success, it is doomed to fail in the medium and long term and is thus not something that any serious company should consider.

Product design and materializing ideas and concepts

/// A product design is not only an aesthetic experience; it is also the act of making ideas and concepts material. The design of an automobile carries designers' impressions of aggressiveness, sportiness, luxury, etc. In this way, a product's exterior also forms people's impressions of what aggressiveness, sportiness, etc. look like. The heart of product design is to make tangible abstract impressions, thoughts, and maybe even life goals. Groundbreaking design occupies a leading position in the interpretation of these abstract mental states and is able to trigger willingness to spend for these concepts. Whenever the topic of elegant, sleek and high-quality design is discussed, it doesn't take long for the name Apple to come up. It seems Apple has materialized how most consumers interpret the ideals of elegance, sleekness and high quality. In this way, the company reigns supreme when it comes to interpretation, and this is certainly an enormous competitive edge in many markets.

Most companies understand that they need high technical standards and implement them consistently. Because aesthetics help consumers interpret the everyday world around them, we also see an important competitive factor in design.

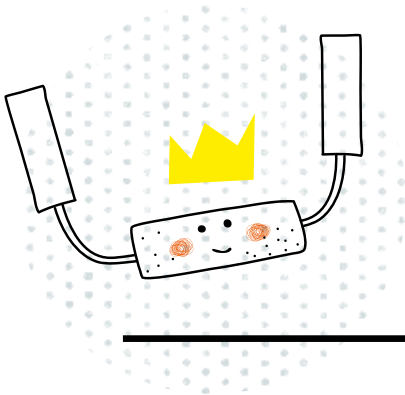
{Box 1}

KEY QUESTIONS ABOUT THE EFFECT OF DESIGN

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- > How much actual influence does a product's design have on its market success?
- > Why is product design important for consumers?
- > How can market research help identify potentially successful designs early?
- > What conditions increase the importance of a product's design? What conditions decrease it?
- > What is the relationship between material product design and the immaterial experiences of consumers?
- > How can product design be sustainably integrated into corporate strategy?

Thus, it is important for a company's success to be on the cutting edge of not just technology, but also design. Even if this is more difficult to implement, it provides sustainable competitive advantages and protects a company from its competitors. Superior aesthetics should be a top priority in cases where efficiency-oriented Asian competitors are able to offer functionally similar products at much lower prices.

Product design and corporate strategy /// Our main reasoning suggests that products can only be successful when their individual components complement each other well. Balancing all product elements naturally requires excellent coordination and communication within the company. But cultural and linguistic differences often collide in this endeavor, making productive cooperation difficult. Designers' creative, imagery-focused language has to be aligned with a highly analytical and metrics-driven marketing culture, as well as with the physical and mathematical language of technical development. Based on his many years of both theoretical and practical experience as an active designer, Michael Krohn (p. 28) shows that early integra-



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tion of all involved areas is essential for product success. He argues that product design can take on an integrating role because all available information comes together in the form of the product and thus shapes the consumer experience.

The holistic role that design plays also becomes clear in our GfK article (p. 52). The authors of this text present a survey tool that goes beyond a product's ergonomics or functionality

to evaluate the whole user experience, including the aesthetic quality. The underlying idea of designing a holistic consumption experience is consistent with the academic and practical insight featured in this issue of the GfK MIR: To achieve market success, a product has to create a positive consumer experience in its entirety. And with all other aspects being equal, the product with the best design will always be the most successful.

FIGURE 3:

The MacBook's materialization of elegance, sleekness and high quality



Implications for management /// Which companies will have the most success in the coming years? The academic research and practical business experiences presented in this issue all tell the same story: Companies that offer excellent products within a strong brand and match them with a fitting and aesthetically excellent design will be the most successful. In order to reach this goal, the following points in particular should be taken into consideration:

- > **Start cooperation early** /// Technical development, marketing and product design have to cooperate closely to bring together the strengths of the individual disciplines and overcome any hurdles in communication. Only when all departments of an organization pull together can irresistible products be developed: products that make the consumers happy in both the short and long term and that ensure success sustainably. In many companies, cooperation between development, marketing and design does not function well. In our experience, this has been the biggest challenge.

- > **Collect market feedback as part of the process** /// Product development often flows from the “inside” to the “outside”: The developer produces a product, the designer rounds it out and makes it more appealing, and marketing takes responsibility for sales. But development and product design departments need market feedback as part of their processes; it is possible to miss market requirements not only in terms of technology but also in terms of aesthetics. The articles in this issue show that recent market research techniques are able to provide insight into customers’ aesthetic sensibilities. However, these new techniques are seldom implemented in applied market research and rarely accepted by development and design departments. This problem does not stem from developers and designers not being open to market insights; rather, the problem lies in the fact that most conventional methods do not deliver what is needed.

- > **Understand customer emotions** /// The concept of the rational consumer, who evaluates product components without letting emotions interfere, is dominant in practically all approaches to market research. A good example is the popular method of conjoint analysis, which is often used to comprehend customers’ product decisions. It is underpinned by the assumption that customers make trade-offs between product features and their form. The product that shows the highest level of overall benefits

will be the one that customers buy. This decision-making pattern may play a role in certain partial decisions; nonetheless, in most cases people arrive at product preferences in entirely different ways. Thus it seems indispensable to us that marketing and market research revise their image of the customer by allowing for emotions, spontaneity and many other impressions and impulses in choice situations. This kind of approach would allow for the examination of aesthetic experiences and would then necessarily lead to a much stronger focus on product design. Occasionally, one needs to achieve new ways of accessing the phenomenon known as the “customer” in order to get one’s priorities straight.

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