Design Policy to Enhance Brand Value of Hitachi Consumer Electronics

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OVERVIEW: Today's consumers assess the design of digital consumer electronics with a much more selective and discerning eye that goes far beyond mere shape and color to consider the functionality, user-friendliness, and even the very concept of the product. The role of design is not only to satisfy the requirements of consumers but to awaken a latent need in the mind of the consumer, and the ability to create products satisfying these broader needs will be the fundamental challenge of design in the years ahead. Hitachi has defined an indicator of good design based on Hitachi's corporate philosophy. Based on this indicator, we formulated the design concept of "Cool Impact ×Real Quality" for the consumer electronics sector that will enable us to accurately identify product value that reflects ever evolving needs of consumers and can further enhance Hitachi's brand image. By developing advanced designs based on this concept while incorporating new approaches of glocal (global + local) design, universal design, and integrated interface design, we will be able to bring product concepts to market more quickly than in the past.

INTRODUCTION

IN everything from fashion and automobiles to ordinary consumer products that we use everyday, we are seeing an increased concern over product design as the way to differentiate one company's products from another company's products. Indeed, consumer interest in design is growing even for TVs and PCs that have already become indispensable to our everyday lives. Today, design is a critically important aspect of a product's value, and many consumers define good design much more broadly than just the visual appeal of color and shape to include less obvious attributes such as user-friendliness and product concept. This paper will explore the current state of Hitachi design through the design development of two hallmark Hitachi products, FPD (flat panel display)

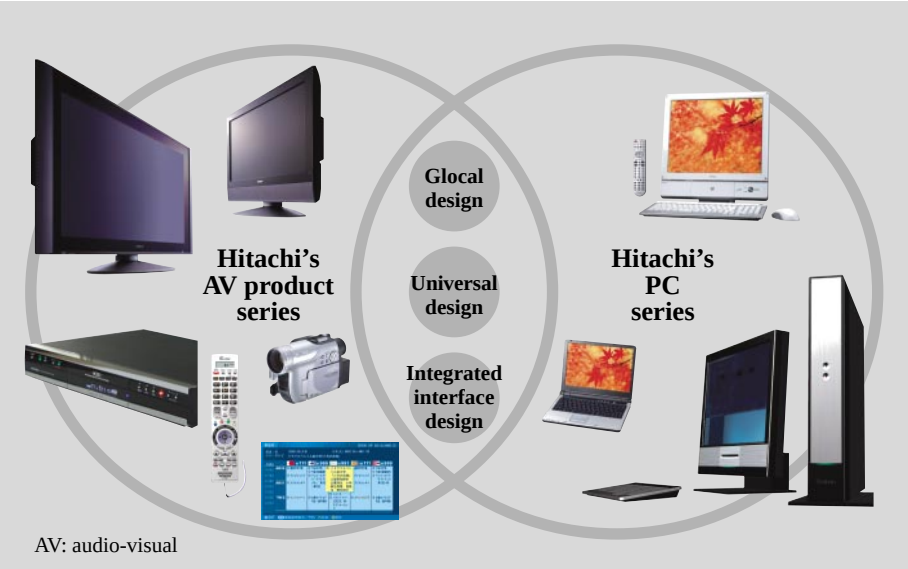

Fig. 1—Consumer Products and Design Initiatives to Enhance Hitachi's Brand Image. Hitachi's glocal (global + local) design, universal design, and integrated interface design initiatives have contributed greatly to the brand prestige of Hitachi's AV and PC product lines in the consumer products sector.

TVs and DVD (digital versatile disc) recorders.

DESIGN OBJECTIVES OF CONSUMER ELECTRONICS: DESIGN INDICATOR AND DESIGN POLICY

Design Indicator

Hitachi defined an indicator of good design based on the company's corporate philosophy to become a better company through the combined strength of its entire group. More specifically for the digital consumer products sector, we formulated the design concept: "Cool Impact × Real Quality." This means that we want consumers to be immediately captivated by our products as soon as they see them, yet to also develop a keen appreciation for the excellent quality of Hitachi products over time as they use them. While of course design includes the external visual attributes of a product, it also fundamentally involves the creation of product value including the feel and sense of pleasure and satisfaction that people have in using the product (see Fig. 3).

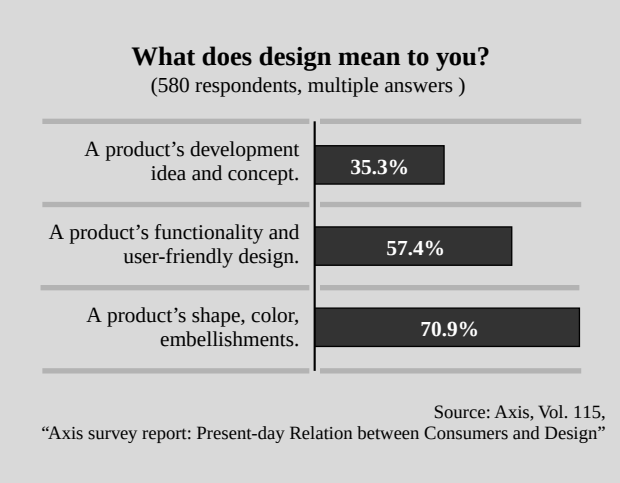

Fig. 2—Significance of Design to Consumers. Consumers believe that good design involves more than just the shape and color of products. Functionality, ease of use, and product concept are also considered important attributes of a product's design.

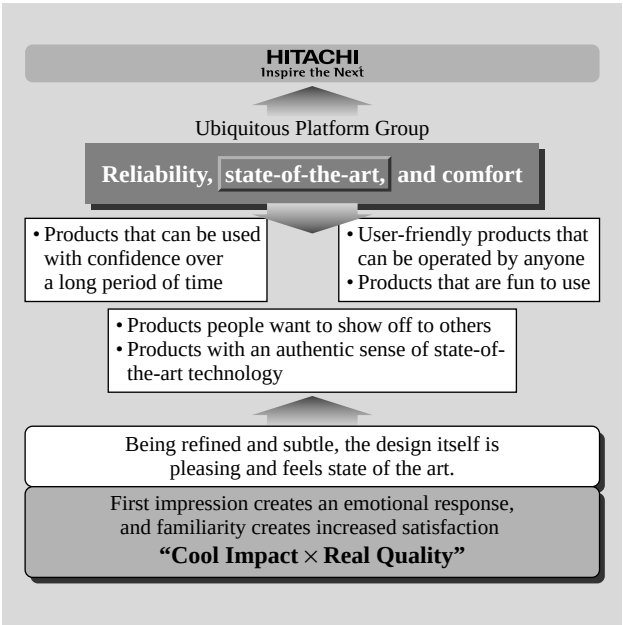

Fig. 3—Design Indicators in Digital Consumer Products Sector. In the consumer electronics sector, we have gone beyond the design principles of the Ubiquitous Platform Group—reliability, state-of-the-art, and comfort—to formulate "Cool Impact × Real Quality" as our goal for designing products providing consumer satisfaction and a strong emotional impact.

Design Policy

Naturally consumers form a mental image of a company through the use of that company's products, and this is closely tied to a company's brand image. The design of a product, which is a key element of a product's value, and the direction the design takes, thus has a major impact on a company's brand image. Societal and environmental changes must also be considered in design decisions, specifically

(1) the transition from mass markets to smaller market segments,

(2) the increasingly elderly population, and

(3) the emergence of a more advanced network environment.

Marketing needs must adapt to these changes

(1) to accommodate more diversified values,

(2) to provide user-friendly controls that are easy for everyone (including the elderly and disabled) to understand and use, and

(3) to enable users to access and enjoy the enormous wealth of content that is available anytime and anywhere.

We will respond to these changing conditions and market needs guided by a three-fold commitment to glocal design, universal design, and integrated interface design (see Fig. 4).

COMMITMENT TO MARKET NEEDS AND BRAND VALUE

Glocal Design to Accommodating Diversified Markets

The idea behind glocal design is to standardize the basic design framework of products as much as possible, while varying peripheral component specifications of products to accommodate the preferences of local markets and distribution routes. One example of this approach is a layered design scheme that focuses on color and sense of material

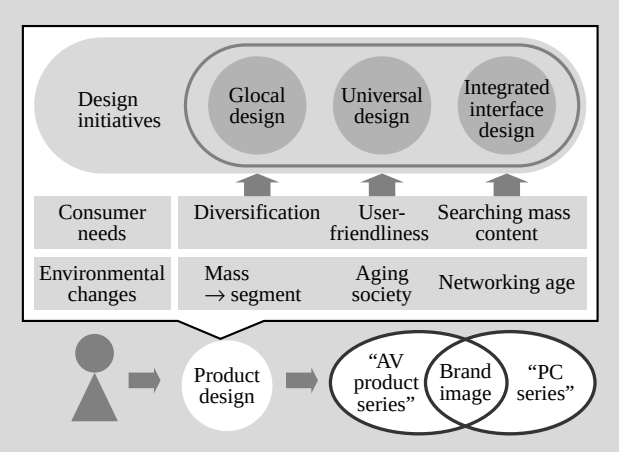

Fig. 4—Design Initiatives in Consumer Electronics Sector. Design plays a key role in elevating brand image, and glocal, universal, and integrated interface design policies directly address society's needs.

Fig. 6—Product Prototypes Assessed by Consumers. Prototypes of proposed products are given to consumers (including elderly and handicapped users) to try out, and their assessments are reflected in the final product specifications.

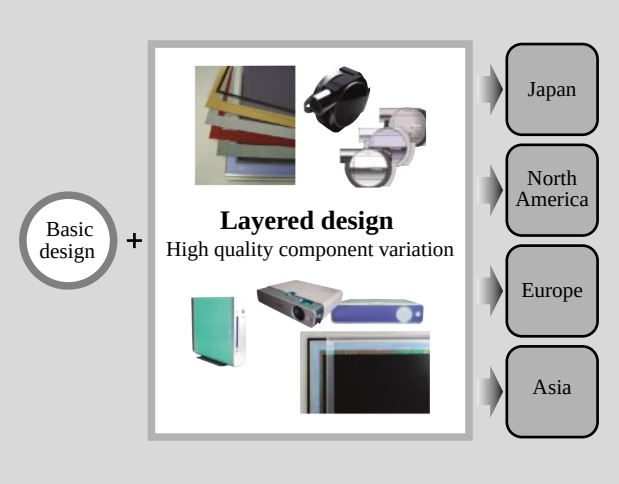

Fig. 5—Glocal Design Overview. By incorporating layered design principles into basic design, we can accommodate diversified consumer needs while achieving superb quality appearance.

that are critical factors in one's first impression of a product.

The look and feel of transparent materials like glass and acrylic can be altered in myriad ways through creative processing on the back side of the material. And a printed pattern or coating of translucent color can dramatically alter the appearance of a product and confer a rich look. Techniques such as these can give products a design value—depth, appeal, attractiveness—that is difficult to quantify, and can be used not only to enhance the visual appeal of products but also to develop a much more diverse range of products (see Fig. 5).

Universal Design Making Products User-friendly for Everyone

A major issue is raised by the growing complexity of controls and menu screens on newer digital TVs and digital recorders as new capabilities are added to access and control the diverse array of new services that are emerging. Universal design is becoming increasingly important as the way to solve this problem. The primary concerns of universal design are

(1) to provide impartial access and usability to everyone (including the elderly and disabled),

(2) to enable easy and intuitive understanding of all essential information, and

(3) to minimize the physical burden that is involved in using a product.

Primary objectives of universal design are to promote access and ease of use of products by everyone (disabled and non-disabled alike) by developing controls based on simple everyday actions like turning a dial or pressing a button, figuring out ways to peruse a lot of information very quickly, developing GUIs (graphical user interfaces) that are easy on the eyes, etc.

Development of actual products is often based on the objective assessments of users trying out prototypes to see if the proposed product is truly useful and tailored to the needs of a broad number of consumers (see Fig. 6).

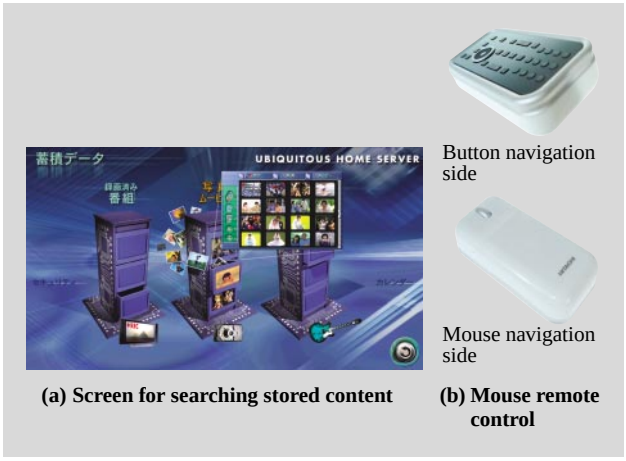

Fig. 7—Proposed Intuitive Interface for Network Environment. Elements of an data storehouse for storing information: (a) a visual graphical user interface (GUI) search screen, and (b) a mouse remote control for faster screen navigation.

Fig. 8—Tailoring Look of FPD TVs and DVD Recorders for Different Markets.
We can achieve extensive variation in look by altering the trim elements of Hitachi's FPD TV (2005 series) and DVD recorder with terrestrial, satellite, and 110° communications satellite digital tuner.

Integrated Interface Design for Networked Age

Home networks interconnecting all the electronic devices and appliances in people's homes present two major challenges to our everyday lives. First is how to get at the particular information a user wants from a vast amount of stored content in an intuitive and enjoyable way, and second is how to use all the diverse electronic equipment with different operating systems in the home—TV, PC, recorder, etc.—without becoming confused. We are now developing an interface that addresses these issues by integrating all the common functions and capabilities of the different systems: recording, tuning, viewing, listening, etc. This not only lowers the stress level of operating consumer electronics in the home, it actually recalls the pleasure that people used to experience in operating electronic equipment in the past.

We developed a prototype that not only supports the usual remote control functions but also features a mouse remote control [see Fig. 7 (b)] that works much like the mouse attached to a PC to speed up on-screen operations. We also developed a prototype GUI search screen that implements a data storehouse in the image of a chest of drawers [see Fig. 7(a)], so that users can search for stored content in a very intuitive and easy-to-grasp manner. In these prototypes, we successfully implemented intuitive interfaces that are based on ordinary everyday actions with which users are already familiar and comfortable.

DEPLOYMENT OF PRODUCTS

Product Design Tailored for Global Markets

Certainly the external finish and sense of superior quality are given careful consideration in designing FPD and DVD recorders for world markets, but another prime concern is designs that can be adapted to both global and local markets. The 2005 series FPD TV that just went on the market in August 2005 is a case in point. The set is designed with a variable speaker grill, so the look of this model can be readily tailored to local preferences without drastically modifying the basic specifications. Similarly, a DVD recorder that went on sale last year can be easily adapted to regional tastes by just changing the specification for a vertical decorative element that is a prominent part of the overall design (see Fig. 8).

Interface for Widest Possible Audience

Interface specifications for FPD TV and DVD recorders are developed based on actual testing of prototypes by ordinary consumers and other kinds of user feedback. Recording and the more troublesome settings are done on screen, while the more frequent operations such as tuning are concentrated on the remote control. We also improved the visibility of controls by making the buttons bigger and by implementing the lettering and background color of the buttons in sharply contrasting colors. And out of concern for elderly users and people who may not have full use of their hands, we designed the remote so a

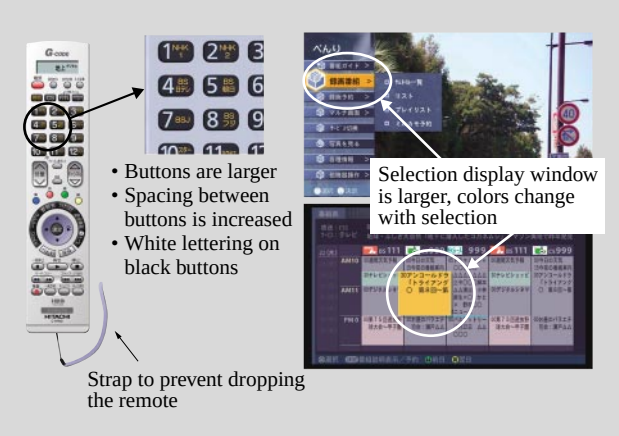

Fig. 9—FPD TV Remote Control and GUI.
The larger buttons and lettering and larger selection window display make it much easier for consumers to see and understand.

strap can be attached at bottom of the device. The strap keeps the remote tethered to the user even if it slips out of the user's hand.

In terms of the GUI, we increased the size of on-screen buttons, icons, and lettering to improve visibility. To improve the visibility of menu screens and the program listing, we designed an interface that enlarges both the selected area and the size of lettering and also changed the color of the selected area, so one can see the control settings at a glance (see Fig. 9).

CONCLUSIONS

Focusing on FPD TVs and DVD recorders, this paper described some of the design philosophy and activities at Hitachi in the area of digital consumer electronics. Consumers assess products by envisioning the value they would derive from the product and how the product would benefit or make their everyday lives more enjoyable. In order to give consumers what they want— good product value that satisfies the consumer —it is critically important that we accurately recognize market trends, and develop fully-functioning prototypes for consumers to handle and evaluate as quickly as possible. Another singly important future issue for design and for designers is how to come up with enticing new products that awaken latent needs and desires that consumers themselves may yet only dimly perceive. Hitachi remains committed to giving customers superbly designed products that exactly meet their needs based on the full R&D (research and development) and product verification resources of its entire group.

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