# Data Insights of Design and Design Managments

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**Abstract:** *Based on the individual idea of Design and Management of Design, the relation between them and their influence on each other is analyzed. This paper then puts forward importance of each Design and Design Management in both a stand-alone way and in an inter dependent way. Design is the outward appearance or physical arrangement of objects involving shapes, layouts, color, textures, patterns etc. Design management as a task deals with these four activities: educating designers for management, educating managers to design, design project management, and design management organization. In order to reinforce the newly designed products/services, the companies these days use graphic design to create distinctive broachers, forms, and other literature. Since the attributes that customers look for, including quality and reliability, are determined mostly at the design stage, the urgent need for design management becomes obvious. Managers view design as a resource which can add value to product and services, while designers wish to create for the sake of creating, for expressing themselves, to educate the public in art and design etc. The manager's task is usually to achieve the objectives of the enterprise, expressed and measured by profit. While doing this, the manager also needs to provide satisfaction to all who relate to the company such as employees, shareholders, and customers. This is easily achieved if mangers have a deep interest in what they make and sell. Design training helps managers to develop and sustain an interest in the product(s) they are manufacturing. Hence this paper contains essential information pertaining to Designing and managing the design that anyone who wishes to start off in the field or is already in the field must know. To facilitate clear understanding and familiarity with the topic, it addresses matters like Principles of Design Management, developing a Corporate Approach towards Design and its management, Assembling and Managing a Design team*

**Keywords:** *Data, Design, Design Management, Information, Knowledge*

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## I.  Introduction

Good Design is integral to business. The different outlooks of managers and designers are also dealt with. The paper explains precisely what designers do and introduces a model of design by process, following which we can define the relationship between Design and Design Management. Everyone in the world is more conscious of design today than they were just a few years ago. In personal life, we demand much higher standards in every way. These raised standards have become possible because competition between suppliers or providers makes sure that the consumer never stops searching for uniqueness. Thus, design is an inescapable part of every business. Therefore, it must be managed with skill, the same way as other business activities are managed. Managers and employees of business must focus on the fact that their livelihoods depend on customers continuing to buy what the firm has to offer. If design is neglected, it will result in out-of-date product or services, which customers reject in favor of the products and services of other companies.

Management's definition of the image the company wishes to have should be part of the design brief of all projects. This definition is based on what the company is at the same time, it should set the direction for the future. The art of design management is to create positive feedback between image and identity to pursue the idea of quality via design as a means of bringing one closer to what one wants to be.

## II.  Basic Design And Design Management

The dictionary explains design to mean a plan or a scheme. Design is the outward appearance or physical arrangement of objects involving shapes, layouts, colors, textures, patterns etc. thus, design stresses two things: something that already exists, and the needs of the person who must ultimately buy or use the product. Design management on the other hand as a task deals with four activities given below:
A) Educating designers for management- This means equipping designers with the language, norms and values of management. For instance, the designer must understand terms like gross profit etc.

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B) Educating managers to design - This is the other side of the same coin. Managers must be taught the language, norms and values of design.

C) Design project management - This describes the place of design in the project management process. The process is the way action tasks are arranged in an organization.

D) Design management organization - This is the place that design occupies in the management structure of organizations, and the way to make this an effective relationship.

We all know that a good Design is integral to business success. Design is a strategic management tool because: it increase profits, it promotes participative management of innovation, it improves the management of new ideas, it improves the image of the organization, and it improves the innovation performance. Appearance or presentation is often the most crucial factor when customers decide. Whether it is computers or carpets, stereo systems or sneakers, styling is often the major factor influencing what people will buy, how much they will pay, and how soon they will want to make a repeat purchase. Still, it is a mistake suggests that outward appearance should be the only concern. The technical aspects of products remain vitally important. Thus, sewing machines, cameras, and domestic appliances have seen more than just cosmetic changes over their product lifetimes. Along with the product, how it is sold and the way it is packed are also important. In addition, all accompanying product literature must be carefully prepared. Often, interiors are completely renovated to coincide with the launch of new ranges of products. The aim is always to retain or reawaken the interest of customers and to maintain the level of sale.

Everyone in the world is more conscious of design today than they were just a few years ago. In personal life, we demand much higher standards in every way. These raised standards have become possible because competition between suppliers or providers makes sure that the consumer never stops searching for uniqueness. Thus, design is an inescapable part of every business. Therefore, it has to be managed with skill, the same way as other business activities are managed. Managers and employees of business must focus on the fact that their livelihoods depend on customers continuing to buy what the firm has to offer. If design is neglected, it will result in out-of-date product or services, which customers reject in favor of the products and services of other companies. Also, buyers are ready to pay above the cost of an 'ordinary' model in order to enjoy distinctive features. This would result in greater profitability for successful suppliers and providers. Since the attributes that customers look for, including quality and reliability, are determined mostly at the design stage, the urgent need for design management becomes obvious.

Managers view design as a resource which can add value to products and services. That believe that if design is used properly, it can produce good returns and contribute to improving the profitability of a business. Designers wish to create for the sake of creating, for expressing themselves, or for reasons such as to improve the environment, to educate the public in art and design etc. The designers' goals clash with the managers' aims.

## III. Principles Of Design Management

The twelve principles of design management are: use design as a tool ,Get the definitions right, Make commitment to good design a boardroom issue, Introduce design step by step , Use design to create unity of purpose , Look for challenges to stimulate innovation, State goals in design brief, Identify the big idea, Accept the limitation of the task, make design  a dialogue between complementary.

**Henri Fayol** (1841-1925)

He considered management to consist of six functions: forecasting, planning, organizing, commanding, coordinating, and controlling. He was one of the most influential contributors to modern concepts of management. (see Administration industrielle et générale - prévoyance organization - commandment, coordination – contrôle, Paris: Dunod, 1966)

**Earl Powell**

The first international research project on design management, the TRIAD research project, was initiated by Earl Powell and Thomes, then president of DMI and the Harvard Business School in 1989. In the same year Earl Powell and Thomas Walton, Ph.D. developed the Design Management Review and DMI published the first issue. The publication is solely focusing on design management and has become the flagship publication of the discipline.

**DESIGN RELATED TERMINOLOGY**

**Package Design**: This is concerned with choice of material and manufacturing process, as well as shape, color, decoration, and lettering for both the packaging and any accompanying instructions.

**Graphic Design**: This includes considerations of the layout of broachers, company stationary, point-of-sale materials, and vehicle liveries.

**Building Design**: This is often divided into interior and exterior work.

## IV. Proposed Method

Designers prepare appropriate solutions to marketing problems or opportunities. This implies that designers perform several activities. These are:
1. Generate novel (new) concepts
2. Review and modify existing concepts
3. Carry out experiments.
4. Build samples.
5. Seek constructive advice and the judgment of others.

Thus, designers must possess the following general skills, and also some specific skills.
• Creativity
• Analysis
• Synthesis
• Communication
• Knowledge of technical data, and of existing solutions.
• Knowledge of current and future trends in design

Designing is a spiral process. This stresses that design is an evolving activity. In the figure, it is clear that as each subsequent cycle is completed, more knowledge is gained. This leads to quicker and more efficient designing.
1. Formulation
2. Evolution
3. Transfer
4. Reaction

In every field, certain Guidelines are to be followed, same goes for Design and Design Management.
A--Companies: that wish to survive in the competitive era must have design competence in three areas:
1. Management
2. Product
3. Process

B--Guidelines for the design of management
1. Evaluation of performance
2. Learning how to learn
3. Attitudes towards others

C--Guidelines for the design of products
1. Meaningful limits
2. Measure of success
3. Testing assumptions

D--Guidelines for the design of processes
1. Beyond mass-production
2. A holistic framework
3. A need for a common language

E--Design as a strategic management tool. It increases management tool because:
1. It increases profits
2. It promotes participative management of innovation
3. Design improves the management of new ideas
4. Design improves the image of the organization
5. Design improves the innovation performance

The distinction between design mix and design strategy moves on to specify three basic design strategies i.e. the design-to-cost strategy, the design-image strategy, and the design-to-user strategy. Choosing a design strategy means deciding the following:
1. The visual dimension (structural, functional, shaped, or symbolic) to relay on for differentiation from existing products.
2. Selection of a design mix
3. Design budget
4. Selection of a design organization
5. The role of design in the company

New product and service development by designers is usually a five-step decision process:
1. Opportunity identification
2. Concept
3. Testing

4. Introduction, and
5. Profit management

To understand the strategic nature of the design technique, there are 3 basic strategies:

1. Design-to-cost: The design impact on productivity is required. The basic strategy is cost domination. Preference in strategic development is given to technological advance and manufacturing process competence.
2. Design-Image: Differentiation involves creating market power. The basic strategy is differentiation. Value is added by differences in product perception and message, and design is close to communications strategy and advertising.
3. Design-User: The Company concentrates on becoming the specialist in one market segment. The basic strategy is concentration. The strategy works if the company knows the needs to the market better. Thus, the design objective is to become better by producing a unique or more appropriate product, perhaps one that works better or is easier to handle.

It is important to increase awareness among managers of design's contribution to success in business. In addition to this a corporate approach to design is also necessary. The essential features of a corporate approach to design are:

1. Recognition that design represents an identifiable set of activities with an important contribution to long term profitability, and thus needs to be managed rigorously.
2. An awareness of design activities within an organization and how these relate to one another.
3. A formally accepted view on what the management of design entails, and how design activities might best be managed.
4. A clear hierarchy of design responsibility, with executive responsibility for design formally assigned to a senior manager.
5. Some degree of specification on a corporate basis.
6. A strong sense of self-control at most levels of staff backed by an appropriate degree of corporate supervision of design activities.
7. Design must become an integral part of the thinking and decision making within all departments, just as marketing, production and financial issues must become integral to the thinking of design specialists.

## ASSEMBLING THE DESIGN TEAM

One prerequisite to building a strong design team is a sound knowledge of the firm's track record in earlier design work. For this reason, careful attention needs to be given to design auditing. Design audits review the return or potential return being achieved on the resources employed, to check whether the level of resources is adequate for the task involved and to highlight relative success and failure. Two types of design audits are required: regular audits and pre-project audits.

**REGULAR AUDITS**: Such an audit ought to examine design activities, calculate the time and cost of the work done, and relate this to the effects achieved by the design result. It mostly focuses on (a) success/failure rates and causes. (b) Design skill weaknesses. (c) Project management competence. These can be conducted by someone not directly involved in the work but has some knowledge of design activity and problem.

**PRE-PROJECT AUDITS**: This purpose of the pre-project audit is to confirm that the new project is within the capabilities of the design department or group which will be undertaking it. This is true whether the department concerned in internal or external. These should be addressed by the leader of the proposed project or another manager from within the design area.

Design teams are best managed using organic (informal, based on teams and highly adaptable) styles. Some of the features of organic systems are:

1. Unifying theme is the common task
2. Hierarchy does not predominate.
3. Flexibility
4. Control is through the common goal rather than by institutions, rules and regulations.
5. Expertise and knowledge are located throughout the organization, not just at the top.
6. Communications consist of information and advice rather than instructions and decisions.

## APPOINTING A DESIGN MANAGER

A design manager is appointed keeping in mind the following qualities.

1. Ability to deal with change and ambiguity
2. High level of technical knowledge.
3. Ability to work successfully with customers and/or clients

It may be more appropriate to appoint two persons whose skills are synergistic to work as design manager.

## V. Conclusion

The research is based on a theoretical research method – literature review. The literature review was divided into 6 research stages: (1) to research 5 scientific databases to explore literature where idea Design" and "management" are linked (2) to select literature specifically about Design and management (3) to exclude duplicates; (4) to achieve the objective of the enterprise (5) visual literacy (6) Design used as an action based.

The manager's task is usually to achieve the objectives of the enterprise, expressed and measured by profit. While doing this, the manager also needs to provide satisfaction to all who relate to the company such as employees, shareholders, and customers. This is easily achieved if mangers have a deep interest in what they make and sell. Design training helps managers to develop and sustain an interest in the product(s) they are manufacturing.

The second characteristic of the designer is visual literacy, the ability to see and to reproduce what is seen through drawing, modeling etc. When managers are trained in this design attribute, they can make sense of huge amounts of visual information such as line drawings, layout diagrams, and work –flow charts, architectural plan etc.

Lastly, design uses an action-based methodology. When dealing with problems, the designer wants to first find out how, before finding out why. This means design takes small, incremental, and practical steps to a solution. Managers usually work in the opposite fashion, finding out why before knowing how. Thus, design training helps managers to give importance to doing, and to allow the thinking to be the next step to doing. Essentially, design training can help line managers to contribute to better design of their products, and it can also help them to manage better.

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