How the Design Leadership and Strategic Design Drive New Value in Enterprises and Organizations

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ABSTRACT

Today's design has shifted from the original primary pursuit of appearance and function to processes and systems, creating new meanings for corporate strategies, products and services. Nowadays, enterprises are increasingly paying attention to the power of design, and regard design as the main innovation method and incorporate it into the organizations. Design began to be considered a key role at the top of large organizations. Although people recognize that design can bring good effects to enterprises and organizations, and there is growing interest in cultivating design thinking, what are the leaders who can lead enterprises, organizations and have design thinking? Their characteristics and how to formulate and plan strategic design still not fully elucidated. Therefore, this research uses related theories to understand the way of thinking and characteristics of design leaders, only in this way we formulate good strategic design for enterprises and organizations, and become an indispensable and important help in today rapidly changing world.

Keywords: Design Leader, Design Leadership, Strategic Design, Design Thinking.

INTRODUCTION

If enterprises want to create a competitive advantage, it is far from enough to only produce products that meet consumer demands. At the same time, the development of new technology and rapid production have led to a shortened product life cycles, coupled with the innovation of transportation, the development of the internet, the expansion of the market and the increase in competition, leaders in many industries have become more volatile. (Fixson & Read, 2012). Looking at the world's enterprises Apple, Dyson, and Montblanc, they not only launched excellent products, but users are also proud to own these products. The design has shifted from the original pursuit of appearance and function to processes and systems, creating new meanings for corporate strategies, products and services. Design is no longer confined to the field of design as in the past, but has been expanded to an interdisciplinary field (Daly & Chrispeels, 2008).

Nowadays, enterprises are increasingly paying attention to the power of design, and regard design as the main innovation method and incorporate it into the organization. It can also be said that design began to be recognized as a key role at the top of large organizations. This reflects the increasing demand for innovation within the organization, and also reflects the importance of design thinking that can support innovation and change (Galli, Pino A, & Suteu,

2017). Many enterprises, companies and organizations nowadays do not use Hierarchy in the past, but have a Heterarchy. Therefore, they cannot stick to the past in management, they must have design thinking and understand flexible management. Also need to have the ability to identify outdated meaning and value (Cooksey, 2003), and be able to choose appropriate methods to implement changes. These are the images of design leaders who bring transformations to enterprises and organizations as the main participants in the transformations (Bucolo, 2015).

When the design leader needs to set the direction and goal for the team in the enterprise and organization, how should he/she move in the right direction and achieve the goal? It is to rely on the formulation and planning of strategic design. Strategic design refers to the professional field where design leaders use their principles, tools, and methods to influence organizational decision-making and enrich their horizons (Calabretta, Gemser, & Karpen, 2016; Hugentobler, 2017). It is like planning a map, so that the executor will not be confused about the direction and wrong the goal, and at the same time can let the team clearly understand the current situation and the tasks to be performed.

The purpose of this research is to clarify the question: Although people recognize that design can bring good effects to enterprises and organizations, and there is a growing interest in cultivating design thinking, what are the leaders who can lead enterprises, organizations and have design thinking? Their characteristics and how to formulate and plan strategic design are still not fully elucidated.

Therefore, this research uses related theories to understand the way of thinking and characteristics of design leaders, only in this way we formulate good strategy design plans for enterprises and organizations, and become an indispensable and important help in today rapidly changing world.

1. WHAT IS DESIGN LEADERSHIP?

Effective leadership is mandatory to create an environment where everyone can expect to contribute, and can complete the work excellently. Whether a business can continue to operate, the leadership of the leader is critical (Gloppen, 2009), and is a basic skill that must be learned and practiced regularly. There are many aspects of leadership, and there is no simple definition: it is the ability to motivate and encourage others to overcome challenges, accept continuous change and achieve goals; the ability to build strong and effective teams; the process of influencing, persuading and guiding others (Osborne, 2015).

Leadership and management are essentially different. Leadership function is to make decisions and communicate, gather people to achieve goals and complete various challenges. Management is to plan and implement strategies, evaluate performance and run systems. Traditionally, the organizational structure of an enterprise is a hierarchical system of top-to-bottom or bottom-to-top. However, the design thinking is diverse and emphasize teamwork, which results in the design organization becoming an interconnected network system. The past linear leadership style is no longer applicable. To lead this organization, people with design leadership are needed to lead and connect people in different fields, so that everyone's expertise can be utilized and new possibilities can be created.

The simple definition of design leadership means "design" and "leadership". Leading design and leading a business through design is also described as a form of leadership and supports

innovative solutions (Turner & Topalian, 2002). Today's most enterprises also believe that design leadership makes an important contribution to the design and innovation process and can create a competitive advantage for the enterprise. Design leadership stems from the concept of design management (Acklin, 2010). Ralf Beuker proposed a design leadership structure (Figure 1) in the 2011 Cambridge Design Management Conference speech, which illustrates that design leadership consists of design, design management, and design thinking. And design thinking has recently become a trend, creating new ideas for different industries (Baars & Rüedi, 2018). From this perspective, design leaders will apply design thinking to implement effective management and plan strategies for enterprises and organizations, thereby reflecting the guiding role within the organization (Galli et al., 2017) and assisting in achieving goals (Miller & Moultrie, 2013), we can see the importance of design thinking to design leadership.
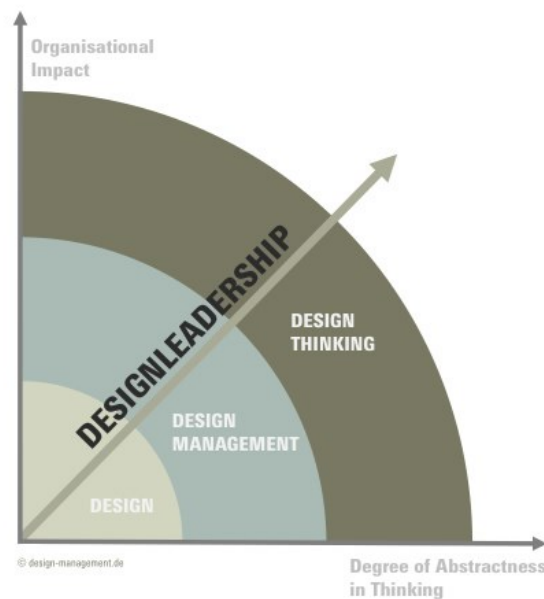

Figure 1. Design leadership architecture diagram (Ralf Beuker, 2011).

2. DESIGN THINKING POSSESSED BY DESIGN LEADERS

The above let us understand that design thinking has been reintegrated as one of the main abilities of design leaders, so that they can play a leading role in the organization and bring innovative thinking and flexibility to enterprises and organizations. Design thinking is a mode of thinking that clarifies and solves problems, and is a process of exploring "innovation".

Tim (2009) proposed that the innovation process can be divided into three major aspects: inspiration, ideation, and implementation. "Inspiration" refers to finding insights and finding opportunities and needs to solve problems. "Ideation" refers to the conversion of insights into ideas and the development and verification of ideas. "Implementation" refers to the feasibility and development of ideas perfect planning.

These three aspects overlap and interact with each other, so when the design leader executes the creative development process, he/she will not move in a straight line but will continue to go back and forth between these three aspects. This is not a lack of strategic planning, but more emphasis on the process of exploration. When a special point or feedback is found, it will not be easily ignored.

However, in order to take into account factors such as manufacturing, technical capabilities, usage requirements, and market sales, there are often many limitations. These limiting factors are divided into three major limitations: feasibility, viability, and desirability (Brown, 2009). "Feasibility" mainly discusses whether the design results are practical and can be put into the market for consumers to use. "Viability" refers to whether the design results can become the products of sustainable development of the enterprise. "Desirability" design results are meaningful to users, reflecting products that users are willing to own. When the design leader has applied design thinking, these three limitations can be balanced to propose satisfactory solutions and experiences for organizations and enterprises.

3. RESPONSIBILITIES AND CHARACTERISTICS OF DESIGN LEADERS

In addition to design thinking, design leaders must also have several core responsibilities to properly lead enterprises and organizations. Raymond & Alan (2002) more clearly stated that the core responsibilities exhibited by design leaders have the following six items: Looking Ahead, Clear Strategic Objectives, Guiding Enterprise Design Investment, Managing Business Reputation by Customer Experience, Creating and Nurturing an Innovative Environment, Organization and Training Design Leaders.

It can be seen that in addition to properly planning the goals, the design leader's responsibility also needs to meet the expectations of the organization's customers. This also gives the design leader the final decision-making power, and must be responsible for the judgments made and motivate relevant personnel to work hard to realize the vision and contribute to the growth of designers (Sherwin, 2012).

Frans (2011) uses LEADERS abbreviations to explain the seven qualities of design leadership:

L- Listen and Look: listening and observing stakeholders inside and outside the organization constantly, in order to find new insights;

E- Emotional Bonding: In order to lead the organization to continue to grow, leaders must avoid authoritarianism, anger and loneliness, have emotional connections with the team, care for others, and enhance others' self-esteem;

A-Awareness: pay attention to each real problem behind a challenge;

D- Doing: Act towards the goal to achieve the vision, and when it is done, this behavior will attract and motivate team members;

E- Empowerment: empower members to develop, without restricting talents' creative ideas;

R- Responsibility: Responsible for the judgments and decisions made;

S- Synchronicity: Introduce the right decision according to the timing.

Based on the above, the characteristics of design leaders integrate three levels: good at looking forward to the future, thinking strategically and leading others. Be proficient in the professional skills you have mastered, and make a good interpretation; when you pay attention to details, you can get a bird's-eye view of the overall situation, think abstractly, and expand your horizons; guide non-design and design colleagues through the design

process, convey design thinking, and let them have pride on what they designed and accomplished.

4. STRATEGIC DESIGN DEVELOPED BY DESIGN LEADERS

When the design leader sets the direction and goal for the enterprise and organization, in order to make the team clearly move towards the goal, he/she will formulate a strategic design. Strategic design refers to the professional field where design leaders use their principles, tools, and methods to influence organizational decisions and enrich their visions (Calabretta, Gemser, & Karpen, 2016; Hugentobler, 2017)

The strategic design has eight main axes (Meroni, 2008), they are: Product Service Systems, Evolution, Problem Setting (what) and Solving (how), Social Innovation, Building Scenarios, Co-Designing, Strategic Dialogue, and Building Capacities.

In terms of integration, the strategic design formulated by the design leader should be systematic thinking, looking at the whole aspect, breaking through the boundaries, and formulating goal and direction that team members can follow, and thinking about how to make goal and result can develop continuously.

At the same time, under such a strategic design, the team can recognize the boundaries in the face of risks, promote positive changes, and cultivate and explore potential innovation points in the future. And it can establish a good cooperation environment for enterprises and organizations, so that the team is willing to learn from people in different fields, establish cooperative relationships, and provide a creative and effective way of working (Nixon, 2015). We can simply say that the strategic design formulated by the design leader is a planned behavior to achieve goals, to help understand the behaviors and methods that should be undertaken. Unlike in the past, it was only used for enterprises and organizations to develop products and obtain competitive advantages (Teng, 2002), but can be extended to business, service, planning vision, cooperation strategy and company culture (Calabretta et al., 2016).

5. METHOD OF STRATEGIC DESIGN AND EXECUTION

Giulia, Gerda & Ingo (2016) divides the strategic design into three stages, mainly to help enterprises, organizations or stakeholders to understand the entire design behavior. And the development is based on the designer and design behavior. The design leader needs to clearly define the steps and actions involved, and display the expected results.

The entire design process is divided into three phases: strategy, design, and realization. The "strategy phase" focuses on defining problems, formulating a vision, and exploring the problem-solving environment. It ends in a design brief (describes the direction of the entire plan and sets goals). The "design phase" develops the solution idea, and prototype, tests and manufactures the selected ideas. The "realization phase" is to develop and produce solutions and put them on the market.

To help the organization understand the entire design process (strategy, design, realization phases), it is divided into six implementation projects (Calabretta et al., 2016): Make the process accountable, Make the process tangible, Synchronize designers' and organizations' processes , Instill process ownership, Bring the results of the process to life, Acclimate organizations to designers' ways of working.

Each implementation project occupies different proportions in different phases (strategy, design, realization) as shown in Figure 2.
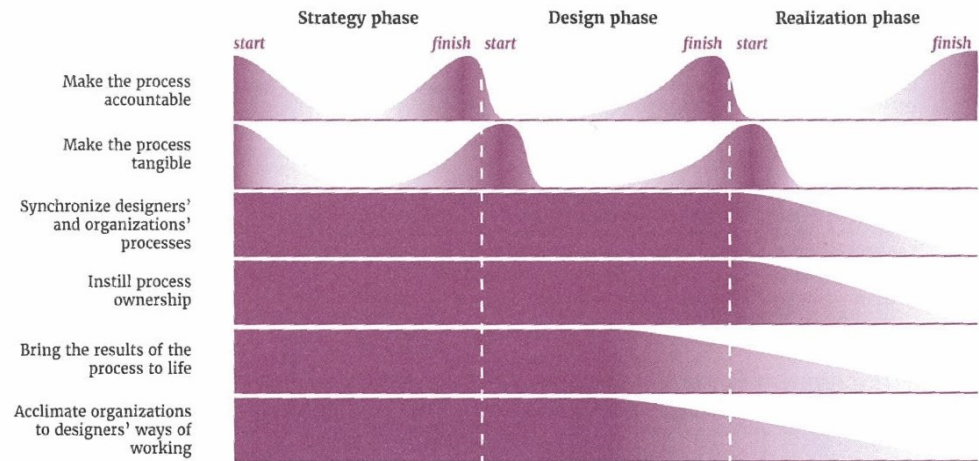

Figure 2. The proportion of different implementations at different stages (Calabretta et al., 2016).

The six implementation projects are as follows:

Make the process accountable

It is necessary to standardize, formalize and record the design process, and strengthen the organization to reach agreements and contracts on taking or not taking action concerning the whole process. Documenting the entire process helps the designer explain why the decisions were made at a specific time.

Make the process tangible

The process is visualized to explain and clarify the process to the organization. At the same time provide a case for this program, explain what the problems and difficulties will look like in the process. It is very important to visualize the process, which can explain the results of the selection and help to educate the unfamiliar phases and steps of the organization. This implementation project is not only important in the strategy phase, but also affects other phases (design and implementation phases). The visual presentation can promptly remind what will happen in the next phase and ensure the connection.

Synchronize designers' and organizations' processes

The designer and the organization continuously share each other's progress to ensure that the actions and goals they take are consistent. This implementation project is very important at the beginning of the strategy phase to understand which method is most conducive to organizational cooperation. In other phases, it is necessary to ensure that everyone understands the actions taken or necessary to achieve the goal.

Instill process ownership

Shape the process according to the preferences of the organization to ensure that they believe that the process is in line with their needs, can fully support and are willing to follow it. In the strategy phase, the organization can participate in the planning and decision-making of the relevant process; in the design phase, the organization can be invited to provide feedback on each step of the creative process, thereby affecting the actions taken.

Bring the results of the process to life

Present the results (intermittently) concretely and visually, in order to reach agreement and feedback with the organization on the products to be developed in the process, and prove that the process is appropriate.

Acclimate organizations to designers' ways of working

Make the organization actively participate in the design behavior, understand the process, and have the empathy and understanding of the designer and the design behavior. At the end of the design phase, the final solution has been formed, and then it becomes less important for the organization to experience how the designer works, but more important on how to collectively implement the design.

In order to achieve these six implementations, the corresponding approach is described in Table 1 below.

Table 1. Strategy design practices (Calabretta et al., 2016)

The content of Implementation project	Practices
Make the process accountable	Establish contracts, use ICT (Information and Communication Technology) records and tracks processes, and complies with ISO standards.
Make the process tangible	A flowchart of the production process, a description of the process used in past design, and a film to describe the process.
Synchronize designers' and organizations' processes	Use the cloud to collaborate, formulate and regularly update projects, and maintain frequent contacts (e-mail, telephone, meetings).
Instill process ownership	Use the information given by the organization to shape and plan the process so that the organization can make decisions and provide feedback to the process, while observing the satisfaction of the organization with the process.
Bring the results of the process to life	The use of drawings, planes or three-dimensional presentations, and the use of films or pictures to illustrate solutions, allows organizations to participate in product testing.
Acclimate organizations to designers' ways of working	Make organizers part of the design team, let the organization design (sketches, make models, etc.), and involve the organization in user research.

In this state, the design leader can lead the entire team to cooperate with the enterprise and organization in a good way through the above-mentioned process, and lead the enterprise and organization on the path of innovation.

6. DISCUSSION

In this research, we can see the importance and effectiveness of design leadership for enterprises and organizations by combing through related theories. There are many descriptions of leaders in the past literatures (Näsi, 1999), for example, how do leaders act in organizations? What are their characteristics? How do leaders face risks? Based on related theories, we can find that leaders and design leaders are very similar. Regardless of characteristics or behaviors, the biggest difference is that design leaders have more design thinking. The injection of design thinking makes the leader more flexible and can lead enterprises and organizations to cooperate across fields. He/she becomes a bridge in various fields and makes the whole team more diverse, flexible and agile. The leader is limited by his own experience and cannot discover opportunities in the current social environment (Masse

& Dorst, 2007), but design thinking can help design leaders have insight, observation, and empathy (Brown, 2009)., enabling him/her to break through the limitations of existing things and expand the horizons, and do not restrict the development and innovation of others, and allow experimentation. It can also be said that the ideas put forward by design leaders will be closer to our culture and life.

The strategic design planned by the design leader will affect the current product, the operation of the enterprise and the organization, and even its vision and culture. The eight main axes of strategic design proposed by Anna (2008) also include topics that have recently been hotly discussed in the design field, such as service design, social design, and collaborative design. Moreover, these eight main axes are consistent with the characteristics and responsibilities of design leaders. It can also be seen that strategic design is mainly focused on reshaping the future (Tony, 2007).

Looking back, the thinking process of design leaders focuses on exploration, so that the problems involved in the plan are often difficult to define and very complicated (Duck, 2012), lead to uncertainty of the outcome, It will conflict with the risk avoidance in most organization management.

From the concept proposed by Giulia, Gerda & Ingo (2016), the success of the goals planned by the design leader depends on the recognition and cooperation of the entire enterprise and organization, and whether they act in accordance with the planned strategy. The proportion of the implementation projects in each phase, and each implementation project is to help enterprises and organizations understand the entire design process, which shows the importance of communication between each department and team. In conclusion, design leadership and strategic design can enable enterprises and organizations to face the changing world at any time, prepare and face challenges.

Therefore, it is very important to cultivate leadership among designers and the ability to execute strategic design is essential. (Borja de Mozota, 2006).

7. CONCLUSION AND SUGGESTION

The role of design is changing. From the past, we could only focus on product development. Today, because design and innovation are equated, design is one of the paths to innovation. Different fields are beginning to have demand for design and design utilization is becoming more and more available. (Scaletsky & Costa, 2019), Various fields began to seek design leaders and use design leaders to lead enterprises and organizations towards innovation. Innovative behavior is like exploring a new continent with new and fascinating horizons. It is easy to encounter snakes and beasts, but there are also opportunities to dig gold and diamonds.

Therefore, in addition to the spirit of courage to take risks, design leaders must also have decision-making and management knowledge and expertise for risk avoidance. In addition to external environmental factors, risk also includes its own state (Heifetz, Grashow, & Linsky, 2009). The entire enterprise and organization place the design leader at the core, and spread the design thinking to the entire enterprise and organization. It is then one can put forward an appropriate strategic design to enable the enterprise and organization to achieve the goals, and be part of the forward-thinking innovation culture. The three concepts of design

thinking, design leadership and strategic design are linked to guiding and driving enterprises and organizations into the future of innovation.

According to the Design Management Institute research, 15 major global design-centric brands, such as Apple, Coca-Cola, Starbucks, etc., have seen their share prices increase by more than 200% in the past decade. Well-known cases in the design world, such as Alessi, Nest Labs, Dyson, Swatch, Apple, etc., all take design leaders as the core, propose good strategic design to bring benefits to enterprises and organizations, redefine objects, create new values, and bring changes to the field. However, in recent years, environmental awareness has risen and the concept of sustainable economy has prevailed, which also gives us greater reflection. Most consumers care more about not being environmentally sustainable, but about meeting existing needs. Therefore, this responsibility falls to the enterprise and organization. The strategic design formulated by the design leader focuses on the future, so in addition to bringing benefits to the enterprise and organization, it also needs to consider reducing the impact on the environment. We can see that many enterprises and organizations have also invested a lot of resources in it, such as: IKEA's ODGER environmentally friendly chair and the launch of rental and purchase services in Taiwan, breaking linear consumption and implementing the concept of circular economy; Zara announced that all products will be converted to 100% sustainable materials; Apple announced that it will achieve zero carbon emissions and recyclable materials by 2030, and it also assist the transformation of energy supply chain. Victor's "Design for The Real World" and Nigel's "Design for Society" also mentioned the importance of environmental friendliness. Environmental sustainability is an important issue in both academia and industry. Therefore, how the design leader strikes a balance between profitability and environmental sustainability, and how to include environmental issues in the strategic design, can be further studied and discussed later.

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