Application of Design Management in Small- and Medium-Sized Interior Design Companies

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Abstract—With the gradual systematization and complication of interior design work, the operation of interior design companies cannot be separated from effective design management. From the perspective of design management discipline, this paper analyzes the current situation of design management of small and medium-sized interior design companies in China, finds that there are some problems existed in small and medium-sized interior design companies in China, such as lack of originality and territoriality in design and disconnection between design and practice, and puts forward the process management thought to apply to the management mode of small and medium-sized interior design companies.

Keywords—small- and medium-sized interior design companies; design management; process

I. INTRODUCTION

A. Definition of Design Management

The classic definition of design management is the definition of Farr, namely, "the function of design management is to define and select the appropriate designers, create an environment, and enable them to solve problems within the established time and budget." It can be seen from this sentence that he thinks the essence of design management is to solve design problems. This can be viewed as design task management, and its definition starts directly from the work and is the close integration of design management and specific design task that designers originally contact, which naturally becomes the starting point of researching design management.

The definition of the second-type design management can be considered as the definition of design function management — the starting point is the director of the company or the design department; for example, Grob’s definition on design management is that "in order to achieve the goals of the enterprise, the manager effectively allocates the serviceable design resources in the company", which emphasizes that the main activities of design management are design project management and design management organization. The definition of the third-type design management is triggered from the perspective of design strategies, which considers the design as a constituent part of the company’s war preparedness, that is, a functional strategy of the company takes the formulation or implementation of design strategies as the fundamental tasks of design management.

B. Theoretical System of Design Management

According to the generalized definition of design management, the contents of design management can be divided into three major levels:

The first level is design function and project management, which is the basic organizational form of modern design activities, including the management of all activities within the design function organization of the enterprises and the management of activities led or participated by the design function organization, that is, design project management.

The second level is the design strategy management that includes enterprises formulate and implement the design function strategy and strategic design, that is, how to obtain the design resources to meet the design needs of enterprises, plan the design activities and strategic squares of enterprises, and adopt the design ways to formulate the complete style standards of enterprise identification, product identification and brand identification.

The third level is design industry management, which includes the formulation and implementation of design industry policies by the government to boost the development of design industry and national economy, and the formulation, implementation and current management of relevant standard specifications by the government and industry associations. It can be seen from various theoretical writings that the research of design management theory for the most part centers on design decision-making, design organization and design project management, design innovation and other elements; the figure below reflects the basic framework of design management theory system.
As can be seen from "Fig. 1", the elements of design management supplement each other, have interaction effects on each other and are interlinked. Design innovation runs through every specific detail of design management activities, which is the ultimate goal to be achieved by design management activities and the core of launching design management activities.

II. MANAGEMENT STATUS OF SMALL AND MEDIUM-SIZED INTERIOR DESIGN COMPANIES

A. Development of Small and Medium-sized Interior Design Companies

With the progress of society, the development of economy and the improvement of China’s comprehensive national strength, people’s material pattern also keep abreast of the times. Interior decoration has become an important part of consumption. With the continuous improvement of people’s aesthetic judgment, this requires the continuous increase of technological content in housing construction to realize the modernization of housing industry, to make the functional space more clear and make the development of housing component design towards serialization, intensification, intelligence and matching. At present, the domestic construction industry is prosperous (See "Fig. 2" and "Fig. 3"). The field of architectural design shows a flourishing scene, which brings opportunities and challenges to the development of interior design industry in China.

B. Management Problems of Small and Medium-sized Interior Design Companies

1) Management status of small and medium-sized interior design companies: In interior design enterprises, design management mainly refers to design activities as the center. Carry out reasonable organization, coordination, control and evaluation of enterprise design resources. Interior design activities are generally divided into four stages to carry out work: design preparation stage, scheme design stage, construction drawing design stage and design implementation stage.

The design preparation stage is mainly for the design enterprises to accept the design entrustment letter from Party A, and to sign the contract or participate in the bidding according to the requirements of the bidding documents. In this stage, a large amount of data needs to be collected, including customer information and requirements, design scope and scale, etc. By comparing the collected data, the obscure design goals can be gradually clear, and the design concept and scheme are initially proposed (See "Fig. 4"). On the basis of the design preparation stage, the scheme design stage further collects, analyzes and adopts the data and information associated with the design tasks to conceive the idea, deepens the preliminary concept in the design preparation stage, and expresses the design philosophy in detail through the design sketches and artistic expression (See "Fig. 5"). The preliminary design scheme shall be examined and approved before the launching of construction drawing design. In the construction drawing...
design stage, it is necessary for the sketch design of designers to be made into the construction drawing as the construction basis through the standard of project drawing. The relevant layout plan, indoor elevation, flat roof and other drawings are required, the detailed drawing of structural node, detail drawing of detail and equipment pipeline drawing are also required, and the construction description and cost budget are prepared (See "Fig. 6"). The design implementation stage is also the construction stage of the project. Before the construction of the interior project, the designers shall explain the design intentions and technical disclosure of the drawings to the construction units. During the construction of the project, the construction situation shall be checked according to the requirements of the drawings. Sometimes, the local modification or supplement of the drawings shall be proposed according to the actual situation of the site, and the design organizations shall issue the design modification notice. When the construction is completed, the design organizations shall, together with the construction units and quality inspection department, conduct project acceptance. In order to achieve the expected effect of the design, the interior designers must make great efforts to the links of all stages of the design, pay attention to design, construction, materials, equipment and other aspects, and be familiar with and attach importance to the connection with the original building’s architectural design, facilities, wind, water, electricity and other equipment project design. At the same time, the interior designers must well coordinate the relationship with the construction units and the construction organizations to achieve communication and consensus on the design intents and conception, so as to achieve ideal design project results (See "Fig. 7").
It can be seen from "Fig. 7" that the current management pattern of small and medium-sized interior design enterprises tends to be flat structure, and the upper and lower information can be effectively transmitted, but there are intertwined departments, and a design transaction will involve in other departments outside the design department, the structure is relatively scattered, and the management is prone to confusion.

2) Management problems of small and medium-sized interior design companies: With the development of economic construction in China, the interior design industry in China has gradually developed and has been a late starter, however, there is a great discrepancy between China and other countries in terms of design. At present, there are many problems in the design of interior design enterprises in China.

- Lack of originality in design. Due to the late start of the interior design industry in China, the design philosophies are not novel enough, most of the designs are imitations and plagiarism of foreign excellent works and follow the foreign design style and trend, and it is difficult to produce new philosophy to create design works with originality.

- Design practices are seriously divorced from design theories. When designers take up working posts, most of them are busy with projects and have no time to spare for theoretical research.

- The cultural and regional trend of design is not conspicuous. China has a long history and a vast territory, which is the profound soil to give expression to the connotation of design culture. However, the traditional culture of China has not been deeply excavated and developed. Only by beefing up the research on the traditional design art of our nation can even more works with originality be generated and the design works with Chinese characteristics go to the world. Works must be recognized by the nation before going to the world.

The problems existed in design intensively need to be solved by the participation of management. The combination of design and management is the inevitable demand of design development. An excellent work needs not only a remarkable design scheme, but also remarkable management. The perfect combination of both can carry the fine design philosophy into the final works, and be consistent with the design resources and the strategic goals of the enterprises. Effective management can make the design resources of enterprises reach the maximum benefit output, and make the design become a powerful weapon of competition among enterprises. Design management can make all management levels and departments in the enterprises more coordinated, make their information transmission more effective, improve the speed of information transmission in the enterprises, so as to make the design more orderly and efficient.

III. MANAGEMENT STRATEGIES OF SMALL AND MEDIUM-SIZED INTERIOR DESIGN COMPANIES

Before putting forward the new management model, it can review the foreshadowing made above; the development of interior design enterprises and their management have their own particularity, from their organization management, project management to team management, there is a great gap with common production enterprises. The design management of interior design enterprises shall be divided into three parts: design organization management, design project and process management practice, and design team management. And this paper will make discussion on them one by one. The management of the above three aspects is a process and an important part of the design management process. The three are not independent processes, but they correlate each other, have interaction effects on each other and are interwoven. The progress of any one process will affect the smooth progress of the other two processes.

Design is a cyclical process from receiving design tasks to completing design goals to design evaluation is a serial and interwoven process. Design management is a general circulation, and every process shall be centered on design. It shall make clear the position of from each designer to design manager in this cycle system, accurately complete the expected design tasks, make the design smoothly enter the next link, and keep consistent with the development direction of the enterprises. For small and medium-sized design interior enterprises, the enterprise design management shall be divided into the three parts: design organization management, design
project and process management practice and design team management, they just like the role of "sparking plug", "engine" and "gasoline" of vehicles. By defining the basic view of design management and combined with the current situation of interior design industry and enterprises, this paper carry out in-depth study on the three basic elements of design management, with the concept of process throughout the whole theory. The following is a perfect design management model put forward with this basic idea and the three basic elements as the framework (See "Fig. 8").

According to the characteristics of interior design enterprises and the current situation of design management, a design management model is created so that it can play a role in the actual design practice of the enterprises. Appropriate design managers are also required to make the design management model play a role in the enterprise. The design manager can make overall arrangements on all design resources in the organization according to the purpose of the organization, understand the process idea of design management well, and implement this management idea in the enterprises, so as to organize orderly and effective design management flexibly. This puts forward higher requirements for design management, and then it summarizes the quality of design managers from two aspects.

![Design Management Model](image)

**Fig. 8. Improved process design management model.**

- As a manager, he/she shall have higher comprehensive quality and ability. These abilities include exquisite observation ability, clear elaborative faculty, good organization, communication and coordination ability, quick response ability to emergencies, decisive decision-making ability, innovative ability and good expression ability. Of course, the improvement of these comprehensive abilities requires managers to have rich life experience and work experience, be good at thinking, absorb the essence from the existing knowledge and experience, and combine their work environment with their work nature to find a management method that fits in with practical situation. At the same time, manager shall have a capacious scope of knowledge, which is very helpful to broaden his/her train of thought and promote his/her growth.

- As an excellent design manager, he/she shall have professional knowledge and experience accumulation in the aspect of design and management. The design manager of some enterprise is promoted from the designers with design experience, who have design experience and understand design process, but they lack certain management knowledge. Some people with pure management professional background are engaged in design management. Their disadvantages are that they do not understand enough about the design process and not have management experience of appropriate design enterprises.

- From the perspective of the history of enterprise development, design enterprises belong to the new knowledge enterprises. The management of such enterprises is called the fifth generation management, which must conform to the new characteristics of knowledge enterprise management. The concept of the fifth generation management was put forward by Charles Savage, an American scholar. Its organizational foundation is knowledge networking and its organizational structure is more dependent on the activities of groups and teams. In management, it pays more attention to the role of people and interpersonal communication. The parallel
networking layer of enterprise management can carry out one or more tasks at the same time, and the management level is greatly reduced. Knowledge management is the center of the fifth generation of management. Generally speaking, it remains a knowledge-based management. Specifically, it is the use and continuous management of the acquired and constantly acquired knowledge assets to satisfy the demands of the existing and future development of new markets.

As a design manager of the fifth generation management stage, in addition to the modern management, leadership science, science of personnel management and other management knowledge of general management, the design manager shall combine these knowledge with the actually located interior design enterprises. Design enterprise is a new enterprise with its particularity, which puts forward special requirements for such managers in terms of quality.

- More exquisite innovation management consciousness, including system innovation, culture innovation, etc.
- Intense competition management consciousness, including the determination of competition goals, the competition of capital operation, the selection of competition strategy, etc.
- Talent management thought: talents are an important resource for design enterprises, so they shall establish the thinking that senior talents are transformed from employees of enterprises to "customers".
- Risk management consciousness requires that managers can reasonably control risks, reduce risks or transfer risks through effective management means, and balance the relationship between the size of return and the level of risks.
- Combined with the actual operation of interior design enterprises, design managers shall also integrate process management idea into the management work, so that the management and design can be better combined.

IV. CONCLUSION

The limitation of design level and inefficiency of design work in small and medium-sized interior design enterprises in China are due to the imperfect design management system to a large extent. With the complication and systematization of design projects, design enterprises are forced to complete the design tasks with high efficiency and quality from the design activities themselves, and at the same time enhance the competitiveness of enterprises in the industry, so the combination of design and management is inevitable. Through design management and the design team, design process and design organization are managed and controlled, it can realize the origin management of interior design tasks.

There are still some shortcomings in this paper, for example, this paper mainly supports practice through theoretical research, and there is lack of certain practicableness. It is mainly based on the characteristics of small and medium-sized interior design enterprises to establish the targeted design management model, but it is still necessary to apply theoretical knowledge to practice; there may be some practical factors that cannot be considered in the theory. It is hoped that the establishment of theoretical system can be tested by practice. In this paper, the streamlined management mode obtained from the theoretical research is applied to a typical small-scale interior design enterprise, so as to provide reference for the design management of other similar enterprises.

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