DESIGN MANAGEMENT: RATIONALISATION AND ECONOMIC APPLICATIONS

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ABSTRACT

As a kind of highly socialised behaviour, design activity keeps a strong relationship with economic activity. With economic orientation, "rationalisation" of design activity has been regarded as a necessary requirement and "design management" is becoming an insurance of rationalised design achievements which aiming at economic value. Design management's concept includes the meaning of tactic, strategy, and coordinated communication in general. Its rational ideas mainly refer to "design project management" in micro-scope and "design strategic management" in macro-scope. Been a result of rationalisation requirement, design management has exhibited its applications in industrialisation process of design, which contributes itself into economic innovation. It has been broadly used in the fields of "product developments", "marketing communications", "corporation strategies", even "national development strategies". The pattern of design management also keeps an adaptive adjustment which would answer to future challenges from social technologies and design forms.

Keywords: Design Management, Rationalisation, Tactic, Strategy, Economic Application

INTRODUCTION

As an important component of modern design (architecture, graphics, and textile) and industrial design, "design management" has revealed its significant applications. It exhibits highly valued performances in many fields, e.g., "product's quality enhancement", "design efficiency improvement", "organisation strategy realisation", and "corporate image's creation". Hence, with the fast development of modern design, design management is drawing an increasing concerning from designers and researchers. This research, based on a collective illustration of design management concept and an interpretation on rationalisation ideas of design management, is going to clarify its innovative applications in economic or marketing fields and its development trend in future.

CONNOTATION OF DESIGN MANAGEMENT

Michael Farr defined "design management" as a concept for the first time in history. According to his definition, design management is a functional process which referred to "confirmation of design question", "arrangement of designer", and "presentation of design solution with fixed time and cost" (Liu, 2007). Then, a series of researchers provided their own interpretation on design management from diversified perspectives. Turner regarded "design management" as an application of organisational, financial, and controlling management principles in design activity (Liu, 2007) and Peter Gorb considered "design management" a planning process based on "organisational target and operations" which includes managements of "design department", "design project", "design education", and "design organisation" (Liu, 2007). Kono Noboru, Robert Blaich, and Kyung-won Chung

defined "design management" concept as well. Kono Noboru thought "design management" should be a hard-core of design cooperation project and an intellectual system of design resource's performance which are in "design planning", "organisation system", "designer team", and "evaluation agency", etc. (Yao, 2002). Robert Blaich: a formal processing accomplishment of design activity under which design resource is adjusted based on communication of long-term cooperation programme and cooperation is ensured at expected level (Yao, 2002). Kyung-won Chung: a specified research field which looks upon "design management" as a strategical tool and studies on intellectual structures of manager, designer, and specialist, in order to realise organisational target, to create innovative product, and to achieve organisational strategy with the combination of creativity and rationality (Yao, 2002).

From the reviewing on definitions of design management aforementioned, it is discovered that, although a universal agreement of conceptual meaning has not been reached under all kinds of researchers' explanations so far, some general connotations could be concluded in following way:

- (1) "design management" is a managing behaviour which serves for design task and refers to "planning or arrangement" on specified "design project", "design process", and "obtaining and utilisation of design resource". It is a "tactic" activity under this micro-view.
- (2) "design management" is also an implementation of "organisational strategy" and refers to "strategical planning and performance" of organisations (enterprise or government, for instance). It is a "strategic" activity under this macro-view.
- (3) "design management" still refers to communication, coordination, and cooperation between "design activity" and "managing activity" within organisation.

RATIONALISATION IDEAS OF DESIGN MANAGEMENT

Emergence of Design Management

In order to understand rationalisation ideas of design management, it is firstly to comprehend: why "design management" emerged. From a sociological perspective, design activity is a highly socialised behaviour type and, as a sort of social action, it has obvious connections with other social actions, in which the connection to economic activity has been highlighted. Therefore, design activity has to take "rational process" into account, since economic activity always acts under rationalised principles (Weber, 2010). The emerging of design management, hence, has become a manifestation of rational development upon interactive course between socialised design activity and economic activity. This is the most important reason for consideration of design management's origin.

Management of Design

Now that design activity has been gradually rationalised in its socialising development, it will convey "rationality" in any case. First of all, "rationalisation" appears in management of design activity itself. In terms of "management of design activity", it is clearly concluded in "design project management": a rational preparation and operation of managing procedure for any design task (Zhang, 2006: 152-153). Its content mainly includes "management of design target", "management of personnel (participants of design task)", "management of design process", and "management of design evaluation system" (Figure 1). By means of systematic and organised planning or arrangement on human and material resources regard to specified design activity, this procedure aims to fulfill the made task rationally (under tactic perspective).

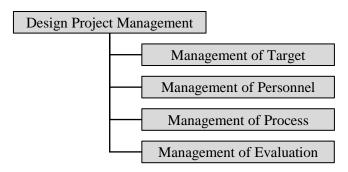


Figure 1. Content of Design Project Management

Design as Management

"Rationality" of design, however, is not only embedded in management of design activity itself. If "design project management" takes a design prospect in which "management factors" are introduced so as to optimise the procedure of specified design task and achieve its definite "tactic target", decision maker or manager of any organisation would provide a managing prospect in which "design factors" are introduced into management activity so as to optimise the procedure of organisational operation and achieve its definite "strategic target". "Design project management" reflects a micro-level of design management, whereas "design strategy management" suggests a macro-level of design management which is to focus on implementation of design in organisation strategic planning and performance. "Design management stratification model" constructed by G. L. Koostra (Zhang, 2014: 15-20) has been revealed in this spectrum between "micro" and "macro" level. "Design strategy management" possesses content of "management of design research & development", "management of design marketing", "management of design innovation", "management of design culture", and "management of coordination strategy" (Figure 2). With transferring "design behaviour" to "managing method", this procedure aims to fulfill the organisational strategy task rationally (under strategic perspective).

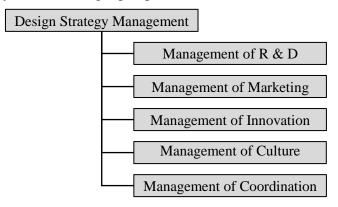


Figure 2. Content of Design Strategy Management

ECONOMIC APPLICATIONS OF DESIGN MANAGEMENT

It is necessary to clarify the historical course and current situation of design activity and management activity prior to interpretation on innovative applications of design management, as its applied value was appeared just in this interactive developing course.

Design: from Art, Technology to Industry

As early as the Renaissance age, design was defined as an approach or element of artistic creation: it majorly referred to sketching or graphics then (Yin, 2013). According to this

origin, "design" had a closed relationship with "art" and the former had been ever regarded as an essential part of the latter. This is reason why "design" and "art" are considered sometimes as the same kind of activity (or at least a similar activity) so far. Nevertheless, with the development of western world, particularly after industrial revolution and establishment of modern industrial civilisation, "design" experienced a changed semantic assignment. Around the beginning of 20th century, a few modern design movements emerged in Europe and the United States, where Chicago School, De Stijl, Constructivism, Deutscher Werkbund and Bauhaus were most remarkable. As a result of them, "design" was defined as a process or method to perform objective functions and to achieve expected targets based on modern industrial technology, which becomes basic meaning of "modern design". With this development, design had taken a "turning" from subjective "artistic approach" to objective "functional method". Or, it is called "technological turning". But design never ceased its evolution. Since the end of Second World War, with the world-wide spreading of industrial civilisation, "design" put on a renewed meaning again. Around 1950s, many powerful industrial nations and enterprises began to be aware of the important significance of modern design for national or organisational strategy, hence design was adopted into their consideration of development strategies (Wang, 2002). It is then named "economic turning" (Figure 3). after this updating, "design" has been ensured a modern profession and "design institution" has been formed within national or commercial organisations (Wang, 2002). Hence, design is becoming an "industry", a tool working for social economy and business market (Zhu, 2013: 47-51).

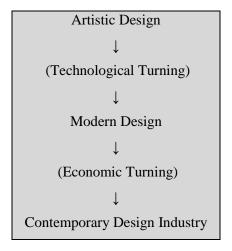


Figure 3. Development of Modern Design

Management: From Production System to Innovative Value

As to management science, although "management awareness" and "management thoughts" have been existed for many centuries, the earliest definition of management as science was from Frederick Winslow Taylor. In the beginning of 20th century as well (similar original age does imply a common effect of social change upon different fields), Taylor implied several scientific principles which aim to improve productivity into industrial manufacturing management. Consequently, this had Taylor titled with "the father of scientific management" and made management science branded with "production system regulation" (Robbins and Decenzo, 2006). Researchers of management science, in 1920s, commence to take increasing concern of "interpersonal relationship" during which "Hawthorne experiment" was made. It then testified the value of "human subjectivity" (as social being) for management (Wren, 2009). Thereafter, based on these achievements, along with other academic contributions, e.g., Henri Fayol and Max Weber, management science was to be matured as general management theory. From 1950s to present, "management" has been increasingly viewed as an essential

factor for economic value creation and is becoming a way for social economy progress (Yao, 2003). Its development has showed a strong interactive relationship with other social factors, e.g., technology, social system, or social attitudes (Figure 4).

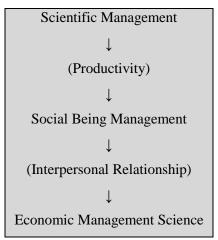


Figure 4. Development of Management Science

Applications of Design Management: Design Industry and Innovative Economy

Modern design and management science, as can be seen, did not only emerged at the same time, but also made their ways towards "economic value creation" in the very similar age (around 1950s). The former established design industry with "design profession and design institution", while the latter formed economic management science with "contribution as economic factor". Therefore, it is hardly a historical coincidence or personal expression when Michael Farr presented his "design management" concept in 1960s. The combination of "design" and "management" at that time was indeed a social need raised for these two formerly isolated fields: industrialised modern design and management as economic factor are both serving for social economy creation in rationalised method. According to "rationalisation ideas" aforesaid, its applications are going to be interpreted in the following aspects:

(1) Design management and product development

"Design" has a significant part of play in "research and development" of product or service in modern enterprises, where design industry could be established most possibly in this course. Either relying upon "inside" design department or "outside" design agency, modern enterprises look upon "design" as an efficient "innovative method" for product development. Thus, when design activity is gradually professionalised and to follow specialised regulations in such a procedure, design management exhibits its value on realisation of product development target in more objective and effective ways. In terms of rationalisation ideas, design management in product development procedure is mainly belong to design project management at micro-level, e.g., confirmation of "design target", formulation of "design process", taking "design investigation", "design personnel" organisation, and implementation of "design evaluation". it probably becomes a particular tool of organisation development strategy connected to product development tactics, which suggests its indirect relation with "management of organisation development strategy".

Product development work from Braun AG has presented an excellent case. As a company who manufactures products for everyday life, industrial design revealed its higher importance. Nevertheless, it does not mean "design activity" has enjoyed priority to any other

activity in "research and development". Instead, "design activity" is more likely to be coordinated with other activities in this course, otherwise unexpected obstructions or cooperation problems would arise. Braun AG managed to cope with this issue by rationalised design management: on the relationship between industrial design department and other departments, technological element is highly evaluated among "design, technology, and marketing" and communications between design department and engineering department have been encouraged for the purpose of designed product's successful mass production (Design Management Institute, 2004).

(2) Design management and marketing communication

Design management does not only show significance in the field of product development but demonstrates force also in marketing communication. Philip Kotler argued that modern marketing management includes excellent product development, attractive pricing, convenient purchasing, as well as effective communications with stakeholders and the public (Kotler, 2001). "Effective communications" is always carried out by means of "advertising", "commercial promotion", and "public relationship maintenance", in which marketing communication target will be reached under the assistance of "design". Once design activity took responsibility with marketing communication target oriented, its objectivity and efficiency are to be guaranteed by management. Similar to design management in product development, although design management of marketing communication is generally associated with design project management at micro-level, e.g., design management for specified advertising or promotion movement, it indirectly exposes organisational macrostrategy task. Furthermore, a marketing communication activity with tactic design management could possibly dominate the success or failure of organisation development strategy.

Absolut vodka's expanding into American market illustrates a successful case, too. The reason why Absolut vodka could penetrate into American market successfully (and into global market later) is heavily relied on its accurate target market orientation and effective visual image planning with vivid product packing and advertising designs, which acted on target market precisely and made a strong foundation for success:

"Vodka is generally viewed as a commodity product. Yet the amount of brand preference and loyalty in the vodka market is astonishing. Most of it is based on selling an image. When the Swedish brand Absolut entered the U.S. market in 1979, the company sold a disappointing 7,000 cases that year. By 1991, sales had soared to over 2 million cases. Absolut became the largest selling imported vodka in the United States, with 65 percent of the market. Sales also skyrocketed globally. Its secret weapon: a targeting, packaging, and advertising strategy. Absolut aims for sophisticated, upwardly mobile, affluent drinkers. The vodka is in a distinctive, odd-shaped bottle suggestive of Swedish austerity. The bottle has become an icon and is used as the centerpiece of every ad, accompanied by puns such as "Absolut Magic" or "Absolut Larceny." Well-known artists—including Warhol, Haring, Scharf—designed Absolut ads, and the bottle image always figured in a clever way." (Kotler, 2001)

(3) Design management and macro-strategy

If design management in product development and marketing communication are taken as tactics at micro-level, it performs strategical function once implemented in the process of organisation strategy planning at macro-level. This sort of application could be elaborated in two aspects. First of all, as already illustrated, for any business, the strategical significance of design management has been reflected indirectly within product development and marketing communication actions, hence "design management" should be taken into account as an

organic component of integral strategy framework planning. When "consideration into integral strategy" were made, design activity will not only play a tactic role targeting to a specified project, but also play a role which corresponding to consistency and rationality of organisation macro-strategy under control of "design strategy management" (Figure 5). "Winning the battle but losing the war", otherwise, would probably occur.



Figure 5. Functional Orientation of Design Strategy Management

Moreover, design strategy management is still applied at larger scale, e.g., national government. It was 1950s to 1960s, when design management was concreted as a science, modern design was considered as a practised strategical measure for national economy development by powerful industrialised countries, e.g., Germany, Japan, England, the Netherlands, and Italy. Design policies were made at national level in those countries and improved their national economy dramatically (Wang, 2002). In particular, with strong identification with "knowledge economy" and "creative economy" in 21st century, both developed and developing countries have taken an increasing concern on "design activity" and manage to enhance their international competitiveness by "design policy" at strategical level, which leads to a more important role of "design strategy management" in national macro-policy making.

(4) Design management in outlook

Nowadays, modern world is experiencing a new technological revolution entitled with "Industrial 4.0". This revolution is characterised by "intelligent manufacturing mode" based on full informational exchange of "manufacturing execution system" (MES) and "enterprise resource planning" (ERP) and includes content of "intelligent and customised production", "internet of things", "intelligent product or service upon big-data", and "productivity sharing", etc. It provides an enlarged space for the development of modern design as well as a serious challenge for design management which is going to be encountering updated design forms under intelligent technological background. Though this new change is in preliminary stage, it suggests contemporary trends of design. With intelligent renovating of manufacturing system, revolutionary technological change presents a bran-new platform for design activity in 21st century, just as early industrialisation did, e.g., standardisation and mass production, for design activity in 20th century. In any case, new revolution will explore more possibilities and more diversified directions for creativity of human-being, during which "design" will be re-evaluated. Consequently, design management is facing another social situation, in which it will continuously work on economically orientated activities but try hard to meet emerging needs of new design form and social impact with its corresponding innovating methods. Thus, updated design management mode is going to be revealed.

CONCLUSIONS

According to the perspective of social action, design management is a management activity which is differentiated but closely connected with design activity. The main target of design

management aims to maintain necessary rationality of design activity whenever it takes orientation of economic value with its creative subjectivity. In this application, design activity becomes a tactic object of management activity and management has design a managing measure of organisation strategy. Therefore, design management acts as an efficient way of modern design industry development and serves for innovations of social economy, particularly under the background of new technological revolution trend.

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