

Innovation and Originality in Design

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Abstract – The behavior of man, who is on the continuous lookout for what is new, is reflected in each medium he is in. If this reflection includes the employees and managers of business circles and companies, and accompanies the need on the part of the companies to differentiate from and to be more advanced than others in a competitive medium, the search for innovation should go hand in hand with originality, which is its most significant quality. Because not every innovation may be original! The study to be presented here will explain, resting on years of experience, how originality in terms of product design should be sought in a product that is intended to be new.

Keywords – Innovation, Originality in Design.

I. INTRODUCTION

The concept of originality signifies the original idea that comes from the source and is conceived by its creator. The concept which is the opposite of imitation products also means unusual, rare, and exceptional. Originality is a talent of creativity which evolves from an idea to a behavior, then to a product. It is also a quality of the idea that results in innovation and of the product, which is its embodiment. If the original idea, which exists in creative thought and originates from the cooperation of similar or opposite wavelengths, or from their superimposition in a synthesis to generate a new idea, is a useful one and develops in the process in which the product comes into being, then it will emerge as an innovation. In this paper originality is used as an auxiliary concept that supports innovation. With a designer's point of view, innovation will be studied with the help of the original.

II. WHAT IS INNOVATION?

Innovation is making an original idea utilizable. In order for an original idea to be considered an innovation a multifarious process is required, which includes the user, user groups, material, production method, product structure, manner of use, maintenance, transportation, storage, sales, image, advertisement, etc. During this process, the idea which will evolve into a product with several elements, and thus bring about an innovation is tested; it gradually turns into an object and finally a product emerges. Assessment of a technical invention in economic terms and transforming it into a producible innovation may require a longer process. However this process becomes shorter in our day. Researches gained pace, laboratories got more sophisticated, technical and material means were amplified; what is more, new experimental products are produced in little lots to make redesigns in huge lots tailored to meet the customer needs. For the new product conceptions of the future, it is necessary to determine in advance alternatives to a product according to user demands. This shows that "the possibility to produce different products in the same lot and same production line is considered at present"; today it may be possible to produce different concrete modules for buildings in the same lot [1].

Innovation is almost universally considered as the most significant basis for lawful conservation of the product. Originality is the prominent feature of innovation in the framework of the legislation governing conservation. Some countries or laws appraise innovation only within the boundaries of their own country, while developed countries define innovation with the condition of not being seen or assembled anywhere in the world. Here it is noteworthy to mention the first prototypes of the products:

- The results of a scientific research, the transformation of a new technical invention into an utilizable product make it possible to launch it for the first time to the market. To exemplify: the first refrigerator, the first telephone, the first vacuum cleaner, the first washing machine, etc. This group of new products is very difficult to obtain, and requires years of research.

- Transference of the product of a specific area to another in the form of a launched product is also a novelty. It is again a costly and time-consuming way to obtain innovation employing this method which is called technological transfer; but it yields successful results.

Dealing with the definitions of innovation in terms of the total quality of the companies, or their company images, or in the framework of the sustainability of their income in an economic perspective might require different definitions. Here innovation will be dealt with the designer's point of view.

III. WHAT IS NEW IN THE PRODUCT?

Other than those mentioned above, companies, for the sake of renewing themselves and their products, may create new products which are not produced as a result of invention and which they can register. New products comparatively better meet the demands, and have better value of use, and are innovations that form a different product alternative for the perception of consumers and users, and they show the difference of a higher technology production.

But bringing about an innovation should not mean to disregard users who cannot easily break up with their habits. Products whose users and market shares are overlooked cannot sell well even if they accommodate a high level of innovation. It may take a long time before they are welcomed by the users. Although it is not necessary for users to understand at first glance, the "innovations and originalities in the product can be discerned in several ways" by the experts in the field, and by users who have better perception and who follow the products in the market [2]:



1. Innovation or originality may be in the essence of the product:

Though it is generally rather difficult to distinguish the essence from the function, sometimes we may encounter products with no function in the foreground, and products that seem to lack function. In this case, the independent essence may come to the front. An example of this may be the product called "Grass Man" which was registered in 1994 by Spanish Patent and Trademark Office, Ministry of Industry, Tourism, and Commerce, and had high sales figures in Turkey, too. [3] The original idea of the "Grass Man" design is that the hairy parts of the figures are natural grass, and grass gains meaning in the figures. The idea of "Grass Man" is the essence of the product.

2. Innovation and originality may be in the function of the product:

The most typical examples may be obtained by transforming the inventions resulting from scientifictechnical researches directly into a product, and making it a product by transferring it into another field with technology transfer method. As mentioned above, the first prototypes of the products are good examples of inventions turning into products. A typical example for innovation through technology transfer can be seen in the transference of the function of a drilling machine which is used on the surface of the moon to a Black&Decker brand electric garden machine which is used to cut fences and to prune trees. The transference of function articulated by the advertisement slogan "First on the moon, now in your garden" earned the company an original innovation [4]. If the innovation and originality is in the function of the product, then a patent right will arise, and this new function may bring along the novelty which is the subject of registration in the integrality of design.

3. Innovation and originality may be in the product structure:

Grillo telephone, designed in 1960 by Richard Sapper and Marco Zanuso has its originality in its structure. "The Grillo was half the size of previous telephones" [5]. It is definitely quite different from the telephones that preceded it, with its keypad on the receiver which is also the main body and has a foldable structure. The innovation of the telephone designed in 1986 by Jurgen Hitsler and Werner Schuß in Siemens Design Studio and shown in the Microelectronic group in the reference is in its structure besides its technology [6]. Because the keypad form a composition on their own outside the main body.

Another example is "the chair registered by the National Board of Patents and Registration of Finland in 1993" [7].

The originality of the chair design is in its structure, that is the forming of its front and back legs as well as its back by cuts and slight twists made on a material in a panel form. If such a product sales well, no one can venture to illegally produce and market the product in a country where laws are effective. However, they may be imitated with slight changes. At this point, the structural differences between the imitated product and original product may be emphasized for the sake of innovation and originality; really new and original products may be obtained by differing in the structural form.



Picture 1: Chair from panel material registered in 1993 in Finland

For instance:

In the case of the chair which is designed out of panel material and registered by the National Board of Patents and Registration of Finland in 1993, it would be an imitation to make an alternative by slight changes in the cuts, without changing the design principle, that is being made of panel, and without changing the structural formation, that is being cut from a two panels; and the folding direction.



Picture 2: An imitation of the panel chair with slight changes





Picture 3: An imitation of the panel chair with slight changes in the front and back legs and in the back

Pictures 2, 3, 4, and 5 show these differences. If the difference in appearance is great, a creative imitation can be obtained.



Picture 5: A creative imitation of panel chair with a differentiated appearance



Picture 4: Another imitation of the panel chair, differing from 2. and 3. in the back



Picture 6: A new chair inspired by the panel structure of the chair registered in Finland, but is different in terms of folding directions, hence in structure.



Other alternatives to this Finland-registered chair may be produced, too. But so long as the folding directions do not change, they will still be imitations.

But if one would like to design a completely original and new chair in the panel structure style, a difference should be made in the folding direction, that is, on the basis of the folding principle. Thus an innovation will be made resulting from the structural form. The design in Picture 6 is quite different from the first, from its imitations and from the creative imitation. It is a brand new panel chair. This study is experimented especially on a simple product. The objective is to make people discern the main difference in the structural form. Seeking innovation in the structural form is a fundamental step to bring about a significant difference in an original product to be registered.

4. Innovation and originality may be directly sought in the form of the product:

However, an indirect concern for product form would mean to seek "form for form's sake". It is quite difficult to reach an ideal result with form concerns. Here, the rules of aesthetics may work. But it would be wiser to appraise the rules of aesthetics with meaning, concepts and symbols, because even concepts like balance or rhythm on their own are the subjects of concepts section below. Pure geometrical forms and their combinations can be mentioned here. In fact geometrical forms are in the basis of all design works and design would not exist in their absence. However, mentioning only of forms may lead to unwanted results. On the other hand, form is the natural outcome of function and human-object relations; and looking for form in design is a process of thought and realization which has many elements.

5. Innovation and originality may be in the product's meaning, concept, and symbol:

The subject is very extensive in itself. In this context the product may be designed by making use of data from diverse systems of thought such as an art movement, a philosophical thought, fashion trends, an architectural style, a very special individual style, and a belief, etc. The product can be likened to animate beings, or can be given an abstract meaning. The starting point may be a concept, or symbolic expressions can be used. For instance, the starting point of Alberto Alessi, who produces childish and game-like products, was "Theorie Transitorischer Phänomene", by Donald Woods Winnicott, English psychoanalyst who did researches on game behaviors of children [8]. According to the mentioned theory, after some time from birth, the baby's perception of himself as a different person, and his commencement to fill the gap between him and his mother with games and toys, make toys a crucial intermediary to surmount the gap. The baby, then the child will succeed in adapting to the outer world through his game environment and toys, and his creative nature. This environment and toys are little models of the outer world for him. According to Winnicott these direct transition activities do not disappear until the baby becomes an adult, but continue in adulthood. In this sense, Alessi does not differentiate a boy playing with his teddy bear from an adult busy with espresso machine. Accordingly, recent Allessi designs are mainly products that look like playable design.

The possibilities of innovation and originality explained above can also be evaluated in combination. Since the aim is to emphasize innovation and originality in the structural form of the product, no more explanation on meaning and concept is required. Other examples for this subject:

- Tapio Wirkkala's "Pollo Breast Vase" dated 1971, produced by Rosenthal AG
- "w.w.Stool", stool by Philippe Starck dated 1990 and symbolizing a long-legged bird,
- Masanori Umeda's armchairs named "Rosa Chair" and "Orchid", in which he was inspired by the exotic flowers of Japan.

IV. CONCLUSION

The main emphasis in this article is to raise awareness in designers about innovation and originality, which do not have a superficial face value, to distinguish between them, and to show what sections of the product to look for them when it comes to designing or registering a new product. If innovation is the most important condition for the preservation of design, then originality is the characteristic feature of innovation. Structural form is indispensable for the development process of almost all product forms that are intended to be original includes structural form.

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AUTHOR'S PROFILE

Prof. Dr. SEÇİL ŞATIR

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1977-1981 Industrial Product Design Training at Gesamthochschule Kassel (Germany) and Certificate of Completion (Diplom)

1997 Doctor's Degree in Industrial Product Design (MSGSU) Doctorate Thesis: Originality in Industrial Product Design and Suggestion of a Method. She has underwent comprehensive self training in (the field of Industrial Product Design Methodology) but mainly in the realization of



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Design issues for thesis advisorship

[Design is an integrated whole; understanding and comprehension of these issues is important for the future of design:]

- Design, Creativity and Innovation,
- Design and Product Development for SMEs,

• Evaluation of Traditional Handcrafts with the Viewpoint of Industrial Product Design,

- Sustainability in Design,
- Bio-mimicry Bio-Design
- Design and Consultancy.