

University of Lapland, Faculty of Art and Design

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Summary

In a globalized product design market, firms take national identity into consideration to survive among the competitors, because a particular identifying feature can be the decision making factor for customers to buy a particular product. In such a situation, you may realize something as “Japanese-like” or “Finnish-like” in designs as you hold the product in your hand. But why do you think like that? The aim of this study is to clarify the factors that characterize these ideas, in terms of furniture design, with a focus on industrial development and the cultural contexts of Japan and Finland. The study is twofold, with a theoretical framework and an empirical framework. The theoretical analysis works with cultural industrial context and also argues that the transition of industrial development significantly affects national product design orientation and helps characterize products. The empirical analysis works with questionnaires concerning product image. The results conceptualize cultural references in both Japanese and Finnish furniture design. However, the results also present the realistic difficulty of recognizing products. The paper concludes by arguing that factors affecting customer’s decision making are also influenced by not only product design but the socio-culture they belong to. Therefore, measuring product image is not the only way to define national product identity, and the image is formed by both customers and product design factors.

Keywords: Japanese design, Finnish design, furniture design, product design, industrial development, culture, identity, nationality

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1 INTRODUCTION

With new technology development and its transnational import and export as well as the globalization of product market, today it seems there are no borders in product design between countries. Bamboo furniture is one of the examples of the globalization of the product market. Although bamboo reminds me of old traditional Japanese furniture or Asian handcraft works, it is no longer a material for folk art objects that exist in southeastern Asia or the Japanese countryside. Conversely, bamboo is becoming accepted as an international and ecological material. Although bamboo furniture uses almost the same material, bamboo, it may be given a national identity by its appearance, because of the different socio-cultural backgrounds behind the furniture to design.

1.1 Background and the aim of the thesis

In 2006, I saw one magazine article about bamboo furniture rolled out by the Finnish furniture company, Artek. When I read the articles and saw the pictures of the furniture, infallibly the material gave me a feeling of familiarity. However, I felt something new in terms of culture. Those bamboo products in the magazine showed me new possibilities of bamboo's usage. Although I have seen many kinds of bamboo products in Japan, those products were totally new for me. Then afterwards, I came up with one question: why do those bamboo products look different from my image of bamboo products? The reason could be because of Finnish design. It could also be because of the difference of production methods. And also I wondered why I felt like this was not a Japanese-like design but a Finnish-like one, I wondered what design factors could affect

the differences between different national products.

There are various backgrounds behind the design of each product such as the background of culture and industry. Of course the designer's capability, his taste and design experience might vary depending on individuals. Also, product concept and business strategy on product development depend on the company producing it. Chan (2000) says that the set of common features in many objects designed by the same person signifies an individual style and if the set appears in objects designed by a group it signifies a group style. The group in this sentence could be replaced by a nation. If the business manner is not taken into consideration, there will be common features that can signify national style on product design. From the other perspective, I have also been curious for similarities and differences between Japanese and Finnish product design, because often both designs are picked up in Japanese design magazines and are expressed as simple, aesthetic, natural design, and often as minimal in design. So I was interested in finding what makes these images.

I started focusing on Japanese and Finnish furniture development and cultural context. While studying in both countries, I realized that, comparing Japanese craft design with Finnish design, the common point is that we both use natural materials. We get inspiration from the natural world such as forms and patterns. However, from my point of view, there is a difference between Japanese design and Finnish design. Japanese design uses natural materials more to express the whole natural world. On the other

hand, Finnish design uses forms of nature to design functions. In my opinion, because Japanese people have a feeling of respecting nature, and in fact, we sometimes respect emotional feeling without any logical thinking. This might be connected to Japanese religion, which is called *Shinto*. In traditional thinking, we believe that there are gods in nature and natural phenomena, thus we have tried to express the natural world with life goods or products that we use in daily life since old ages. Such an observation made me begin to wonder whether that attitude for furniture design might differ for each culture and, in my opinion, on product appearance.

According to the above consideration the aim of my research is concentrated on clarifying how the socio-cultural differences appear in product design and what cultural reference could be the identity of product. To achieve the aim, my research includes a section clarifying the factors of cultural industrial historical contexts as related to furniture design. Then, analysis is based on data collected from comparison of bamboo products by questionnaires. To prevent the readers get confused, I must make it clear that my research does not focus on the design of bamboo products itself. I will not mention the details of design and evaluate them, but rather use bamboo furniture as an indicative comparison for furniture.

1.2 Preliminary research

As I said, the product design market has become global. It is believed that national boundaries are no longer a differentiating factor in the design of products in today's 'mobile' society (Roberts, 2001). However, by identifying which factors distinguish one country's products from that of another is important, because it could be the deciding factor that makes customers buy a particular product (Dawson, Larsen, Cawood & Lewis, 2005.394). Several studies agree that consumers evaluate products based on the nation from which they are produced or associated (Hong & Wyer, 1990). At the same time, the underlying reasons for the country of origin effect have not been fully explained (Ozsomer & Cavusgil, 1991). Although many investigations relating to cultural differences have stirred to understand the global market, nationalism continues to hinder free trade and the acceptance of foreign firms in non-domestic markets (Erramilli, 1996; Samiee, 1994). It is warned that designers and businesses cannot simply skate over cultural differences – to ignore tradition or widely held beliefs they are, one does at one's peril (Kelly, 2001). As many as firms try to be differentiated, I will believe what Aldersey-Williams (1992) suggests: national and regional character will not be eradicated in the near future.

“National identity” is defined as a catalog listing of characteristics providing little usable information as there are likely to be only a few “core” traits that the culture recognizes as setting it apart from others (Clark, 1990). Theoretical construct of national identity is built around the notion that there are a relatively limited number of unique

elements, which sets the culture apart and enables it to exist, associated with any given culture that make up its national identity (Clark, 1990; Huntington, 1997). Cultural similarities and differences have been studied by Keillor and Hult (1999) and measured to establish initial generalizable national identity norms for use in cross-cultural/cross-national comparisons. This study in marketing developed a framework upon which four dimensions are measured. The components of the framework are belief structure, national heritage, cultural homogeneity and ethnocentrism, for the following countries: USA, Mexico, Japan, Sweden and Hong Kong. The study results show that different cultures and nations possess a wide variety of similarities and differences, which are obvious (Keillor & Hult, 1999. 80). Accordingly, it mentioned that the research focus should shift to relevant similarities and differences, particularly those singular cultural elements, which are important enough to give a culture its own sense of distinctiveness (Clark, 1990).

Also national product design identities have been studied by Dawson, Larsen, Cawood and Lewis (2005) to identify the extent to which characteristics vary depending on the country of origin, using furniture as an example, in addition to establishing which products are perceived to present a nation. This study into national key product characteristics has serious implications for management within businesses involved in product design, because it suggests that: national characteristics are recognized for furniture; that in some cases national characteristics are recognized across product types; and that specific product sectors are associated with most countries (Dawson,

Larsen, Cawood & Lewis, 2005. 402).

National identity has been discussed in many studies, and in terms of the importance to historical figures and events in history, the defined national heritage component reflects the given culture's sense of their own unique history (Huntington, 1997). The national heritage component is also relevant to national product and the industrial development history that identify national characteristics on product design.

1.3 Global business collaborated by Japanese and Finnish companies

As previously mentioned, the emergence of new bamboo furniture that encouraged me to this challenge of analyzing relativity between socio-cultural differences and the product identity is one of business collaborations between Japanese and Finnish companies. This chapter provides an overall story of how they became cooperative partners and what they achieved at the end of the cooperation.

In 2006, Artek (<http://www.artek.fi/company>) announced a bamboo furniture series BAMBU that used laminated lumber made out of Japanese bamboo. The company is famous for stools using a bentwood technique designed by Alvar Aalto, and would be using the same technique with the BAMBU furniture. The material, bamboo, is processed and manufactured in the same process as birch used for Aalto's stool. It was the first attempt for the company to use bamboo for their products. As for bamboo as a material, it is easy to process and does not have irregularity in complete products, rather

the smooth surface can be a feature of the products. Artek creative director Tom Dixon has talked about the reasons for using bamboo: it is a miraculous material. It has strength like iron depending on the usage and is lighter than hardwood material. Moreover, bamboo is a plant that grows faster than other plants (Mycom Journal, http://journal.mycom.co.jp/articles/2007/07/04/ar_bambu/index.html).

TAKE (which means bamboo in Japanese) Create Hagi, (<http://www.tch-corp.com>) the company that produces Artek's bamboo furniture is located in Hagi, Yamaguchi in western Japan. The company was originally developed from a conference for the Promotion of Branding of Hagi's bamboo, and was established in 2002 for the purpose of product development and industrial cultivation using local bamboo material. Hagi is known as an area with high quality bamboo. However, in recent years bamboo forests have been left to the maintenance of local people because of the decreasing demand for bamboo as a material, which as a result of increasing use of plastic products. Additionally, Hagi needed to reproduce local industry as well as local revitalization in regional issues, because the falling birthrate and depopulation were becoming serious (Io & Mizutani, 2006; Tokunaga & Araki, 2007).

Before the establishing TAKE Create Hagi, the conference received cooperation from Yamaguchi Prefectural University to produce advertisements and the logo mark to deepen the understanding of local people and to establish the brand identity. In 2005, this action was adopted as one of the JAPAN Brand Overseas Market Support

Businesses of the Japanese External Trade Organization (JETRO) with the idea of turning the market abroad with new product development. In the same year, their first bamboo products were exhibited in Helsinki in Finland, the production area of worldwide woodwork furniture. In this exhibition, their bamboo products were evaluated highly, and what is more, they received the opportunity to do business with a Finnish company, Artek. (TAKE Create Hagi, <http://www.tch-corp.com/company/history.html>)

Artek is a famous Finnish furniture company that has a sales network in more than 40 countries and a reputation for high quality of design. Artek is renowned as one of the most innovative contributors to modern design. The superior quality of furniture is a part of the tradition of Artek. However, it relies on the resources of the earth to design and to manufacture products. Therefore, they think that they must have a huge responsibility to act wisely in the environmental choices they make. They work on the evaluation and the environmental impact in the manufacturing process following this principal: As a time of increasing concern for the environment and depletion of natural resources, Artek is committed to assessing the environmental impact of our manufacturing processes and business practices (Artek, <http://www.artek.fi/company/strategy>). So it was natural choice for Artek to look into bamboo as an ecological furniture material. Artek was focusing on bamboo as a material for new furniture and paid attention to the good quality of Hagi's bamboo in the first exhibition. As a result of the negotiation, both companies agreed on addressing

new product development where Artek provides designs of furniture and Hagi provides the manufacturing technology.

In April 2006, bamboo furniture BAMBU was produced by the cooperation between TAKE Create Hagi and Artek. It was exhibited in Milano Salone, which is known as the international furniture fair in Italy. On this occasion, various interior design magazines wrote about the bamboo furniture and it received many successful responses. Furthermore, in October 2008, after the exhibition, about six hundreds parts of bamboo chairs were shipped to the U.S. to be used for attendees for the Academy Award ceremony. (TAKE Create Hagi, <http://www.tch-corp.com/company/history.html>). So, their business has been getting steadily and successfully worldwide.

1.4 Research questions



Figure 1: Summary of my research

As figure 1 illustrates, my research is twofold: theoretical and empirical. The theoretical goal is to conceptualize the cultural reference in product design and empirical goal is to clarify product design features between Japan and Finland. There are specific research questions to achieve the goals:

- What in a socio-cultural context could affect design references in product design?
- How do cultural differences appear as product design feature on product shapes?
- What could be characteristics for both Japanese and Finnish furniture design? And what are the images customers receive?

First, this research focuses on studying some parts of industrial history and the industrial development changes in a comparison of theoretical work. Second, it focuses on analyzing datum collected from questionnaires. The theoretical context is analyzed in order to clarify factors that might be reflected in product design features. Then, practical datum collected is analyzed in order to find evidence of the difference in product design features from the customer' s point of view. With the aim of this research, my research proceeds to achieve these goals.

2 THEORETICAL MEANING OF IDENTITY

An identity matters as a concept theoretically as well as a contested fact of contemporary life. It offers much more obvious and common sense way of talking about individuality and community. Principally, an identity provides a way of understanding the interplay between our subjective experience of the world and the cultural historical settings in which fragile subjectivity is formed (Gilroy, 1997.301). This section takes a part to clarify the meaning of identity from theoretical perspective. In previous chapter, the national identity is described as a catalog listing of characteristics provides little usable information as there are likely to be only a few “core” traits that the culture recognizes as setting it apart from others (Clark, 1990). Furthermore, this chapter will add more meanings in different terms of identity.

2.1 Clarifying definition of identity

The term “identity” has been used in various meanings as well as in multidisciplinary fields of expertise. The ambiguous nature is highlighted by a number of overlapping terms such as character, personality, profile, image, and positioning, which are used in diverse manner depending on the user. In addition, an identity at global, national or local level is treated as a matter in contemporary societies and political issues. It is particularly important that the term, identity, has become a significant marker in contemporary conflicts over cultural, ethnic, religious, racial and national differences, where an idea of collective identity has emerged as an object of political thinking (Gilroy, 1997.311). This is one of the reasons why identity is treated as important. In

traditional societies, identity was fixed, solid and stable. However, in modern societies, identity becomes more mobile, multiple, personal, self-reflexive and subject to change and innovate. Yet identity in modernity is also social and other-related (Lash & Friedman, 1992). According to Woodward (1997), sharing an identity is apparently to be bonded on the most fundamental levels: national, racial, ethnic, regional and local. And yet, an identity is particular as much about difference as about shared belonging.

To confine myself to specific meanings of identity to understand the research questions and the results, this chapter provides definitions of identity through locality, cultural identity and cooperate or product identity that is clarified from multifaceted perspectives. In addition, regarding culture as an integrated context between product designs and identities, this chapter also reviews general meanings of culture.

2.2 Meaning of identity in general

First of all, this chapter provides a meaning of identity in general. In language dictionaries, an identity is described as: who someone is; someone's name; the qualities and attitudes you have that make you feel you have your own character and are different from other people; formal exact similarity between two things; the condition of being exactly alike; sameness; the distinguishing character or personality of an individual; individuality; the condition of being the same as something or somebody known or supported for symbols, and personality, character. (LONGMAN, 1990, 2001) Identity gives us an understanding of who we are and how we relate to others and a location in

the world we live. Woodward (1997) suggests that an identity marks a way in which we are the same as others who share that position, and a way in which we are different from those who do not. Often identity is most clearly defined by difference that is by what is not. For instance, man and woman, these polarizations can mark identities by classification, which is always constructed around differences, and the ways in which differences are marked out. In other words, differences can be found within identities as well as between them. (Woodward, 1997)

2.3 Identity in business

In business, today, identity is an important notion as a strategic concept in design management. Corporate identity is one of established terms in this context. It plays a role as valuable mediate information between companies and customers when the customers evaluate the companies and the products. As Best (2006) notes, a corporate identity expresses the value and beliefs that an organization stands for, and these values and beliefs will be outlined in the company's brand and mission statement. The same values and beliefs will also be translated into various business objects and strategic plans across a number of departments within the organization and finally will also manifest themselves in the environments, communications, products and services of the organization (Best, 2006). Therefore, the term is linked to corporate philosophy, corporate business mission and values, as well as corporate personality and the distinct culture (Ceonex, <http://www.ceonex.com/>). Identity has three fundamental functions: identification, distinction or uniqueness and consistency. Identity contributes to

company or brand recognition, differentiation of the company's offerings from those of competitors, and creation of coherence across different markets and product categories over time.

In generic manner, there is two main perspectives of cooperate identity: internalization and externalization. Identity is used to explain what organization is (Balmer, 1995). On the other hand, it consists of different elements. The internal identity represents the identity dimension that might be seen as stemming from the company's being. It is difficult to manipulate while embodying a subconscious dimension in the form of tacit knowledge. This dimension forms important basis for the company's visible identity. External identity, as a representation of the company's being, emerges primarily through three designed areas: product or services, environments, and communications (Olins, 1990). Products are the most important spokespersons for any company. Therefore, the key to defining corporate identity resides in how well a company communicates its visions and values by means of the identity and image of its products always keeping the target audience involvement in mind.

2.4 Local identity

Identity formation not only takes place on global and national scales, but occurs at the local levels and personal levels. For instance, global changes in economy are affected by local impact. Shifts in social class positioning are a feature of these global and local changes. (Woodward, 1997. 21)

According to Verwijnen and Karkku (2004), local identity is described as the emergence of specific local system within a given space and the particular details of the physical geography of that place. Also it is described that each place has a historical and evolutionary background and a locality seems to be as the product of human interactions of everyday life, which constructed our social world based on the natural and physical world with the particular history (Verwijnen & Karkku, 2004. 28). He mentions that the meaning of emergence in his sentence of locality is that a result of this interaction that is larger than the local economic, social and geographical elements. Moreover, the history is embedded in the built historical environment. In a sense, it is a product of previous human action in history. It could be said that we have made our life in different places in different times and different ways and are living there now.

2.5 Cultural identity

Generally a culture is described as ideas, beliefs and customs that are shared and accepted by people in a society; a cultivation or tillage of soil; a practice or raising animals or growing plants or crops especially with aims of improvement; an enlightenment and excellence of taste acquired by intellectual and aesthetic training, refinement in manners, taste, thought, etc; arts, humanities and broad aspects of science as distinguished from vocational and technical skills, and patterns of human behavior, customary beliefs, social forms and material traits of racial regions or social groups (LONGMAN 1990, 2001). Each culture contains distinctive ways of classifying a world and gives us the means by which to make sense of the social world and to construct

meanings (Woodward, 1997). Also a culture is a whole body of efforts made by people in a sphere of thought to describe, justify and praise the action that people has created and keeps in existence (Fanon, 1963). In a sense of public, a culture that standardized values of a community mediates the experience of individuals (Douglas, 1996). It provides some basic categories and positive patterns in which ideas and values are tidily ordered.

Hall (1990) suggests two different ways of thinking about cultural identity. The first view defines cultural identity, in terms of one shared culture, as a sort of collective ‘one true self’ hiding inside the many other, and more superficial or artificially imposed ‘selves’, which people with a shared history and held ancestry in common. In terms of this definition, our cultural identities reflect the common historical experiences and shared cultural codes, which provide us as ‘one people’, with stable, unchanging and continuous frames of reference as well as meaning under the shifting divisions and vicissitudes of our actual history. (Hall, 1990)

The other view of cultural identity recognizes that there are also critical points of deep and significant differences that constitute ‘what we really are’, or rather ‘what we have become’ since history has intervened. Cultural identity, in this second sense, is a matter of ‘becoming’ as well as of ‘being’. It belongs to the future as much as to the past. It is something which already exists, transcending place, time, history and culture. Cultural identities come from somewhere have history. However, something historical, they

undergo constant transformation. Identities are the names we give to the different ways we are positioned by, and position ourselves within, and the narratives of the past. Cultural identities are the points of identification or the unstable points of identification or suture, which are made within the discourses of history and culture. Not an essence, but a positioning. (Hall, 1990)

Relating to above Hall's notion, identity in Cartesian philosophy had been discussed based on the dualism of mind and material. To simplify the dualism, it is psychoanalysis and sociology, and to simplify it more, it could be said that the mind is a theory of subjectivity (= inter) and the material is theory of society (= external). On the psychoanalysis and the sociology, which is interpreted as social position such a framework of race, gender, class, religion, generation, has been emphasized. These social positions are the fixed and stable role of identity. Recently, however, has been spreading the importance of "cultural " significance rather than the "social" ones. (Ito, <http://home.kanto-gakuin.ac.jp/~ito/works/works.htm>)

In order to clarify the concept of what culture represents in sociology, it arises a transition of implication of culture. The first phase of culture implies a cultivation or a tillage of soil, and a practice or a raising animals or crops. The second phase shifts to a mental training, for instance art or civilization. The third phase implies a general process of social development, for instance a culture as universal process. The fourth phase implies each nation, group, value or lifestyle that shares significance in the age.

The fifth phase implies practices of creating a sense, which means signifying practices. (Bocock, 1992, Williams, 1980) The shift from the third phase to fourth phase is a transition of culture from as universal single concept to culture, which entire lifestyle holding multifold elements. The expansion to the fifth phase is a shift from a question “what is culture?” to a question “how does the culture work?”. In other words, the shift from the fourth phase to the fifth phase means a process of practice how the various cultures that are represented in the fourth phase find significances of its culture, and exchange them to other valuable aspect. (Ito, <http://home.kanto-gakuin.ac.jp/~ito/works/works.htm>)

When taking an identity up as a matter, as mentioned above, it is considered from two aspects dividing into psychoanalysis and sociology. However, in recent years, it came to be thought that identity consists in cultural things and is considered in cultural dimension approached by inter and external aspects. These cultural elements are not fixed and not stable sense like social position, but are fluid. In order to capture cultural elements, the idea of articulation helps to clarify what could be identity. The articulation is used as a natural language as well as contributed special term such as in linguistics and philosophy. In sociology, the articulation labels the process by which particular classes appropriate cultural forms and practice for their own use. In this theory, social-economic structures of power do not determine cultural forms and practice, but rather they related to them. The theory of articulation recognizes the complexity of cultural fields. It preserves a relative autonomy for cultural and ideological elements,

but also insists that those combinatory patterns that are actually constructed to mediate objective patterns deeply in the socio-economic formation, and that the mediation takes place in struggle. The classes fight to articulate together constituents of the cultural repertoire in particular ways so that they are organized, in terms of principles or sets of value that is determined by the position and interests of the class in the prevailing mode of production. The relationship between actual culture and economically determined factors such as class position is always problematical, incomplete, and an object of ideological work and struggle. Thus cultural relationships and cultural change are not predetermined, rather they are the product of negotiation, imposition, resistance and transformation. Also particular cultural forms and practices cannot be attached mechanically or even paradigmatically to particular classes, nor even can particular interpretations and valuations. (Middleton, 2002)

The articulation of the term here is a frame conjoining separated cultural elements in some situation. To put it conversely, it can be divided into two elements even though the conjuncture is a single frame. And it is not inevitable, decisive, absolute, essential and nor last forever after once conjoined, but is what conjoined for a particular purpose. So, that is cultural identity. Each element of cultural identity is isolated, but as the cultural identity, it keeps a sense of unity. Also it is not complete, but constantly changing.

Cultural identity has discussed by Simonelli and Zurlo (2003) as one of the important components of territorial capital and as the element that allows for exploiting its specificity and difference with regards to competition between localities. An unprecedented process of globalization and of compression of time and space are running on. In such situations, it seems there is an aspect that the distribution of information, knowledge, capital and product promote the world forward to homogeneity. However, this is not the process that every local is replaced to global. To simply put, it is the process of cultural heterogeneity, which means the process of producing new global or new local aspect.

Cultural identity is truly generally complicated. However, it is understood that cultural identity is a way of understanding ourselves. Cultural elements frame our identity and the identity is constantly changing with being affected by cultural change. Identity in each level, which is national, ethnic, regional, local and personal, can be physical and nonphysical specificity at once in particular place. And it is identified by differences to be recognized from others.

2.6 Definition of identity in the thesis

Identity exists at from national level to customer's level. Identity having different meanings exists in each phase in process until the product reaches to the customer. Also the customer has an identity so-called personality is affected by socio-cultural environment where the customer's life belongs to (figure 2). Reviewing the meaning of

identity in different terms in early chapter, I will avoid use of identity as a notion in business term in this paper. However, I agree that identity contributes to recognition and differentiation of organization. In this sense, identity can also contribute to national differentiation that is so-called ‘national identity’ if the organization is considered as a whole nation. Furthermore, referring to the role of corporate identity, an identity could be a value, a character or a signature of organization of region as well as nation beyond the company scale. Industrial historical background in each particular place would appear as a product identity of the nation.

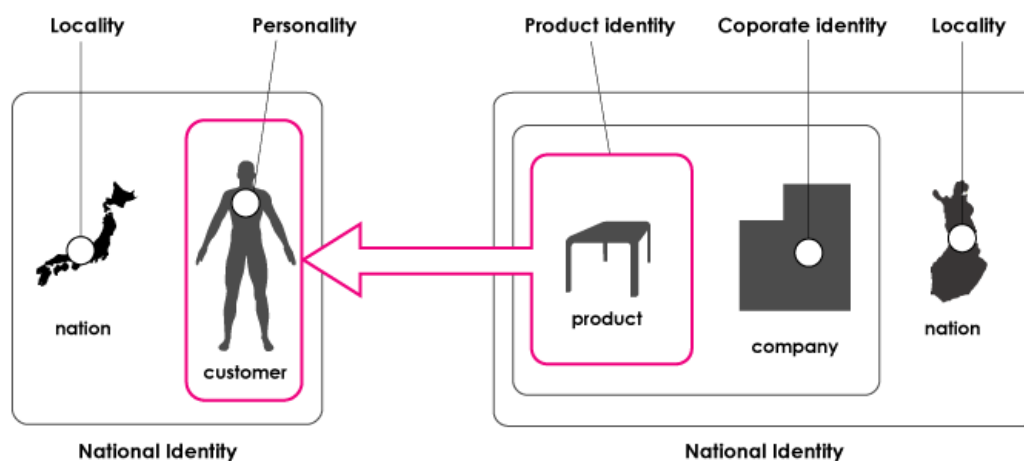


Figure 2: Identity exists in each phase from nation to reaching customer as well as in customer itself with having different meanings.

From the remarks of several authors, I define the meanings of identity in each term (figure 3). Identity in region is an emergence of a specific local system within a given space and the particular detail that is constructed with our social world based on the natural and physical world with a particular history. Identity in organization is an

expression of values and beliefs that an organization stands for. Identity in product is a personality of its product to be recognized from other competitor's products. Identity in individual is a distinction of character and personality. And these all identities could be seen in the characteristic list of national identity

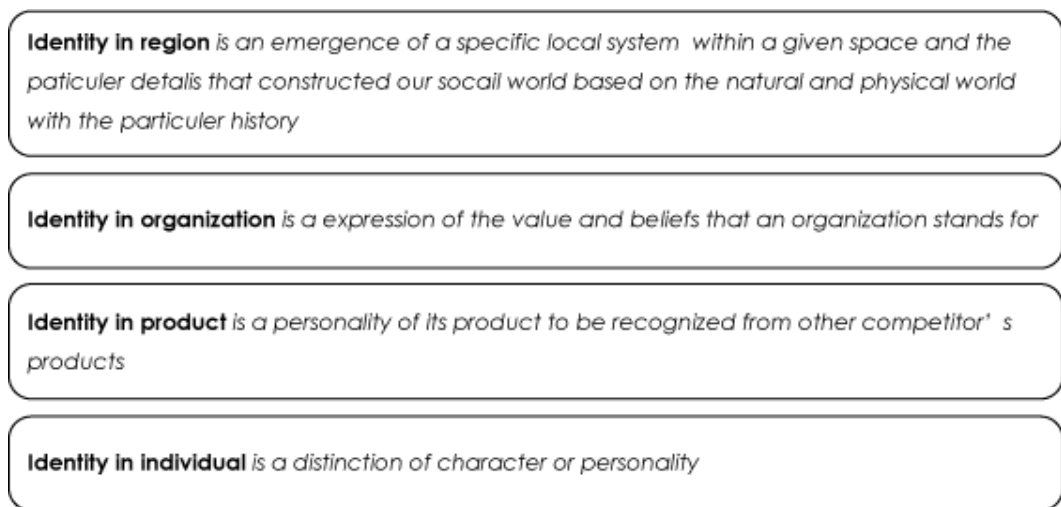


Figure 3: The definition of identity in region, organization, product and individual.

Furthermore, it seems that defined general meanings of culture, for instance patterns of human behavior, customary beliefs or social forms, is what geographically historically socially happened in a particular place. In a sense, culture can be treated as a locality as well as a value that is built with social physical world and the history in the particular place. My research carries on with these definitions to clarify identities as valuable product design feature that is created by socio-cultural differences.

3 CULTURAL INDUSTRIAL DIFFERENCES BETWEEN JAPAN AND FINLAND

Products always express something and are interpreted in some ways during the perception process and in use. It is interesting that products have many different kinds of reference relations. In addition, product characteristics are affected by different cultural backgrounds or industrial developments of technology. Especially, particular differences are discovered in differences of socio-cultural history between Europe and Asian countries.

From a historical point of view, Japan has been closed to foreign commerces for the past more than two hundreds years to prohibit the Christianity and to manage national politics. There has been an age prohibited all diplomatic relations with various foreign countries except Netherlands and China during the period. By the establishing a closure of country, the Japanese national politics have strengthened. Also, the original Japanese industry and the culture have been developed and got mature. In a sense, the closure of country contributed to maintenance of Japanese identity.

Finland's identity, which is built on an idealization of people and landscape of the Finnish interior as well as from folklore gathered on the periphery, was created quickly and centrally during a period of semi-independence, which lasted until the Russian Revolution and Finland's independence.



Figure 4: Japanese painting of a Dutch trader watching an incoming VOC ship at Dejima.18-19th century.

The Fenno-Soviet Winter War of 1939-40 and Continuation War of 1941-44 against the Soviet Union halted development of furniture industry in Finland as well as of the whole nation. At the beginning of the 20th century, education for furniture design was devoted to training cabinetmakers. Since then, it has undergone dramatic changes. By the end of the Second World War, it contributed to establishing a profession that was ready to meet the challenges of reconstruction and establishing Finnish identity. (Ava & Stritzler-Levine, 1999)

This chapter focuses on influential circumstances in history, especially about the industrial developments and the cultural backgrounds in terms of furniture between Japan and Finland, to verify the cultural differences that influence to characteristics of furniture design.

3.1 Japanese furniture history

Japan is likely renowned for its electronics industry in modern age (Dawson, Larsen & Cawood, 2005). It is true that Japan originally is not a country where the furniture culture is developed as same as western countries and the most of furniture (here, it means Japanese original furniture, which is different from Western furniture) developed during the *Edo* period (1603 - 1867) (Kasai, 1976). For instance, Denmark and Italy have been associated with furniture for a long time (Dawson, Larsen & Cawood, 2005. 401). Although there are some reasons, it could be thought that the biggest reason of delayed furniture development in Japan is that traditionally Japanese have been living with sitting on the floor. For instance, eating using low tables or sleeping on the floor does not need to use chairs and beds. Therefore, it was a natural phenomenon to have little furniture in houses.

Mentioning the history of chair, the origin of chair in Japan was a folding chair called *koshou* (figure 5,6) that was transmitted from China in order to use in field battles by samurai. The culture of the use of chair as a furniture started to develop in the late 17th century. The change took place at the Japanese life during the *Meiji* period (1868-1911). When the modernization happened in Japan, especially when the various western technologies flowed in, the industrial productions started flourishing. As a result, the standard of Japanese life, especially in the urban life was improved, and accordingly the transmigration of local people to cities occurred. In addition, the residence constructions in cities remarkably started to change. (Narita, 1995)



Figure 5: An origin type of chairs called koshou. Samurai used to them on a field battle.



Figure 6: Other type of koshou that is imported from China.

The term, furniture, appeared in recent century in Japan, because there was no well-developed furniture. Thus, Japanese traditional woodworking called *sashimono* has been used as a word instead of furniture (Narita, 1995). While European culture flowed to Japan, the term, furniture, also came together. In other words, the alias of *sashimono* had been used for indigenous tools of Japan such as *tansu* (figure 10) and *nagamochi* (figure 12). On the other hand, the term, furniture, has been used for what flowed in such as chairs and cupboard from the U.S. and Europe since Japan opened to the foreign commerce (Narita, 1995). In later chapter, Japanese traditional woodworking *sashimono* and the artwork, *tansu* and *nagamochi*, are described.

As national politics were drastically moved at the end of the 19th century, the Japanese diplomatic relation started again at the port of Yokohama, Nagasaki (figure 4) and Hakodate in 1859. By opening the country to the world, the Japanese government started employing foreign engineers to innovate technologies with aimed at growing to the modern state. Since then, the people's life became rich by importing western culture and rapid industrial development since the 17th century. At this time, the import of furniture for foreign settlements or the foreigners who are related to the government was considered as an introduction route of the Western furniture to Japan. Moreover, the modernization of furniture started such as Tokyo institute of technology, which is first educational technical institution, established in Japan in 1881. (Koizumi, 1999)

However, it has to be noted that the local people have been preserving Japanese traditional cultures, customs and industrial skills although the westernization of lifestyle was accepted. Based on this cultural preservation, there should be basics of Japanese design or customs that exist in modern Japanese life. So, it seems Japan has been constructing mixed culture between Japan and foreign culture until today.

3.1.1 Development of architecture and furniture

As previously mentioned, the furniture culture in Japan is not developed enough as western countries, because the lifestyle was different. However, there is another remark of the reason that is Japanese interior composition is fundamentally different from the western countries (Nakamura, 2000). In comparison between Japanese and western

old-time building constructions, furniture in western countries is differently recognized apart from the architectures. Mentioning to the architectures in western countries, it was necessary to increase wall insulations to prevent coldness. So, the thick walls were constructed with bricks and stones. If the walls get thicker, the freestanding buildings support themselves without any columns. This is called box-frame construction. In the box-frame construction, the wall surface becomes uneven and no irregularity, thus murals and ceiling paintings or furniture such as cabinets or dressing boards emerged to decorate rooms. In addition to the need for the wall decoration, the interior decoration has been evolved as an expression of humanity based on a thinking of conquering rigorous nature. It is to decorate living spaces for entertain people. In this sense, paintings and sculptures are also developed with architectures. (Nakamura, 2000; Togashi, <http://www.tomicom.ac.jp/~togashi/text/gairon/04> 建築のデザイン様相.doc)

In contrast to the building constructions in western countries, Japanese architecture that is built in hot and humid environment in a summer has been wooden buildings to accommodate rainfall and ventilation. Japanese architecture is mainly consists of column structure and the furniture is built into the construction as facilities. Also, the columns and the beams are used as finishing materials of interior design as well as creating a rhythm of the space, thus it was not necessary to dare decorate rooms. In Japan, there are some ideas to assimilate into the nature or to harmonize nature to enjoy a configuration. Originally, the column structure has rhythmic design elements, thus it is naturally accepted and did not need decoration. So, there has been no concept of the

interior decoration using furniture in building for a long time in Japan. (Nakamura, 2000)

The style of Japanese architecture called *shoin-tukuri* (figure 8,9) was established at last half of the 15th century. This has originally developed for a space that was born as a hall called *kaisho* (figure 7) for social meetings such as tea ceremony. It became independent architecture that influences to the style of present Japanese architecture afterwards. Especially the elements of Japanese peculiar interior decoration could be seen in a space called *tokonoma* (figure 9) in reception room.

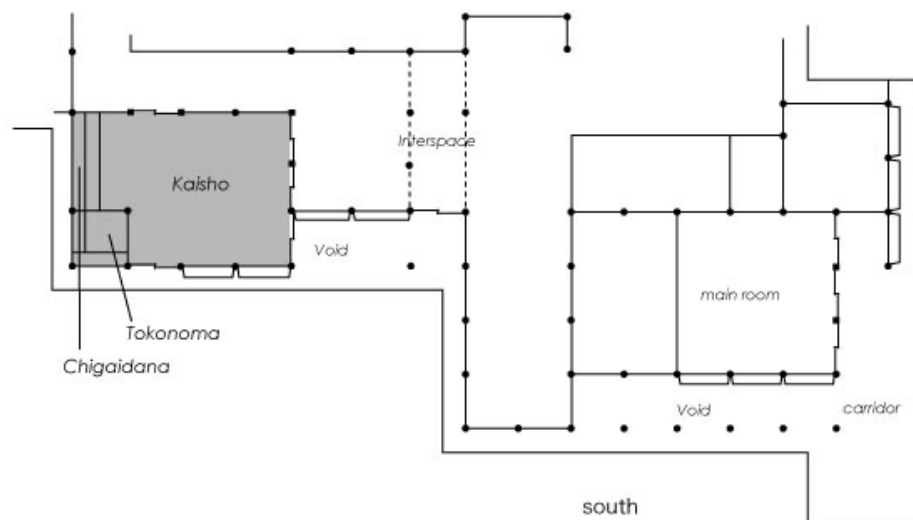


Figure 7: Floor plan of old house.

Kaisho, which is used for a space of tea ceremony, is separated from main living space



Figure 8: One of the representative architecture of *shointukuri*, the “temple of Silver of Pavilion” (1490)

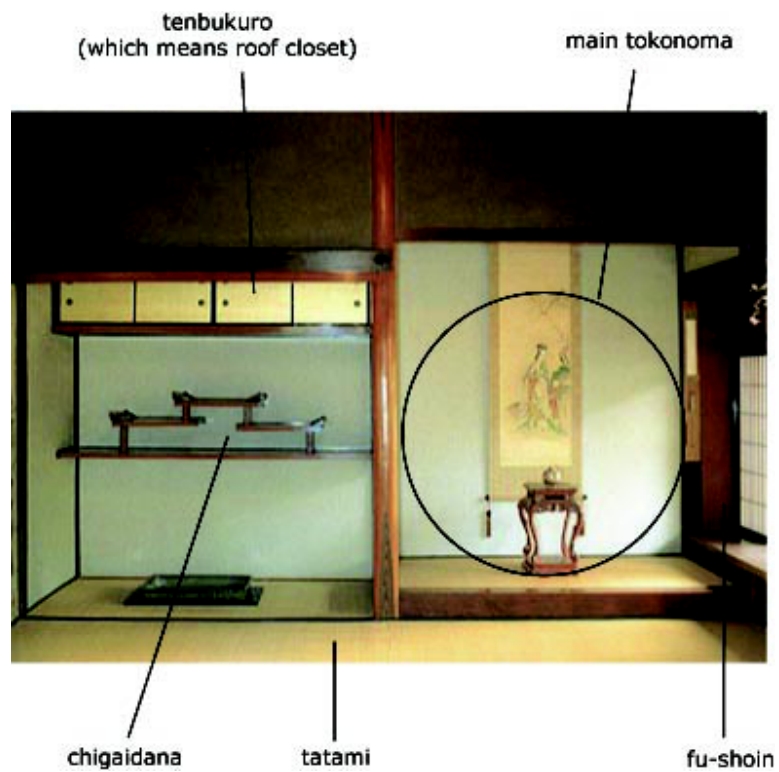


Figure 9: Basic composition of tokonoma. tenbukuro, chigaidana, fu-shoin and tokonoma.

All these are built into structure of architecture as facilities.

There are some architectural characteristics in the *shoin-tukuri*. First of all, the inside of the buildings is portioned into several spaces by removable sliding doors. The width of room can be adjusted by moving the sliding doors, so that the room can work as a dining room, a reception room, a bedroom and for any purposes. Also, the sliding doors work as a gateway, a partition as well as a interior decoration. Secondly, in the reception room, there is a furnished interior decoration called *tokonoma*, which is a small space to exhibit hanging pictorial scrolls, calligraphic and flower arrangements. Moreover, there is a shelf called *chigaidana*, which means staggered shelf, to display art works. Also, there is a *fu-shoin*, which is a desk to do read and write (figure 9). It is possible to sit on the floor called *tatami*, which is thick straw mats cover the floor. In addition, it is possible to sleep with *futon*, which is Japanese style bedding, on the *tatami*. In the other side of the wall, there is a closet called *oshiire* built in, thus it is not necessary to have storage furniture. In this way, Japanese interior composition is constructed with furniture and building, also is unified and inseparably integrated.

Such architectural interior development artistically changed into the quality of culture rather than politics or religion style. Therefore, the *tokonoma* or the room decoration has developed with arts and cultures such as black-and-white ink drawing, Japanese flower arrangement and tea ceremony.

3.1.2 Objects in daily life

There is a chest called *tansu* (figure 10) that was born in passing by the 17th mid-century.

There are two factors in the background of appearance of *tansu*. The one is a change that the people's everyday life became rich along with increasing of possessions at general families. In other words, it is occurrence of surplus property. Until the life changed, the people actually did not have many clothes even enough to use storage furniture. Therefore, a box called *kouri* (figure 11) or *nagamochi* (figure 12) was used instead of storage furniture. In addition, the people of ruling class did not need even boxes although they have many costumes, because they lived in large houses with storehouses. (Koizumi, 1995)



Figure 10: Different types of *Tansu* that appeared in Edo period



Figure 11: *Ko-ri* made of rattan

However, as the economy grew and the manufacturing capacity was improved, the demand of household goods changed as same as the people's life changed. Therefore, the *tansu* became widely used instead of boxes such as *nagamochi* since the end of the 17th century. The features of the *tansu* are the simplicity of usage, the rationality of functional arrangement, the classification ability and the space-saving furniture. The *tansu* can be divided into two or three parts for carrying one by one. The handles work for transporting as well as combining and fixing the divided parts. The *tansu* is a stacking and knockdown furniture. In this way, the furniture that have been used before such as *tansu* are easy-carrying unit furniture in similar with Japanese interior composition. (Koizumi, 1999)



Figure 12: *Nagamochi* which was used as a box for storing artworks and clothes (left), and the one with wheels designed for moving (right).

3.1.3 Traditional craft industry SASHIMONO

In addition to the popularization of the *tansu*, *sahimono*, which is one of Japanese traditional furniture cultures, has to be focused on. The definition of the *shashimono* by *Ko-jien*, which is Japanese language dictionary, is a box, a desk and a chest of drawers that are made of joined assembled wooden board. In addition, it is a wooden container

of making precise measurement and shape by using a framing square that makes right angle. The *sashimono* that is translated into joinery in English word is one of traditional craft skills and the craft goods. These are handmade art crafts that are based on ancient Japanese techniques. The definition of handmade art crafts is established by the law: the thing mainly is used for general daily life; the material and the production process must be handmade exactly the same as before; the skill must be established before *Edo* period (1603-1867), and the condition has to be in constant region. Also the scale of producing organizations must be more than 10 enterprises and more than 30 persons of technician who provides industry. (Narita, 1995)

The development of the *sashimono* in the 17th century is an important section in Japanese history of furniture. *Sashi* means indicating or inserting, thus what the most important in joinery is joints. In other words, it is the methods of joining wood. The joinery as a word has become recognized by general public since the end of the 16th century to the beginning of the 17th century. Until then, furniture was the thing that only the people who belong to higher class have. Also, the joinery skills were never paid attention, because most of furniture were covered with Japanese lacquer. Thus, the skill itself has not been recognized before the *tansu* appeared. (Koizumi, 1995)

After designs of the *tansu* have got sophisticated and technically elaborated as popularized, it came to pay attention to the woodworking technique, because there was no excessive decoration on furniture for general use. Therefore, a lot of kinds of sharp

cutleries were needed as well as the artisan skills that are accurate were also needed. At this point, as the production areas of woodworking tools formed across the country after late the 17th century, the high quality tools spread with cheap price, and the individual artisan skills improved in such a background. The woodworking techniques and the shapes of curving were developed in each local, thus the *tansu* is the one that Japanese demotic culture that local people invented. In this way, the joinery techniques contribute to development of Japanese furniture culture along its development. As a result, various kinds of tools and furniture were produced with the joinery techniques. (Koizumi, 2005)

The joinery existed partially in nobiliary life and was irrelevant to general life. It is one of the popularizations of woodworking techniques that the joinery has become outspread to generally recognize. As one of the factors of this popularization, it relates to establishing Japanese tea ceremony ‘*wabi* tea’, which one of traditional culture. During the 16th century, when tea ceremony had become widespread, the new style of tea ceremony called *wabi*, which literally means forlorn, associated with *Sen no Rikyu* (1522-1591). He started designing his own tea wears under the cooperation of local craftsmen and used them in his ceremony. He has also refined the art of teahouse design with a preference for very simple and small tea rooms constructed of natural building materials. By establishing *wabi* tea that emphasizes simplicity, unpainted or undecorated tools became mainstream in the tea ceremonies. People came to pay attention to the complexity and dexterity of the art works, they have started requiring beauty and interests in high joinery technique itself. *Wabi* tea is a culture that had arisen

from populace, there are many refined design based on simple domestic life in the culture of modern tea ceremony. In addition, this *wabi* style has influenced to the construction of *shointukuri*. (Yoshida, 1972, 1973; Koizumi, 1995) The development of joinery techniques has technically supported both *wabi* tea and *shointukuri*. In this sense, the culture of Japanese interior decoration and the industrial technology have been developed with affecting each other.

3.2 Relativity of architects and furniture and interior design in Finland

Furniture and interior design play both a mediating and an assembling role in the field of design. As Ava and Stritzler-Levine (1999) says, it is impossible to analyze the field of furniture and interior design in Finland without considering the contribution of architects. Furniture and interior design form an area that integrates architecture with the development of design and education professionals. In Finland education in this field was not linked to architectural training, but to other sectors of design. On the other hand, Finnish furniture and interior designers were trained by architects. Mentioning the profession, Finnish architects had already become organized as a markedly collegial body of professionals at the turn of the century. They did not only design the interior of their architectural projects and own homes, but they also created interior schemes and furniture of each other's projects. (Ava & Stritzler-Levine, 1999; Korvenmaa, 2009)

3.2.1 Architect's leadership in design education and the field of applied art in Finland

First of all, the Finnish word *taideteollisuus* translates into English as 'applied art' or 'industrial art'. The literal meaning is industry utilizing artistic skills to improve the aesthetic and functional quality of products (Korvenmaa, 2009, 16). Training of applied art in Finland launched in 1871 was the most far-reaching and influential measure of development in the field in its early stages. In that year, the Craft School was founded, the predecessor of the University of Art and Design Helsinki, to serve industries, mainly on a handicraft and small-scale basis, making, among other products, furniture, table-ware, wooden and metal utility objects, woven fabrics and ornamental objects. The Craft School became the Central School of Art and Crafts in 1886. The architect Armas Lindgren (1874-1929) began work as the school's first artistic director in 1902. The school was headed by architects for many years. In 1912, Lindgren was succeeded as artistic director by the architect Rafael Blomstedt (1885-1950). Werner von Essen (1870-1926), also an architect, began his long period of service as the head of the school in 1915. The leading role of architects continued with minor exceptions until the 1970s. For many years major public and private building projects were main source of employment for professionals in crafts and the applied arts. Moreover, the cultural and social status of architects was clearly higher than that of professionals in applied art. Architects were also active for a long while in applied art and design especially as designers of furniture and lamps. (Ava & Stritzler-Levine, 1999; Korvenmaa, 2009, 20-21)

The teaching of furniture design so-called ‘furniture composition’ had began at the Central School of Art and Crafts in 1909 had produced skilled individuals. This meant that by the mid-1910s a group of furniture designers with training in the applied arts was evolving and was to emerge soon alongside architects. The furniture industry was among the first sectors of applied art to combine domestic design, materials, manufacturing and consumption. Mass-produced textiles and ceramics, for example, did not follow this example until the 1930s. (Ava & Stritzler-Levine, 1999; Korvenmaa 2009, 84-86)

In the early 20th century, the creation of complete entities was specifically the task of architects, who could extend their design of the material world from town plans to buildings and their interior space and artifacts. In the most cases, the architect of a building would also prepare a plan for its decoration to be carried out by craftsmen. In some cases, as for example in the Privatbanken bank project (1904) in Helsinki its architect, Lars Sonck (1870-1956) collaborated with another architect, Valter Jung (1879-1946) in the plan for the decoration. The architectural profession also felt this to be the goal of professional identity. This trait became a permanent aspect of architectural professionalism in Finland – a later example being Alvor Aalto (1898-1976) (Korvenmaa 2009).

When discussing works of modern interior and furniture design since 1930s in Finland, it is essential to bear in mind that the designers have often worked in many other areas

of the applied arts. This resulted not only from versatility facilitated by design education but also beginning in the early 1950s, from spread of the new concept of product design in both training and practical work. Education of architecture in Finland influenced to force relationship between both areas. Furthermore, emphasizing the relevance of the curriculum in architectural education in Finland and the interior is complete and total building interior. (Korvenmaa, 2009)

3.2.2 Alvor Aalto's architecture and his furniture

It could be said that Finnish design has become internationally famous along with success of Alvor Aalto. As mentioned above, he worked in both areas of architecture and furniture design. Paimio Tuberculosis Sanatorium (1929-1933) and the furniture are representative works of collaboration of architecture and furniture design. This chapter takes a look at his view of designing architecture and furniture as an architect, as well as important aspects of development of Finnish industry.

One of the best known of Aalto's furniture pieces is Paimio Chair (figure 14), which was designed for Paimio Tuberculosis Sanatorium. This chair was specially designed for the tuberculosis patients to sit in for long hours everyday. Aalto argued that the angle of back seat of chair was perfect angle for the patients to breathe most easily. He designed the chair to fit the users in the architecture he designed together, and explained his design intentions in the following manner: " The main purpose of the building is to function as a medical instrument. One of the basic prerequisites for healing is to provide

complete peace. The room design is determined by the depleted strength of the patient, reclining in his bed.” It is reported that he happened to have been hospitalized himself at the time the sanatorium design was conceived, and that his personal experience made him emphasize the hospital environment including washbasins, spittoons, hospital beds, wardrobes, lamps, and outdoor reclining chairs from the patient’s perspective. (Reed, 1998)

In 1972, he talked about his architecture and the design of details in interview made for Finnish broadcasting by interviewer Göran Schildt. “In fact, it is not isolated from each other, while is integrated in individual concrete architecture projects. Always I am a little in a skeptical attitude to the experts. Because more specializing is what it means to pull out nothing. Lamps and chairs are always important item in large room decoration. When I was working for public building, I realized that such furniture is essential in order to complete it as a whole. So I designed the furniture. And as a result, those furniture are suitable for other room decorations, too.” (X-Knowledge HOME. 2002 January Vol.01. P53) Perhaps his idea means the relationship between architecture and furniture from his point of view as an architect. He has committed to design the furniture that combines his architecture.

Aalto’s object designs were most often born as extensions of his architectural thinking in conjunction with specific architectural projects. “My furniture is seldom, if ever, the result of professional design work. Almost without exception, I have done them as a

part of an architectonic entity.” The essential connection between Aalto’s designs with his architectural work is expressed in his conception of the chair legs as “the little sister of the architectonic column” (Tuukkanen, 2002). His works in furniture design are independent, but suited his architecture. I think his way of approaching to architecture and the furniture is, in a way, common to Japanese way of furniture development which designing furniture as a part of architecture.



Figure 13: Aalto's own house and Studio



Figure 14: Villa Oksala, the view of living room designed by Alvar Aalto

Aalto is also regarded as a rationalist. There is an interesting remark about his concept of rationality: "A standard article should not be a definitive product; it should on the contrary be made so that the form is completed by man himself according to all the individual laws that involve him. Only in the case of objects that have a neutral quality can standardization's concern of the individual be softened and its positive side culturally exploited. There is a civilization that, even in its traditional phase, its handicraft era, showed enormous sensitivity and tact towards the individual in this regard. I mean parts of the Japanese culture, which, with its limited range of raw materials and forms, inculcated a virtuoso skill in creating variations and almost daily recombinations. Its great predilection for flowers, plants, and natural objects is a unique example. The contact with nature and its constantly observable change is a way of life that has difficulty getting along with concepts that are too formalistic" (Aalto, 1935). Around the time when Finland was active in international exhibitions, Aalto had also come under the influence of traditional Japanese architecture and the aesthetics, which affected not only the pavilion and his exhibition designs, but especially many of the details and the overall ambience of the Villa Mairea, the House for Maire and Harry Gullichsen of 1938-39. It is remarkable that he never been to Japan and had little contact with Japanese culture, yet he turned to the orient for a model in his passage from the functionalist emphasis of constructivism to the critical potential of an organic architecture. (Reed, 1998) It is surprising that Japanese and Finnish design actually have met by Alvar Aalto at this point.

3.2.3 Invention of bentwood technique

Finnish large supply of birch has been a rich resource for making veneers and plywood. And the country has been a world leader in Europe since the late 19th century. In the early 20th century, plywood has already been used for the seats of all-purpose chairs adapt to the models that are introduced by the Thonet (1796-1871) furniture company in Austria. However, the aesthetic was combined with new production techniques that plywood and laminated birch came to the forefront of furniture design and production in Finland. (Ava & Stritzler-Levine, 1999)

In the late 1920s, Aalto began to experiment with new techniques of curving and laminating Finnish birch in collaboration with Otto Korhonen, the owner of Huonekalu-ja Rakennustyötehdas company, which also manufactured Aalto's furniture designs. The lamination technique that Aalto developed enabled the production of lightweight and flexible bentwood and fluently integrated chairs that conform to aesthetics of international modernism. Aalto developed a number of lamination and curving methods for wood. These were technological patents and not the registered design models that were common in the design sector. His furniture consists of laminated wood and plywood presents a major development in history of bentwood furniture, which had been revolutionized by Michael Thonet in Vienna in the 19th century. (Reed, 1998; Ava & Stritzler-Levine, 1999)

The main problem that had to be solved was how to curve the upper part of solid-wood upright member 90 degrees without breaking the grains of the wood. The purpose was to create a visually and structurally solid and durable support. In the earliest versions, a leg part of curved steel tubing was joined to the curved wooded seat and backrest. The armchairs designed by Aalto for the Paimio Tuberculosis Sanatorium in 1931 marked a transition from laminated wood to curved flexible structures composing the leg part and hand-rests. (Korvenmaa, 2009.116-117)



Figure 15: Origin of Paimio Chair (left), and is known internationally as Paimio chair in metal (right)

The solution was to saw notches in the end of the member, to place thin strips of wood in them with glue and heat the assembly while it was curved. The part other than laminated and bent part is left with solid wood. This is a traditional Finnish grind bending technique applied. It has strength and fewer wraps in comparison with the way of steaming. In addition, this basic type of supporting member can be applied to various sizes and is the core element of most items of Aalto furniture such as tables and chairs.

(Korvenmaa, 2009.116-117) Furthermore, in his bentwood solution development in association with Korhonen, Aalto allowed legs to be attached directly to the underside of seat without the need for any framework or additional support. This novel technique gave rise to his series of L-leg (1932-1933), Y-leg (1946-1947) and fan-leg (1954) furniture.



Figure 16: Stools, Model No.60 with L-legs (left), Stool, Model No.X602 with X-leg (right)

As previously mentioned, Aalto's Paimio Tuberculosis Sanatorium belongs to the canon of modern design. In the Paimio chairs, the seat and backrest are single form-pressed piece of form-pressed birch laminate. The support is a single curved wooden element forming the legs and the hand-rests. The backrest, the seat of plywood and the frame that support the curved seat are made from laminated veneers. Aalto's important innovation in modern furniture design made it possible to combine a dramatic raw

material to Finnish production methods with internationally recognized aesthetic and design principles. He contributed to establishing international style of Finland, and still his idea is very original. (Ava & Stritzler-Levine, 1999; Korvenmaa, 2009)

The Huonekalutehdas Korhonen company has been producing Aalto furniture for over seventy years. During the time, many stages of the production process have been changed into mechanization. However, the original structural principles are much the same as they were in Aalto's day. The bentwood leg-armrest structures of his armchairs are still made by gluing together, especially molded layers of solid wood. The basic structure of stools and the other L-shaped furniture are also unchanged in their production. The assembly and finishing stages are still completed manually by skilled artisans. (Tuukkanen, 2002)

It might be the realization of Aalto's idea that is permitted to touch human body limited to an organic material. I think that was his method for aiming at more human architecture that exceeds the modern technology. His idea of bringing architecture closer to human life appears in his furniture design that is closer to human rather than architecture. And, the result was technically, functionally and aesthetically convincing.

3.3 Similarities and differences of furniture development between Japan and Finland

Comparing the history of industrial development in both Japan and Finland, the

differences are found in the history of production technology in terms of furniture design. In case of Japan, furniture (actually it was called *sashimono*) existed as elements of interior decoration. It developed along with economical changing and cultural development as illustrated in *tansu* or *wabi* tea ceremony culture before the infiltration of western cultures. In addition, storage furniture such as current cabinets has been developed as a part of building structures, which are constructed by straight columns. Moreover, the traditional *sashimono* skills fostered the Japanese industrial development. It is clear that furniture that is characterized by straight lines was the mainstream in that period. In contrast to this, the furniture design in Finland was considered as a single element to configure the interior decoration. Also, the furniture design was equipped with the education curriculum of architecture with an idea of furniture as a tool to be closer to human life than architecture. This idea was combined with bentwood technology and appeared as an organic form in such as Paimio chair to fit to human body. As a result, Finnish furniture industry became successful in producing of lightweight and flexible bentwood chairs that conform to aesthetics of modernism. Considering the development of furniture design from the historical point of view, the basic idea of furniture design in both countries always related to the interior design. However, interestingly there is a difference: furniture in Japan is recognized as architectural construction furniture that is derived from architectural subjective design. On the other hand, furniture in Finland is recognized as an organic furniture that is derived from human subjective furniture design.

4 METHODOLOGY OF THESIS

This research uses a questionnaire as a methodology in order to achieve the empirical goal and answer the following research questions: what could be characteristics for both Japanese and Finnish furniture design and what are the images customers receive? Alongside I will prove my hypothesis that is noted from theoretical framework.

4.1 Data gathering methods

To respond to globalization, visual identity and product identity are designed as a solid proof of logical language of cooperate and significance of existence of product as well as product image or conceptual thinking. The word, identity in product design might be transferred to a word, symbolic. Ava and Stritzler-Levine (1999) describe that frequently a discussion of functionalism centered on a cultural significance of product, which was used in a same sense that symbolic significance. In many theories about cultural product design, they focus on product semantics as a methodological tool for industrial design of solving visual expression and function. However, it seems that product semantics maintains the modernistic focus on function, usability and logic. Product semantics seems to limit itself for working with relationship between user and product. Often in the field of specialty of product identity, product semantics is studied to result only logical thinking, and, therefore, I decided not to refer to semantics in this research.

Dawson, Larsen, Cawood and Lewis (2005) have measured national product design

identities with representative furniture as an example in questionnaire. As several studies such as international marketing focus on the identification of difference across nations and cultures that examine with using quantitative data, my research, which deals with socio-cultural differences and product design differences, also attempts to measure product identity in different national products with employing questionnaire.

The analysis section consists of mainly two parts based on the research questions. The purpose of the questionnaire is to measure the difference between Japanese and Finnish furniture design. Question A is to clarify the recognition of Japanese and Finnish furniture design with employing selected indicative furniture, and question B is to clarify those furniture images. The question in questionnaire 2 is to clarify specific furniture design that Japanese can recognize as Japanese product. Both questionnaires are designed based on Likert scale (http://en.wikipedia.org/wiki/Likert_scale), which is a psychometric scale commonly used in questionnaires, and is the most widely used scale in survey research. The questionnaire elements contained response scales with each item so that the item of statement can be evaluated according to the level of participant's agreement or disagreement. In the beginning, it was supposed to have only questionnaire 1. However, as it went deeper into collecting data and analyzing the results, I gradually came to feel a need to have more questionnaires so that the results would be more accurate.

4.1.1 Collecting data

The first questionnaire was conducted in Yamaguchi Prefectural University in Autumn 2009 with targeting design students as a participant. In the questionnaire, total 60 students participated including both male and female. They were chosen as a participant, because it could be considered them as an individual who understands design and is more familiar with product design. Additionally, the same questionnaire was conducted with targeting people who are randomly picked up from people around me, for instance my family, my relatives and my friends including male and female as well as various ages and 16 participants (abbreviated name, 'second group').

Then, at another time, the questionnaire 2 was conducted again in Yamaguchi Prefectural University. As for the questionnaire 2, I was not able to gather all the participants who are involved in second group in the questionnaire 1, thus the number of participants is the same with 60 student participants. In the analysis phase after the questionnaire 1, I decided to have another questionnaire, which was not planned at the beginning. In a sense, the questionnaire 2 is the one that was occurred by my strong curiosity and positive intent to follow up to find an answer of research question.

4.1.2 Designing questionnaires

The questionnaire was designed to study how people recognize their own culture and the differences between other countries in product appearance. There are two questions in the questionnaire 1. The question A (see attachment 1) asks to classify bamboo

furniture into three categories: Japanese, Finnish and neither Japanese nor Finnish design. It also asks to describe the criteria of judgment to classify. The question B (see attachment 2) asks to choose an adjective word that expresses a product image for each furniture. The choices in the question were selected from my personal interest. I selected five adjective words to express the product images.

In the questionnaire 2 (see attachment 3), there is one question that asks how products seem to be in the product appearances, Japanese design-like or not Japanese design-like. In this questionnaire, the given furniture are all Japanese products and the participants are not told that. The result of the questionnaire 1 was interesting, but also was insufficient to prove my hypothesis. Moreover, I came up with one question: are there any specific product shapes they can recognize? Therefore, the questionnaire got intended to focus on Japanese product in specific. At first, I was thinking that the second questionnaire is an extra, but it helped to go forward with my thought in the end. The research got valuable and interesting research materials from the both questionnaires.

4.1.3 Selecting indicative comparison materials in questionnaire

As mentioned, this research uses bamboo furniture as indicative comparison furniture. An advantage of focusing bamboo furniture is to make the questionnaire simple and understandable more than using different types of furniture and complex materials, so that the participants can focus on the product shape itself. On the phase of designing

questionnaire, the indicative comparison furniture was selected from three categories: Japanese, Finnish and other countries product, in order to compare the furniture design for each country. Selected nine types of bamboo furniture are mainly tables designed by Japanese, Finnish, and the other designers from the U.S., Germany and Taiwan. The idea of selecting furniture focuses on the production methods and the shapes of the furniture. As hypothesized in theoretical framework, the Finnish product, especially the furniture design is characterized by curved lines of the invention of bentwood technology. On the other hand, the mainstream of furniture design in Japan used to use simple production method and the artisan skills occurred by existence of Japanese traditional furniture production, *Sashimono* long time ago. According to the hypothesis, selected each furniture has visually different shapes and distinct features structured by technical production methods.

Mentioning the indicative comparison furniture before shifting to the analysis chapter, a couple of furniture were selected from TEORI's collection as Japanese products. TEORI Co. Ltd. (<http://www.teori.co.jp/>) is a manufacturer of wood products in Okayama Prefecture in Japan. In a setting lush with bamboo bushes, TEORI Co. specialized in bamboo, and produces numerous modern bamboo items all the while improving its functionality and beauty. The selected furniture from their collections are Omo living table, Chabua and Root table (figure 17).



Figure 17: Omo living table (upper left), Root table (right), Chabudai (lower left)

A couple of Finnish furniture are selected from Artek collection that collaborates with Japanese bamboo (figure 18). The standard and system that have its origin from Aalto's L-leg make the furniture range versatile and allows it to be customized for individual projects.



Figure 18: Bambu bench (left) and side table (right)

Mikko Paakkanen is Finnish furniture designer who designed *Obi* Chair (figure 19) for a Japanese bamboo furniture company, *TAKE Create Hagi* Ltd. *Obi* means a sash for

traditional Japanese dress, *keikogi* worn for Japanese material arts, and a part of *kimono* outfits. The backrest part of the chair gives an impression of knot of the belt, often the most impressive part of *kimono*.



Figure 19: Obi Chair

Spring Chair (figure 20) is produced from Modern Bamboo (<http://www.modernbamboo.com/>), which has founded in 2004 by Anthony Marschak in U.S.A. The products combine classical simplicity with innovative design, offering furniture and custom design work using and reclaimed wood. And the collection evokes the minimalist beauty of designs by Sori Yanagi, Charles and Ray Eames, and Verner Panton merging classic Modernism with contemporary advancement. Spring Chair includes various modern revolutionary elements.



Figure 20: Spring Chair

Of Chinese descent, Rick Lee (<http://www.rickleedesign.com/>) was born in Korea and came to the U.S.A. He worked for furniture manufacturer and design studio in Chicago, then in Milan, Italy. He has explored many areas of design in his 15 years of experience, from furniture and lighting, to interiors and multi-disciplined design exhibition. He has mixed cultural background through his life, and today he works nationally and internationally. CNC table (figure 21) includes multiple elements on the appearance.



Figure 21: CNC Table

The table Tisch 3 (figure 22) is designed by Markus Schell. The producing company Büro 213 (<http://www.bessere-moebel.de/>) is architectural firm office in Berlin. They discovered bamboo as an ideal material for bamboo combines ecological aspects with excellent properties. Their design concept follows a triad of functionality, simple sensuality of material, and ecology in their ethical and aesthetic aspects.



Figure 22: Tisch3

Although these are the same bamboo material, there are a lot of different types of design. These selected furniture are used in the questionnaires.

4.2 Data analysis

For further analysis, I collected all the answers from the questionnaires into graphs in order to present the results. First of all, I decided to analyze the results of the questionnaire 1 with dividing into different participant groups, which are a design students and a second group. Figure 23 - 25 show the results that were got from the design student group for selected each furniture. In the same manner, figure 26 - 28 show the results that were got from the second group and figure 29 shows an entire result for the question A in order to see the entire tendency, so that the position of selected furniture among the comparison products would be clear. Then, figure 30 shows the results for the questionnaire 2 that was got from the student group.

4.2.1 Data collection and analysis methods

The results of the questionnaire 1 are presented as cobweb charts. The cobweb chart is a measure of scoring events with several indexes to plot them on the radiated axis from

the center and to connect them. It is a useful way to display multivariate observations with an arbitrary of variables. The advantage of using cobweb chart is possible to examine the entire balance by connecting plots with lines to compare with other data. (Wikipedia, http://en.wikipedia.org/wiki/Radar_chart) In figure 23 – 28, each furniture's result for the question A is presented as triangle charts and for the question B is presented as pentagon shaped charts. In order to design the result charts for the question A, the number of the answers for each item, which Japanese, Finnish and neither Japanese nor Finnish design, is counted and plots a mark on the axis of cobweb chart as same as the counted number. In the same way, the result charts for the question B, the number of each item, which traditional, premium, sophisticated, elegant and dynamic, is counted as they are chosen. However, in the question B, the participants are allowed to choose plural choices, thus the some counted number are overlapped. The data length of a spoke is proportional to the magnitude of the variable for the data point relative to the maximum magnitude of the variable across all data points. And a line is drawn connecting the data values for each spoke. Mentioning the structure of the cobweb chart, the maximum number of the chart spoke is different for each participant group. The maximum number of the spoke for the triangle chart is 60 people and the scale interval on axis is 10. As for the pentagon shaped chart, the maximum number of the spoke is 20 people and the scale interval is 5. It is rare to compare lengths of different spokes, because radial distances are hard to judge though concentric circles help as grid lines. However, of the total 76 participants, 60 are in student group and 16 are in second group, and clearly there is a great difference of participant number

between two groups. Here, in this analysis section, I focus on comparing not observed amount of data, but a value of proportion. Therefore, the maximum length of spoke of each group's chart had to be different to present easily viewable result. The figure 29 shows the entire result of the question A, which how the indicative furniture looks like. This is a collection of average values of the furniture that is obtained as the center value of each result graph in the figure 23-28.

The results of the questionnaire 2 are presented as bar graphs. The question asks to choose one of choices about the feeling that the participants get from the design of each furniture and the choices are: Japanese design-like, a little Japanese design-like, a little less Japanese design like and not Japanese design like. Each item is given a number as below: Japanese design-like = 1, a little Japanese design-like = 0.5, a little less Japanese design-like = -0.5 and not Japanese design-like = -1. Then, in each item the given number is accumulated as much as the item is chosen. While calculating, the number of a little Japanese design-like is accumulated in Japanese design-like, in same manner, the number of a little less Japanese design-like is accumulated in not Japanese design-like so that the biggest and the smallest number are calculated to be shown on the graph. For instance, 3 people with Japanese design-like, 2 with a little Japanese design-like, 1 with a little less Japanese design-like and 0 with not Japanese design-like, the biggest number is calculated as $3*1 + 2*0.5 = 4$ and the smallest number is as $1*(-0.5) + 0*(-1) = -0.5$. The length of the bar is proportional to the width of the participant responses.

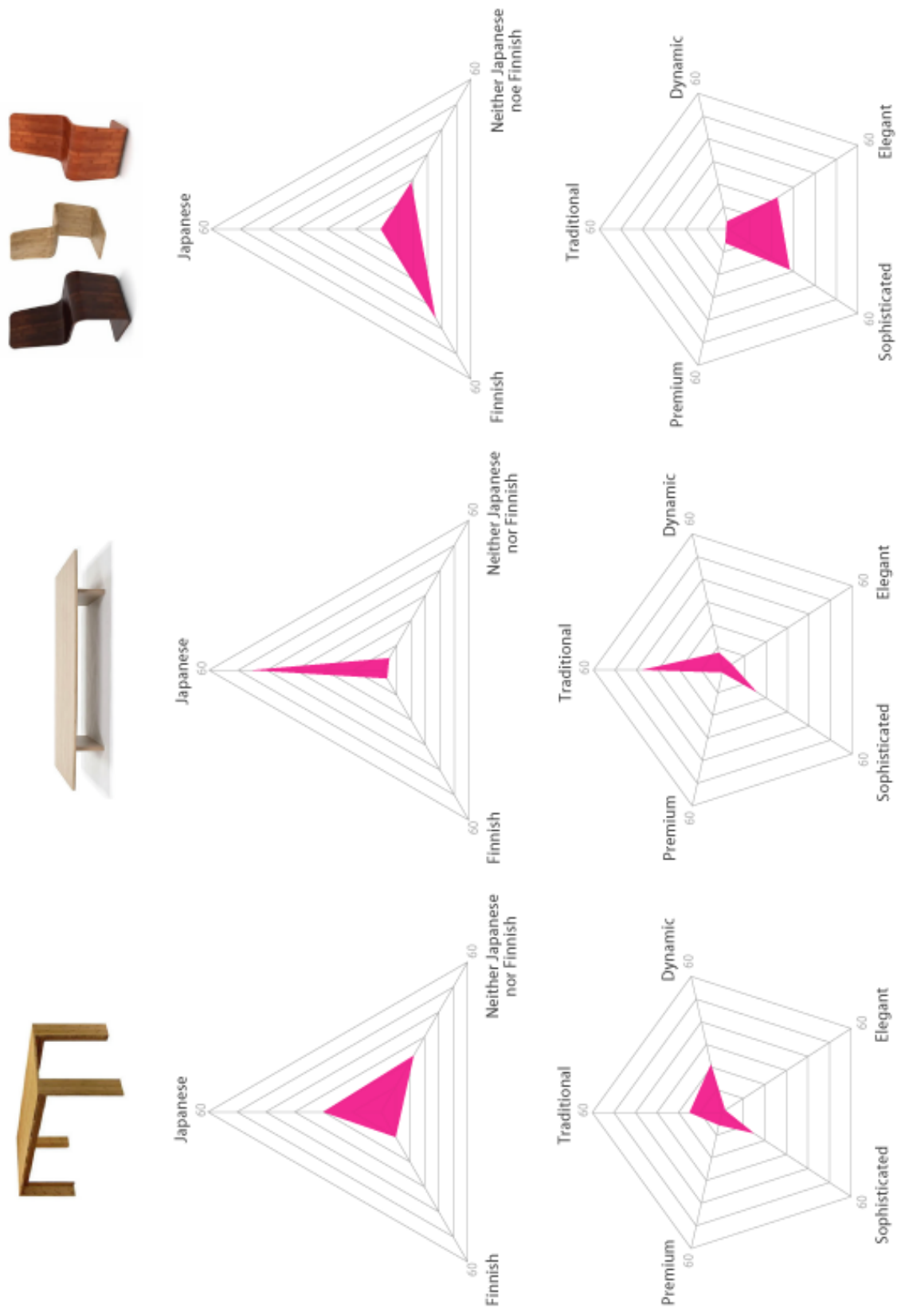


Figure 23: The result for the questionnaire 1 by student group

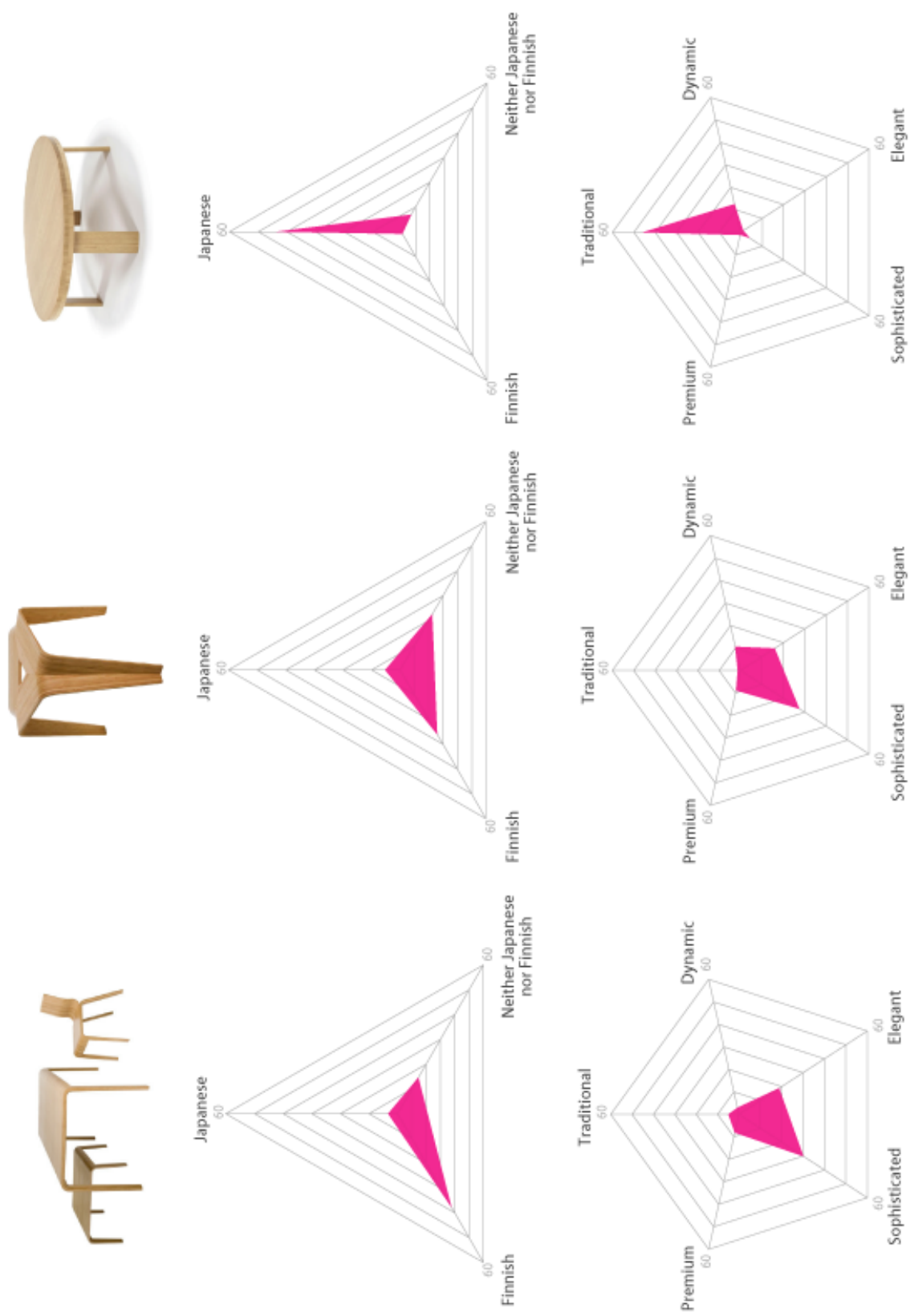


Figure 24: The result for the questionnaire 1 by student group

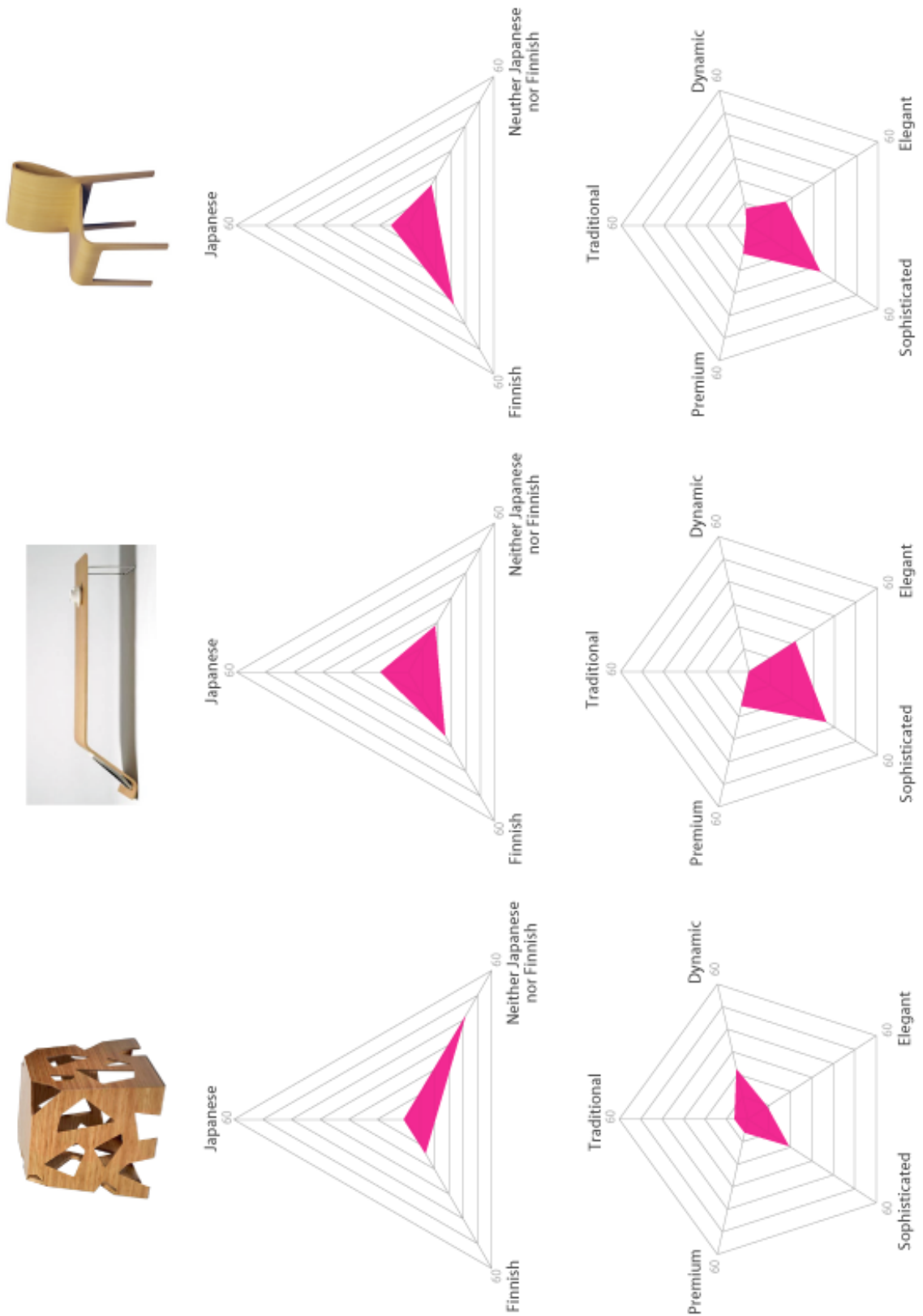


Figure 25: The result for the questionnaire 1 by student group

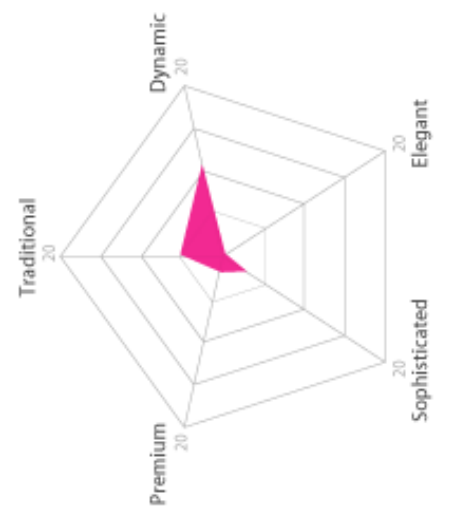
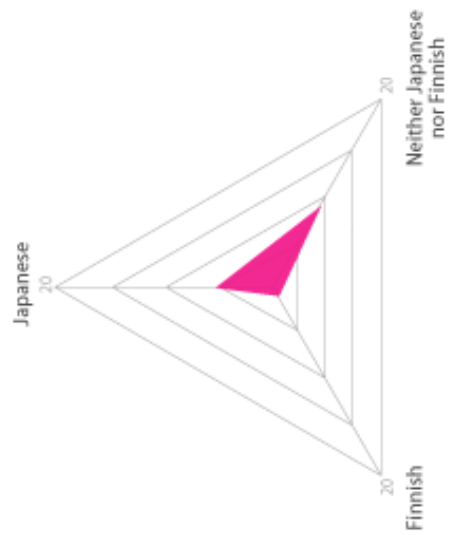
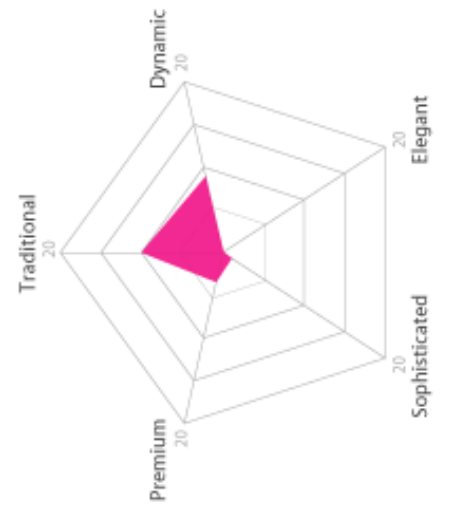
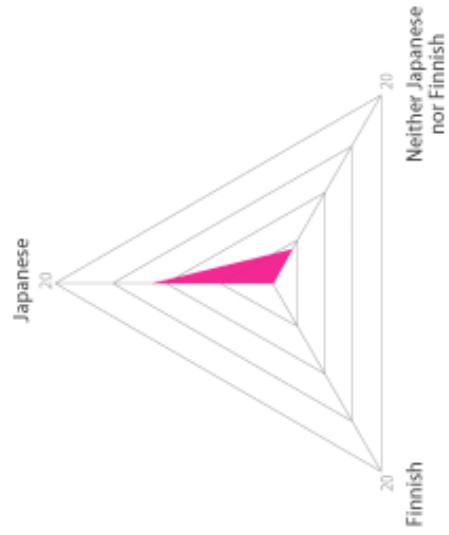
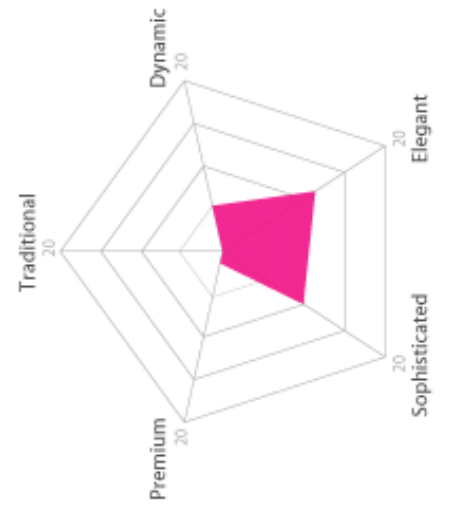
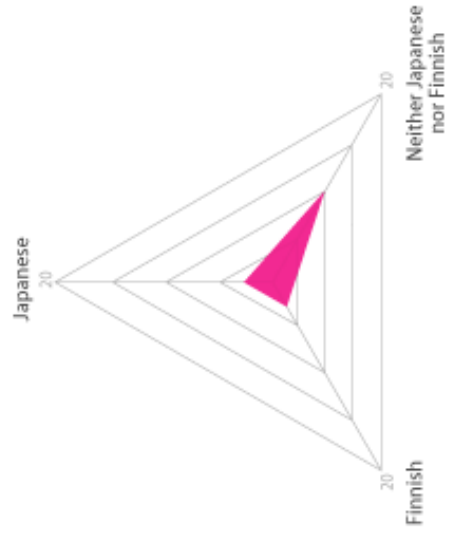


Figure 26: The result for the questionnaire 1 by second group

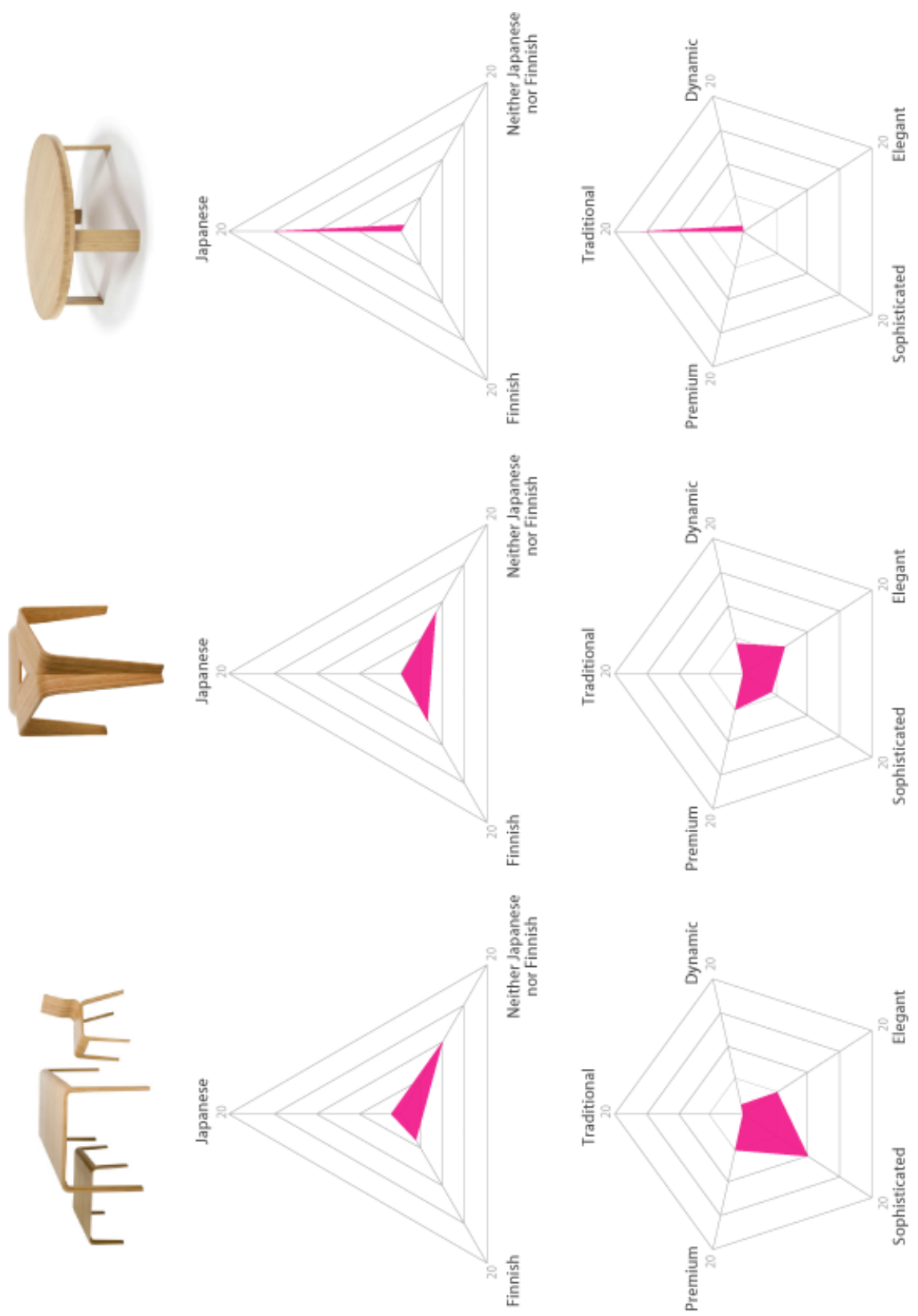


Figure 27: The result for the questionnaire 1 by second group

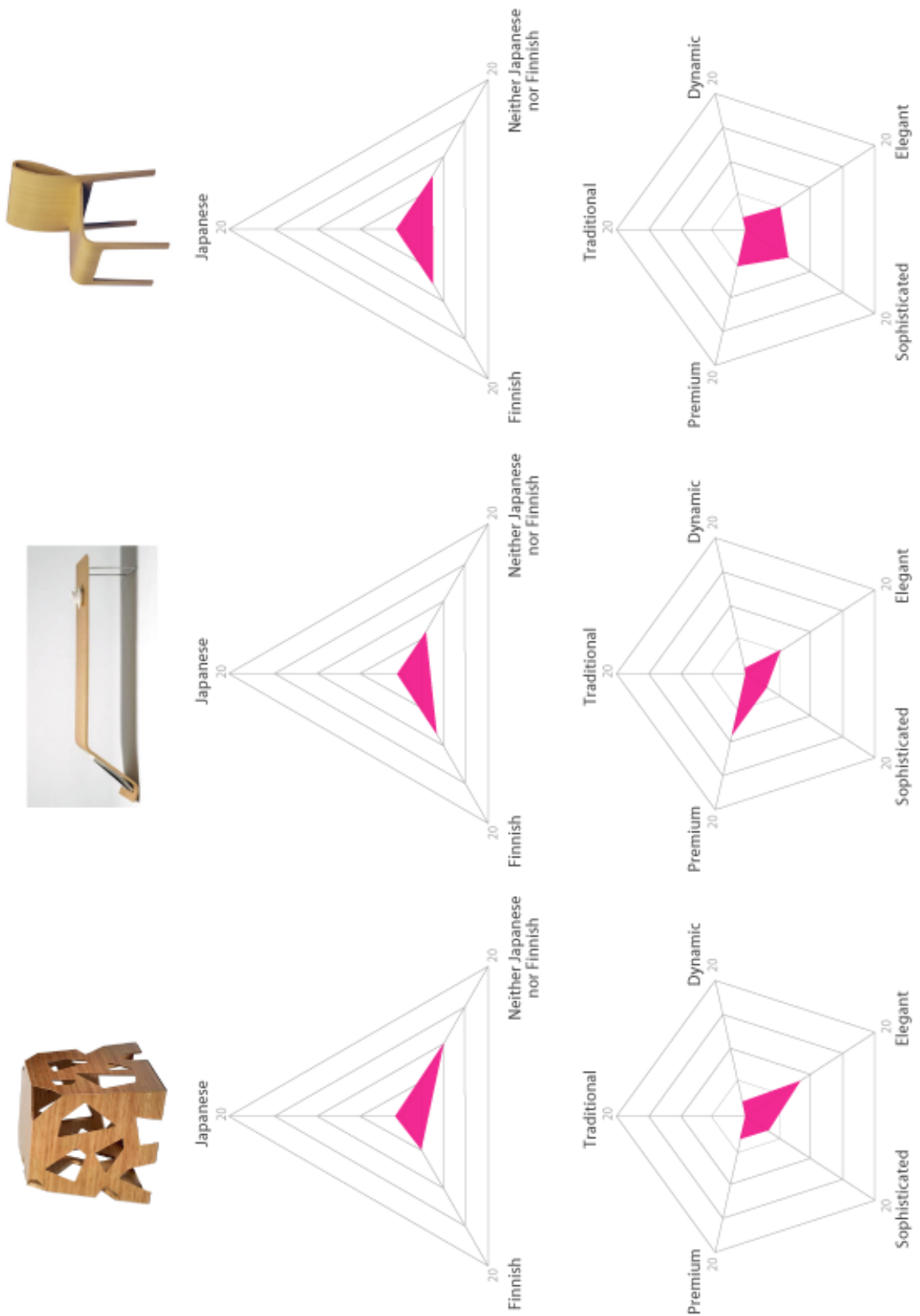


Figure 28: The result for the questionnaire 1 by second group

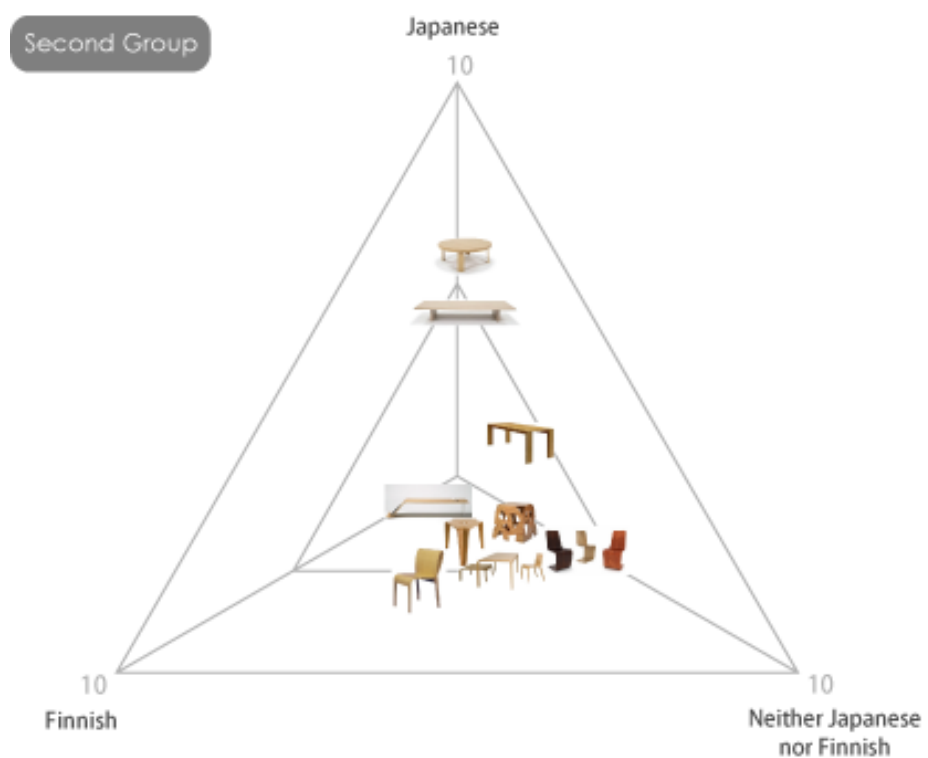
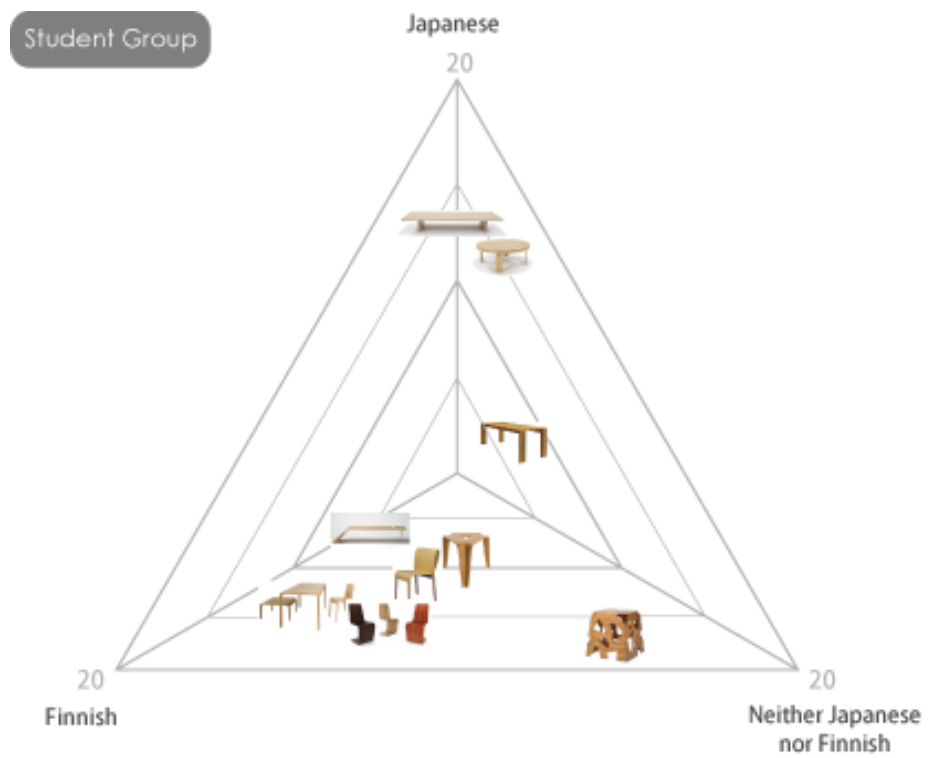


Figure 29: The result for question A by each participant group



Figure 30: The result for the questionnaire 2

4.2.1 Analysis of questionnaire 1

As for the Japanese indicative furniture, these furniture resulted in different tendencies (figure 29, 31, 32). I expected that Root table is chosen as Japanese furniture, because it is low type of tables. However, Root table seems to be recognized as Finnish design, and additionally, it gives similar impressions like other Finnish furniture such as sophisticated and premium feeling. I think because it applies bentwood technique to the production methods, also the curved lines might not give an impression of Japanese product. Omo living table and Chabudai are obviously recognized as a traditional Japanese design by both participant groups. Going into the detail, Chabudai is likely dynamic-traditional furniture, and Omo living table is more likely sophisticated-dynamic-traditional furniture. It could be said that both furniture are very familiar with Japanese lifestyle.

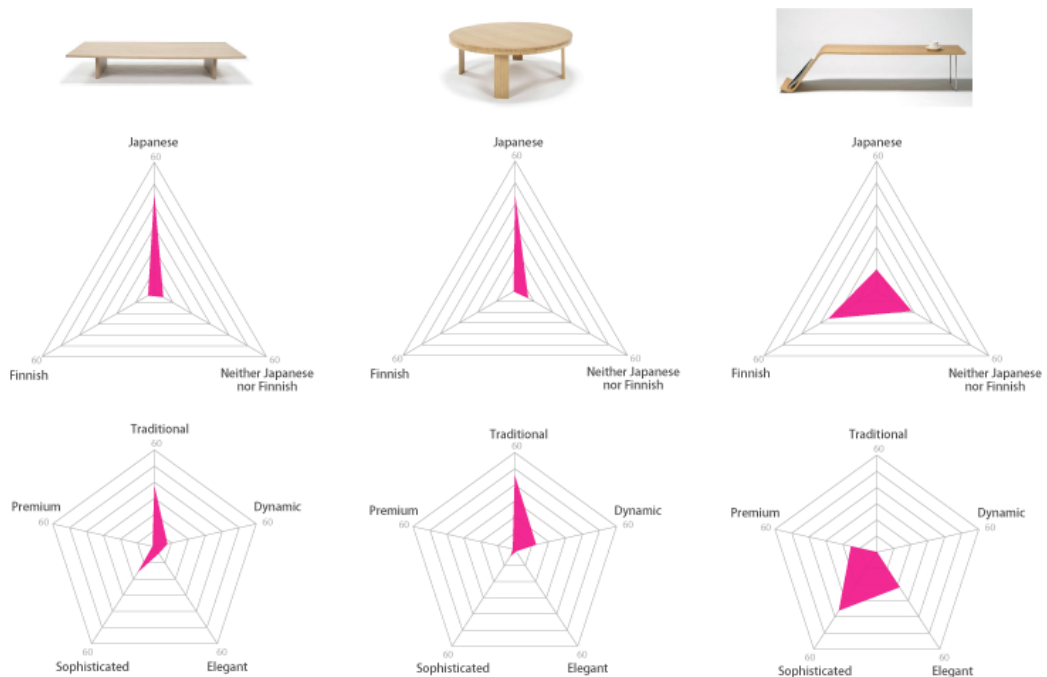


Figure 31: The results for Japanese furniture by student group

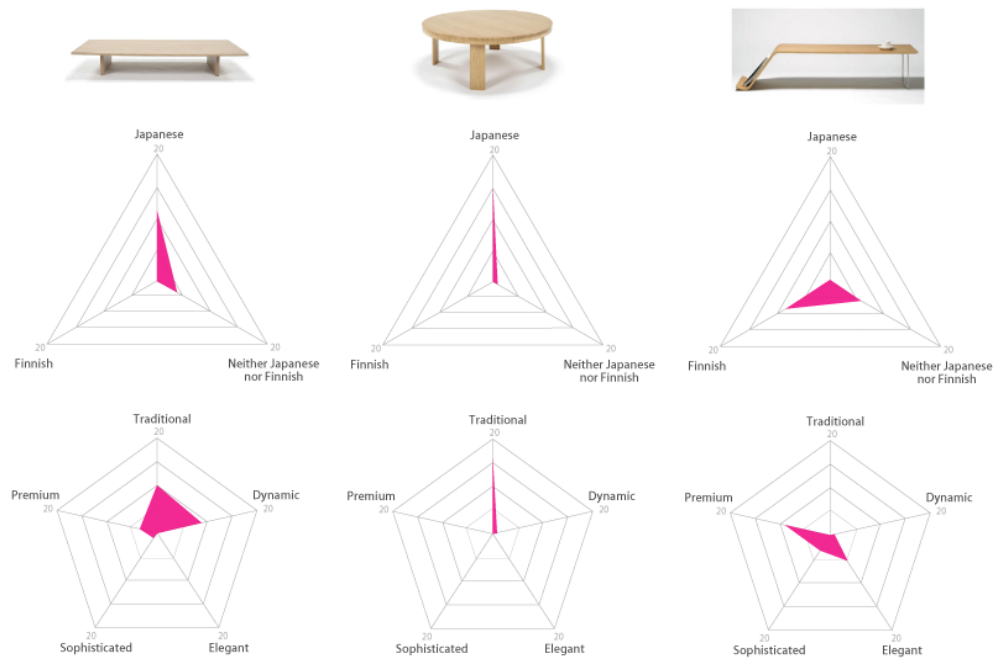


Figure 32: The results for Japanese furniture by second group

Looking at the entire results in the figure 29, obviously CNC table tends to be neither Japanese nor Finnish design-like. The participants list some images of the CNC table as decorative, creative and mysterious designs. In a sense, Japanese and Finnish furniture do not come across as a decorative design. Then, I expected that Tisch 3 is recognized as a Japanese product, and the result is imprecise to say it is recognized so. However, it gives traditional, dynamic and sophisticated impressions as same as other Japanese furniture gives to both participant groups. There might some reasonable differences between Tisch 3 table and other Japanese furniture.

Looking at the figure 23 – 25, some of furniture, which are not Finnish, are recognized as a Finnish product by the student group. These all furniture have in common curved

lines which characterize the shapes. However, turning to the figure 26-28, it seems the participants in the second group are not conscious of Finnish design on classifying products. At this point, there might be a limitation of their knowledge to perceive designs. However, from this point of view, it could be thought that generally people might not be able to recognize designs or cultures as well as any other things as a part of their culture, if they are neither familiar with nor belonging to the given culture. Furthermore, as they answered, the criteria of classification for the given furniture in the questionnaire are compatibility with Japanese lifestyle. In this sense, they can recognize Japanese product, because they belong to Japanese culture for a long time.

In the entire result of the question A (figure 29), most of the furniture that locate in the area between Finnish design and neither Japanese nor Finnish design are characterized by curved lines. Even though the furniture is not Finnish product, it could be that American or Japanese furniture seem to be Finnish design by curved lines. The student group strongly recognizes these furniture as Finnish. On the other hand, the second group tends to recognize them neither Japanese nor Finnish design. Furthermore, there are differences between both groups in the results for question B. Looking at the figure 33 and 34, the student group gets similar impressions from each furniture. On the other hand, the second group gets different impressions from each furniture, and it is more varied. In regard to this point, I think because the people in the second group are not caught up in the bias for Finnish product image.

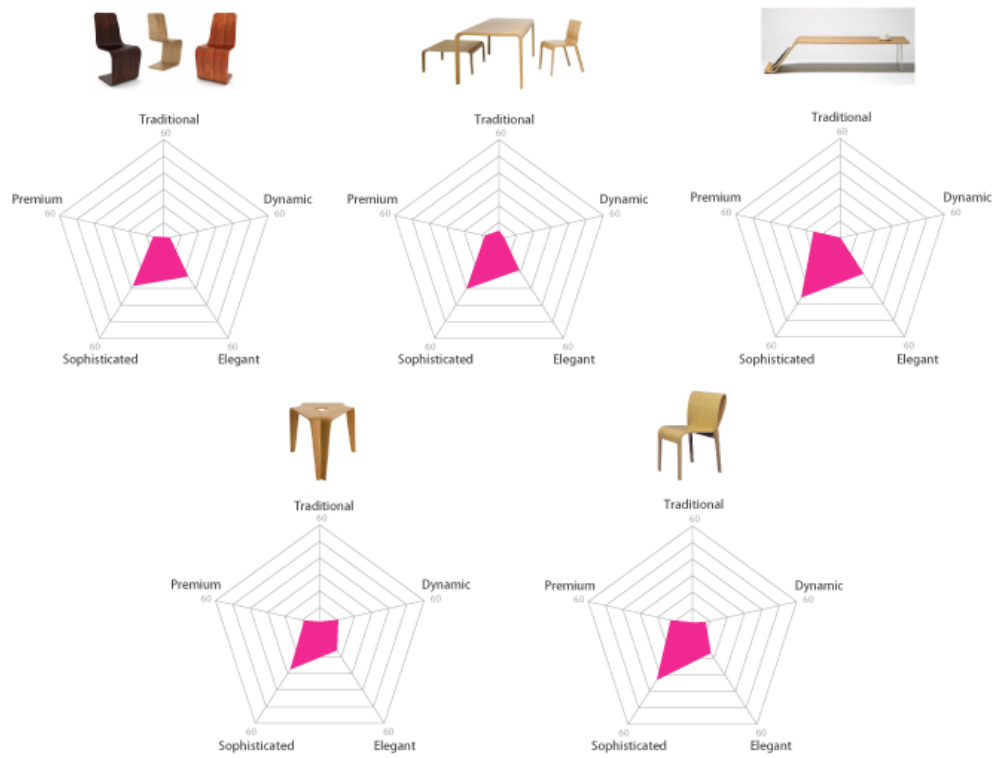


Figure 33: The product images for furniture recognized as Finnish design by student group

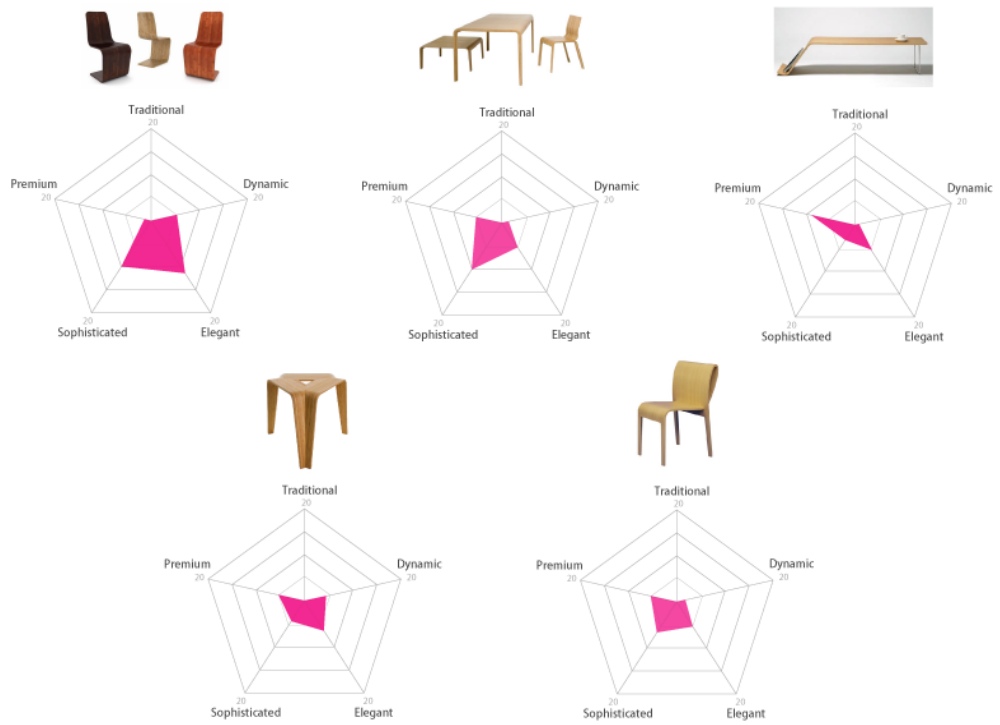


Figure 34: The product images for furniture recognized as Finnish design by second group

The results of the questionnaire 1 differ by the participant groups. While comparing the results, I wondered about the different results between two groups. What did make the difference? Distinct difference is their knowledge and relevance to product designs. However, both participant groups can recognize what Japanese-like in design. As mentioned, it could be said that people recognize design of product based on their ordinary cultural experience or their knowledge about designs. Furthermore, there might be a specific shape that people can recognize their country's furniture. So, what specific type of furniture designs can they recognize as Japanese design-like?

4.2.2 Analysis of questionnaire 2

As mentioned, while analyzing the results of the questionnaire 1, I came up with a question: are there any specific shapes, so that the people can recognize furniture as Japanese design? According to this question, I decided to have second questionnaire with the purpose that is settled to define what kind of shapes they are more familiar with, if there is something could be a characteristic of Japanese furniture design. In the questionnaire 1, it is evident that the low height table is definitely recognized as Japanese product. However, it was not accurate by that result only. So, the questionnaire 2 was intended to have different types of tables selected from Japanese furniture that are different shapes and heights.

Looking at the figure 30, obviously there is a certain shape that is recognized as a Japanese design-like. Although the basic shape (see the two types of furniture on top in

the figure) is same, the lower table is more Japanese design-like. Interestingly, on the other hand, the taller table shifts to not Japanese design-like. Moreover, as the shape of the table shifts from round to rectangular, the product image of the furniture also shifts from Japanese-like to not Japanese-like. Even it is just a table design, there are certain shape that people recognize their country's product. Regarding to this point, I think this is because the people in specific place have a same socio-cultural background that affects their feelings. While analyzing the results, I realized that the participants seem to classify the products based on their cultural experiences. I mean their criteria for recognizing product or design are affected by the culture they belong to. For instance, the participants' criterion of judgment to recognize product in the questionnaire is a compatibility with Japanese style. However, if it is not, it is likely that they think the product comes from other countries. I think that is why the certain furniture shape is recognized as their country's product. Therefore, the results of this research would be the case in Japan, and this limitation of questionnaire must be noted in the results.

5 RESULTS AND DISCUSSIONS

As it illustrated in figure 1, there are three research questions proposed in this thesis.

This chapter answers those questions based on the analysis results.

5.1 Answers to research questions

-What in socio-cultural context could be affecting design reference in product design?

In both Japanese and Finnish industrial history, there was significant industrial innovation. As mentioned, in Japan there was a time that the word ‘furniture’ does not exist before starting import of foreign culture. However, since that time, the origin of Japanese furniture has been developed. In this development, the Japanese traditional craft skill ‘*sashinomo*’ played an important role as it was the mainstream of producing furniture. The way of producing furniture had to use straight lumber, and, therefore, this became a feature of the origin of Japanese furniture. In Finnish industry, this is similar to the invention of the bentwood technique invented by Alvar Aalto and contributed to industrial development. This invention expanded the capacity of production methods with internationally recognized aesthetic and design principles. It made furniture design more flexible. From cultural and industrial point of views, national industrial innovations of Japanese *sashimono* skills and Finnish bentwood technique have affected the furniture design in each country and played an important role in developing the furniture industry.

- How do cultural differences appear as product design feature on the product shape?

In both countries, furniture design has developed with architecture. In Japan, furniture, except chairs, has been developed as facilities of building or a part of building structure. In Finland, the role of architects is to design architecture including furniture as an element of interior decoration and to teach furniture design in art schools as well. In addition, furniture is considered as a thing that combines not only interior but also human life, as represented by Aalto's Paimio chair for tuberculosis patients. As mentioned, furniture design in both countries developed with architecture or interior decoration. However, it is interesting that they did not develop in a same way. In other words, Japanese furniture has a more architectural subjective design and Finnish furniture has a more human subjective design. Similarly, both industries are based on the wood industry, but the principle of the industrial technique is different. Overall, industrial innovation in both countries could be clarified in this difference: Japanese furniture using *sashimono* skills to fit into a building structure that is recognized by straight lines, and Finnish furniture using bentwood technique to fit into human life is recognized by curved line.

**- What could be characteristics for both Japanese and Finnish furniture design?
And what are the images customers receive?**

To answer this question, earlier research questions and the results of the questionnaire contributed. As described in previous chapter Japanese furniture, which uses *sashimono* skills to fit into building structures, could be recognized by straight lines. And Finnish furniture, which uses bentwood technique to fit into human life, could be recognized by curved lines. The questionnaire results were closer to this answer. These historical characteristic factors affect the criteria for judgment of recognizing product design. Moreover, the questionnaire results showed a tendency for Japanese furniture to give a traditional and dynamic impression, and for Finnish furniture to give a sophisticated, elegant and premium impression.

However, it is difficult to find answers for this research question because there are no single images of each product for all customers. While analyzing the results, I realized that participants seem to classify furniture design based on their cultural experiences. In other words, their criteria for recognizing their country's product or design are affected by the culture they belong to. In this questionnaire, most of the participants answered that the criterion for classification of given furniture is compatibility with Japanese lifestyle. This is an understandable response, because all the participants have a similar socio-cultural background that is absolutely Japanese. Furthermore, there is a specific furniture shape that could be recognized as Japanese design. However, as the shape of

the furniture changes, it shifts to more or less being recognized as a Japanese-like design. In a sense, if the design of a given product is not familiar to customers in terms of everyday life, they are likely to think that the product comes from other countries. In my opinion people are likely to be aware of for what they see or take for granted in everyday life as a culture they belong to. However, for those not familiar, it might take time to accept the fact of what belongs to their culture or it might require more experience until it is naturally recognized as their culture.

Similarly, the product image that customer receives depends on the individual. Clarifying product image must respect the customer's identity, because there are as many of images as there are customers. It could be said that product recognition and product image are different depending on the environment, which includes the culture, society, historical and industrial background that customers belong to. As mentioned in the introduction chapter, Hong and Wye (1990) argue that customers will evaluate products not only based on the nation from which they are produced or associated. I will add more to this: Customers will evaluate products by the customer's identity as well. This meaning is well explained by Shimp and Sharma (1987) who in talking about ethnocentrism state: There is a tendency which is considered to be one in which individuals or societies, make cultural evaluations and attributions using their own cultural perspectives as the base line criteria.

5.2 Discussion

Overall, cultural references in product design can be conceptualized (figure 35). There are cultural industrial characteristic factors that affect the product and especially furniture design in both Japan and Finland. As a similarity, furniture design in both countries derives from architectural aspect. However, it developed in different ways and appears in different shapes. Japanese furniture design is established on the *sashimono* industry, the existence of built-in furniture such as *tokonoma* and its development as a part of architecture. On the other hand, Finnish furniture design is established on bentwood technology, a role as a single element in interior decoration and the concept of human-centered design. These cultural industrial characteristics establish Japanese and Finnish furniture design features.

The meaning of identity is defined in the theoretical meaning of identity chapter. As summarizes, the above findings can be applied to an identity as Japanese and Finnish national property. The traditional furniture industrial skill called *sashimono* and the development of it apply to an identity in region, which defined as an emergence of a specific local system within a given space and the particular details that coincide with our social world based on the natural and physical world with a particular history. The architectural subjective furniture applies to an identity in organization, which defined as an expression of the value and beliefs that an organization stands for. And straight lines apply to an identity in product, which defined as a personality of product to be recognized as different from other competitor's products could be added to the list of

Japanese national identity. As for Finnish aspects, the characteristic invention of bentwood technique and its development apply to an identity in region. The concept of human-centered furniture applies to an identity in organization and curved line applies to an identity in product. And as I mentioned in chapter 2.6 it could be said that these elements can be added to the list of Finnish national identity.

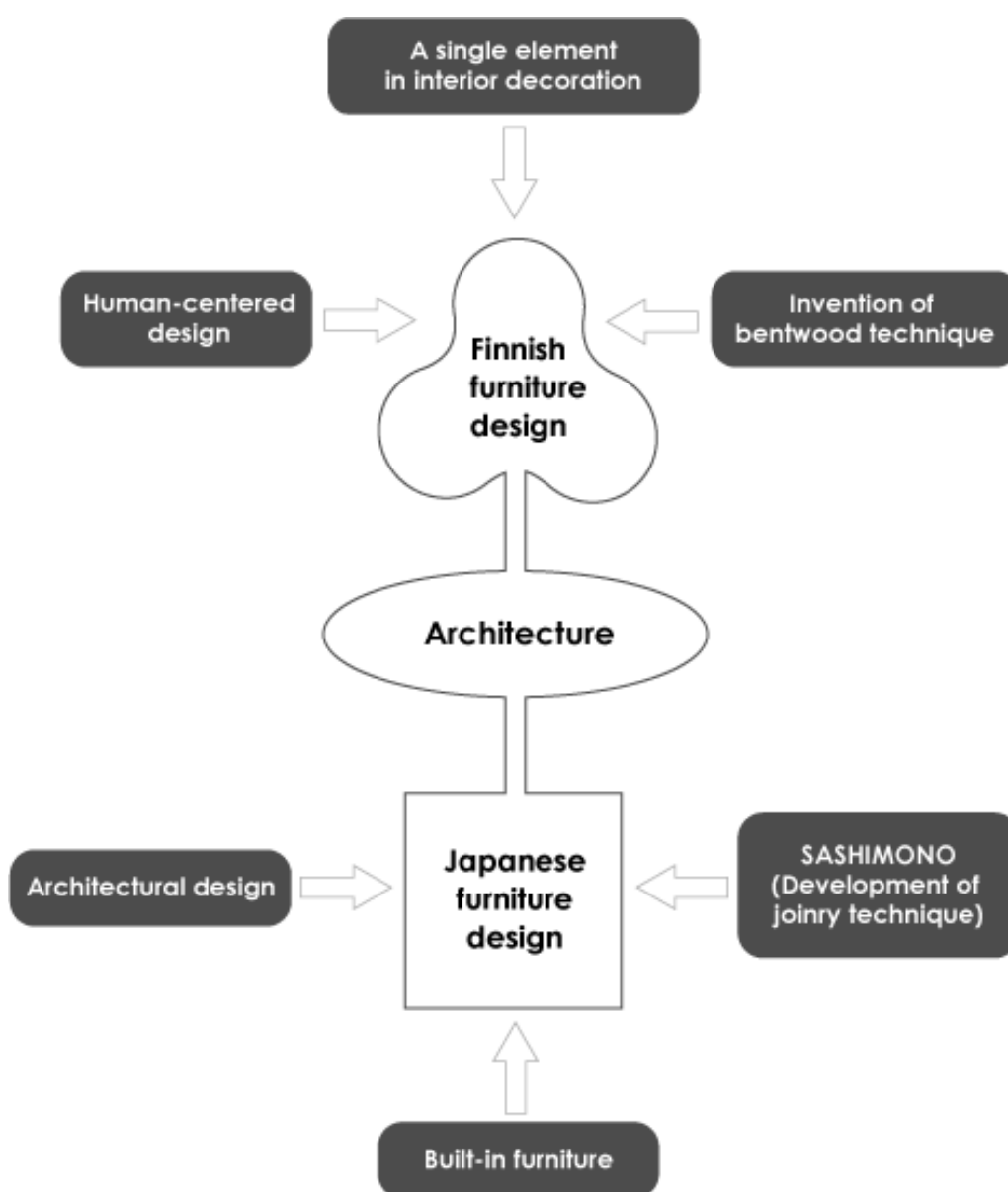


Figure 35: Overview of the result. The clarified characteristics affect both Japanese and Finnish furniture design

In the case of the questionnaire in this research, some Japanese furniture as well as other countries' furniture applying Finnish bentwood technique give the impression of a Finnish product to the participants. In this sense, as Dawson, Larsen, Cawood & Lewis, (2005) pointed out, identifying which factors distinguish one country's products from that of another is important, because it could be the deciding factor that makes customers buy a particular product. The strong characteristic product feature affects the customer's decision to buy the product and possibly the decision turns out right to be or wrong. It is possible that the purchased product that the customer believes is Finnish is actually Japanese.

Clarifying product image is problematic. Rose (2006) argues that numbers do not translate easily into significance in quantitative analysis. There is a tendency in content analysis to assume that if something occurs very often, it is more important than something that occurs rarely, but this is not the necessarily case. Rather, he suggests that certain representations of what is visible depend on other things being constructed as their invisible opposite, and content analysis is incapable of addressing these invisibilized others (Rose, 2006). As for the question: what are the images customers receive from a given piece of furniture, it is difficult to answer and clarify the image of furniture, because customers can have different images based on their different cultural experiences, knowledge about a given product and all of their background. All of these elements perhaps could be said customer's identities. And the conditions of the questionnaire in this research are insufficient and too limited to investigate for this

question. In addition, it seems a different perspective could apply to analyzing the product image. As I learnt, the image or impression that a customer receives depends on the customer's identity. In other words, the product attribute could be classified based on each socio-cultural background the customer has. The research question could have been changed to how different are the product images that customers with different socio-cultural backgrounds receive when looking at the same given product? This way might have been better to achieve the empirical goal. In regard to this point, it has to be said that this was a limitation of this research.



Figure 36: Image is established between individual product and the individual customer.

However, one thing that became clear from the lack of this research is that product image is established between individual customers and individual products (figure 36). The product image customers have is affected by their cultural and social background and knowledge, and what they know about the product. And the image the product

gives to the customer is affected by the cultural and historical as well as industrial factors including corporate identity, which is not studied in this research but is generally discussed as an issue squeezed out of current management thinking to identify the corporate manifest as a visible ones. The product image for one product is not a single one and can be as varied as the number customers and their background.

6 CONCLUSIONS

In this research the relativity of cultural history and the industrial development is a significant aspect. This research, which started with my hypothesis about the relativity of furniture development between Japan and Finland, showed that there are evident cultural references in furniture design. Furthermore, as Keiller and Hult (1999) note, “the fact that different cultures and nations possess a wide variety of similarities and differences is obvious”. This applies to Japanese and Finnish furniture design development. It will be interesting to compare these two the history of furniture design development and the culture of other countries as well. Similarities or differences might appear in the context or furniture appearance.

The result of this research forces Kelly’s (2001) notion: countries that have a long heritage of producing a particular product will always be associated with that product. Both Japanese and Finnish furniture are recognizable. Both countries have a strong industrial history within their socio-culture, and, therefore, products from them are easily recognized. In conclusion, the national industrial component could have relevant similarities and differences that identify the national characteristics recognized. Identifying product can contribute to establishing national identity among competitive countries and providing deeper understanding of the culture.

In terms of global business, identifying products might help to improve business. Seeing Artek furniture using Japanese bamboo, triggered my interest into this research topic;

there are boundless possibilities to make businesses wider to the world with collaborating national identities. There will be new attractive futuristic designs. However, I think identifying national property will be the starting point. Identity will be embedded in history, the socio-culture, geographical and industrial components of a particular place, and “the national and regional character will not be eradicated in the near future” (Aldersey-Williams, 1992). In a sense, Artek showed the way of activating local industry using their identity. Their bamboo products prove the possibility of combining individual cultural elements into product design. And Finnish design strongly exists in the product. The action must increase the capacity of product design activities and potential of industrial and cultural development as well.

The questionnaire in the research was limited to clarifying product images. I think clarifying product images is generally difficult and too complex to be measured in concrete terms. And of course the number of questionnaire participants in this research is not corresponding to entire national populations. So, it could be said that the result in this research is only a small sample of data of national identity. I think I could have found a more suitable way for making better questionnaire. However, this small sample is still significant and acceptable, and the most important thing is that I learnt new thinking from even a lack of this research.

This research gave me a deep understanding of cultural differences and significant relativity of industrial development, and product design, especially between Japan and

Finland. Moreover, I am sure that the completion of this thesis and my own inter cultural experience will give me confidence for further design activities.

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ATTACHMENTS

1. The question A in the questionnaire 1

Please answer the questions.

These are the furniture made of bamboo.
Please classify those furniture into three categories: 1. **Japanese design** 2. **Finnish design** 3. **Neither 1 nor 2**, and answer with the alphabets. Also please write down the reason how you classified.

1. _____ 2. _____ 3. _____

Reasons:

A



B



C



D



E



F



G



H



I



Go to the reverse side.

2. The question B in the questionnaire 1

Please choose the suitable word for the image of each furniture (Plurals can be chosen).
Also please write anything in empty space if you have opinions other than the choices.



Sophisticated / Premium / Traditional / Dynamic / Elegant



Sophisticated / Premium / Traditional / Dynamic / Elegant



Sophisticated / Premium / Traditional / Dynamic / Elegant



Sophisticated / Premium / Traditional / Dynamic / Elegant



Sophisticated / Premium / Traditional / Dynamic / Elegant



Sophisticated / Premium / Traditional / Dynamic / Elegant



Sophisticated / Premium / Traditional / Dynamic / Elegant



Sophisticated / Premium / Traditional / Dynamic / Elegant









Sophisticated / Premium / Traditional / Dynamic / Elegant

Thank you for giving your time!

3. The questionnaire 2

Please mark the feelings below that you get from the appearance of each furniture.

							
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Japanese Design-like	A LITTLE Japanese Design-like	A LITTLE LESS Japanese Design-like	NOT Japanese Design-like	Japanese Design-like	A LITTLE Japanese Design-like	A LITTLE LESS Japanese Design-like	NOT Japanese Design-like
							
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Japanese Design-like	A LITTLE Japanese Design-like	A LITTLE LESS Japanese Design-like	NOT Japanese Design-like	Japanese Design-like	A LITTLE Japanese Design-like	A LITTLE LESS Japanese Design-like	NOT Japanese Design-like
							
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Japanese Design-like	A LITTLE Japanese Design-like	A LITTLE LESS Japanese Design-like	NOT Japanese Design-like	Japanese Design-like	A LITTLE Japanese Design-like	A LITTLE LESS Japanese Design-like	NOT Japanese Design-like

Thank you!