

# The Entwined Economic and Cultural Issues in the Production of Barbie in Taiwan, Taishan

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**Abstract.** Barbie Doll is regarded as one of the most important design labels representing the twentieth century. Up until today, it is estimated that around 100 million Barbie dolls have been sold in 150 countries around the world. In 1967, the manufacturer of Barbie, Mattel Inc., set up a joint venture establishment, the Meining factory in Taishan Township, Taipei County. However, Mattel shut down the Meining factory in 1987 due to rising labor costs, the development of the local economy suddenly lost its basis. In 1998, the township council imported the concept and practices of community building and employed the industry of doll culture as a program to enhance the local economy. This way, not only has Taishan Township brought about new business opportunities, many of the women participating in community development can hopefully improve their self-empowerment.

This paper reviewed the development history of industries in Taishan Township from the perspective of globalization theories, aimed to analyze the difficulties of local industrial upgrades from the perspective of economic geography, and examine the effects of industrial promotion strategies in community building. Lastly, this paper aimed to explore opportunities for the empowerment of women in the community. It hoped to clarify the issues of industrial upgrading, community building, and women's empowerment regarding local industry development history, and reestablish the relationship between economic development and cultural experience.

**Keywords:** Barbie doll, community building, global commodity chains, cultural and creative industries, women's empowerment.

## 1 Hometown of Barbie — Taishan Township in Taiwan

In 1956, Ruth Handler, the founder of toy manufacturer Mattel Creations, discovered a doll called Bild Lilli while taking a vacation in Switzerland. This doll was based on a

comic character from a notorious newspaper, Bild Zeitung, in Germany. Lilli the doll was originally positioned as low-class entertainment for adult males (Fig. 1). However, Ruth did not know this. She was looking for a three-dimensional doll that had the figure of an adult woman, in order to replace paper dolls. She had noticed that her daughter Barbara had been interested in paper dolls representing high school girls, university students, or career women, rather than infants [12].

Ruth suggested that an adult-figured doll could be a breakthrough in a toy market dominated by baby dolls [9]. Ruth asked her engineer Jack Ryan to redesign the image of the doll she brought back. In 1957, Mattel commissioned Kokusai Boeki Kaisha in Japan to seek manufacturers. On March 9, 1959, Barbie Doll was launched at the American International Toy Fair in New York. This was how Barbie Doll was born.

The first Barbie Doll that Mattel introduced to the market was blonde with a ponytail, dressed in a zebra-striped swimsuit (Fig. 2). After that, Ryan adopted 'planned obsolescence' to accelerate the adoption of Barbie Doll. With constant innovations and redesigns, the images of Barbie have been evolving. During the first year, Mattel sold 350,000 Barbie dolls, which was an impressive achievement. Up to date, approximately 100 million Barbie dolls had been sold in 150 countries worldwide [15]. Barbie doll is considered as one of the most important designs of the 20th century [9].



**Fig. 1.** Like a beautiful object, Lilli promises to please you [12]



**Fig. 2.** First generation Barbie launched in 1959[9]

At first, Mattel manufactured Barbie dolls in the US and the UK. However, production was moved to developing countries because the wages in the US and the UK were too high. In 1967, Mattel established a joint venture with China General Plastics Corporation, who enjoyed government incentives in bonded warehousing. The new factory, Meining plant (originally one of China General Plastics Corporation) was located in Taishan Township, Taipei Country. This began the prosperity of Taishan

Township in textile, production, and OEM businesses.

Taishan Township is located at the western tip of Taipei County. The township has a total area of 19.1928 square kilometers and a population of approximately 63,000 people. It is divided into 15 villages, with more than half of the residents being immigrants from other places. Taishan Township is a typical industrial town outside Taipei City. In 1978, the opening of highways and construction of the Wugu Interchange had a great impact to the town, where the economic activities had originally focused on agriculture. Transportation became easier and faster, and factories started to appear, including petrochemicals (Meining), textiles (Far East), and other sectors (e.g. Sanyo, Taifu Food). Nanya Plastics also expanded their capacity. The original farmlands were soon replaced with factories [14, 11].

In addition to Meining plant in Taiwan, Mattel also established factories in Korea, Japan, the Philippines, and Hong Kong. However, Taiwan was the first OEM factory set up by Mattel in South East Asia, as well as the largest one in the world at that time.

There were only 30 employees at the beginning. The facilities expanded quickly, and soon the second factory (in Touchen), the third factory (in Bali), and the fourth factory (in Pingchen) were established. Soon there were over 3,000 employees. According to some veterans, the number of formal employees and contractors of all four factories exceeded 8,000 people in 1983 [14].

At the beginning, Meining plant produced stuffed toys, and the main task was sewing. In 1969, with improved skills, the plant started to produce Barbie dolls and other toys for Mattel. The production consisted of head-making, spraying, hair planting, molding (hands, legs and accessories), clothes cutting, sewing, and assembly. The production lines were run in three shifts around the clock (Fig.3). Some tasks were outsourced, such as sewing, spraying, hair planting and combing, and plastic injection. Some employees of the Meining factory also set up small workshops with others, outside their regular jobs. There were over 30 contractors for plastic injection in Taishan. The production of accessories, such as bow ties, rings and socks, became an income source for community housewives who could work from home. In total, Meining plant produced an average of over 20,000 Barbie dolls each day, accounting for 50% of the world supply [3].

Meining plant drove the development of the local economy and provided a living for residents in Taishan Township. At that time, about one third of the local population was employed by the factory. The neighboring grocery stores and eateries formed a small business circle. The life histories of many Taishan villagers are intertwined with the Meining factory. Many women, nicknamed ‘Miss Meining’ (Fig. 4), left their hometowns and worked for a foreign company. They experienced the modernization of Taiwanese society as it moved from agriculture to industrialization. Meanwhile, the outsourced tasks of the Meining plant presented an opportunity for housewives to earn an income. For many local residents, migration, employment, romance, marriage, house purchases, and starting their own businesses were all related to the Meining plant.



**Fig. 3.** Female workers engaged in OEM operations at the Meining plant. (Picture taken by Chao-Ming Wu).



**Fig. 4.** The ‘Miss Meining’ women working at the Meining plant. (Picture taken by Chao-Ming Wu).

However, Mattel decided to switch the focus of production to South East Asia where labor was cheaper. In 1986, employees were made redundant; by 1987, production in Taiwan closed down completely. Many families suddenly lost their incomes, and the bustling streets of Taishan Township suddenly became quiet. Many former employees continued in the plastic injection business by starting up their own companies. Some of

them continued to produce hair for dolls. In 1988, former employees who had worked together for decades established the Meining Association to organize regular meetings [14]. Nowadays, Meining plant has faded into history.

## 2 Development of the Industry of Doll Culture in Taishan

The OEM factory established by Mattel, Meining Corp., had a profound impact on Taishan Township. The introduction of Barbie doll allowed the town people to experience modernization and enhance their own sense of identity. It even transcended time and place, and became internalized as part of the memory and culture in Taishan [14]. Ten years after the closure of the Meining plant, Taishan Township found a new opportunity in its past. When the central government promoted ‘community building’, also known as “community empowering” in Taiwan, in the 1990s, Taishan Township decided to focus on the development of the industry of doll culture, attempting to recreate a hometown for the Barbie Doll. In 1998, the new town mayor, Guo-shu Li, began the policy of community building by highlighting cultural characteristics in order to enhance the quality of life and the environment for local residents.

Starting on August 16, 2003, the Taishan Township Office began introducing talented people in fashion and craftsmanship, and organized workshops to educate local residents. Such efforts included a Doll Costume Design Camp and the Doll Creativity Workshop – Training of Seed Teachers, to train talented residents to make doll costumes [11]. On April 24, 2004, Tai Shan Doll Museum opened. This project was initiated by Guo-shu Li and supported by the Council for Cultural Affairs. The museum displays a variety of documents and artifacts, as well as doll costumes of all kinds. Examples are different models of the Barbie Doll manufactured by the Meining plant, machine tools operated by workers, pictures of factory dinners and costume designed and sewed by seed teachers. The collection allows tourists to learn more about Taishan Township. It has also laid down a solid foundation for the development of local industries. The Community Building Association and local residents established the Community Industry Co-operative on December 21, 2005, as the main body for promoting the industry of doll culture. Efforts were made to develop talent in the making of doll costumes, and to develop merchandize associated with Barbie Doll through working with shops and different industries. On January 21, 2006, the Taishan Township Community Cooperative of Taipei County was established to assume the liability of the Community Industry Co-operative. At this juncture, a concept to promote community building by reviving local industries has turned into a sustainable business model operated by a local cooperative.

However, with the completion of various initiatives in 2006, the resources from the government began to dry up. Tsui-E Ku, chairperson of the Learning Community Committee, organized the Learning Community Building Association of Taipei County by teaming up with professionals, experts, scholars, and educators, to pursue lifelong learning and community development. Nevertheless, with the step-down of Guo-shu Li and local political infighting, the promotion of the industry of doll culture came to an abrupt end, and the activities of the museum almost stopped.

With the support of Guo-shu, a former member of Taipei County Parliament, Meining Workshop was established in 2007, and an application for the patent of the

brand name “Meining” was filed as well [11]. The workshop continued to display doll costume designs and organize events. Community housewives with skills were recruited to give Barbie dolls a local look (Fig. 5). In 2008, the Multi-Employment Promotion Program initiated by the Executive Yuan to curb rising unemployment rates provided a timely budget to the workshop. During the same year, the workshop organized the Doll Festival (Fig. 6), allowing community residents to continue their efforts in making Taishan the hometown for Barbie dolls.



**Fig. 5.** The new face of Barbie dolls, designed and tailored by community housewives



**Fig. 6.** Community housewives preparing for Doll Festival in the Meining Workshop

### 3 Issues Arising from Producing Barbie Dolls

The community of Taishan Township integrated external and local resources in order to walk out of the misery resultant from the departure of global capital. Meining Workshop created its own local industry with the concerted effort of the community. All these are issues worthy of examination from the theoretical perspectives of economic geography and gender studies.

Firstly, how did Taishan Township establish competitive advantages and became the production hub of Barbie dolls in the structure of globalized production? How it could maintain the development of the local economy after the departure of Mattel is a practical and imperative question. Secondly, the OEM production of Barbie dolls is a labor-intensive and low-value-added industry. Could Meining Workshop introduce creative designs and break through from the technology and locked-in knowledge of traditional industries?

Finally, the Barbie Doll is often referred to as a stereotype due to its overly perfect body and sweet looks. More often than not, Barbie Doll is the subject of criticism in gender studies. Can the women in Taishan Township dedicated to the industry of doll culture break through the limitations imposed to women and voice out their opinions in the public domain, free from the boundary of private domains? Can they realize women's empowerment in this process?

Based on the above, this paper set out to examine the following issues surrounding the industrial development in Taishan Township.

- 1) The keys to innovations and industry upgrades from the perspective of economic geography in the development of industries in Taiwan and the international division of labor under globalization;

- 2) The cultural and creative industries as a competitive advantage from the perspective of community building;
- 3) The potential for women's empowerment from the perspective of gender studies in the context of community development.

This paper reviewed literature and relevant studies, and examined the theoretic implications of the industry of doll culture in Taishan Township.

## 4 Theoretic Implications

### 4.1 Opportunities for Local Industries under Globalization

After the Second World War, globalization began driving the global economy. The US and Western Europe controlled industrial production [2]. Capitalism drove economic development and structured them into the New Economy in the 1990s. The characteristics of the New Economy are information, networks, and globalization [10]. The dominance of the US and Europe in the global economy pulled the marginal countries into the production chain they controlled. This production pattern is generally called a Global Commodity Chains (GCC) in sociology and economic geography [7].

Based on the nature of industries, Gereffi divided commodity chains into producer-driven commodity chains- product R&D driven by international brands, and buyer-driven commodity chains- the whole production chains controlled by large distributors and wholesalers [7]. Gereffi indicated that buyer-driven commodity chains are mainly for labor-intensive and low-value-added industries and consumer products, such as ready-made garments and toys. Taishan Township was such an example. Generally speaking, the industrial development of Taiwan after the Second World War was the establishment of buyer-driven commodity chains in the new structure of the international division of labor.

However, Dicken et al. indicated that it is necessary to develop sensible analysis structures and conceptual classifications in order to understand international economies. The analysis structure of GCC cannot tackle the power and interactions of individual entities in detail [6]. Therefore, Coe et al. developed the analysis structure of global production networks (GPN), to more effectively analyze the intricacies of the interactions between members of global industries [5].

The concept of networks helps to understand the strategic alliances of individual production units and local goods/resources within a single region. These complicated interactions are critical to the analysis of local developments [5]. The development of local economies hinges on three essential elements, global production networks, local assets (including hardware and software), and local institutions (including governments and private sectors). This analysis structure can deal with the possibilities of local industry upgrades in greater granularity [5].

The OEM manufacturing of Barbie dolls in Taishan Township was in such an inflection point as it identified the next opportunity after the exit of foreign capital. Meanwhile, an analysis of the doll and creative industry of Taishan Township cannot ignore the impact of globalization on local industries. It should also deal with local production networks, hardware, and software, and the intricacy of interactions between

public and private sectors. The establishment of Meining Workshop is an example of product innovations and local industry developments. It is the fruit of efforts from the government and community building in pulling together people, assets and resources.

## 4.2 Revival of Local Industries — Cultural & Creative Industry

In 1991, the Taiwan provincial government invited Professor Miyazaki Kiyoshi, from Chiba University, to instruct the methods used to revive communities with traditional arts and craftsmanship. The model of combining the development of traditional arts and tourism was incorporated into the community building, which was a policy developed by the Council for Cultural Affairs in 1994.

Sharon Zukin made a further analysis on how cultural resources can enhance urban development [16]. With the disappearance of manufacturing industries and the emergence of fiscal austerity, cultures have become an industry. Cultural consumption and cultural industries, offering a variety of tokens and spaces, have become the source of a symbolic economy in cities. Companies were replaced by artists, and the economic activities of companies shifted to the manufacturing and selling of creative products, such as entertainment. The emergence of the symbolic economy enhanced the development of cities and towns, and created a large number of laborers. It also changed the thoughts of consumers and employees.

Allen J. Scott proposed similar ideas based on his observation of culture industries [13]. In a society of advanced capitalism, changes of production models and niche markets evolve rapidly. As a result, a post-Fordism culture economy has emerged. It includes the aestheticization and semiotization of commodities. Manufacturers have to pursue and market product differentiation to highlight cultural characteristics, in order to survive the fierce competition. In the culture industries, the elements of fashion, trends, and types force producers to seek product differentiation and flexible specialization. Cultural economies are inconsistent in certain aspects. Different departments represent the variances in technology, transactions, employment, and products. Also, the outputs of cultural industries are highly sensitive to product specifications and the cultural contents of local areas. In other words, they are subject to the influence of emotions and local images. Companies should use this characteristic as a competitive advantage.

According to the above analysis, it is necessary for cultural industries to take into consideration the current status of modern society in order to utilize local advantages, and appropriate technologies and local job markets, with the purpose of expressing cultural characteristics and variances. For example, Taishan Township reconstructed the collective memories of community residents by designing and making doll costumes. They established the community production entity to fight against the experience of being marginalized. This process is more than just a choice of product marketing strategies. Rather, it is the push and pull of the local space (where people live) and the fluid space (where capital accumulates) in the reality. It is an economic choice for the community industries, as well as a cultural choice made by individuals after the disembedding of the dialects between globalization and localization [8].

### 4.3 Fluid Gender Implications in Global Commodity Chains — Barbie Doll and Women's Empowerment in Taishan Township

The Barbie Doll carries strong gender implications. Barbie dolls symbolize a paradoxical female role. Her perfect body and independence are a learning model for girls. The US gives high ratings to Barbie's happiness and self-achievement [1]. But, the focus on good looks can be taken for the objectification of women. Barbie's sweet image is considered a great female example. It restricts the possibility of females challenging the patriarchal system. Besides, its production process is also an embodiment of the typical gender division of labor. In the Meining plant, the production procedures consisted of several tasks. Male workers operated machines to shape out the bodies and limbs, whereas female workers were responsible for cutting, sewing, hair planning, accessories, assemblies, and box-loading, which were tasks not requiring the operation of machines [14]. It was a gender division of labor, dictating that females were responsible for assemblies (Fig. 7) and males were engaged in technical tasks. This gender division of labor underrated the significance and importance of assembly tasks handled by females.



**Fig. 7.** In the Meining plant (picture taken by Chao-Ming Wu), female workers were mainly responsible for assembly tasks, such as cutting, sewing and hair planting, and box loading, which did not require the operation of machines

incomes [4]. Nevertheless, all these policies showed the gender division of labor, for example, breadwinner vs. homemaker. When industrial developments become part of the community building, this may turn around.

Meining Workshop was established by a group of housewives interested in sewing and costume making. Efforts were made to make Taishan Township the hometown of Barbie Doll with the set-up of a co-op by community building, partly supported by government subsidies. Under the guidance from industry and academics, the workshop focuses on the design of doll costumes and the revival of the local economy. Housewives participate in community development with a gentle touch. Community building emphasizes self-empowerment. It requires internal strength, rather than an external push. In this case study, self-empowerment means the women reflect upon their traditional roles by getting involved with community development and realize their self-empowerment in daily life and public domains.

Also, some Barbie Dolls were made by housewives working outside the plant. This mode of production was out of particular government policy. In 1974, the Taiwan Provincial Governor proposed the Implementation Guidelines for Home Workshops. In 1978, the Council for Economic Planning and Development published the Guidelines for Home Workshops in Communities. Such policies created many job opportunities in Taiwan, it also revealed that females contribute a certain percentage of household



As females at the Meining plant were subject to the gender conditioning in the Taiwanese society in the past, it is important nowadays to explore how the establishment of the industry of doll culture in Taishan Township as a creativity industry influenced women's empowerment. This is a key issue worthy of further study.

## 5 Conclusions and Follow-Up Studies

As a developing country rising from the ashes of the Second World War, Taiwan became engulfed into the globalization and international division of labor in the 1950s, and became an OEM powerhouse for companies in the US and Japan. However, the drastic political and economic changes after the 1980s took international capital out of Taiwan. Many scholars have examined the impact of globalization on local economies, but there are limited case studies on Taiwan. Meanwhile, there are few studies addressing the effects of the exodus of foreign capital on local economies; hence, this paper hoped to explore the intricate interactions of global capital and local industries from the perspective of a single community. This approach was in contrast with the grand theory that takes macro views. This paper hoped to enrich the theoretic structures with extensive empirical studies.

The competition for production and sales has been increasingly intensifying in the era of globalization. There have been many studies, both in Taiwan and overseas, examining community building and the creative industry; however, these papers have rarely investigated communities under the context of globalization. As a result, they are likely to neglect the potential effects of global economies on the communities in question. Hence, this paper hoped to address these issues from the perspective of the global economy in order to assist local communities in the understanding of the challenges and bring local creative industries in line with the trends in the global economies. Although local communities in Taiwan can no longer achieve economic development with cheap and abundant labor, they can seek their own niches in the global market with the utilization of cultural capital, product design and marketing, and initiatives in the creative industries.

Finally, there is extensive literature discussing the Barbie Doll, but most of the studies have analyzed the implications and meanings of Barbie as a consumption symbol in a western cultural context. The economic and cultural impacts of the manufacturing of this popular toy on developing countries were usually overlooked. Barbie dolls are often the subject of criticism from feminists in developed western countries. An interesting paradox is that many women in the developing countries achieved their economic autonomy and gender equality by participating in the production of Barbie dolls. It reversed their original disadvantage status in the society. Taiwan was once a global manufacturing hub; and the production of Barbie dolls had significant historical meanings to Taiwanese society at that time. Above all, to the people in Taishan Township, it is a part of their collective memory.

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