# **Inhibition Factor on the Development** of the Domestic Wood Toy Industry<sup>1</sup>

Sung-Wook Hwang<sup>2</sup>, Hee-Mee Sung<sup>3</sup> and Won-Hee Lee<sup>4†</sup>

## ABSTRACT

Wood material is positive with the concept of eco-friendly materials. Wood toy preference of foreign brands is also a real problem. Therefore, in this domestic situation on Toys Brand Development, there are many problems yet to be solved. At First, a wood material for toys requires the development of more sophisticated and precision materials. Second, new content, product development and training program development of the toys are needed. Characters and content development time and effort should be invested. In present, Korean brand development of wood toy with educational effects is very important issues as the use of wood to match the low carbon & green growth.

Keywords: Inhibition factor, Domestic wood toys, Brand development, Characters and content

# 1. INTRODUCTION

From ancient times, the wood has been used mainly as a furniture and housing materials. Some material is being used as a craft and musical instrument. This includes plywood, MDF, particle board, Glulam, paper and other wood structures as building materials. Nevertheless, public awareness about the wood material is very low, and it is true that the whole thought of timber as cheap materials. However, considering wood is eco-friendly materials, peoples does not show great interest to various wood products.

Recently, the Korea Forest Service for timber from the Wood Experience Activities has been performing for the improvements to this phenomenon. However, the majority of people's perception is still eco-friendly material as a timber resource of the future is very low on the value.

Recently these social issues in an atmosphere of plastic toys as the incidence of interest in eco-friendly wood toys at home and abroad are showing great interest. Lack of understanding about the character of wood and timber industry due to the lack of reality in the domestic timber industry toys are still a long way to go. Timber markets, wood toy sector are new niche areas. According to previous research, educational environment, instructional materials and equipment in the classroom or as a timber for the students' emotional stability, employment and educational effects of a very large effect is well known. The cause of the warmth of the wood materials, vibrant eligibility, nature eligibility, bright, qualified people, such as body rhythm excellent compared to other materials known to provide a good environment. In this study, wooden toys is investigated the status and

-

Received for publication: Jan 27, 2010; Reviewed: March 2, 2010; Accepted: May 15, 2010

<sup>1)</sup> This research was supported by Kyungpook National University Research Team Fund, 2008.

<sup>2)</sup> College of Agriculture and Life Science, Kyungpook National University, Daegu 702-701, Korea

<sup>3)</sup> Graduate school, Dong-A University, Busan 604-714, Korea

<sup>4)</sup> College of Agriculture and Life Science, Kyungpook National University, Daegu 702-701, Korea

<sup>†</sup> Corresponding author: Won-Hee Lee (E-mail: leewh@knu.ac.kr)

issues in market share currently. In addition, inhibition factors of wood toy development in Korea were examined (Korea Toy Industry Cooperative, 2010).

## 2. WOODEN TOYS INDUSTRY'S CURRENT ADDRESS

## 2-1 Domestic market trend

The domestic manufacturers have a few toys. A cheap wood toy to Korea is mainly importing both China and Vietnam in Southeast Asia through OEM production system. But all of the toy industries in Korea are small scales. Therefore, to compete with foreign brands may be too much to overcome the problem. Combines fun and educational products in the outburst state, the sales agents to focus on toys is a reality. All domestic brands, especially imported from foreign countries will be prepared. Domestic brands include Supsori (forest sounds in Korean), Dilemma Korea, UpBrain, UpGreen, Ed Toys and the others is existing now.

This lack of initial marketing in the company's capital is considered a lot of trouble. Most early childhood education and educational products related to the development of the parish development, textbook development, and teacher development has been strengthened across the competencies. Furthermore, universities and government agencies related to using images to focus on improving brand is doing. However, wood toy from developed countries such as Germany and Israel, etc. is very good quality products. In order to overcome the quality with these toy brands, joint study with the forest products and educational researchers has been essential with research and development under long-term period for wood toy. However, most toys company focusing only to sale wooden toys. Good food comes out of good materials. A good wood toy comes also out good wood materials too. Using domestic woods, high-quality domestic toy must be developed in order to reduce cheap image of OEM products from South Asia.

Table 1 below, the entire toy was the status of the domestic market. From Table 1, in 2009 compared to 2005, exports declined by 53.5%, 31.7% increase in revenue was the result. Domestic demand increased by 10.6 percent showed, increasing consumption of toys that are expected to increase. However, going by the current state, increasing toy import is increasing but export is decreasing year after year.

Table 1. Domestic market (Unit: U.S. \$ 1,000)

Year	2005	2009
Export	129,128	60,055
Import	231,321	304,659
Domestic (Retail standards)	646,282	715,012

Table 2 lists the main customers for toys layer under the age of 14 showed the total number of children. In Table 2, the number of children 5 years per country, given that in 5 years has been reduced by 21%. Avoid this phenomenon, and that the marriage will be aggravated due to childbirth is considered. In Table 3, last year in December 2009 showed earnings from the current country. Almost all imports of toys have increased over the previous year increased nearly 2 times higher, respectively. Increasing foreign exchange outflow is relatively heavy, most relies on domestic production, rather than rely on foreign imports in products is apparently unknown. Especially coming from China has a large amount of low-cost toys.

Table 2. Korean Children's Numbers (2010)

Age	Total	Boys	Girls
0 ~ 4	2,201,465	1,141,126	1,060,339
5 ~ 9	2,517,298	1,310,285	1,207,013
10 ~ 14	3,188,145	1,670,825	1,594,441
total (number)	7,906,508	4,122,236	3,784,272

Table 3. Importing (2009 .12 end the current final), (Unit: U.S. \$ 1,000, %)

Region / Item	Vehicles	Dolls	Plush	Metal resin	Other Toys	Total
			Toys			
USA	1,904	179	87	4,455	4,871	11,496
	(81.4)	(170.4)	(114.4)	(147.3)	(66.9)	(89.7)
JAPAN	112	316	161	11,652	3,300	15,541
	(309.3)	(93.4)	(156.3)	(99.3)	(60.8)	(88.6)
HONGKONG	400	40	7	715	941	2,103
	(2,967.1)	(285.7)	(17.0)	(63.0)	(41.9)	(86.0)
TAIWAN	433	23	30	1,250	2,966	4,702
	(61.5)	(76.6)	(-)	(81.3)	(91.4)	(85.3)
CHINA	37,475	3,461	13,743	67,696	84,914	207,289
	(113.0)	(63.8)	(97.3)	(80.7)	(98.0)	(92.9)
EU	4,168	95	115	23,006	4,187	31,571
	(151.6)	(121.7)	(52.5)	(141.9)	(68.6)	(124.5)
OTHERS	948	278	1,224	21,748	7,759	31,957
	(50.3)	(122.4)	(132.6)	(114.8)	(89.7)	(104.3)
TOTAL	45,440	4,392	15,367	130,522	108,938	304,659
	(111.1)	(70.6)	(99.2)	(95.7)	(91.1)	(95.7)

Source: Customs Trade Statistics. () Inside against the previous year

## 2-2 World market trend

Table 4 showed the toy market. Toys world market for the 2008 market size of approximately 780 billion U.S. dollars, and North America, Europe, Asia, the market order is formed. The more developed countries were in need of toys. Given that this trend is likely to continue for the foreseeable future. However, with economic development, a relatively large population of Latin America and Africa as a large market potential in the future, we can do. Table 5 showed a trend in the global toy market. Each year to continue the rapid growth and global economic growth in underdeveloped countries, with the market increasingly is expected to be very large.

Table 4. Toys world market (2008)

Area	Toy market
Worldwide	780 Billion \$(USA)
North America	30%
Europe	29%

Asia	27%
South America	8%
Africa	3%
Oceania	2%

Table 6 lists the top 10 countries in the world toy market size, respectively. U.S. market share, ranking No. 1 in the world, 2nd in Japan, 3rd place in China, four were on the order of the United Kingdom In Korea, Japan and China, close to the domestic market and foreign exchange markets as an opportunity to acquire a better market is considered. Especially the overwhelming number of preschool children in China with rapid economic growth and market potential of the future will be a big market is sure.

Table 5. Toys of the World Trends (unit: bill. US\$)

Term	Toy market (Million U.S.\$)	Share	Child Population (Million)	1 person purchase toys for children (US \$)
USA	21,650	43%	61.6	281
JAPAN	5,823	11%	17.4	286
CHINA	4,527	9%	267.4	17
ENGLAND	4,127	8%	10.3	348
FRANCE	3,985	8%	11.9	293

Table 6. Toys and Children's Resources International 2008 (Top 10 Countries)

Term	Toy market	Share	Child Population	1 person purchase toys for children
	(Million U.S.\$)		(Million)	(US \$)
USA	21,650	43%	61.6	281
JAPAN	5,823	11%	17.4	286
CHINA	4,527	9%	267.4	17
ENGLAND	4,127	8%	10.3	348
FRANCE	3,985	8%	11.9	293
GERMANY	3,189	6%	11.4	223
BRAZIL	2,091	4%	52.9	38
INDIA	1,939	4%	361.4	5
MEXICO	1,794	4%	32.6	53
ITALIA	1,703	3%	7.9	185

Figure 1 shows the toy market in 2008. Figure 2 of the toy market in the United States showed a count of the Toys Category. Figure 3 is illustrated the Japanese toy market share of the Category, respectively. Therefore, the development of best Toys brand should be needed. In other words, the global toy brand development in Korea will be needed now. Only in certain areas, especially

considering the demand for toys brand development is at risk of failure. Thus, the general way to take advantage of the well-known characters of child's story can be a good method for success.

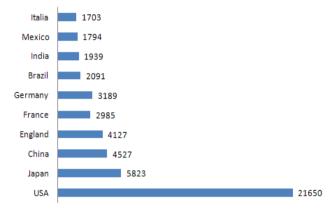
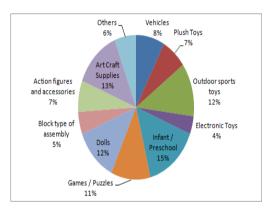


Fig.1 Market shares in 2008(mill. US dollars).



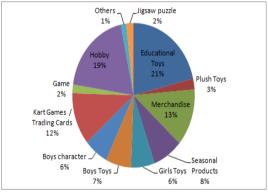


Fig.2 Share by Toys Category of U.S. in 2009

Fig.3 Share by Toys Category of Japan in 2008

# 3. RESULTS and DISCUSSION

## 3-1 Inhibition factor on the development of the domestic wood toy industry

In this year's 22nd Seoul International EDU-CARE Fair for Children at the COEX exhibition, most wood toy products were foreign brands. Domestic product was Dilemma Korea, UpBrain, UpGreen, EdToy and other exhibitors were very few. The majority were European foreign products.

Parents in Korea with the best enthusiasm on child's education are well known. Everything under the concept of education is the only way out has been investing in the education of children. This has been the basis for the development of our country that will not deny anyone. Therefore, this largest education market with the aim of a foreign brand will never advance is not made by accident. Blind profit by selling imported solely for the purpose of a marketing agent with a wooden toy development of the domestic brands may be a long story.

Domestic wood toys from this point will enable manufacturers to plan what does that really? This wooden toy industry for the development of inhibitory factors is necessary to examine. Most domestic brands, even in places like China and Vietnam, it is most often produced in Southeast Asia and the makers are selling cheap products. Meanwhile, as Germany's Selecta wooden toys are sold in very high prices, rather than in Southeast Asian product quality, safety, and may be superior in terms of accuracy.

Domestic manufacturers of wooden toy survey results were interviewed as follows. First, the common people's awareness of the wood material benefits was not enough. Wood is as a biological material, even though the human body safe materials, and the general public about the benefits they are not aware. Secondly, educational toy products manufactured in developed countries would prefer. The number of developers for educational wood toys is very shortage.

In addition, imports from developed countries for the benefit of the salesman are selling to raise only columns. Such products unconditionally prefer housewives. These things hinder the development of domestic brands is a factor. Third, the initial sales step is that the tyranny of the middle merchants. Most wooden toys are a small industry in manufacturing premise sales; price to be paid in advance can be considered one of the difficulties.

Fourth, a cheap wooden toys produced in Southeast Asia is the product of the scrambling. As long as there is a cheap product and drastic development of the domestic toy products cannot be overcome if you do not. The expression products include advanced product according to absolutely no success. A wood toy currently lacks the precision and depth. Plastic and metal toys as a science toys for use is no problem, but the nature of the wood material to overcome many challenges. Sixth, the toy retailer is only interested in the distribution of foreign products. Therefore, developing new characters and content is very lacking. We can say wooden toys are the content industry.

Therefore, an educational toy for the program and content development is the priority needs. Diocese of timber workers associated with the design and development of educational programs in collaboration with the field system is urgently needed. Seventh, the Western and Eastern ways of thinking is a big difference in the way of thinking. Thus, unconditionally, to accept Western education programs should review at least once thought to be a problem. In addition, children's play toys, not just the elderly who experience big toys and fun toys for play development are necessary.

Hand movements activated by the infant's brain, helps to promote creativity. In addition, elderly dementia is known to help. This is thought to have plenty of toys role. Recently a lot of Korea's family, parents are always busy working couple. Another brother is small; there is no opportunity to invite neighbors and friends, due to a computer by myself a lot of time playing. Under these circumstances, lack of socialization of children is being questioned. Therefore, lack of social communication of young children prepares the necessary measures to resolve the problem. At present, the domestic brands need to differentiate between the developed products. In order to develop its own wooden toys, which capture the theme of work to do? Based on the resolution of this question we must go look for clues.

# **3-2** Toy preference

In previews study (Sung, 2010); poll of the puzzle preference is examined to the target of infants, teachers, and parents, respectively. The preferred material of the puzzle was wood. The

most preferred form of the puzzle in children, teachers, and parents prefer the picture. For colors, whereas children prefer painted puzzle, teachers and parents of the puzzle as unpainted wood was preferred. Large sex differences in toy preferences exist throughout much of childhood (Ruble & Martin, 1998) and appear to further sex differences in cognitive and social development. Children's toy preferences are often explained in terms of gender socialization. Consistent with the stereotypical social roles of men and women, male infants are provided more frequently with toy vehicles or toy tools, whereas female infants are provided more frequently with dolls (Pomerleau, Bolduc, Malcuit, & Cossette, 1990). Different perceptual features appear to categorize male-preferred and female-preferred objects. Male preferred toys such as vehicles have been described as objects with an ability to be used actively (O'Brien&Huston, 1985), to be observed moving in space, or to promote a movement characterized by propulsion (Benenson, Liroff, Pascal, & Cioppa, 1997). Compared to boys, girls are also more likely to use a greater number of colors and to prefer warmer colors (i.e., pink and red) to cooler colors (i.e., blue and green; Minamoto, 1985). Wood is raw material as toy products. A lot of requirements as wood toy materials are needed such as color and sophistication and so on. Moreover, preference is a large difference between boys and girls. The preference is a large difference between adults and infants. Therefore, the development of wood toy industry is very difficult for these inhibition factors. However, if it removes, it is considered that the Korean Brand of preferred wood toy will developed as a very competitive industry in near future.

## 4. SUMMARY

Wood material is positive with the concept of eco-friendly materials. However, the public is still unaware of wood. South Korea on education for the children is the world's most highly educated countries. Everyone is recognizing reality. As eco-friendly material made from wood are looking for an alternative to plastic toys. Yet the preference for foreign brands is also a real problem. Therefore, in this domestic situation, Toys Brand Development there is many problems yet to be solved.

First of all, there are currently different wood materials requires the development of more sophisticated materials. In addition, new content, product development and training program development of the toys are needed. Even though we own a large wooden educational toys national brand development is late enough to know why. Nevertheless, the inhibitory factors of wood toy development will be studied on how to remove. Wood scientists and designers, and now co-educational self-study until it are time to resolve the issue. Characters and content development time and effort should be invested. In doing so, brand development with educational effects is very important issues for the creation of national wealth as the use of wood to match the low carbon & green growth.

## 5. REFERENCES

Benenson, J. F., Liroff, E. R., Pascal, S. J., & Cioppa, G. D. 1997. Propulsion: A behavioral expression of masculinity. *British Journal of Developmental Psychology*, *15*, 37–50.

China Toy Association: www.toy-cta.org

International Council of Toy Industries: www.toy-icti.org

Korea Toy Industry Cooperative: www.kotoy.or.kr

Minamoto, F. 1985. Male-female differences in pictures. Tokyo: Shoseki.

Ruble, D. N.,&Martin, C. L. 1998. Gender development. InW. Damon(Series Ed.) and N. Eisenberg (Vol. Ed.), *Handbook of child psychology :Vol. 3. Social, emotional, and personality development*, (5th ed., pp. 933–1016). New York: Wiley.

Pomerleau, A., Bolduc, D., Malcuit, G., & Cossette, L. 1990. Pink or blue: Environmental gender stereotypes in the first two years of life. *Sex Roles*, 22, 359–367.

O'Brien, M., & Huston, A. C. 1985. Development of sex-typed play behavior in toddlers. Developmental Psychology, 21, 866—871.

Sung H.M. (2010) The Effect of Wood Puzzle Shape on Users Preference (Submission)

The Japan Toy Association: www.toys.or.jp

Toy Industry Association, Inc. (USA): www.toy-tia.org

Toy Industries of Europe: www.tietoy.org