CHAPTER 3: RESEARCH ANALAYSIS

Introduction to Chapter 3

Chapter 2 describes the whole research methodology. It includes the research rationale and approach, the research structure, the criteria of the 10 innovative products selection, the hypothesis of the 12 innovative products value, the research data collection protocol and the research data analysis methods.

Chapter 3 describes the whole research analysis of key success factors of the innovative products, particularly focusing on the value of the innovative products on the company and customer perspectives. The following sections are:

Section 3.1 describes the analysis of key success factors of the innovative products on the company perspective. According to the 10 selected innovative products, there are four companies, i.e. Plan Toys, Yothaka, Osisu and Bathroom Design.

Section 3.2 describes the baseline analysis of key success factors of the product category based on the customer perspective. According to the 10 selected innovative products, there are three product categories, i.e. Toy, Furniture and Sanitary Ware.

Section 3.3 describes the analysis of key success factors of the 10 selected innovative products in comparison with the average baseline analysis, based on the customer perspective. The innovative product analysis is divided into two main groups, i.e the successful innovative products and the unsuccessful innovative products.

Section 3.4 describes the comparative analysis of three value curve groups: the average baseline pattern, the average pattern of the successful innovation products group, and the average pattern of the un/less successful innovative products group.

3.1 The Company Perspective

3.1.1 Company Introduction

According to the 10 selected innovative products, there are four interviewed companies. This section will introduce company overview, the innovative product background and the management of the development of the innovative product within each company.

3.1.1.1 PlanToys

Interviewee: Pichade Ravipong, Creative Director

Established in 1981, PlayToys is acknowledged as one of the top rubber-wooden design toys in the world. Its toys are mainly made from too-mature rubber woods which have not normally been utitlised. Its vision is to 'inspire children' imagination and promote their physical and intellectual development' (www.plantoys.com, 2010). It practices 'the Four R' of eco-friendly living, Rethink, Reduce, Reuse and Recycle. This 4R principle has been implemented in 3 main business areas, i.e. product material, manufacturing process and green responsibility.

Regarding the characteristics of the company's innovative products, the toys are open-ended type. This toys type helps kids develop their skills and imagination, and simultaneously require safety while playing. The toys represent fun, bright, surprise without creating scary or fear. As an international company, product ethics is also a critical aspect. Although, this product type requires high standards, the affordable price is considered still. Popular culture will be considered if only it matches the company's product conception.

3.1.1.2 Osisu

Interviewee: Assist Prof Singha Intrachooto, CEO

Established in 2006, OSISU has an intention to 'get rid of waste by design'. He said, "When we were talking about waste elimination, people always rely on scientist, engineer or technologist as a savior to solve environmental problems, which nobody talks about designer. I want people to recognize waste elimination by designer too." The company has a separate idea from the western world, where the waste reduction or green products is on technology-oriented direction. It is interested in

turning construction, manufacturing and household waste, such as small pieces of wood, sand papers, milk cartons and steel pipes, into creative/innovative products.

Regarding the characteristics of Osisu's innovative products, they are produced from the wastes. The transformation process, from left-over waste to useable materials is innovative. How to apply the materials to everyday used products is also an innovative way for commercialized products. There are 3 main concerned aspects on the Osisu's design, i.e. aesthetics, functional and made out of the new mixed material. For instance, the indoor and outdoor products will have proportion or aesthetics and function differently. However, they share the same material type. The aesthetics will consider not only the beauty of product, but also its proportion.

3.1.1.3 Yothaka

Interviewee: Suwan Kongkhunthian, CEO

Started with research funding by the Canadian government on Water Hyacinth, Yothaka has continued as business after the research finished. The aim of the research was conducted to alleviate locals' poverty and seek additional jobs after the cultivation was done. Suwan commented this is also a social innovation. However, the research did not include how to commercialise the products. That was how Yothaka had started with a good sense of success because of the innovation application of the research. The company commercialises the products done by the locals. Regarding the design part, there are three main directions, i.e. received design orders by external clients, created original design by both in-house and outsource designers. The company has been famous for its fine details and known what the design aesthetics is. It is run by Marketing Team, In-House Production Team, and some design freelances.

Regarding the characteristics of Yothaka's innovative products, the company first implemented water hyacinth on the big scale products. Oriental feeling is the key character of Yothaka's products. The feeling comes from natural materials, such as Water Hyacinth, Rattan and Lygodium. These natural materials are presented in a less conservative means. The Yothaka products are a choice of buyers, which is trendy and comfortable, not design concept. They can easily be blended into different decorative styles, as Suwan mentioned.

3.1.1.4 Bathroom Design

Interviewee: Watcharamongkol Benjathananchat, CEO

Established in 1995, the company was an imported bathroom sanitary company. Since 1998, the company has used 'Bahtroom Design' as its brand. To set up its own brand is to decrease the imported business portion and increase domestic activities. The business paradigm is based on the King's self-sufficiency philosophy. The business is run on two key aspects: Knowledge and Morality. It employs an in-house designer and an external product design advisor as the design team. At the beginning, It worked on product design part and outsourced manufacturing part. The products were small simple bathroom accessories, such as acrylic bathroom shelf. Design was used for the minor changes of products' shape, form and material. New functions were added on the next generation of the product as the next step. After that, the company started new production line, i.e. shower room and bathtub respectively. Because the external manufacturing supplier had copied the company products and sold them in a cheaper price, this has forced the company to establish its own factory. The factory started producing simple bathtub. Then, it moved to produce more advanced models and their modified models. Until 2003, the cheaper products from China have spread all over the world. The company has initiated its innovation strategy in order to establish a unique market position, which Chinese and European competitors cannot compete in the market, i.e. stylish design, intelligent technology and health conscious. It has also set a vision, to be one of the top 5 global leading bathroom companies in the next 20 years.

Bathroom Design is a specialist in bathroom products. Regarding the characteristics of Bathroom Design's innovative products, these four aspects are the heart of its products, i.e. Design, Function, Material and Technology. Design must be New-to-the-world. It will not be reproduced or duplicated the same product category in the market. Function of the products should be new, different and/or new functional integration. New materials are implemented, used for some parts or a whole of product, e.g. i-Crylic. The company attempts to apply new or integrated, available technology which is never applied to bathroom. At the beginning, it starts with a simple technology and moves to more complex one, e.g. systems linkage.

3.1.2 Analysis of General Questions

This section describes the analysis of the research questions by each company's answer and also comparing all companies' answers.

3.1.2.1 Question: How your company manages the development of innovative products internally? The answers of the four companies are shown in Table 3.1:

Table 3.1: Management of the Development of Innovative Products

Company	**Answer**
PlanToys	1. Product Team consists of child development expert, designer, marketer, and engineer. They are working together in this section. 2. This team will be responsible for the whole product development process, such as product brief, product sketch and product management. The process is controlled by the ISO system. 3. Product Team will run under the Marketing department 4. Product approval is done by Top Management.
Osisu	1. New material (Waste) acknowledgement 2. Store waste as raw material for new design at the site. 3. Design has been done by Osisu. Looking at the source of waste is design inspiration and transforming it into design. 4. Then produce the designed product at the site, working between OSISU technician and the site worker 5. The product will not be dyed or glued, except in case of product was dyed or glued in the primary product process. 6. If the material waste is run out, the production of that designed product will be stopped. 7. Quality Control into the deep details of product design will be done by the rules set by the OSISU's owner. 8. All designed products are commericalised. No design approaval before launch.
Yothaka	1. Decision is fully made by the owner. It is important that the product is beautiful and salable, not outrageous, self-satisfactory, showy 2. The important aspects of the product are beauty, proportion, texture and colour. 3. There are three parties working for the business: design, marketing and production. 4. Design is done by in-house and freelance designers. However, freelance designers is not a significant part.
Bathroom Design	1. Regularly New Knowledge Input. (Training, Attending Exhibition/Seminar, Accessing Magazines/Books). 2. Young, Less Ego, Hard-working, creative staff 3. Routine Idea Generation Session, i.e. Creative Saturday -This process starts by dividing the working team into 2 groups: (1) three Designer Groups (product, interior and graphic design group) and Two Engineer Groups (mechanical and technical) - Each group discusses their topics and shares their knowledge

	to the other. 4. Product approval is done by the owner. 5. The design team is involving 3 product aspects, i.e. 3-5 years visionary product, new launching product, after-launched product. 6. There is ISO 1901/2000 for design

3.1.2.2 Question: Have critical success factors of innovative products been clearly identified within the company? if yes, What?, and How to achieve each critical success factor with the company's new product development practice? The answers of the four companies are shown in Table 3.2:

Table 3.2: Pre-Identification of Critical Success Factors of Innovative Products

Company	**Answer**
PlanToys	○ Not really (The followings are success factors: Individual and Team Potential, Big Ideas, Integrative Development by Team, Good Flow of Working Process, Good Team Relationship (generating positive energy), Working until Deadline)
Osisu	○ Good Proportion and Aesthetics ○ New Mixed Material ○ Functional
Yothaka	○ No (On the first 12 – 13 years, the company tried to provide a variety of product choices, 6-7 developed products per year. Buyers' comment and feedback on a variety of product choices push the company develop more products at the product category level. Another key issue is the company had experienced and learnt when working with foreign designers. As a result, it pays attention to small details in not only product aspects, but also communication materials. According to the customers' feedback, *Yothaka's products are delicate, feel comfortable. To sum up, the company uses customers' feedback and orders as indicators*)
Bathroom Design	○ Design meets the brand principles: innovative design, function, material and technology ○ Key Performance Indicator (KPI), i.e. ISO standard (Timing, Efficient Design and New Ideas) ○ Innovative solution approval from all teams, such as design team, production team, QC team, Purchasing team and Marketing team. ○ However, the innovation condition has to be applied in decision making

3.1.2.3 Question: How you define the success of innovative products in the company? The answers of the four companies are shown in Table 3.3:

Table 3.3: The Indicator of Innovative Product Success

Company	Answer
PlanToys	○ Both Internal (different, not duplicated, better design) and External Factors (sale record and recognised award) ○ Price ○ Customer Satisfactory ○ Functional Benefits
Osisu	○ Useful Product Applications and users use them, not all about sale records because eco-consumers are about 5% of world population
Yothaka	○ Sale Record per Annum (By Number of Products, By Total Revenue) ○ Market demands on best selling products
Bathroom Design	○ Sale Record ○ Awards (Some innovative products cannot be measured their success by sale target. The innovative design, received awards, mostly have low sale rate. These products will be served as prototype for next product generation, which might have same functions or less, but salable price.)

3.1.2.4 Question: What factors make successful differ from un/less successful innovative products? The answers of the four companies are shown in Table 3.4:

Table 3.4: Distinctive Factors between successful and un/less successful innovative products

Company	Answer
PlanToys	○ Product Functions ○ Individual Skills ○ Working Process (Lack of the understanding of the systematic process) ○ Top Management Vision ○ Setting up the right question/direction ○ Employing Toy Designers, not other design disciplines
Osisu	○ Consumer Taste ○ Material Application ○ Design Style (Simple design can sell very well, not flamboyant design) ○ New-Mixed Materials cannot sell well. However, some products sold well in one market, but not the other.
Yothaka	○ Design Product is un/less successful ○ The company does not count un/less successful products by the number of product sale and how long products have been

	in the market. Almost all products can be sold since the business has run for 20 years. ○ Lack of product differentiation and excitement can cause failure. ○ Lack of support in material production
Bathroom Design	○ Un/less successful innovative products can't be judged by both sale records and awards because highly innovative product is sold less, but high margin. ○ A Variety of Products (more is not always success) ○ Competitive Price (middle range price will make the company's innovative product success) ○ Affordable Innovation

3.1.3 Analysis of Innovative Product Value

This section describes the value analysis of the innovative products of the four selected companies. The results are shown in Table 3.5.

3.1.3.1 Question: Please identify the following innovative product values, in which factors/aspects do you put in your innovative products. The answers of the four companies are shown in Table 3.5:

Table 3.5: Value analysis of the innovative products of the four companies

Product Value	**PlanToys**	**Osisu**	**Yothaka**	**Bathroom Design**
Physical	(3) Appropriate to Kid Development & Behaviour; and Appropriate to Cultural Reference	(4) Brand Recognition, Aesthetics, Good Proportion	(3) Timeless (some products), Beautiful, Lifestyle-Fit,	(4) Aesthetic, Distinctive Appearance, Form and Material,
Functional	(4) Size, Safety, Ergonomics, Selected Material Appropriateness, Imaginative Play	(3) Comfortable (Chair), Functional	(3) Warm and Cosy, Friendly, Casual	(4) Multi-Functions
Emotional	(4) Fun, Lively, Cute, Surprise	(4) Amusement, Completely Forget the Negative Feeling on Waste	(4) Friendly, Relax	(4) Happiness in use, Emotional Experience

Brand	(3) Straightforward, Committed, Less Serious, Eco-Conscious	(4) Trust, Brand Recognition as Osisu, Innovative Material	(3) Product Differentiation	(3) Difference, Theme Series, Universal Design
Cultural	(1) Ethnic Minority Concern	(1) Not Concern on Thai Style	(4) Keeping Cottage Industrial Culture, Acclaimed Thai Product, Weaving Process Knowledge, Direct and Indirect Social and Eco Responsibility	(3) Thai Creativity, Made-in-Thailand
Social	(4) Staff Welfare, Social Mind, Eco-Responsibility, Alternative Energy	(1) Social Development (In the future), Social Awareness on this Business Type	(3) Poverty Alleviation in the Local and South East Asia	(2), Human Safety
User	(3) Good Quality, Reasonable Price, Efficient Use, Durability, Joint Play with other Toys	(2) User Testing	(3) Eco Responsibility and Awareness, Emotional Response	(4) Good Well-Being,
Trend	(4) Eco Material, Beneficial for the Company	(1) Not pay attention	(3) Market Trend Follower (Colour and Form), Trend Setter Wannabe in Handicraft	(2) Implemented Global Trend
Environmental	(4) A Core of Business	(4) Left-Over Waste, Less Harmful Chemical, New Generation Training, Recycle of the Product	(4) Green is Business Conscious	(2) Water Resource Saving

Knowledge of the Company's Brand	(2) Implied in Design and Design Finalisation	(4) Modern Design by Left-over Materials	(4) The Leader in Handmade Weaving, Eco-Responsible Product	(4) Self-Sufficiency, Bathroom Specialist, Risk Conscious, Use Resource efficiently
Knowledge of Product Competitors	(3) Learn how They Think, Learn Product Creation Methods	(1) None	(3) Follow the Emerging Direct Product Competitor, especially Southeast Asia	(4) Learning competitive success
Supportive Product/Service System	(2) Product Standards in the Market	(1) None	(1) Instruction (Paper Furniture)	(3) Safety Standards (CE), ISO, Industry Standard (TISI)

Remark:

(1) none/less, (2) Start Implementing/In a few cases, (3) Carrying on working, (4) As key principle

3.1.3.2 Question: Please rank 5 key innovative product values in order, to make your innovative product success. The ranked values of the four companies are shown in Table 3.6

Table 3.6: Rank of 5 Key Values for Innovative Product Success

Value Rank	**PlanToys**	**Osisu**	**Yothaka**	**Bathroom Design**
1	Functional Value	Eco Value	Brand Value	Physical and Functional Value
2	User Value	Brand Value	Eco Value	User Value
3	Emotional Value	Knowledge of the Company's Brand	Social and Cultural Value	Trend Value
4	Competitive Product Value	Physical and Functional Value	Emotional Value	Knowledge of Competitive Products
5	Brand Value	Emotional Value	Physical and Functional Value	Brand Value

3.1.3.3 Question: Please rank 5 key innovative product values in order, to make your un/less successful innovative products. The ranked values of the four companies are shown in Table 3.7.

Table 3.7: Rank of 5 Values for Unsuccessful Innovative Products

Value Rank	PlanToys	Osisu	Yothaka	Bahrtoom Desiign
1	Functional Value	Economic Value*	Brand Value	Physical and Functional Value
2	User Value	User Value	Eco Value	User Value
3	Emotional Value	Knowledge of Competitive Products	Social and Cultural Value	Trend Value
4	Competitive Product Value	Physical and Functional Value	Emotional Value	Knowledge of Competitive Products
5	Cultural Value	Emotional Value	Physical and Functional Value	Brand Value

Remark: * Economic Value is not the research's innovative product value

3.1.3.4 Question: In your opinion, please suggest how to increate the rate of innovative product success in the company. The suggestions of the four companies are shown in Table 3.8.

Table 3.8: Suggestions on how to increase the rate of innovative product success

Company	Answer
PlanToys	○ None
Osisu	○ Reduce a number of the new mixed, unusual materials, one or two per year
Yothaka	○ Market and Buyer Expansion ○ Production Capacity Increase
Bathroom Design	○ Learn from the innovative product failures and develop them further ○ Further development on the success of the innovative products ○ Simplify the design in order to make it cheaper, but keep design appearance and quality

3.2 Consumer Perspective: The Baseline Analysis

According to the 10 selected innovative products, there are three product categories, i.e. Toys, (seating) Furniture and Sanitary ware. This section will show the result of the baseline analysis of key success factors of the product category based on the customer perspective.

The standard questionnaire 1, as shown in Appendix 2-C, was used as the tool for this part of research for all categories. One hundred random samples completed the questionnaire in each category. In total, there are 300 samples. The results of this research are shown in the sections below.

3.2.1 General Information

As shown in Table 3.9 – 3.13, the number of the female samples is higher than the number of the male samples about 1.8 times. Regarding the toy category, the female samples are higher than the male samples around 5 times. The majority of the age range of the samples is 26 – 50 years old, 267 samples (89%). The majority of the samples, 187 were married, in particular the toy category. The educational level of the samples is mainly achieved Bachelor Degree, 204 samples (68%), in the three product categories. The majority of the samples earn in the range of 15,000 – 25,000 Baht per Month (around 31%).

Table 3.9: Gender of the samples in each product category

Gender	Total (Percent)	Toy	Furniture	Sanitary Ware
Male	108 (36%)	18	50	40
Female	192 (64%)	82	50	60

N = 300

Table 3.10: Age range of the samples in each product category

Age (Years)	Total (Percent)	Toy	Furniture	Sanitary Ware
less than 25	18 (6%)	0	9	9
26-30	79 (26.33%)	1	37	41
31-35	54 (18%)	11	25	18
36-40	67 (22.33%	30	21	16
41-50	67 (22.33%)	49	8	10
more than 51	15 (5%)	9	0	6

N = 300

Table 3.11: Status of the samples in each product category

Status	Total (Percent)	Toy	Furniture	Sanitary Ware
Single	116 (38.67%)	1	58	57
Married	180 (60%)	97	42	41
Others	4 (1.33%)	2	0	2

N = 300

Table 3.12: Educational level of sample in each product category

Education level	Total (Percent)	Toy	Furniture	Sanitary Ware
High school	25 (8.33%)	8	12	5
Vocational school	16 (5.3%)	8	6	2
Bachelor	204 (68%)	68	61	75
Master	51 (17%)	15	19	17
PhD	1 (0.33%)	0	0	1
Others	3 (1%)	1	2	0

N = 300

Table 3.13: Income range of the samples in each product category

Income (Bht.)	Total (Percent)	Toy	Furniture	Sanitary Ware
Less than 15k	73 (24.33%)	15	36	22
15k-25k	94 (31.33%)	23	29	42
25k-35k	43 (14.33%)	10	18	15
35k-45k	26 (8.67%)	14	7	5
45k-55k	13 (4.33%)	9	1	3
More than 55k	51 (17%)	29	9	13

N = 300

3.2.2 Baseline Analysis of 3 Product Categories

The results of the baseline analysis of the three product categories are shown in the figures below. The analysis shows the value curve of each product category and the average value curve. It also illustrates the value curve of each value factor.

3.2.2.1 All Values Assessment

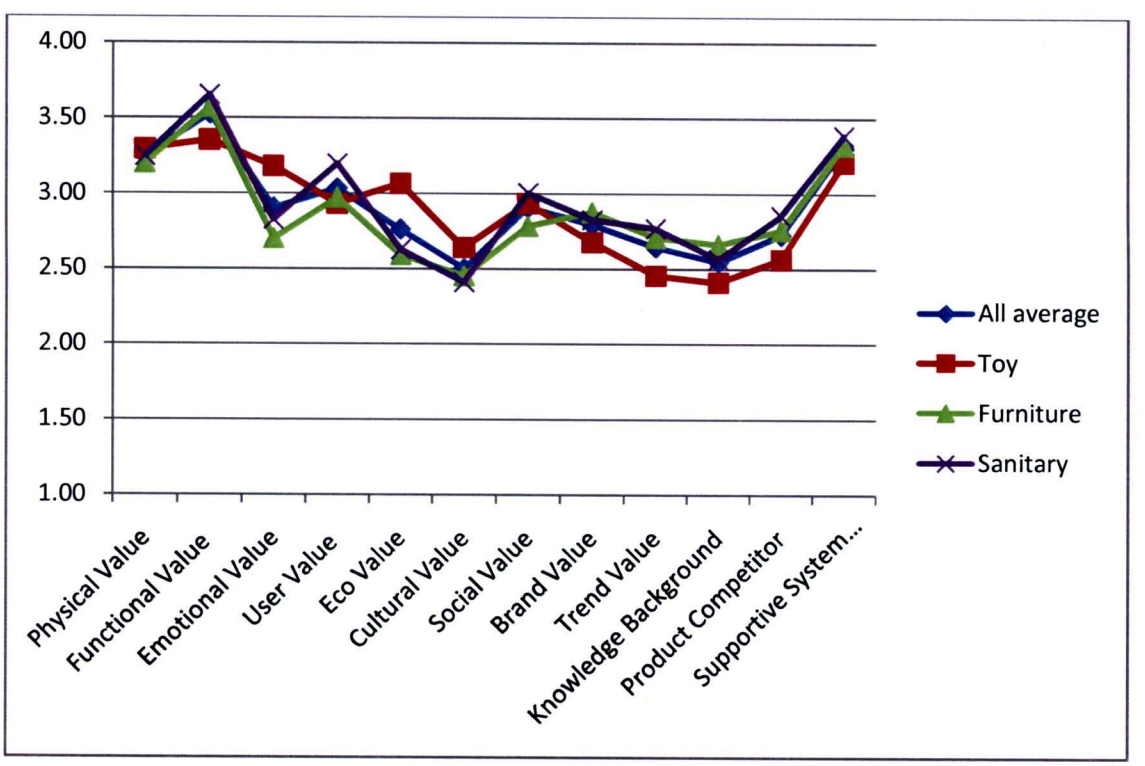

Figure 3.1: The value curve of three product categories and its average

As shown in Figure 3.1, it reveals Functional Value is the most significant product value when Thai consumers assess the products' values. Physical and Supportive System Values are in the second tier priority. User, Social and Emotional Values are in the third tier. Eco and Brand Values are the forth tier. In the contrary, Cultural Value is the least significant product value when consumers assess. The product value assessment patterns (value curve) of the seating furniture and sanitary ware categories are very close to the average pattern. Regarding the toy category, two product values are evaluated much higher than the average score: Emotional Value and Eco Value, and Functional, Brand, Trend Values and Knowledge Background are assessed less than the average score. The product value assessment pattern (as shown in the red line) of the toy category is fairly different from the average pattern. Regarding the toy category, the top priority is Functional Value. Physical, Support System and Emotional Values are the second tier priority. Eco, Social and User Values are the third tier.

3.2.2.2 Each Product Value Assessment

Figure 3.2 – 3.13 show the details of each product value assessment and their average value curve. Twelve selected product values have been assessed. In each value, there is a list of key components as described in Table 2.4 in Section 2.6.

3.2.2.2.1 Physical Value

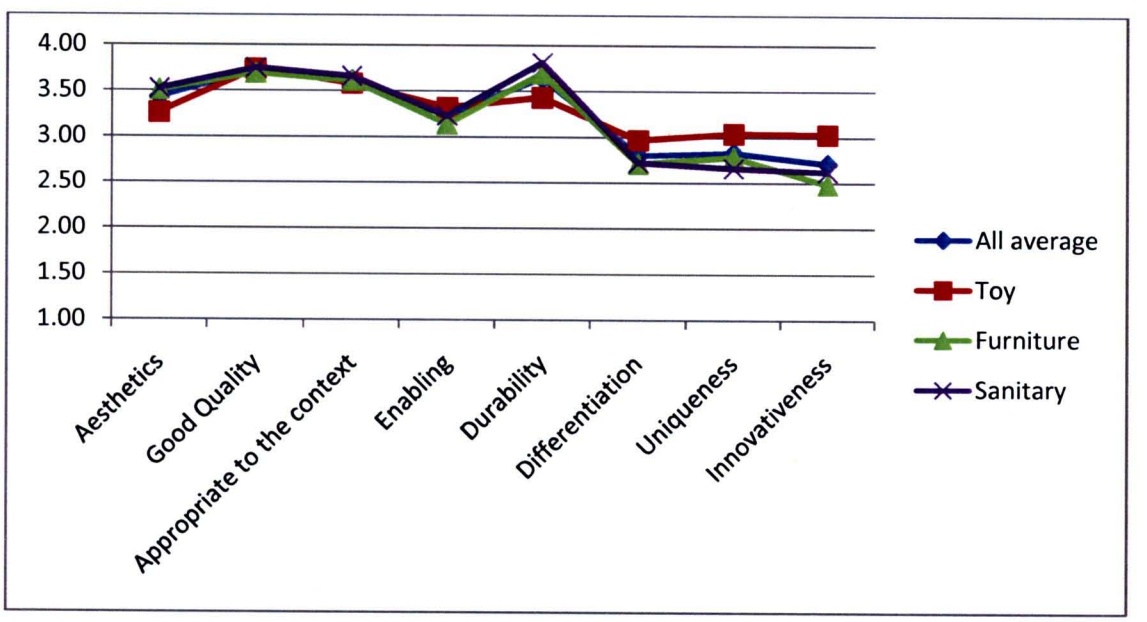

Figure 3.2: Physical value assessment of all product categories and its average value curve

Regarding the Physical Value as shown in Figure 3.2, in average, Thai Consumers value Good Quality, Durability and Appropriate to the Context as highly significant. *Differentiation, Uniqueness and Innovativeness* are quite significant. In particular, Innovativeness is averagely scored the least in comparison with the others. Innovativeness is scored the least in the seating furniture and sanitary ware categories. Differentiation is scored the least in the toy category. The graph patterns of the seating furniture and sanitary ware product categories are very close to the average pattern. However, the graph pattern of the toy category is slightly different from the overall average. The average scores of the eight factors in each of the product category are more or less close to the overall average scores.

3.2.2.2.2 Functional Value

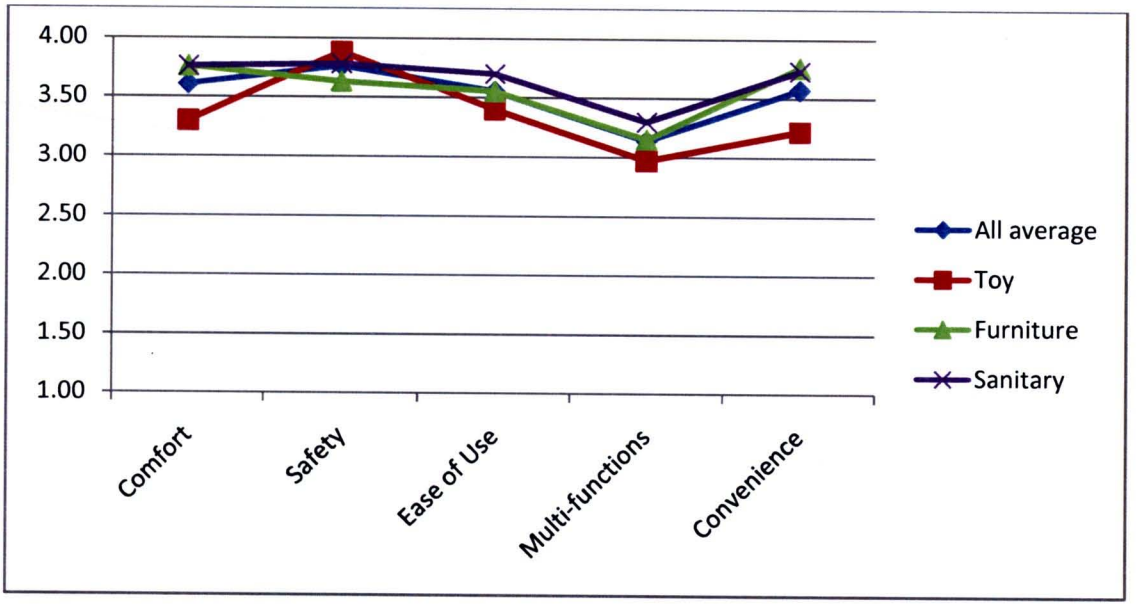

Figure 3.3: Functional value assessment of all product categories and its average value curve

Regarding the Functional Value as shown in Figure 3.3, in general, Thai Consumers value Safety as the top priority. Comfort, Safety, Ease of Use and Convenience are valued as highly significant. The factor, Multi-functions is averagely scored the least. The graph patterns of the furniture and sanitary ware categories are very close to the overall average pattern. The graph pattern of the toy category is mainly lower than the overall average pattern.

3.2.2.2.3 Emotional Value

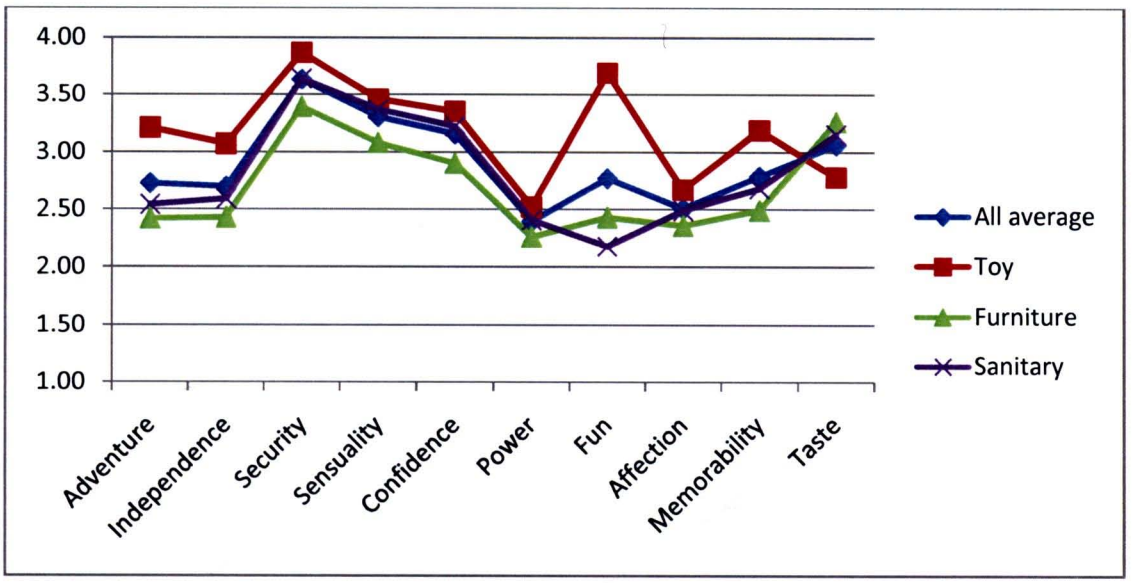

Figure 3.4: Emotional value assessment of all product categories and its average value curve

Regarding the Emotional Value as shown in Figure 3.4, in average, Thai Consumers value Security as highly significant. In the toy category, not only is Security highly significant, but also Fun factor is. The factor, *Power is* less significant. In particular, Power is the least significant in comparison with the others. Power is averagely scored the least in the seating furniture and toy categories. Fun is averagely scored the least in the sanitary ware category. The graph pattern of the sanitary ware category is very close to the overall average pattern. However, the graph pattern of the toy category is mainly arisen higher than the overall average pattern. In particular, the factors of Fun, Adventure, Memorability and independence are evaluated higher scores than the overall average. The graph pattern of the furniture category is lower than the overall average pattern. The factors, Adventure, Independence, Confidence, Fun, Affection and Memorabiliity are averagely scored less than the overall average.

3.2.2.2.4 Brand Value

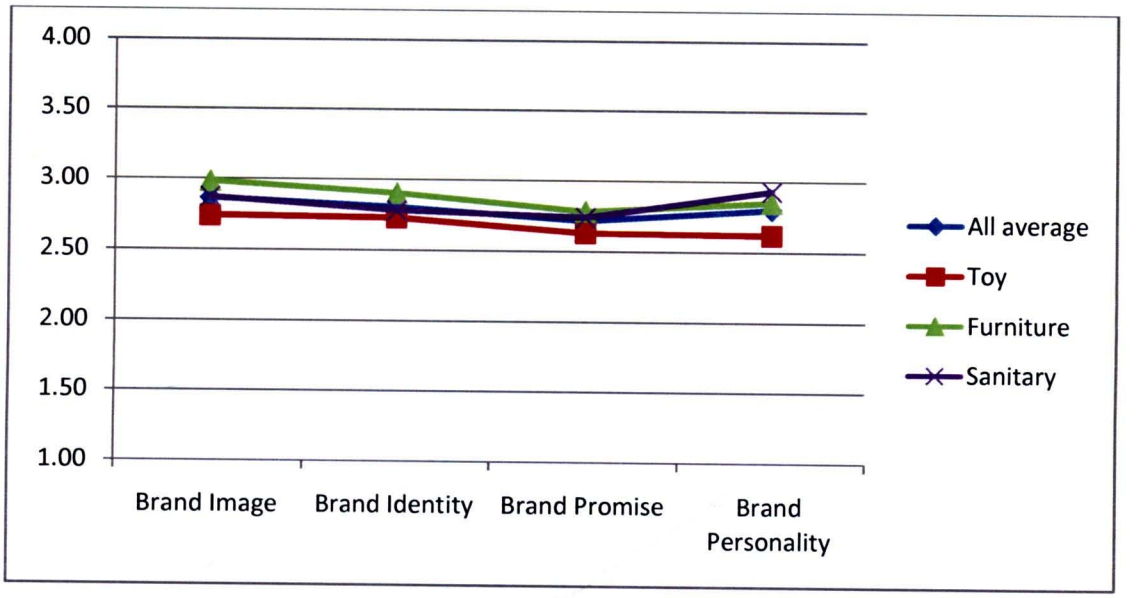

Figure 3.5: Brand value assessment of all product categories and its average value curve

Regarding the Brand Value as shown in Figure 3.5, in average, all factors (Brand Image, Identity, Promise and Personality) are quite significant. The graph patterns of all product categories are very close to the overall average pattern.

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3.2.2.2.5 Cultural Value

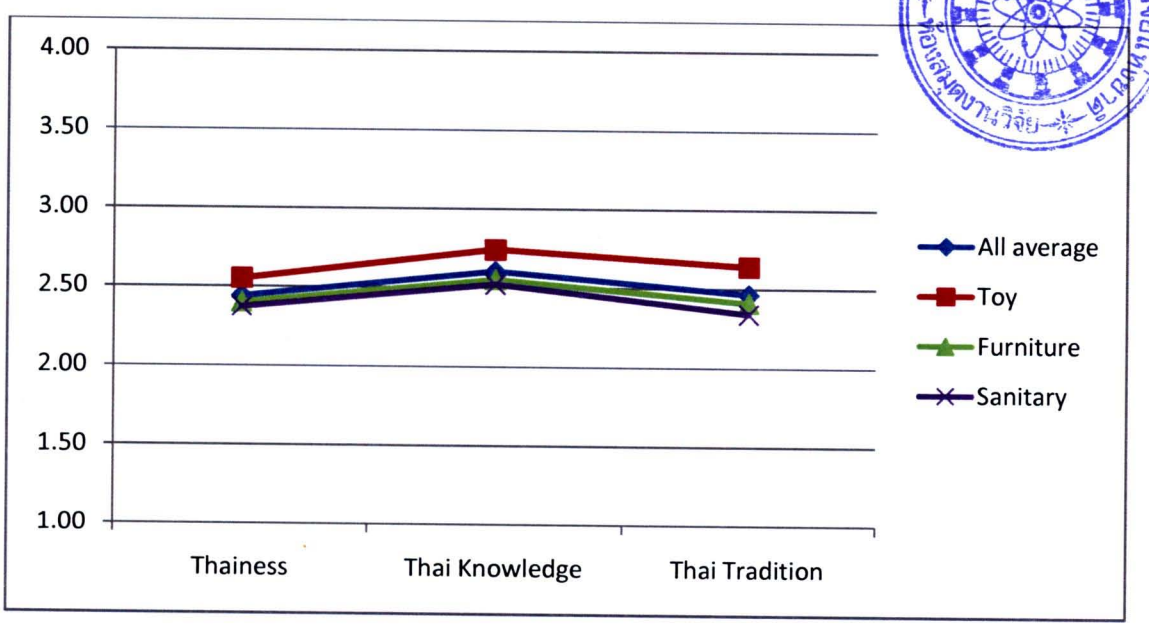

Figure 3.6: Cultural value assessment of all product categories and its average value curve

Regarding the Cultural Value as shown in Figure 3.6, in average, the factor, Thai Knowledge is quite significant. Thainess and Thai Tradition are less significant. The graph patterns of the seating furniture and sanitary ware categories are very close to the overall average pattern. The graph pattern of the toy category is higher than the overall average pattern.

3.2.2.2.6 Social Value

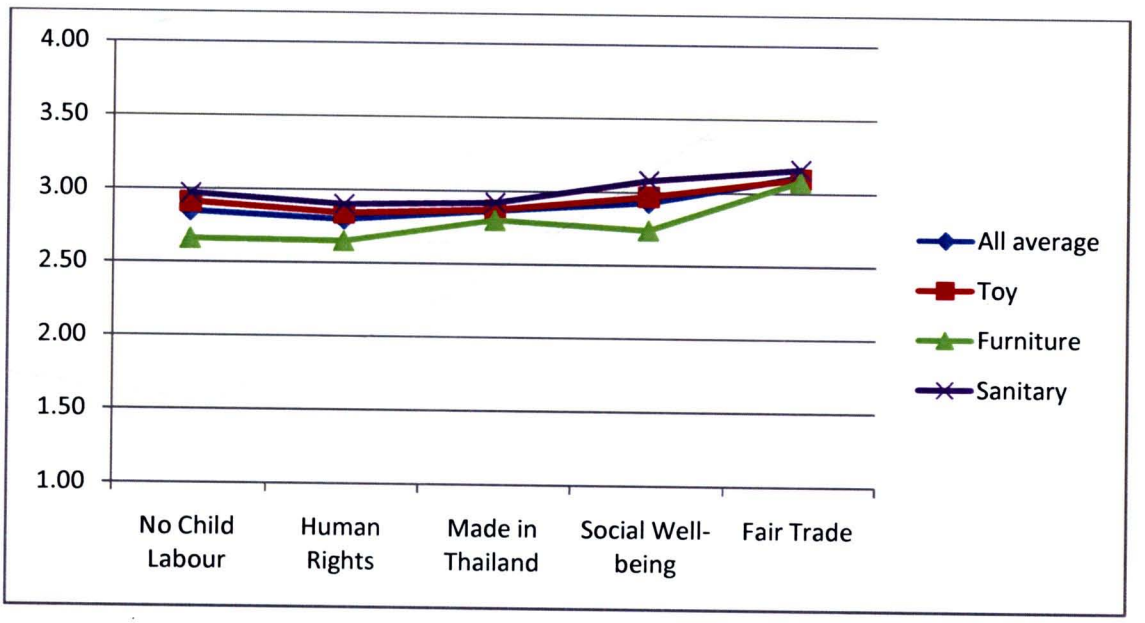

Figure 3.7: Social value assessment of all product categories and its average value curve

Regarding the Social Value as shown in Figure 3.7, in average, four factors (No Child Labour, Human Rights, Made-in-Thailand and Social Well-being) are significant. Fair Trade is valued as highly significant. The graph patterns of all product categories are very close to the overall average pattern.

3.2.2.2.7 User Value

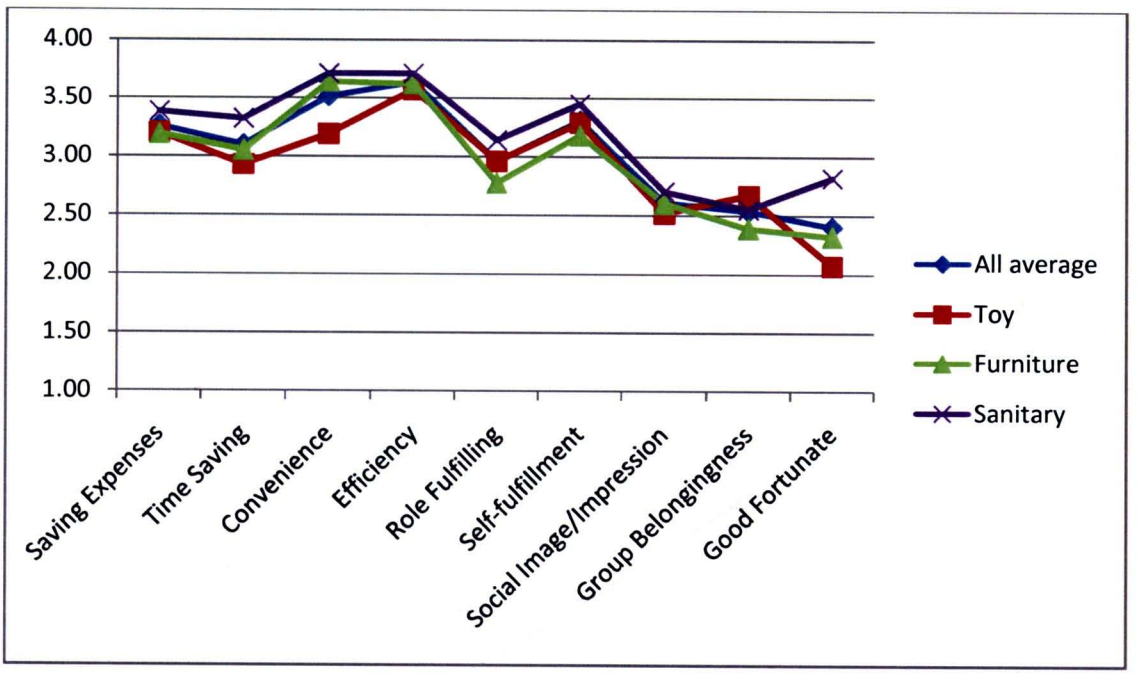

Figure 3.8: User value assessment of all product categories and its average value curve

Regarding the User Value as shown in Figure 3.8, in average, Thai Consumers value Efficiency and Convenience as highly significant. In the toy category, Efficiency is highly significant, not convenience. The factor, Good Fortunate is less significant. In particular, Good Fortunate is the least significant in comparison with the others in the seating furniture and toy categories. The graph patterns of all product categories are very close to the average pattern, except for the Convenience, Role Fulfilling and Good Fortunate factors. In the toy category, the average score of the factor, Convenience is lower than the overall average. In the sanitary ware category, the average score of the factors, Good Fortunate and Role Fulfilling is higher than the overall average.

3.2.2.2.8 Trend Value

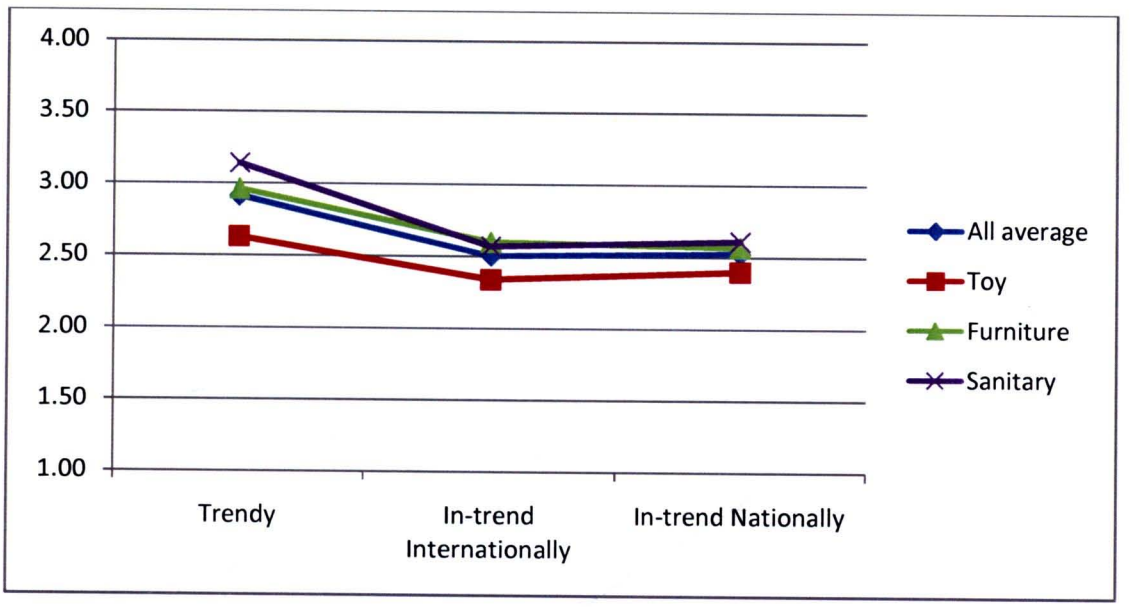

Figure 3.9: Trend value assessment of all product categories and its average value curve

Regarding the Trend Value as shown in Figure 3.9, in average, all factors are quite significant. The graph patterns of the seating furniture and sanitary ware categories are very close to the overall average pattern. The graph pattern of the toy category is lower than the overall average pattern.

3.2.2.2.9 Environmental Value

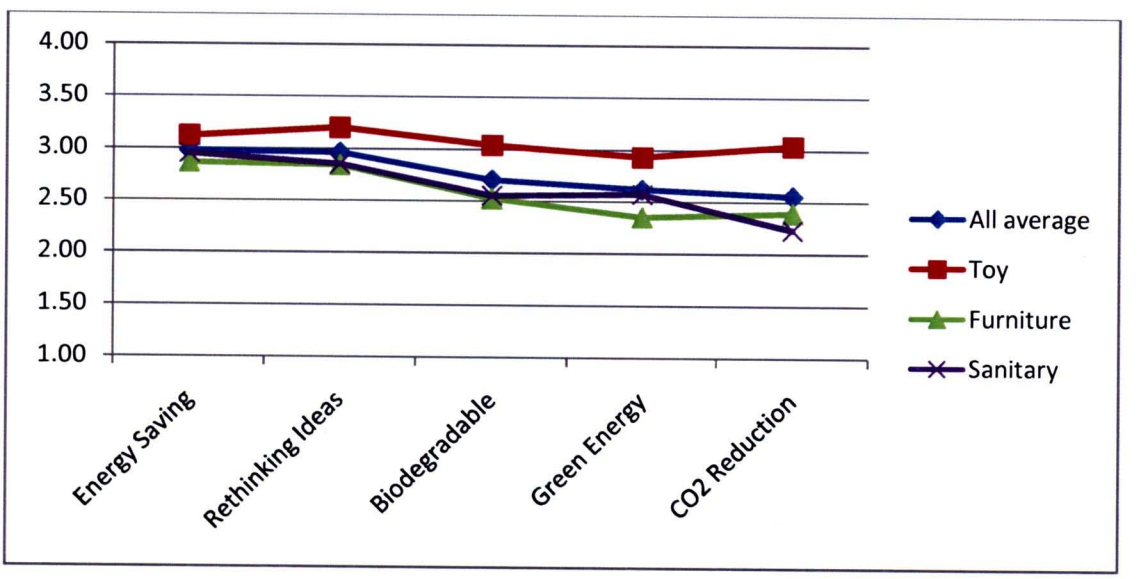

Figure 3.10: Eco value assessment of all product categories and its average value curve

Regarding the Eco Value as shown in Figure 3.10, in average, Thai Consumers value all factors (Energy Saving, Rethinking Ideas, Biodegradable, Green Energy and CO2 Production) in the Eco Value as significant. In particular, the factor, CO2 Reduction is averagely scored the least. In the toy category, the assessment of almost all eco factors is higher than the overall average. The CO2 Reduction factor is averagely scored the least in the sanitary ware category. The factor, Green Energy is averagely scored the least in the toy and seating furniture categories. The graph patterns of the seating furniture and sanitary ware product categories are quite close to the overall average pattern. However, the graph pattern of the toy category is higher than the overall average. Four eco factors are in the highly significant level in the toy industry.

3.2.2.2.10 Knowledge of the Company's Brand

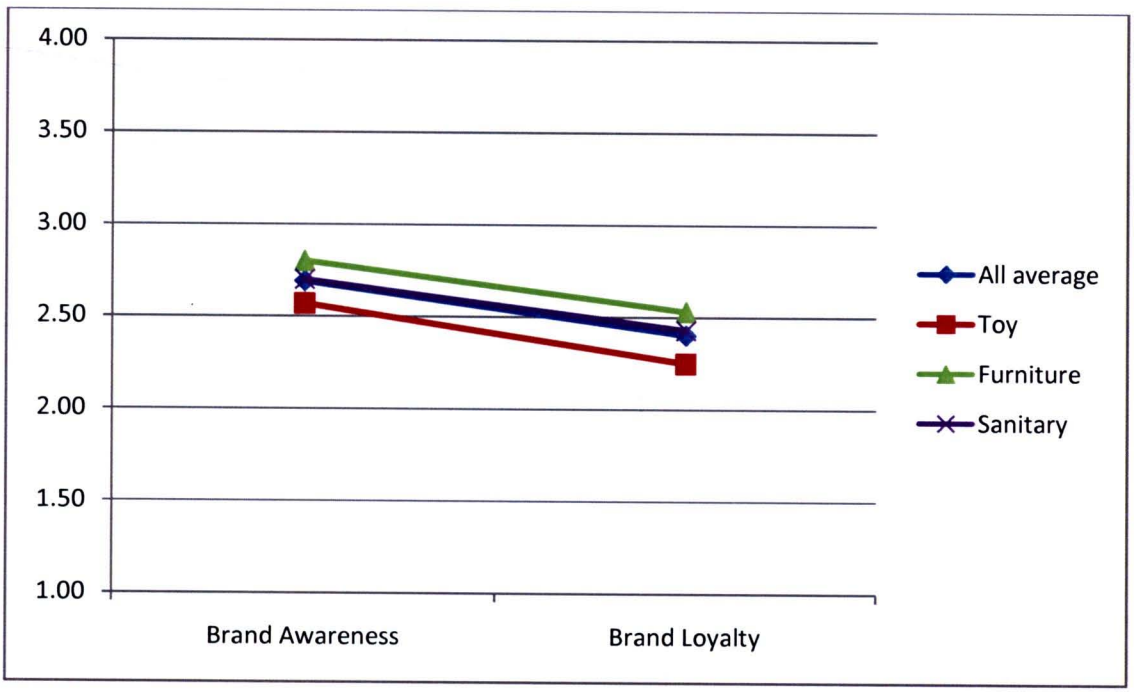

Figure 3.11: The assessment of knowledge of the company's brand of all product categories and its average value curve

Regarding the value of Knowledge Background of Brand as shown in Figure 3.11, in average, Brand Awareness is quite significant. Brand Loyalty is less significant. The graph patterns of all product categories are very close to the overall average pattern.

3.2.2.2.11 Knowledge of Product Competitors

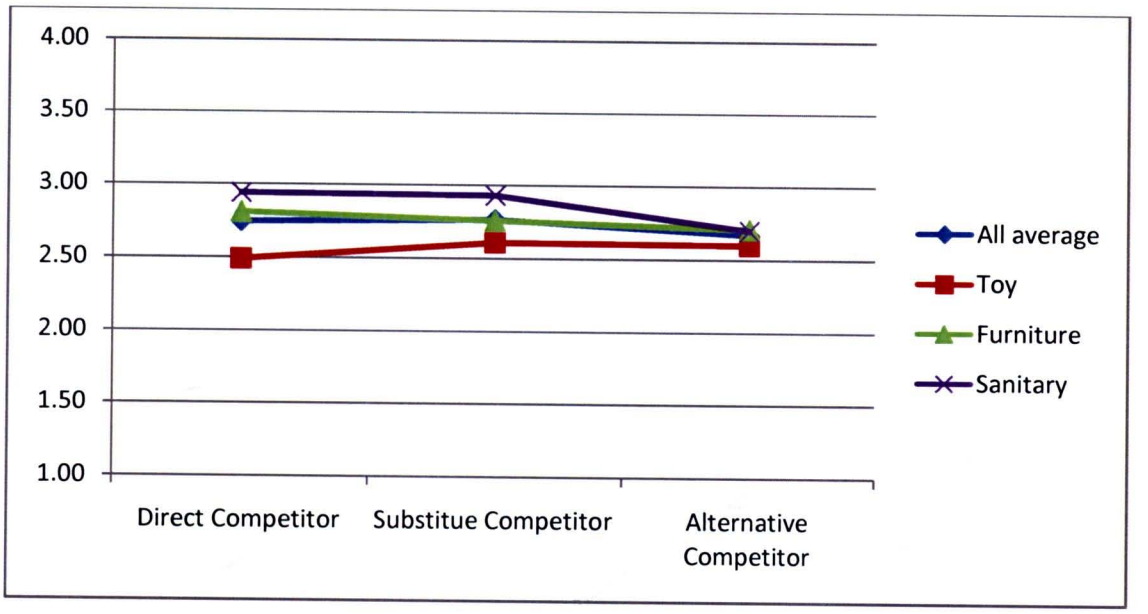

Figure 3.12: The assessment of knowledge of the product competitors of all product categories and its average value curve

Regarding the Value, Product Competitor Knowledge as shown in Figure 3.12, in average, all factors are quite significant. The graph patterns of all product categories are very close to the overall average pattern.

3.2.2.2.12 Supportive Product/Service System

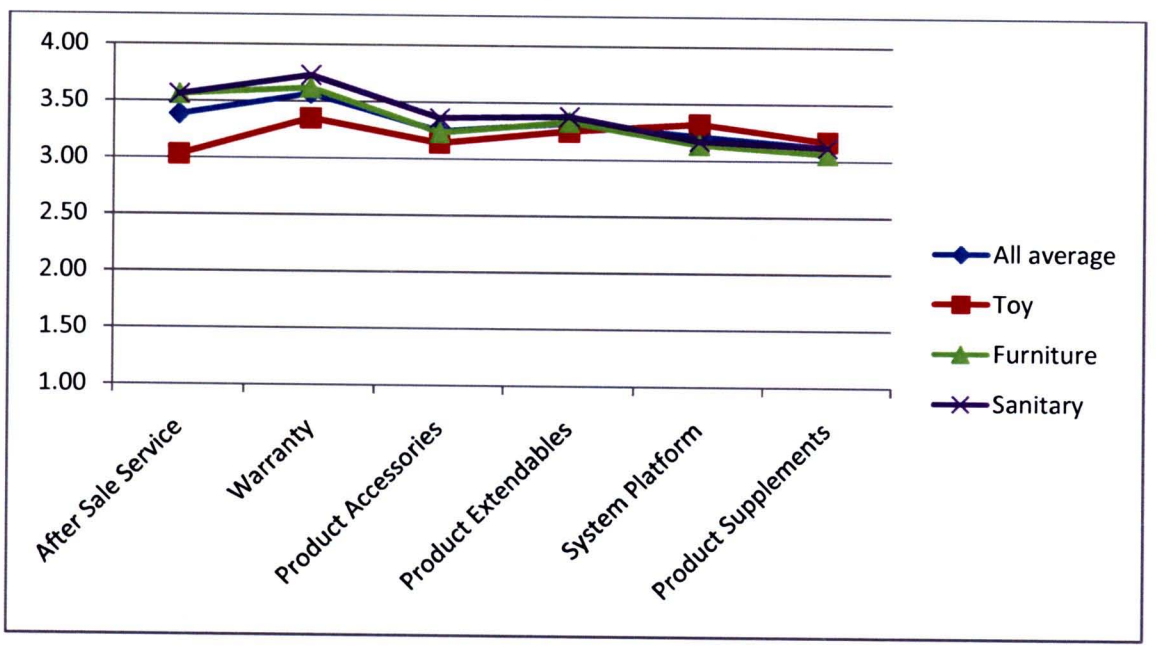

Figure 3.13: The assessment of supportive product/service system of all product categories and its average value curve.

Regarding the Value, Product Supportive System as shown in Figure 3.13, in average, the factors, Warranty are highly significant. The other factors, After Sale Service, Product Accessories, Product Extendable, System Platform and Product Supplements are all significant. In the toy category, the factor, Warranty is scored less than the overall average. The graph patterns of all product categories are close to the overall average pattern.

3.2.2.3 Product Value Prioritisation

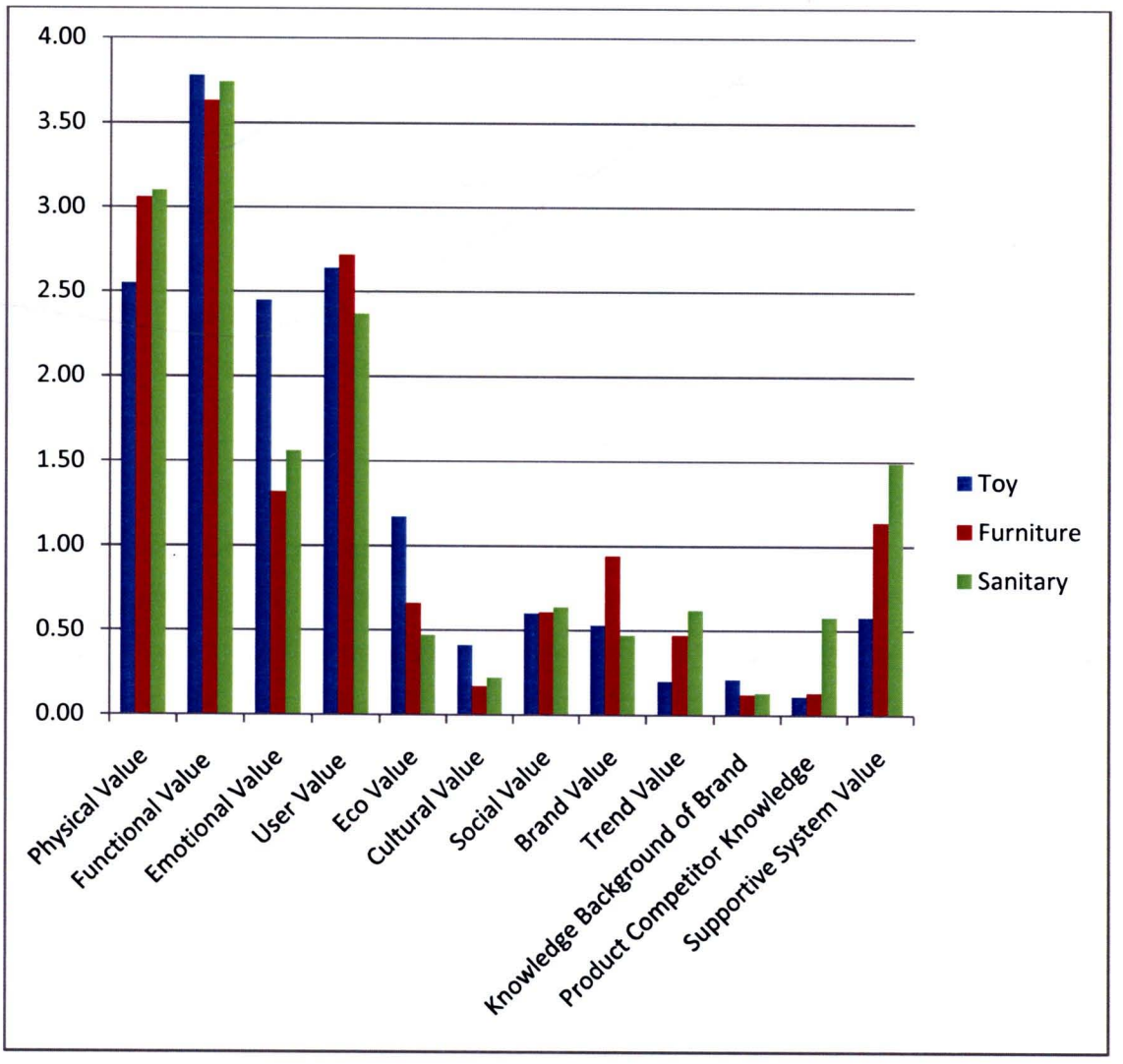

Figure 3.14: Product value prioritisation of three product categories

Regarding the prioritization of all twelve values in all product categories as shown in Figure 3.14, five key values are identified in priority:

(1) Functional Value
(2) Physical value
(3) User Value
(4) Emotional Value
(5) Supportive System Value

Nevertheless, the prioritization of the five values in the toy category is different from the overall prioritization. The Support System Value is not in the top five. The prioritized five values are:

(1) Functional Value
(2) User value
(3) Physical Value
(4) Emotional Value
(5) Eco Value

3.2.2.4 Buying Decision Model

In the questionnaire, Thai consumers were asked about their buying decision process. The aim of this question is to understand on how they make decision when buying products. It is also to affirm the significance of the value curve, the relations of all related factors. The result of the buying decision model analysis is shown in Table 3.14.

Table 3.14: Buying Design Model

Buying Decision Process	Total	Toy	Furniture	Sanitary Ware
Prioritizing from top to toe	118	37	35	46
Focusing on significant factors in details	102	27	33	42
Thinking of other competitive products in parallel	98	27	28	43
Assessing the relations of various factors	57	16	23	18
Considering overall related factors	212	62	70	80
Comparing all details thoroughly	141	39	52	50
Fitting with all sequential criteria	100	25	35	40
Other	8	5	3	0

N = 300

As shown in Table 3.14, when consumers decide to buy products in the three categories, they would follow:

1. the consumers will consider overall related factors (212)
2. they will compare all product details thoroughly (141)
3. After the comparison, they will prioritise the factors from the most significant to the least (118)
4. Then, they will focus on significant factors in details (102)
5. Finally, they will buy product fitting with all sequential criteria (100)

3.3 Consumer Perspective: 10 Innovative Products

The results of the 10 selected innovative products analysis are shown in the figures below. The analysis shows the value curve of both successful (T1, T2, F2, F2, S1) and un/less successful innovative products (highlighted in Grey in Table 3.15) as described in Table 2.2 in Section 2.4.

3.3.1 General Information

There are 500 samples participating in this study, 50 Samples in each innovative product. One sample can answer only one product. The general information analysis is shown in Table 3.15 – 3.19. The female sample is about 60%. The majority of the age range of the sample is 26 – 40 years old, 456 samples (91.2%). The majority of the samples, 294 samples (around 60%) were married. The educational level of the samples is mainly achieved Bachelor Degree, 424 samples (around 85%), in all selected products. The majority of the samples, 223 Samples (around 45%) earn in the range of 25,000 – 35,000 Baht per Month.

Table 3.15: Gender of the samples of all innovative products

Gender	Total (Percent)	T1	T2	T3	T4	F1	F2	F3	F4	S1	S2
Male	211	18	19	20	23	24	17	20	15	30	25
Female	289	32	31	30	27	26	33	30	35	20	25

N = 500

Table 3.16: Age Range of the samples of all innovative products

Age	Total (Percent)	T1	T2	T3	T4	F1	F2	F3	F4	S1	S2
less than 25	3	0	0	0	2	1	0	0	0	0	0
26-30	179	17	23	26	24	23	19	11	25	4	7
31-35	164	14	15	14	11	19	15	27	17	11	21
36-40	113	16	8	10	12	4	15	10	5	16	17
41-50	31	0	3	0	1	1	1	2	2	17	4
More than 50	10	3	1	0	0	2	0	0	1	2	1

N = 500

Table 3.17: Status of the samples of all innovative products

Status	Total (Percent)	T1	T2	T3	T4	F1	F2	F3	F4	S1	S2
Single	205	15	19	25	21	28	25	22	27	9	14
Married	294	35	31	25	29	22	25	28	22	41	36
Others	1	0	0	0	0	0	0	0	1	0	0

N = 500

Table 3.18: Educational Level of the samples of all innovative products

Education	Total (Percent)	T1	T2	T3	T4	F1	F2	F3	F4	S1	S2
High school	14	2	2	2	2	1	0	0	1	2	2
Vacational	11	1	0	2	2	1	2	1	1	0	1
Bachelor	424	38	41	41	42	45	40	47	46	38	46
Master	51	9	7	5	4	3	8	2	2	10	1
PhD	0	0	0	0	0	0	0	0	0	0	0
others	0	0	0	0	0	0	0	0	0	0	0

N = 500

Table 3.19: Income of the samples of all innovative products

Income (Baht)	OVERALL	T1	T2	T3	T4	F1	F2	F3	F4	S1	S2
< 15k	22	0	0	5	2	5	1	4	3	0	2
15k-25k	148	20	27	22	26	10	14	10	15	3	1
25k-35k	223	17	15	17	18	28	25	30	28	15	30
35k-45k	62	11	5	5	2	4	6	4	3	12	10
45k-55k	20	1	2	1	2	2	0	1	0	6	5
> 55k	25	1	1	0	0	1	4	1	1	14	2

N = 500

3.3.2 Comparative Analysis

This section describes the analysis of key success factors of the 10 innovative products in comparison with the average baseline analysis, based on the customer perspective.

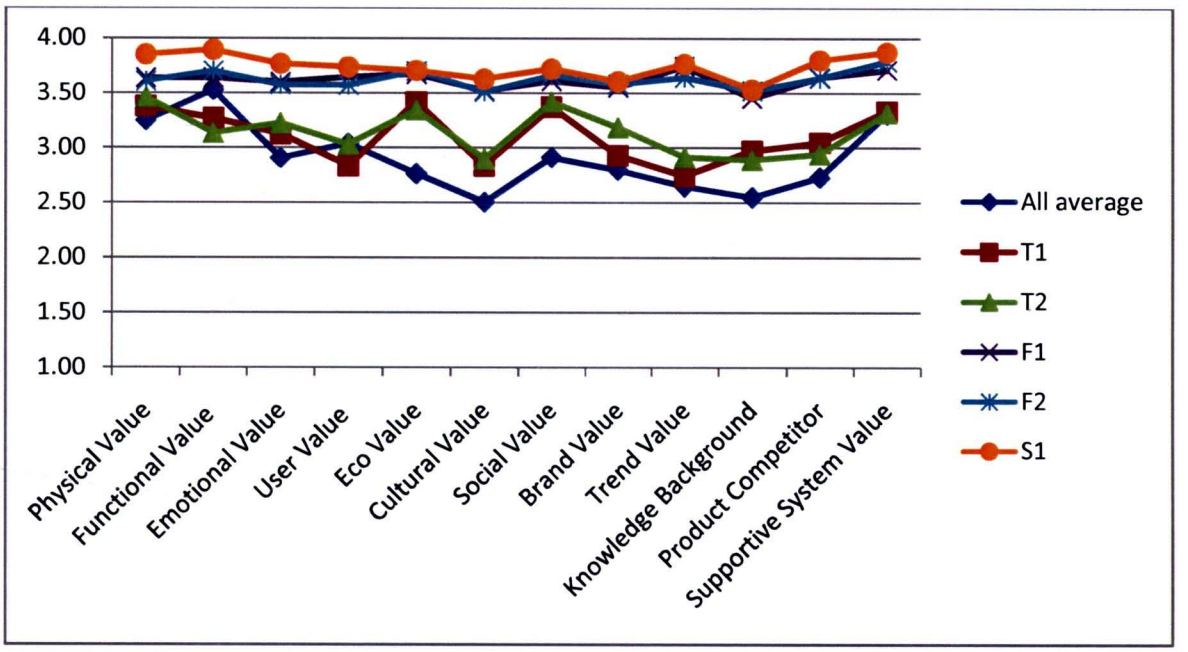

Figure 3.15: Successful innovative product value assessment in comparison with the average baseline analysis

As shown in Figure 3.15, on the one hand, twelve product values assessment of the five successful innovative products are mainly averaged higher than the overall baseline averages, in particular the products, F1, F2 and S1. Functional and User Values of the products, T1 and T2 are averaged lower than their overall baseline averages. All of twelve product values of F1, F2 and S1 are assessed highly significant and their product values averages are much higher than the overall baseline averages.

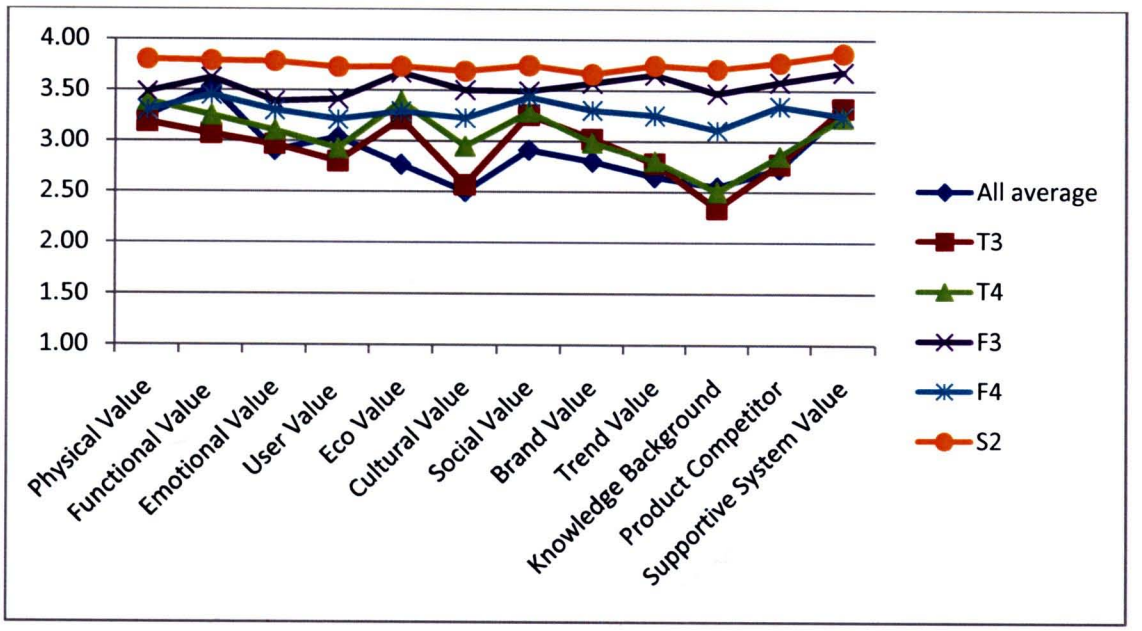

Figure 3.16: Un/less successful Innovative product value assessment in comparison with the average baseline analysis

As shown in Figure 3.16, on the other hand, twelve product values assessment of the five un/less successful innovative products are mainly averaged higher than the overall baseline averages, in particular the products, F3, F4 and S2. Functional, User and Brand Knowledge values of the products, T3 and T4 are averaged lower than their overall baseline averages. All of the twelve product values of S2 are assessed as highly significant and its product values averages are much higher than the overall baseline averages. Regarding the product, F4 twelve product values are assessed as significant, higher than the overall baseline averages.

The study analysed the successful and un/less successful innovative products on the same product category in comparison with the average baseline analysis. The result of both types of innovative products in the toy category is shown in Figure 3.17.

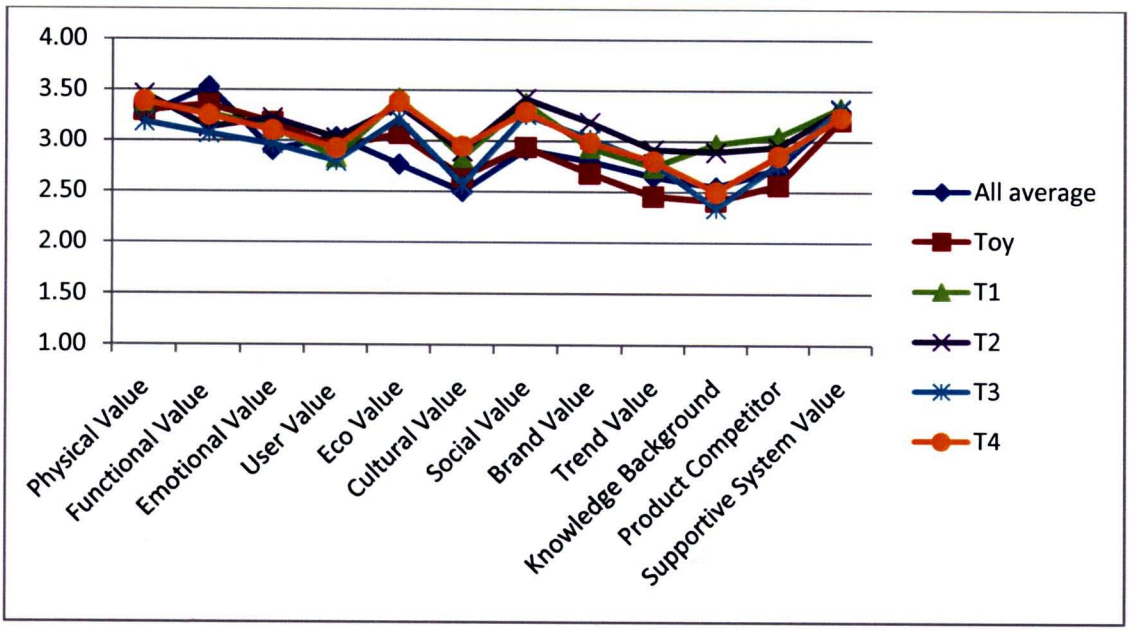

Figure 3.17: Comparison both types of innovative products with the average baseline analysis in the toy category

The assessment of twelve product values compared between the successful and un/less successful products is analysed with the average baseline pattern. The average patterns of all product values of the successful and un/less successful innovative products are unlikely to be different. A majority of the assessed product values are higher than the overall baseline averages and the baseline averages in the toy category. Functional and User Values are averaged lower than their baseline averages in all selected products (T1, T2, T3, T4). Regarding the toy category, to sum up, the product values assessment of the successful and un/less successful innovative products are all in the similar significant level.

Regarding the furniture category, the result of both types of innovative products is shown in Figure 3.18.

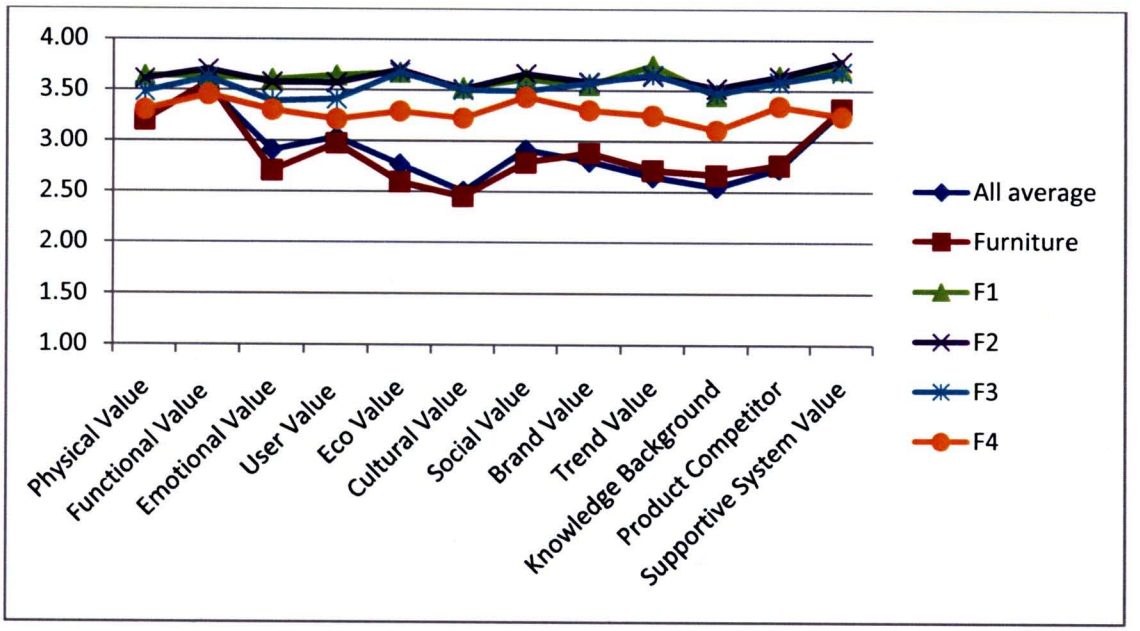

Figure 3.18: Comparison both types of innovative products in the furniture category with the average baseline analysis

The assessment of twelve product values compared between the successful (F1, F2) and un/less successful (F3, F4) furniture is analysed with the overall baseline averages. The average patterns of all product values of the successful and un/less successful innovative products are to be quite different. The evaluation of the products, F1 and F2 are higher than the average baseline pattern (Blue Line) and the average value curve of the furniture category (Red Line). All product values of F1 and F2 are valued as highly significant. On the contrary, all product values of F4 are assessed as significant and some product values of F3 are assessed as significant, i.e. Physical Value, Emotional Value, User Value and Social Value. In this product category, to sum up, all product values of the successful innovative furniture are higher than the unsuccessful innovative products

Regarding the sanitary ware category, the result of both types of innovative products is shown in Figure 3.19.

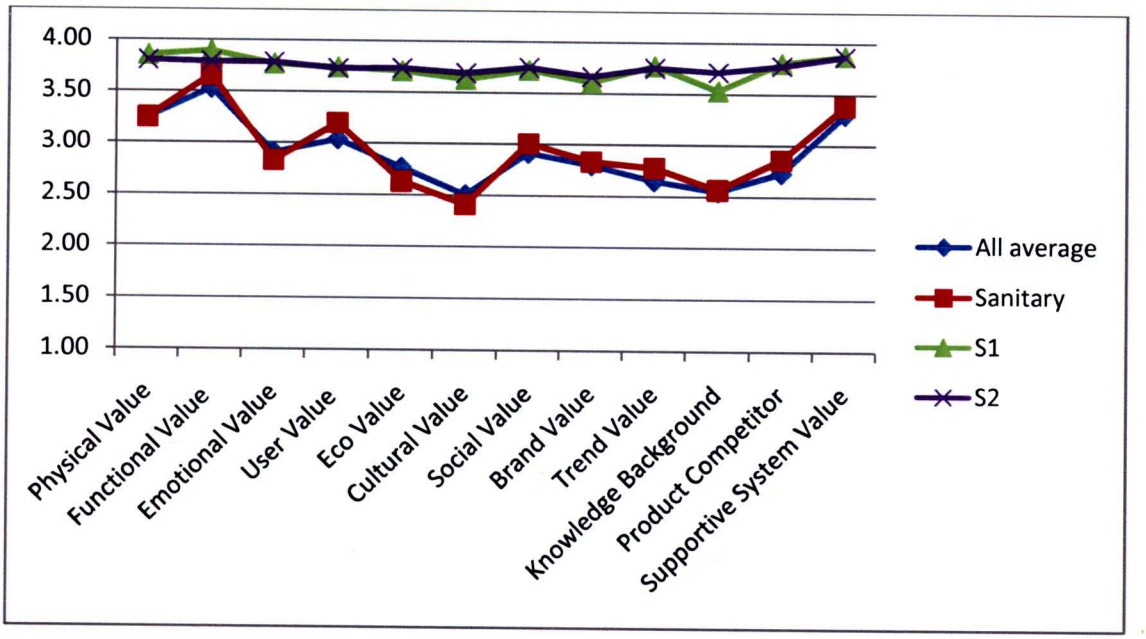

Figure 3.19: Comparison both types of innovative products in the sanitary ware category with the average baseline analysis

Focusing on the Sanitaryware category, the assessment of twelve product values compared between S1 and S2 is analysed with the average baseline pattern. The average patterns of all product values of both are unlikely to be different. All of the assessed product values are higher than the overall baseline averages and the baseline averages. All product values of S1 and S2 are valued as highly significant. To sum up, the product values assessment of the successful and un/less successful innovative products are all in the similar significant level.

3.3.3 Comparative Analysis in Each Product Value

This section describes the analysis of each product value. It shows the assessment results of the 10 successful and un/less successful innovative products in comparison with the average baseline pattern.

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3.3.3.1 Physical Value

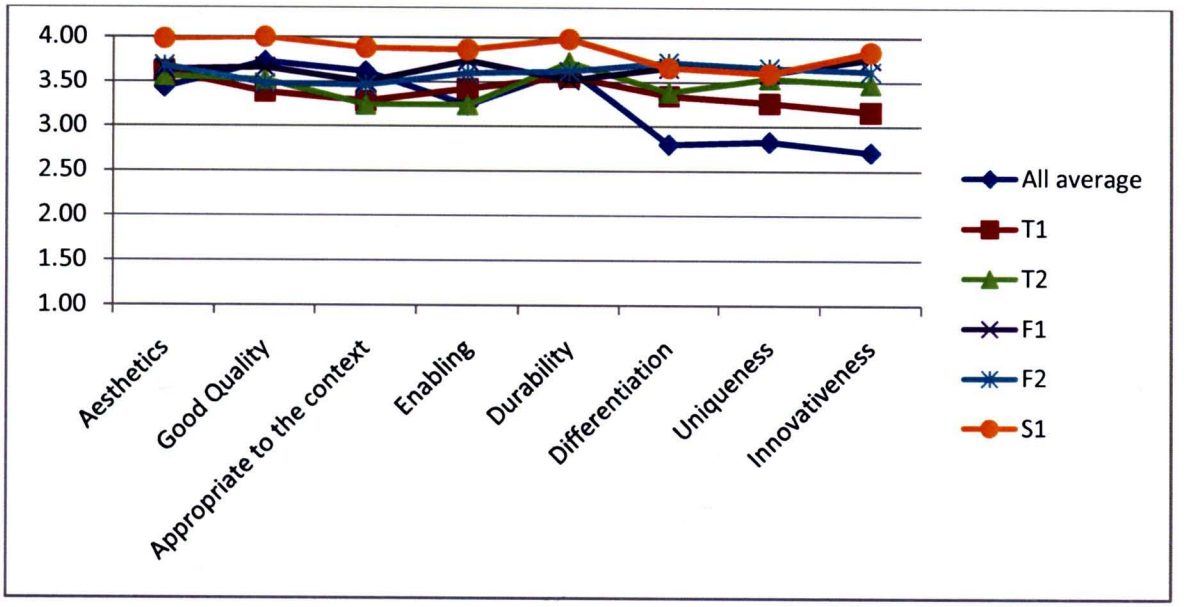

Figure 3.20: Comparison the successful innovative products with the average baseline pattern, in the physical value

As shown in Figure 3.20, on the one hand, the significant level of eight factors of the Physical Value of the selected successful innovative products is measured. The assessed factors, Good Quality and Appropriate to the Context of T1, T2, F1 and F2 reveal that the factors' averaged score is below the average baseline pattern. The factors, Aesthetics, Differentiation, Uniqueness and Innovativeness assessed are valued as higher than the average baseline pattern in all successful products. In particular, the physical value of the product, S1 is evaluated as highly significant in all factors.

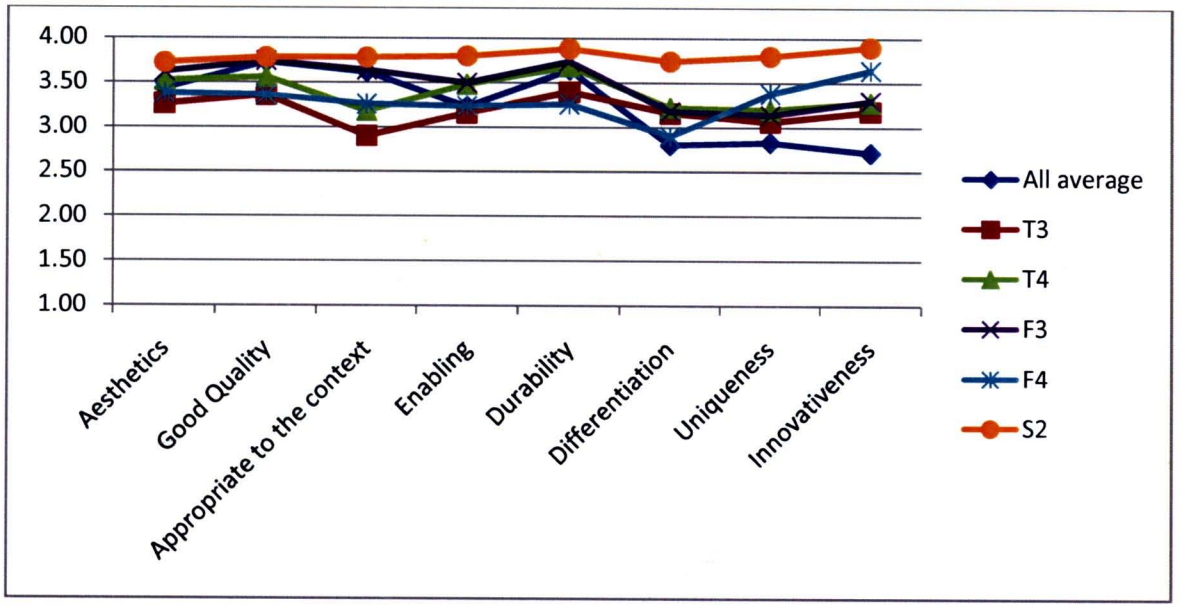

Figure 3.21: Comparison the un/less successful innovative products with the average baseline pattern, in the physical value

As shown in Figure 3.21, on the other hand, the significant level of eight factors of the Physical Value of the selected unsuccessful innovative products is measured. The assessed factors, Good Quality and Appropriate to the Context of T3, T4 and F4 reveal that the factors' averaged score is below the overall baseline averages. The factors, Differentiation, Uniqueness and Innovativeness assessed are valued as higher than the overall baseline averages in all unsuccessful products. In particular, the physical value of the product, S2 is evaluated as highly significant in all factors.

3.3.3.2 Functional Value

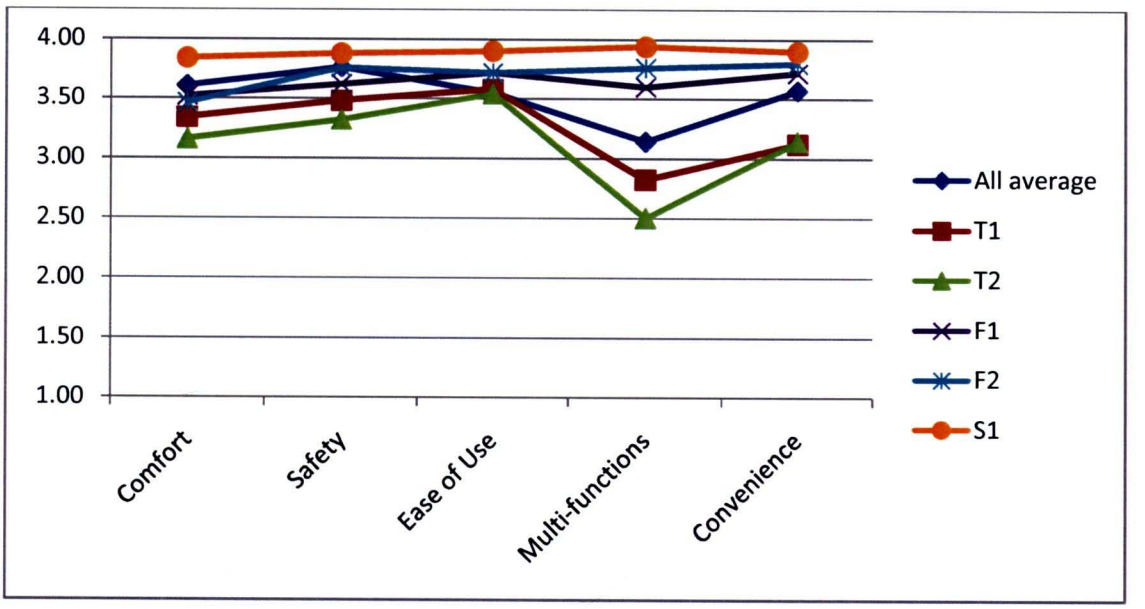

Figure 3.22: Comparison successful innovative products with the average baseline pattern, in the functional value

As shown in Figure 3.22, on the one hand, the significant level of five factors of the Functional Value of the selected successful innovative products is measured. Regarding the products, T1 and T2, all assessed factors are below the overall baseline averages. In particular, the Functional Value of the product, S1 is evaluated as highly significant in all factors. The factors, Easy to Use, Multi-Functions, and Convenience are valued higher than the overall baseline averages of F1, F2 and S1.

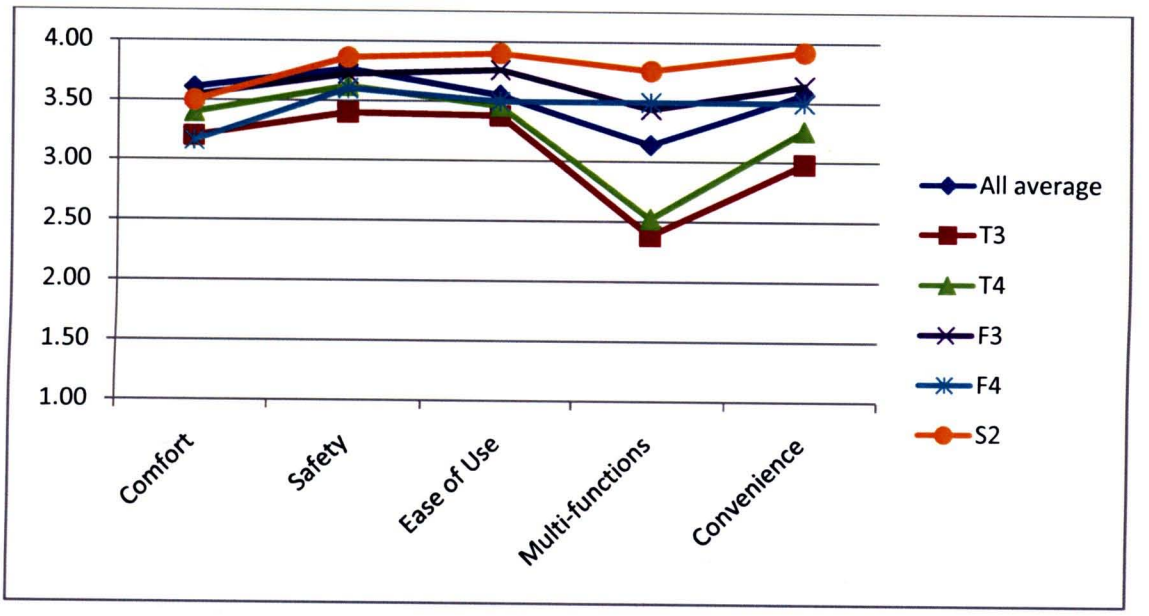

Figure 3.23: Comparison un/less successful innovative products with the average baseline pattern, in the functional value

As shown in Figure 3.23, on the other hand, the significant level of five factors of the Functional Value of the selected unsuccessful innovative products is measured. All assessed factors of the products, T3 and T4 are valued below the overall baseline averages. The factor, Comfort, of the unsuccessful product group is evaluated as significant, lower than the overall baseline averages. The assessed factor, Multi-Functions, of F3, F4 and S2 is valued higher than the overall baseline average. None of the innovative products is evaluated in all of the factors values higher than the overall baseline averages. The factors, Ease of Use, Multi-Functions and Convenience of F3 and S2 are evaluated higher than the overall baseline averages.

3.3.3.3 Emotional Value

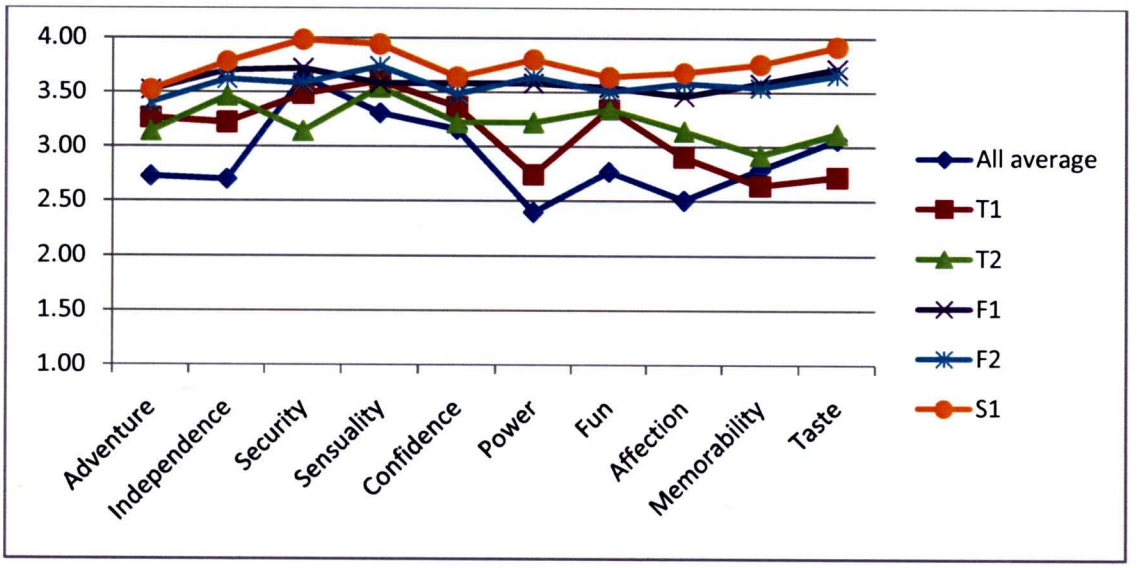

Figure 3.24: Comparison successful innovative products with the average baseline pattern, in the emotional value

As shown in Figure 3.24, on the one hand, the significant level of ten factors of the Emotional Value of the selected successful innovative products is measured. Regarding the products, F1 and S1, all assessed factors are higher than the overall baseline averages. In particular, S1 is evaluated as highly significant in all factors. The factor, Security (the most significant factor in the Emotional Value) is valued lower than the overall baseline average of T1, T2 and F2.

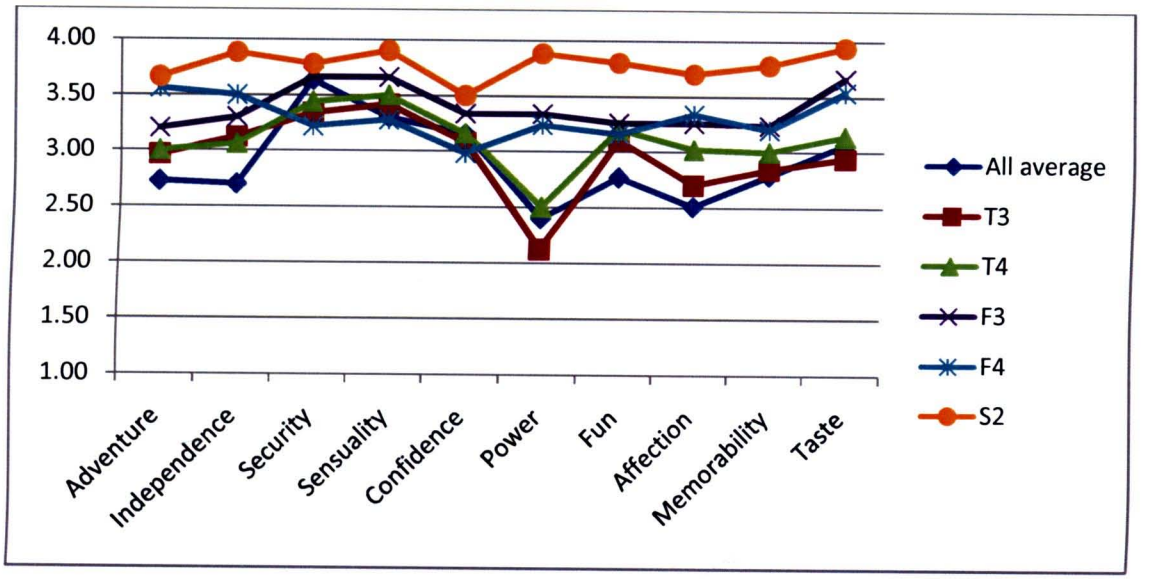

Figure 3.25: Comparison un/less successful innovative products with the average baseline pattern, in the emotional value

As shown in Figure 3.25, on the other hand, the significant level of ten factors of the Emotional Value of the selected unsuccessful innovative products is measured. All assessed factors of the products, F3 and S2 are valued higher than the average baseline pattern. The factor, Security, of the unsuccessful product group is evaluated as significant, lower than the overall baseline average. The assessed factors: Power, Fun, Affection, Memorability and Taste of F3, F4 and S2 are valued much higher than the average baseline pattern.

3.3.3.4 Brand Value

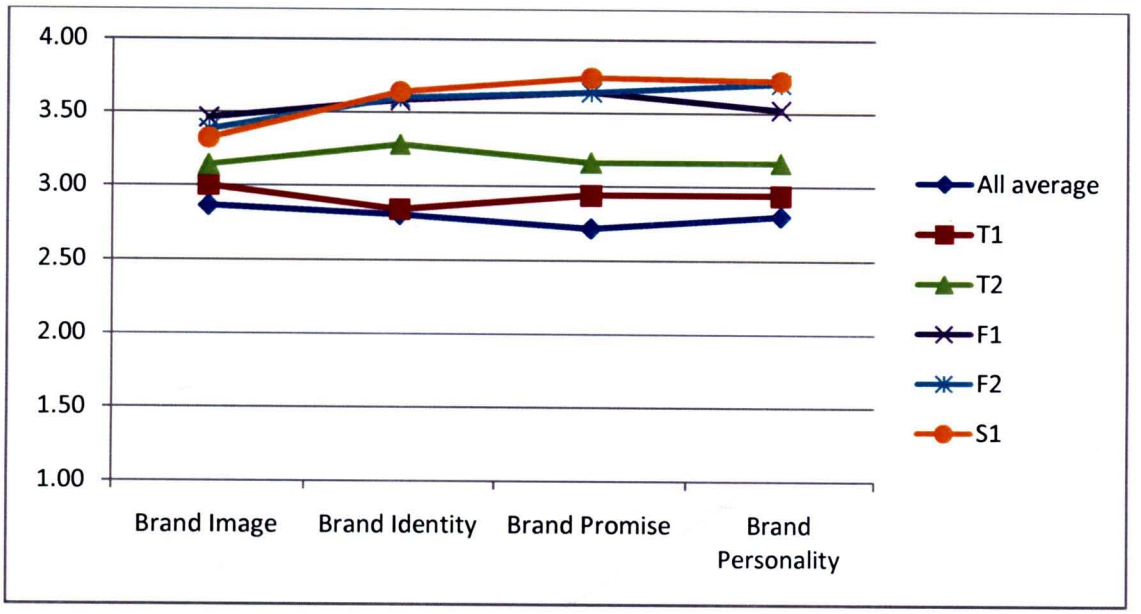

Figure 3.26: Comparison successful innovative products with the average baseline pattern, in the brand value

As shown in Figure 3.26, on the one hand, the significant level of the Brand Value factors of the selected successful innovative products is measured. Regarding all successful products, the averages of all assessed factors are higher than the average baseline pattern.

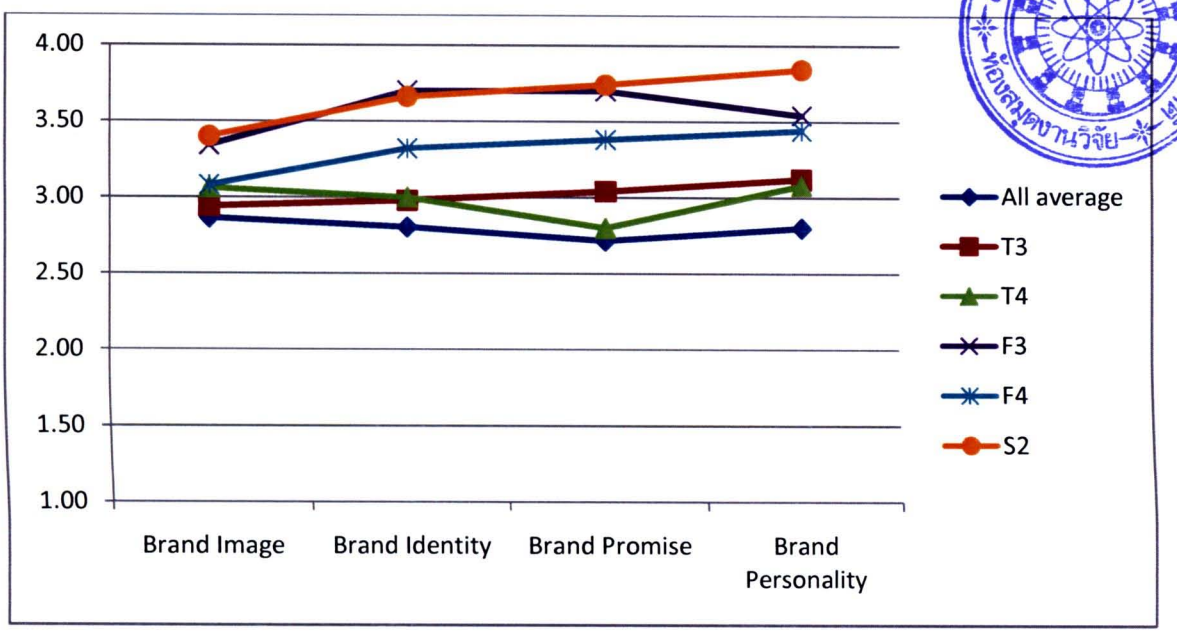

Figure 3.27: Comparison un/less successful innovative products with the average baseline pattern, in the brand value.

As shown in Figure 3.27, on the other hand, the significant level of the Brand Value factors of the selected unsuccessful innovative products is measured. The averages of all assessed factors of all unsuccessful products are valued higher than the average baseline pattern.

3.3.3.5 Cultural Value

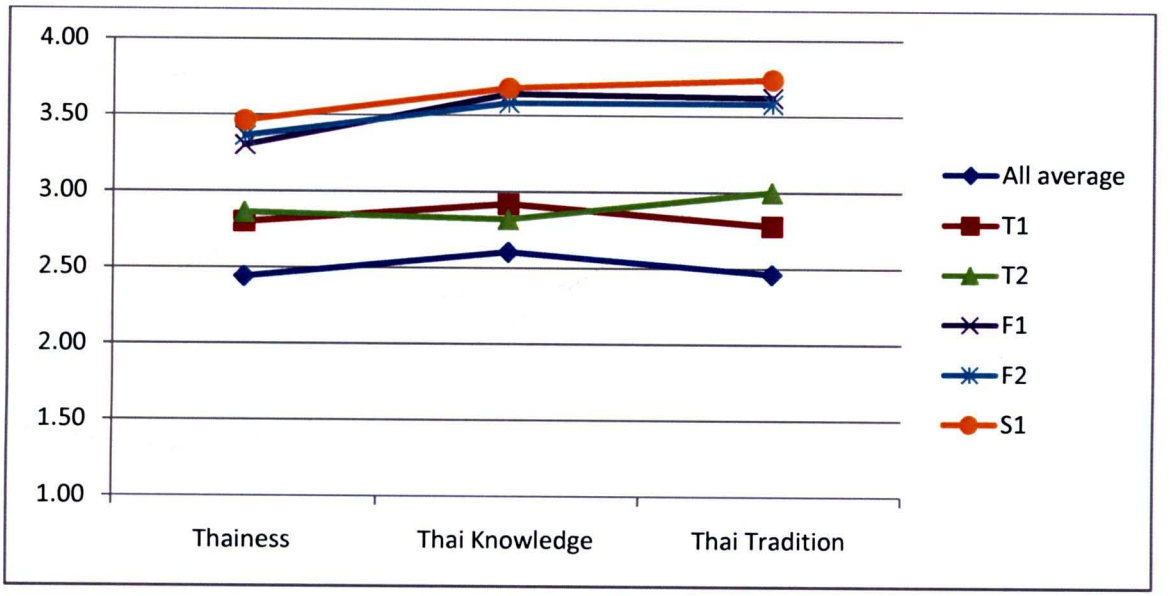

Figure 3.28: Comparison successful innovative products with the average baseline pattern, in the cultural value

As shown in Figure 3.28, on the one hand, the significant level of three factors of the Cultural Value of the selected successful innovative products is measured. Regarding all successful products, the averages of all assessed factors are higher than the average baseline pattern.

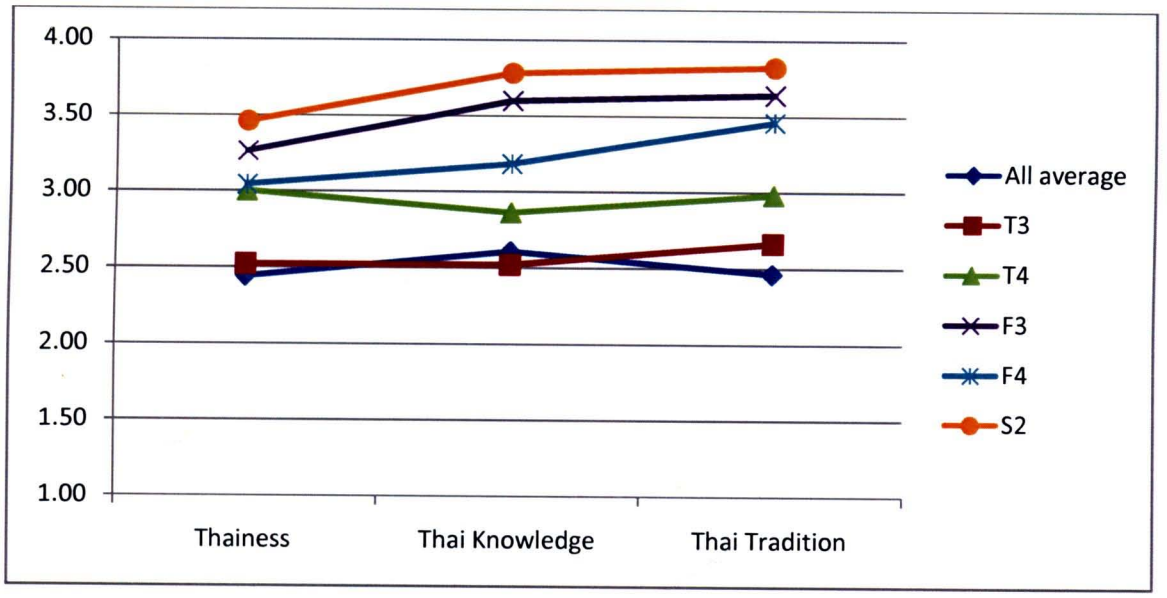

Figure 3.29: Comparison un/less successful innovative products with the average baseline pattern, in the cultural value

As shown in Figure 3.29, on the other hand, the significant level of three factors of the Cultural Value of the selected unsuccessful innovative products is measured. The averages of all assessed factors of four unsuccessful products, except T3 are valued higher than the average baseline pattern.

3.3.3.6 Social Value

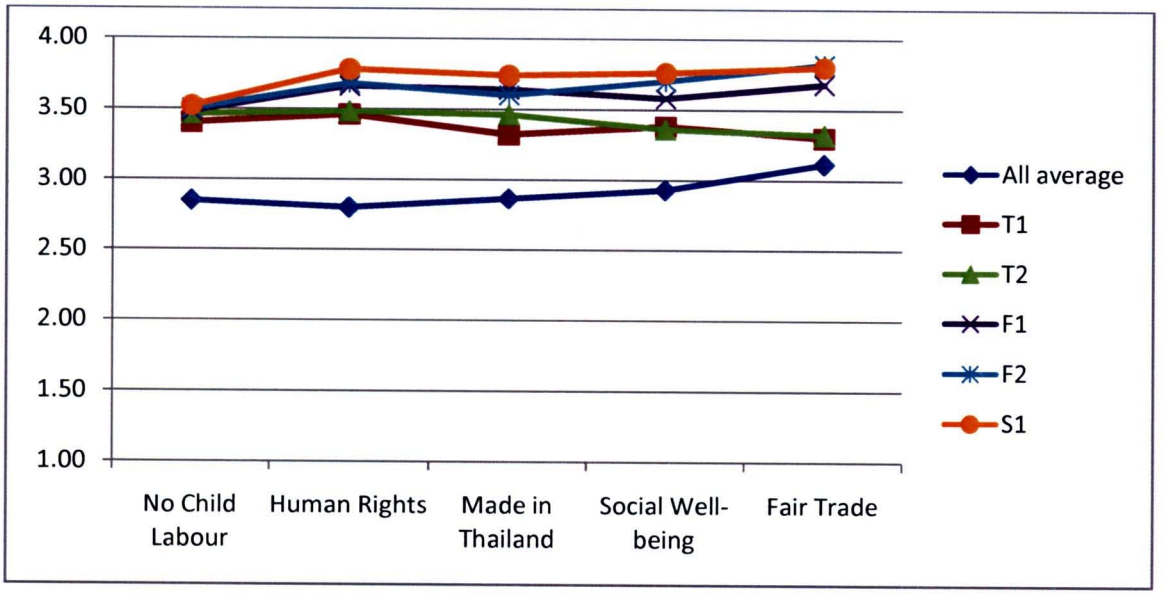

Figure 3.30: Comparison successful innovative products with the average baseline pattern, in the social value

As shown in Figure 3.30, on the one hand, the significant level of five factors of the Social Value of the selected successful innovative products is measured. Regarding all successful products, the averages of all assessed factors are higher than the average baseline pattern.

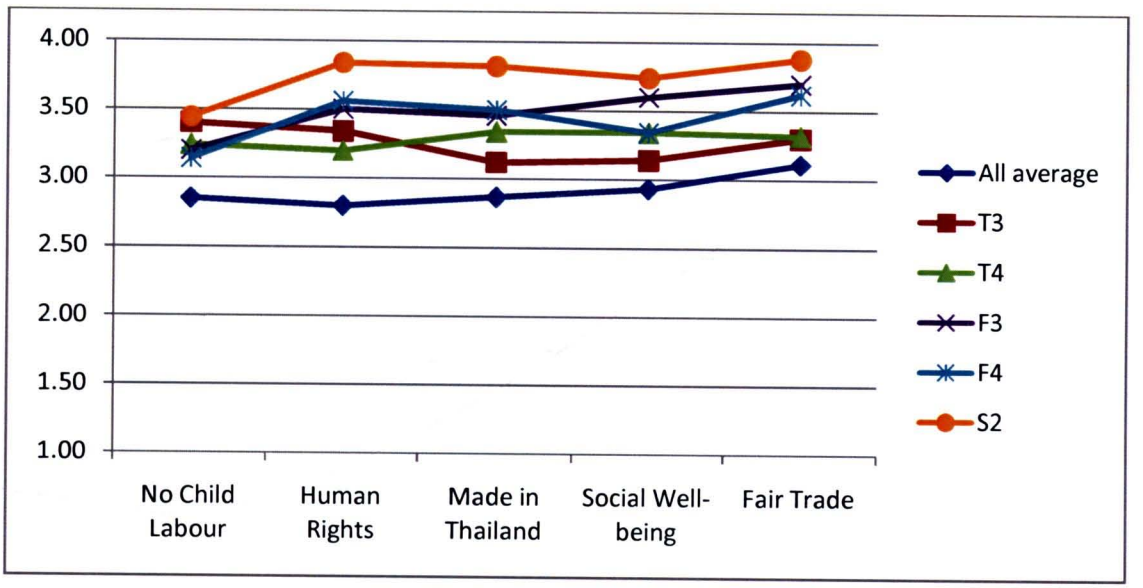

Figure 3.31: Comparison un/less successful innovative products with the average baseline pattern, in the social value.

As shown in Figure 3.31, on the other hand, the significant level of five factors of the Social Value of the selected unsuccessful innovative products is measured. The averages of all assessed factors of all unsuccessful products are valued higher than the average baseline pattern.

3.3.3.7 User Value

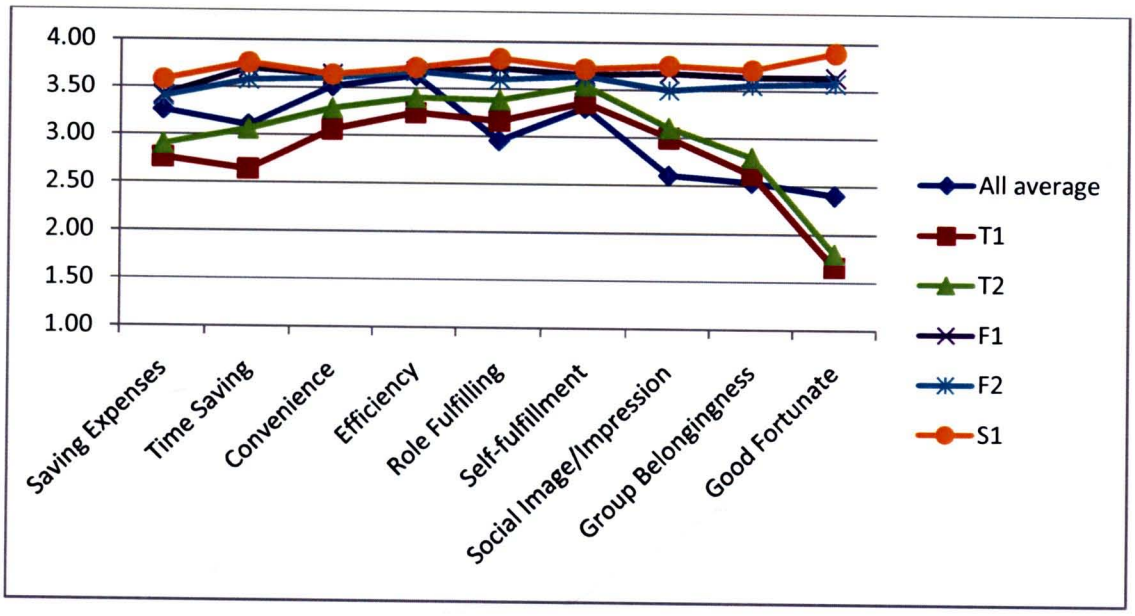

Figure 3.32: Comparison successful innovative products with the average baseline pattern, in the user value

As shown in Figure 3.32, on the one hand, the significant level of nine factors of the User Value of the selected successful innovative products is measured. Regarding the products, F1, F2 and S1, all assessed factors are higher than the average baseline pattern. In particular, S1 is evaluated as highly significant in all factors. The factors, Convenience and Efficiency (the most significant factors in the User Value) of the products, T1 and T2, are valued lower than the average baseline pattern. The factor, Good Fortunate is the least significant factor in the success of the toy products.

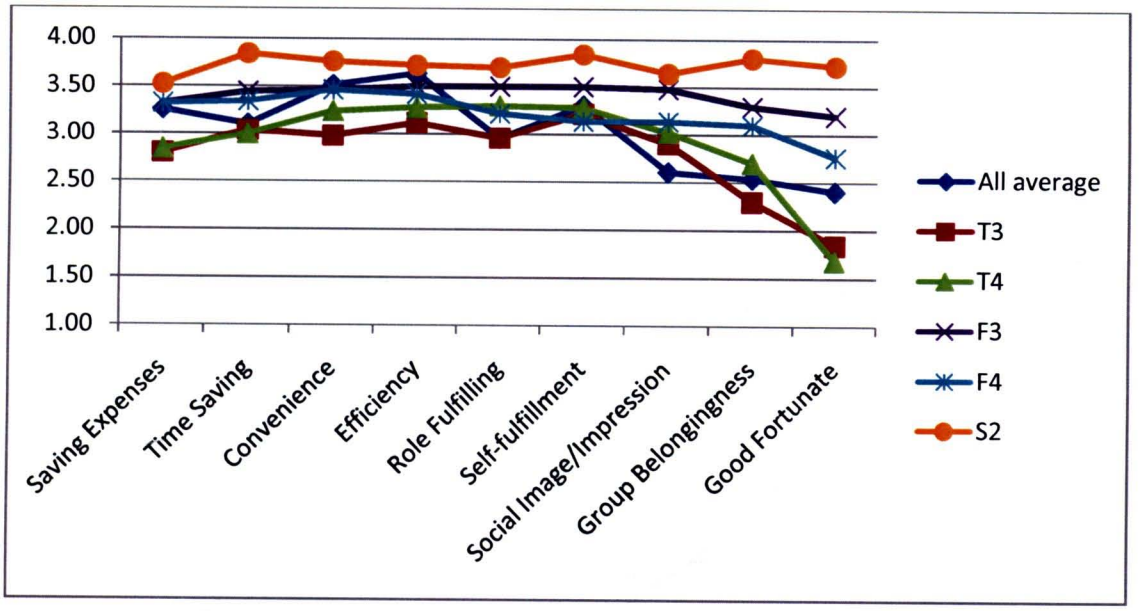

Figure 3.33: Comparison un/less successful innovative products with the average baseline pattern, in the user value

As shown in Figure 3.33, on the other hand, the significant level of nine factors of the User Value of the selected unsuccessful innovative products is measured. All assessed factors of the products, S2 are valued higher than the average baseline pattern. The factors, Convenience and Efficiency of the unsuccessful products, T3, T4, F3 and F4 is evaluated as significant, lower than the average baseline pattern. The assessed factors: Role Fulfilling, Social Image/Impression and Group Belongingness of T4, F3, F4

3.3.3.8 Trend Value

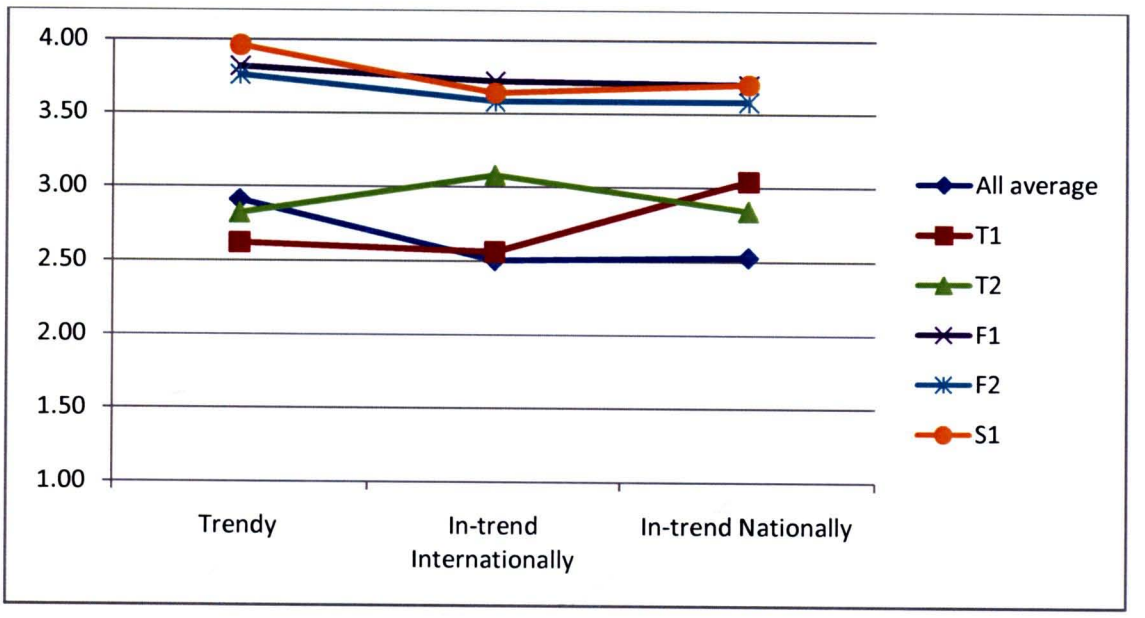

Figure 3.34: Comparison successful innovative products with the average baseline pattern, in the trend value

As shown in Figure 3.34, on the one hand, the significant level of three factors of the Trend Value of the selected successful innovative products is measured. Regarding the successful products, F1, F2 and S1, the averages of all assessed factors are higher than the average baseline pattern. In particular, F1, F2 and S1 are evaluated as highly significant in all factors.

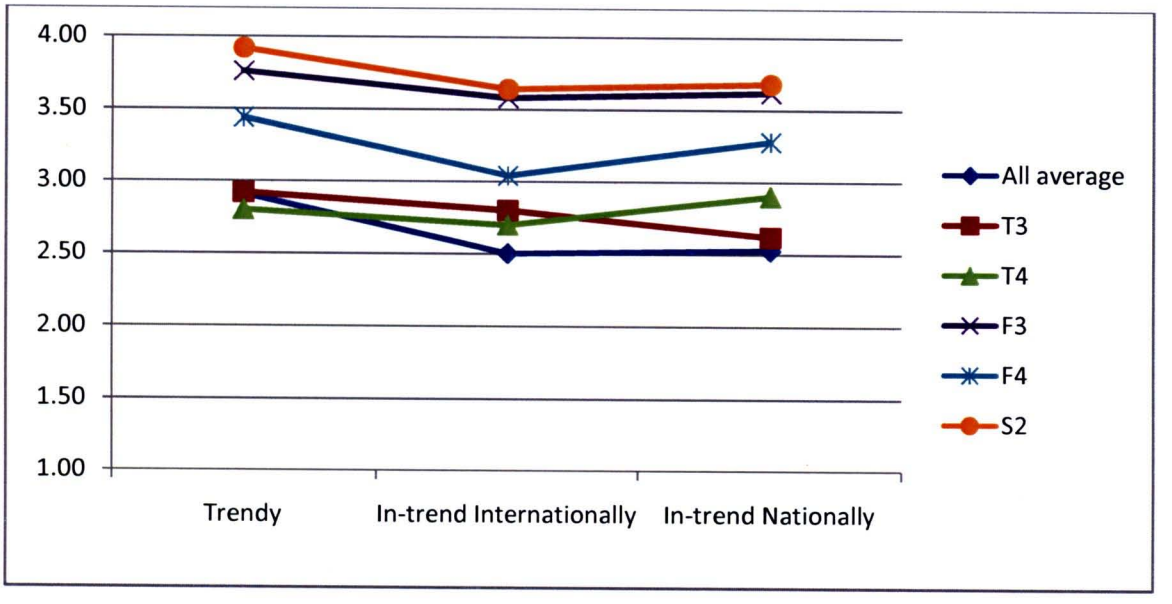

Figure 3.35: Comparison un/less successful innovative products with the average baseline pattern, in the trend value

As shown in Figure 3.35, on the other hand, the significant level of three factors of the Trend Value of the selected unsuccessful innovative products is measured. The averages of all assessed factors of four unsuccessful products, except T4 are valued higher than the average baseline pattern. F3 and S2 are evaluated as highly significant in all factors.

3.3.3.9 Environmental Value

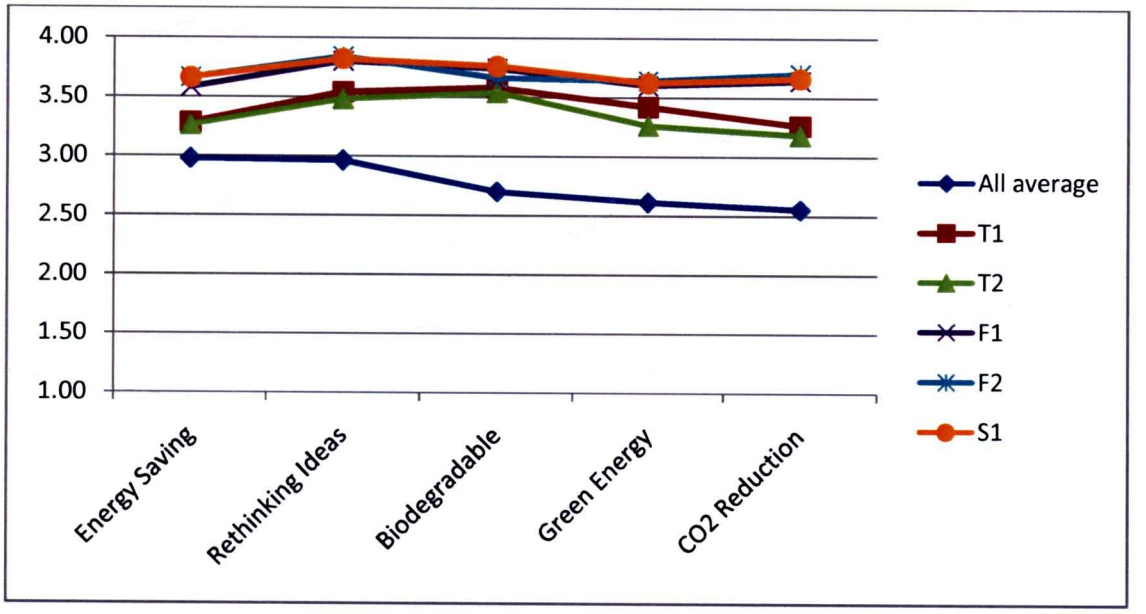

Figure 3.36: Comparison successful innovative products with the average baseline pattern, in the environmental value

As shown in Figure 3.36, on the one hand, the significant level of five factors of the Eco Value of the selected successful innovative products is measured. Regarding all successful products, all assessed factors are higher than the average baseline pattern. In particular, F1, F2 and S1 are evaluated as highly significant in all factors.

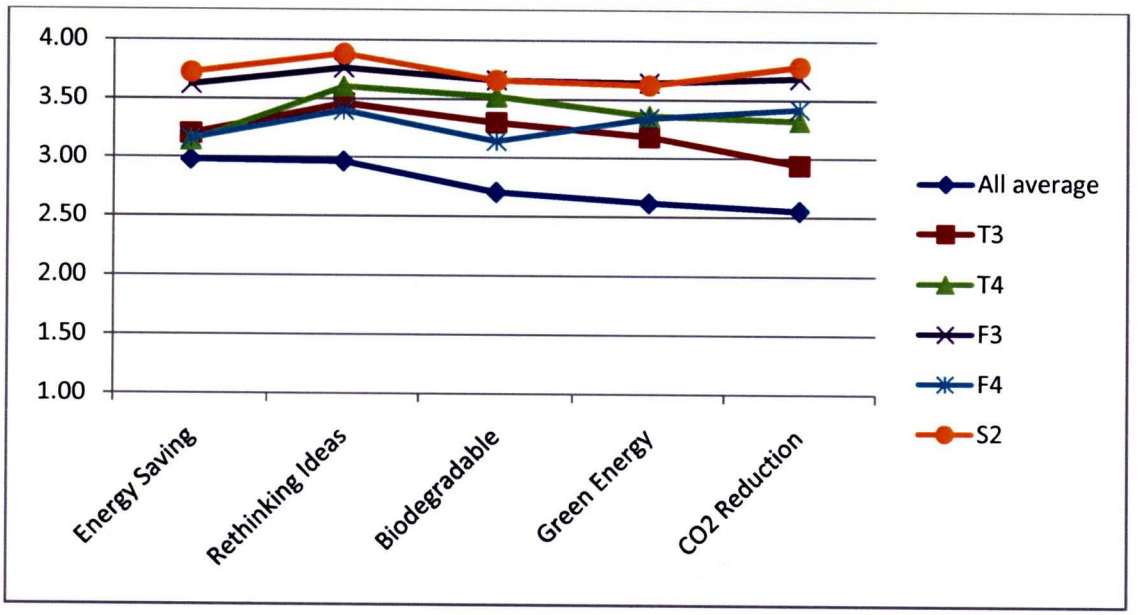

Figure 3.37: Comparison un/less successful innovative products with the average baseline pattern, in the environmental value

As shown in Figure 3.37, on the other hand, the significant level of five factors of the Eco Value of the selected unsuccessful innovative products is measured. All assessed factors of all unsuccessful products are valued higher than the average baseline pattern. In particular, F3 and S2 are evaluated as highly significant in all factors.

3.3.3.10 Knowledge of the Company's Brand

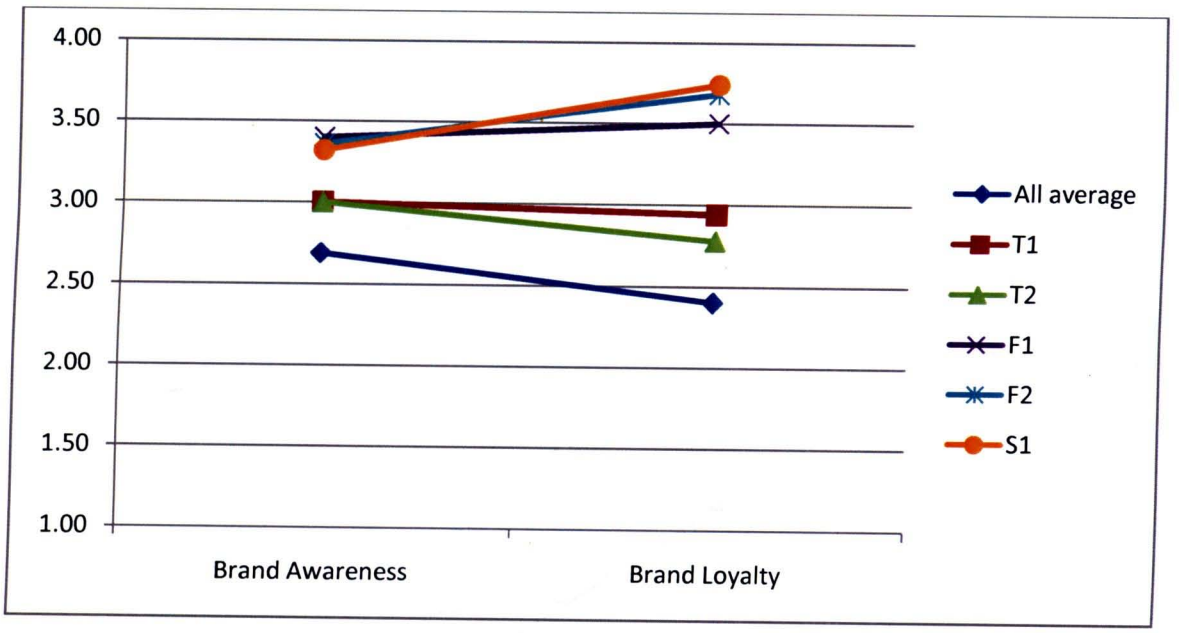

Figure 3.38: Comparison successful innovative products with the average baseline pattern, in the value, knowledge of the company's brand

As shown in Figure 3.38, on the one hand, the significant level of two factors of the Knowledge Background of Brand of the selected successful innovative products is measured. Regarding all successful products, the averages of all assessed factors are higher than the average baseline pattern.

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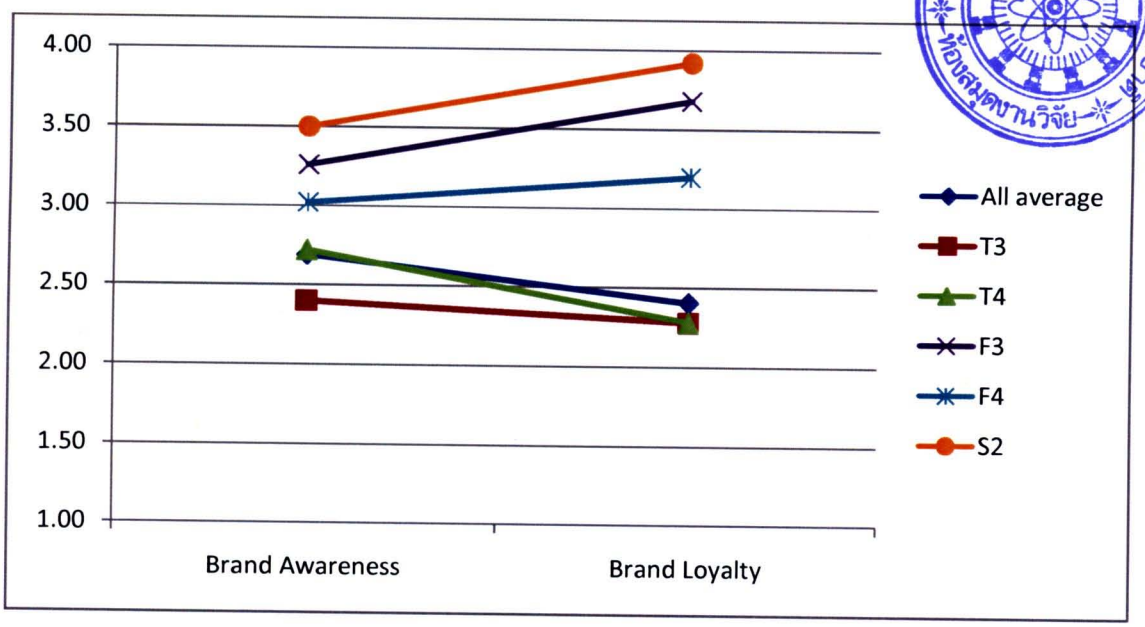

Figure 3.39: Comparison un/less successful innovative products with the average baseline pattern, in the value, knowledge of the company's brand.

As shown in Figure 3.39, on the other hand, the significant level of two factors of the Knowledge Background of Brand of the selected unsuccessful innovative products is measured. The averages of all assessed factors of three unsuccessful products, except T3 are valued higher than the average baseline pattern. T3 are evaluated as less significant in all factors.

3.3.3.11 Knowledge of Product Competitors

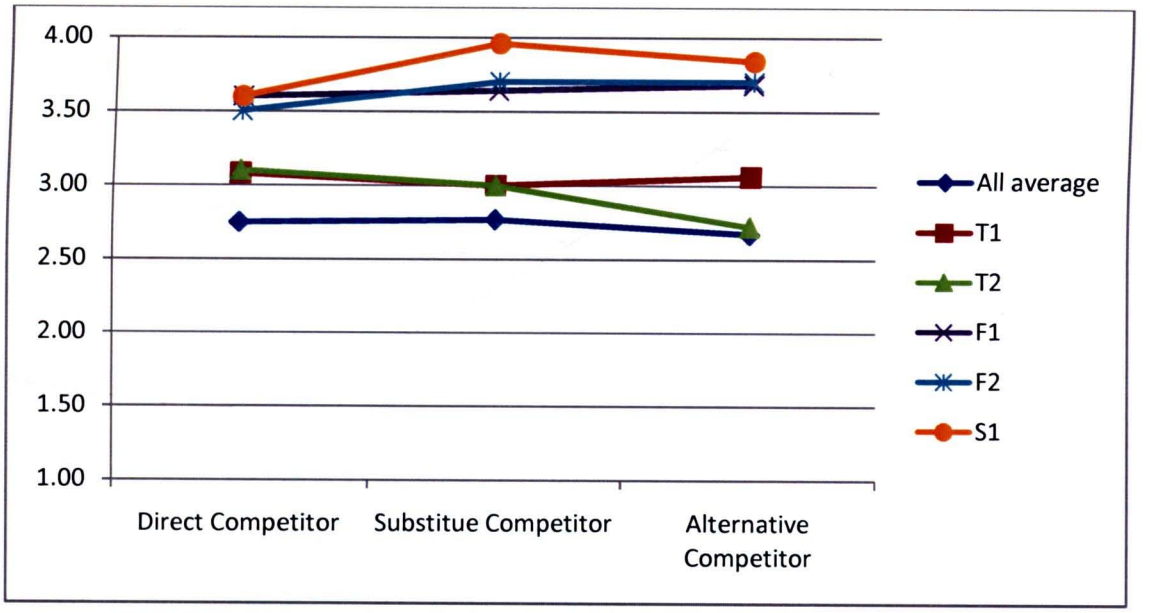

Figure 3.40: Comparison successful innovative products with the average baseline pattern, in the value, knowledge of product competitors

As shown in Figure 3.40, on the one hand, the significant level of three factors of the Product Competitor Knowledge of the selected successful innovative products is measured. Regarding all successful products, the averages of all assessed factors are higher than the average baseline pattern. F1, F2 and S1 are valued as highly significant in all factors.

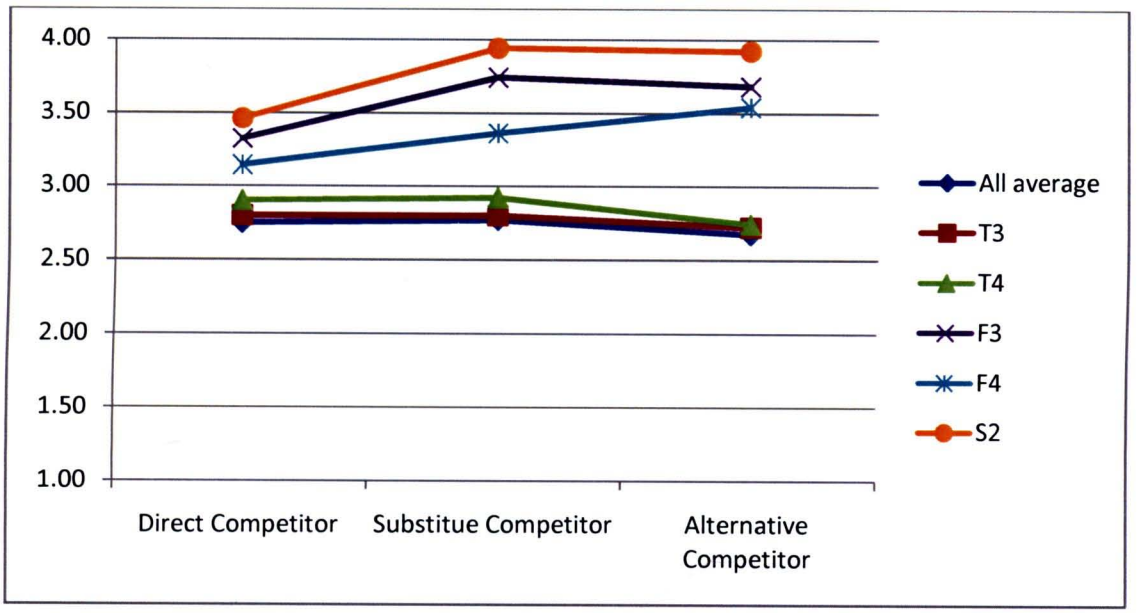

Figure 3.41: Comparison un/less successful innovative products with the average baseline pattern, in the value, knowledge of product competitors

As shown in Figure 3.41, on the other hand, the significant level of two factors of the Product Competitor Knowledge of the selected unsuccessful innovative products is measured. The averages of all assessed factors of all unsuccessful products are valued higher than the average baseline pattern.

3.3.3.12 Supportive Product/Service System

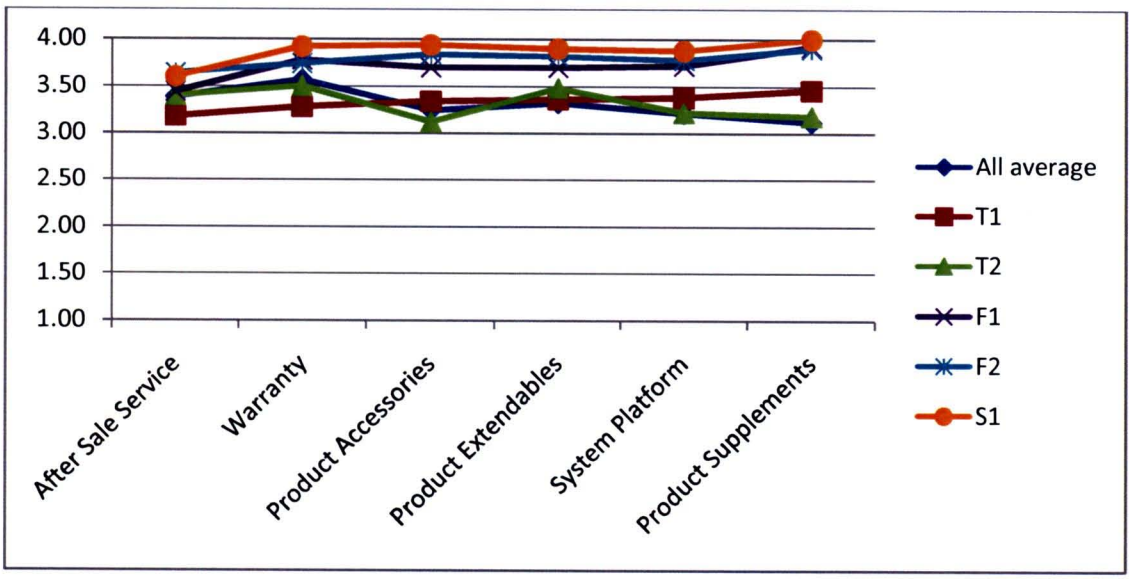

Figure 3.42: Comparison successful innovative products with the average baseline pattern, in the value, supportive product/service system.

As shown in Figure 3.42, on the one hand, the significant level of six factors of the Supportive System Value of the selected successful innovative products is measured. Regarding the successful products, F1, F2 and S1, the averages of all assessed factors are higher than the average baseline pattern. F2 and S1 are valued as highly significant in all factors.

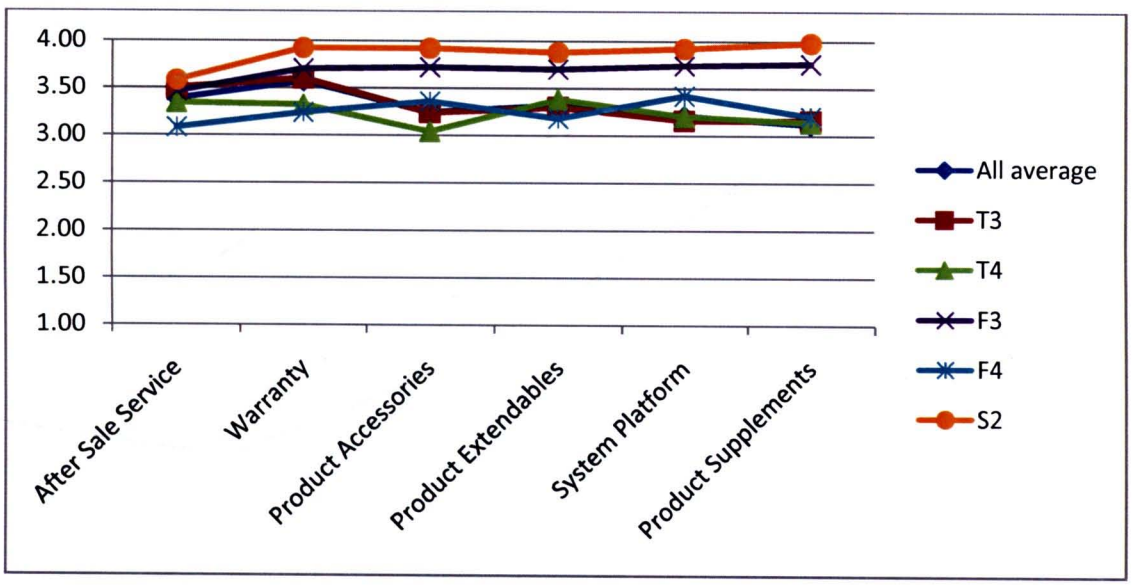

Figure 3.43: Comparison un/less successful innovative products with the average baseline pattern, in the value, supportive product/service system

As shown in Figure 3.43, on the other hand, the significant level of six factors of the Supportive System Value of the selected unsuccessful innovative products is measured. The average of all assessed factors of the unsuccessful product, S2 is valued higher than the average baseline pattern. S2 is valued as highly significant in all factors.

3.3.4 Product Value Prioritisation

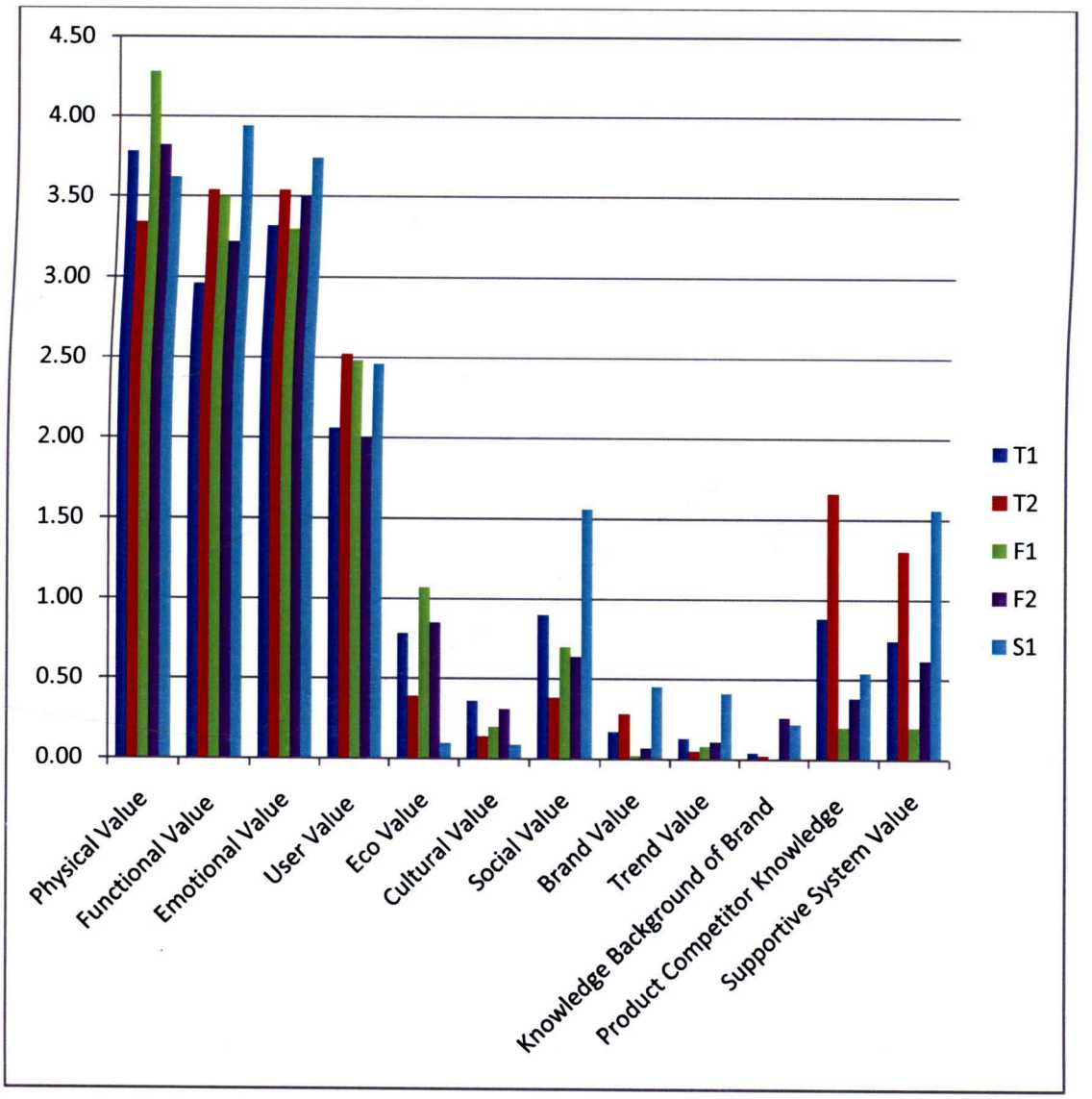

Figure 3.44: Product value prioritization of the successful innovative products

Regarding the prioritization of the successful innovative products as shown in Figure 3.44, the prioritization of the products is varied. The first top four factors are similar in all products (not in order): Physical Value, Functional Value, Emotional Value and User Value. In the first four factors, T1 is similar to F2 and the same to T2 and S1. In average, five key values are identified in priority:

(1) Physical value
(2) Functional value
(3) Emotional value
(4) User value
(5) Support Product/Service System

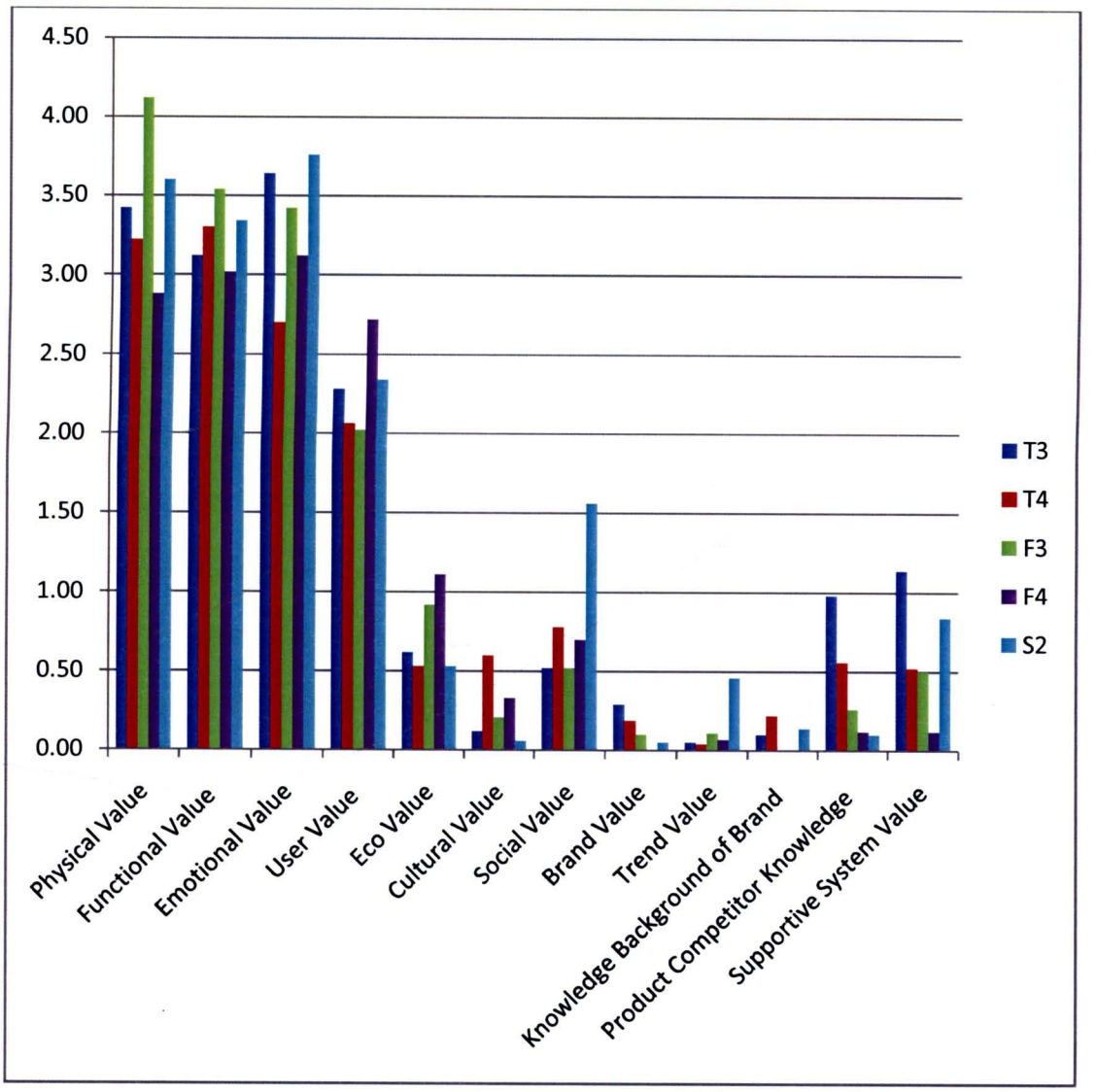

Figure 3.45: Product value prioritization of the un/less successful innovative products

Regarding the prioritization of the un/less successful innovative products as shown in Figure 3.45, the prioritization of the products is varied. The first four values are similar in all products (not in order): Physical Value, Functional Value, Emotional Value and User Value. In the first four factors, F4 is similar to S2. In average, five key values are identified in priority:

(1) Physical value
(2) Functional value
(3) Emotional value
(4) User value
(5) Social value

3.3.5 Buying Decision Model

In the questionnaire, the participants were asked about their buying decision process on the innovative products. The results are shown in Table 3.15 and 3.16.

Table 3.15: Buying decision model of the successful innovative products

Factors/Products	**T1**	**T2**	**F1**	**F2**	**S1**	**Total**
Prioritizing from top to toe	32	27	46	33	40	178
Focusing on significant factors in details	30	35	47	41	49	202
Thinking of other competitive products in parallel	23	29	14	18	31	115
Assessing the relations of various factors	3	9	2	2	11	27
Considering overall related factors	35	42	39	39	47	202
Comparing all details thoroughly	25	22	39	33	48	167
Fitting with all sequential criteria	9	12	8	17	19	65
Other	0	0	0	0	0	0

N = 250

As shown in Table 3.15, when consumers decide to buy the group of the successful innovative products, they would do the following:

1. Consider overall related factors (202) and Focusing on significant factors in details (202)
2. Prioritizing from top one to the bottom (178)
3. Comparing all details thoroughly (167)

Interestingly, consumers are unlikely to assess the relations of various factors (27) and set their sequentially required criteria on the products (65).

Table 3.16: Buying decision model of the un/less successful innovative products

Factors/Products	**T3**	**T4**	**F3**	**F4**	**S2**	**Total**
Prioritizing from top to toe	16	33	33	44	36	162
Focusing on significant factors in details	29	21	43	47	44	184
Thinking of other competitive products in parallel	*33*	*27*	*30*	*9*	*20*	*119*
Assessing the relations of various factors	11	9	6	9	5	40
Considering overall related factors	36	37	41	33	46	193
Comparing all details thoroughly	18	25	41	39	48	171
Fitting with all sequential criteria	18	12	11	5	12	58
Other	0	0	0	0	0	0

N = 250

As shown in Table 3.16, the buying decision model of the un/less successful innovative products is very similar to the successful one. When consumers decide to buy the group of the un/less successful innovative products, they would do the following:

1. Consider overall related factors (193)
2. Focus on significant factors in details (184)
3. Compare all details thoroughly (171)
4. Prioritizing from top one to the bottom (162)

Interestingly, consumers are unlikely to assess the relations of various factors (40) and set their sequentially required criteria on the products (58).

3.4 Comparative Analysis of Value Curves

This section describes the comparative analysis of three value curves on the twelve values: the average baseline pattern, the average pattern of the successful innovation products, and the average pattern of the un/less successful innovative products.

3.4.1 All Values

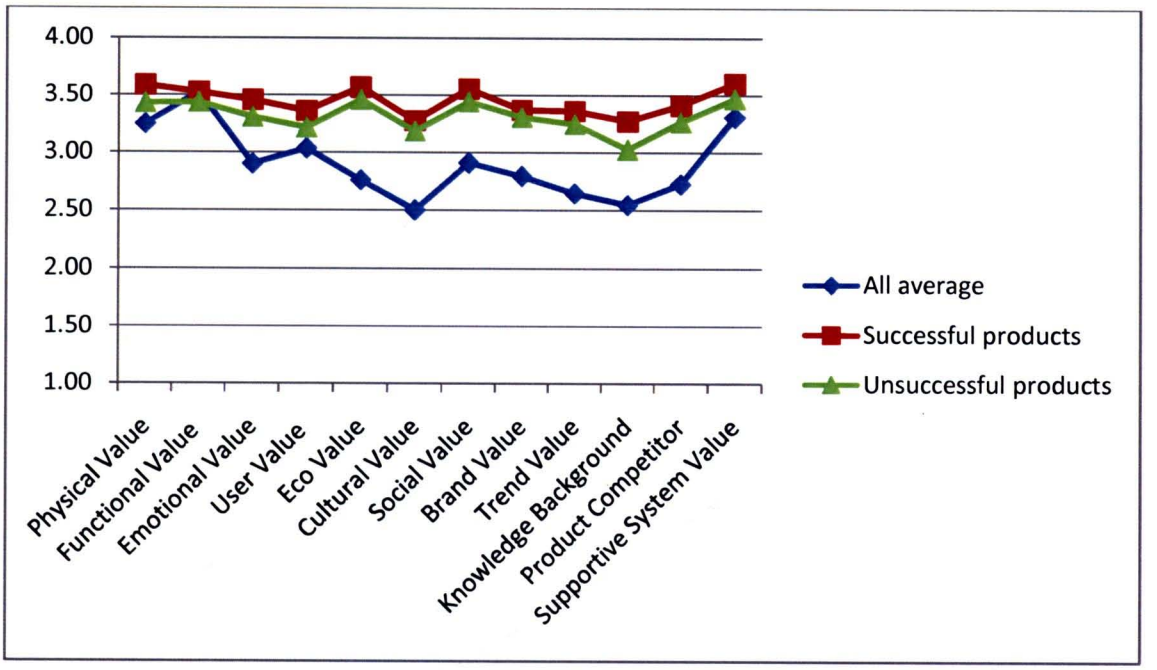

Figure 3.46: Comparative analysis of three key value curves on twelve values

As shown in Figure 3.46, the successful innovative products tend to have equal or higher product value curve than the baseline consumer expectation. As demonstrated on the baseline customer value curve, the highly significant level is Functional Value. As observed, the significant level of the functional value of the successful innovative products tends to be higher than the baseline customer level. On the contrary, the significant level of the functional value of the un/less successful innovative products tends to be lower than the baseline customer level. The value curves of both successful and un/less successful innovative products are more or less the same significant level.

3.4.2 Physical Value

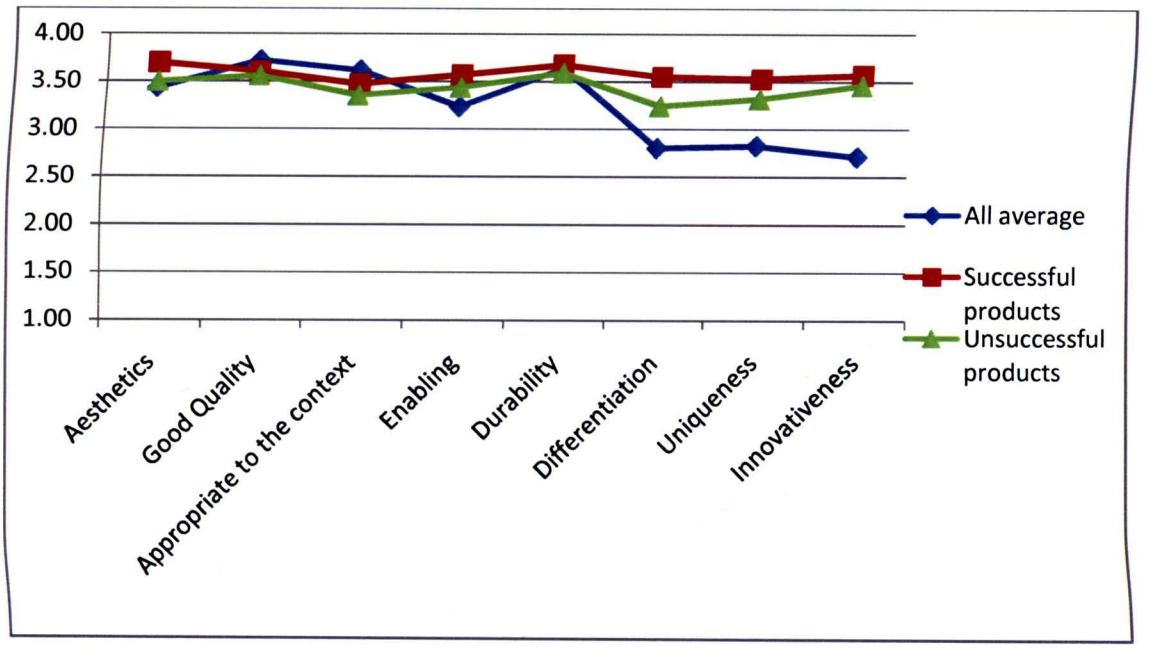

Figure 3.47: Comparative analysis of three key value curves of the physical value

Regarding the sub-aspects in Physical Value as shown in Figure 3.47, Good Quality and Appropriate to the context are two key aspects which are highly expected by customers. Two innovative product groups could not maintain the significant level of the consumer's expectation.

3.4.3 Functional Value

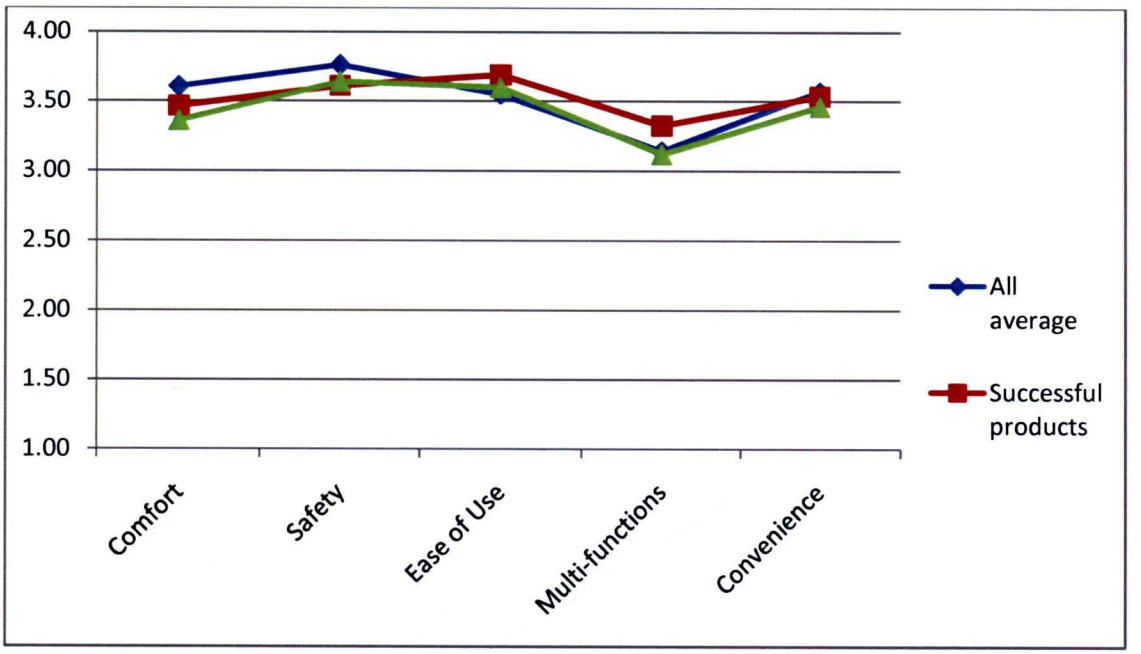

Figure 3.48: Comparative analysis of three key value curves of the functional value

Regarding the top priority of the Physical Value, the innovative products of both groups are evaluated below the significant level of the average customer baseline, on Comfort and Safety.

3.4.4 Emotional Value

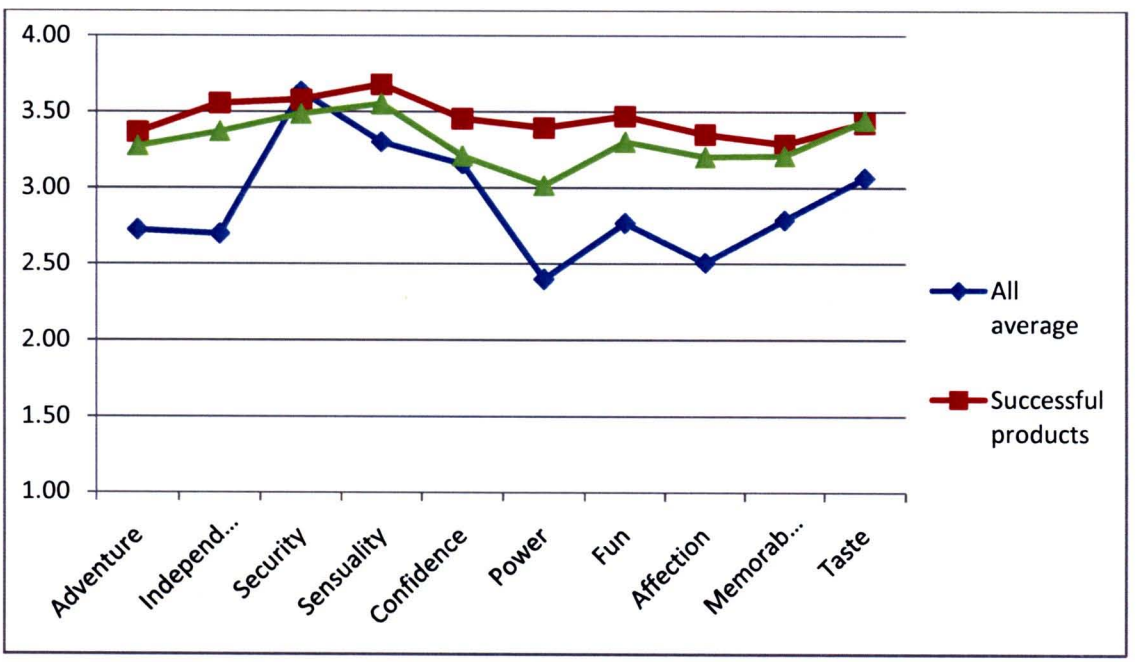

Figure 3.49: Comparative analysis of three key value curves of the emotional value

Regarding the top priority of Emotional Value, the innovative products in both groups are evaluated below the significant level of the average customer baseline, on Security.

3.4.5 Brand Value

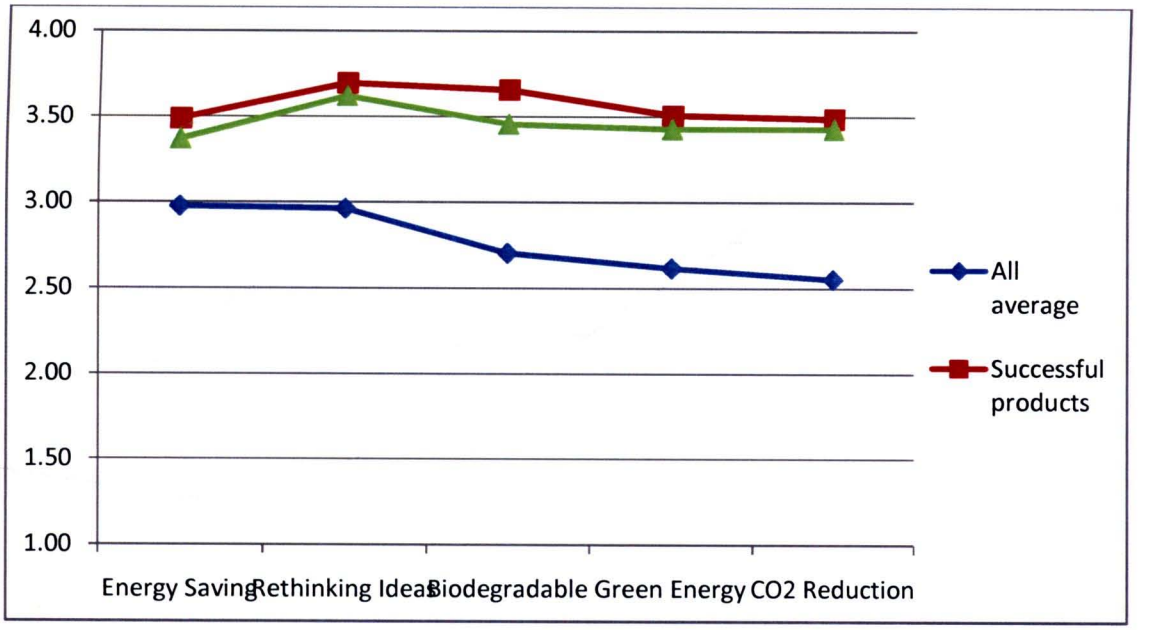

Figure 3.50: Comparative analysis of three key value curves of the brand value

As shown in Figure 3.50, the significant level of all factors of both groups of innovative products is evaluated much higher than the level of the average customer baseline.

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3.4.6 Cultural Value

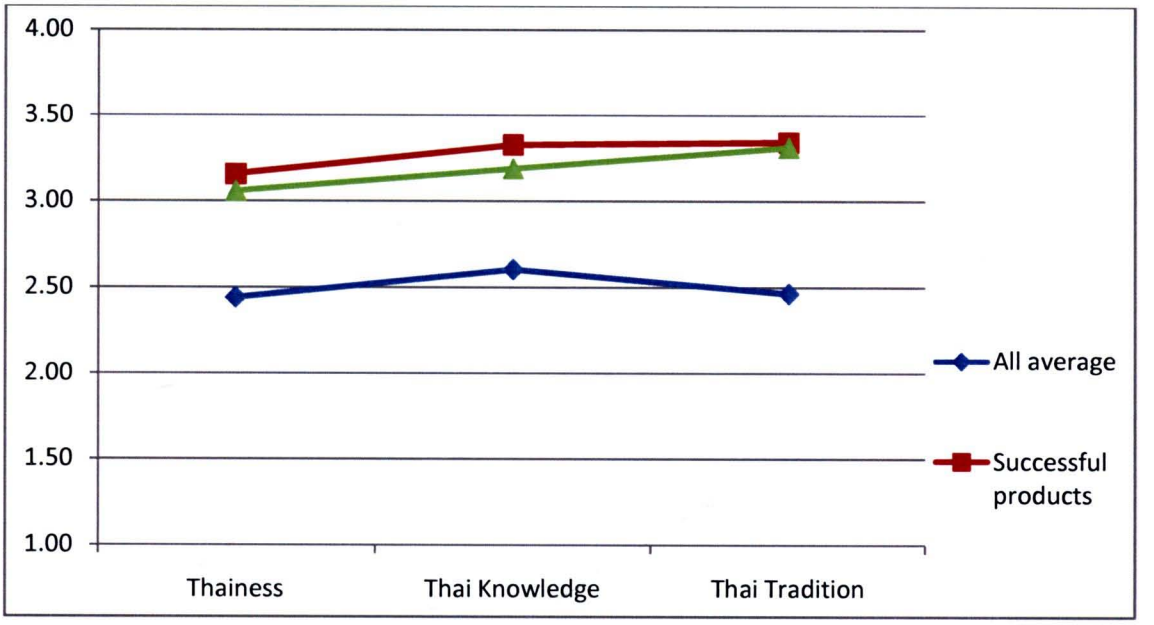

Figure 3.51: Comparative analysis of three key value curves of the cultural value

As shown in Figure 3.51, the significant level of all factors of both groups of innovative products is evaluated much higher than the level of the average customer baseline.

3.4.7 Social Value

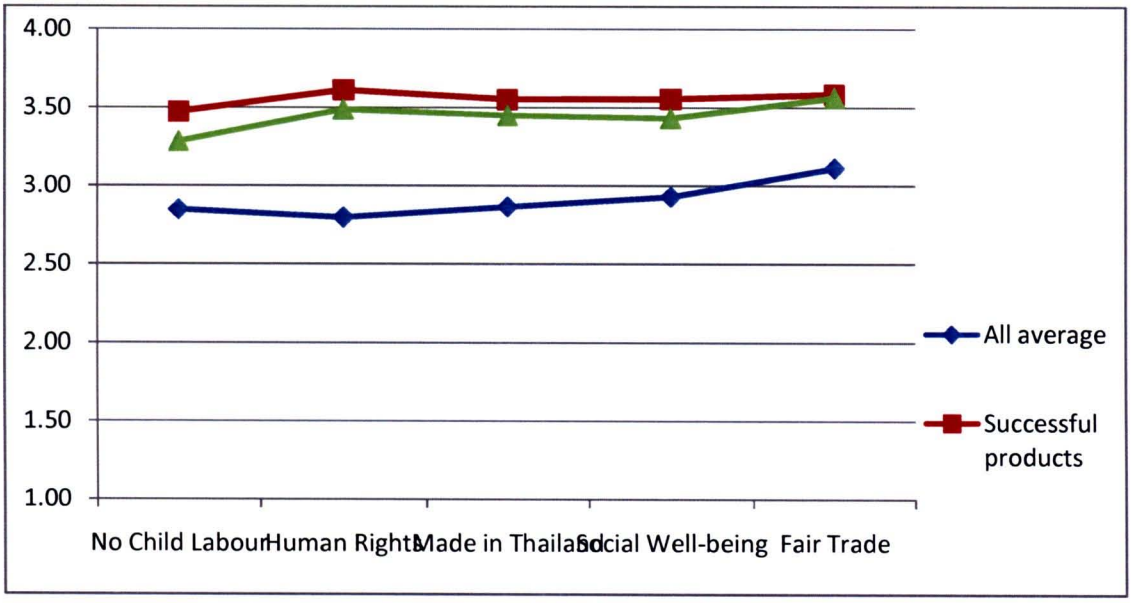

Figure 3.52: Comparative analysis of three key value curves of the social value

As shown in Figure 3.52, the significant level of all factors of both groups of innovative products is evaluated much higher than the level of the average customer baseline.

3.4.8 User Value

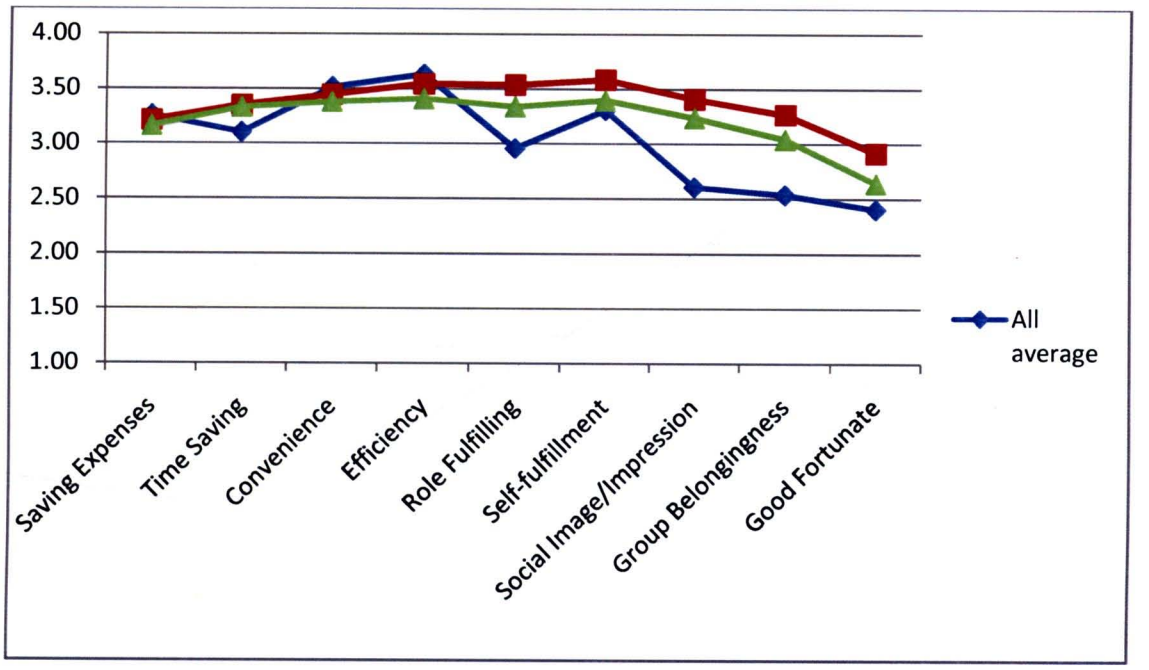

Figure 3.53: Comparative analysis of three key value curves of the user value

Regarding the highly significant-leveled factor of User Value, the innovative products in both groups are evaluated below the significant level of the average customer baseline, on Convenience and Efficiency.

3.4.9 Trend Value

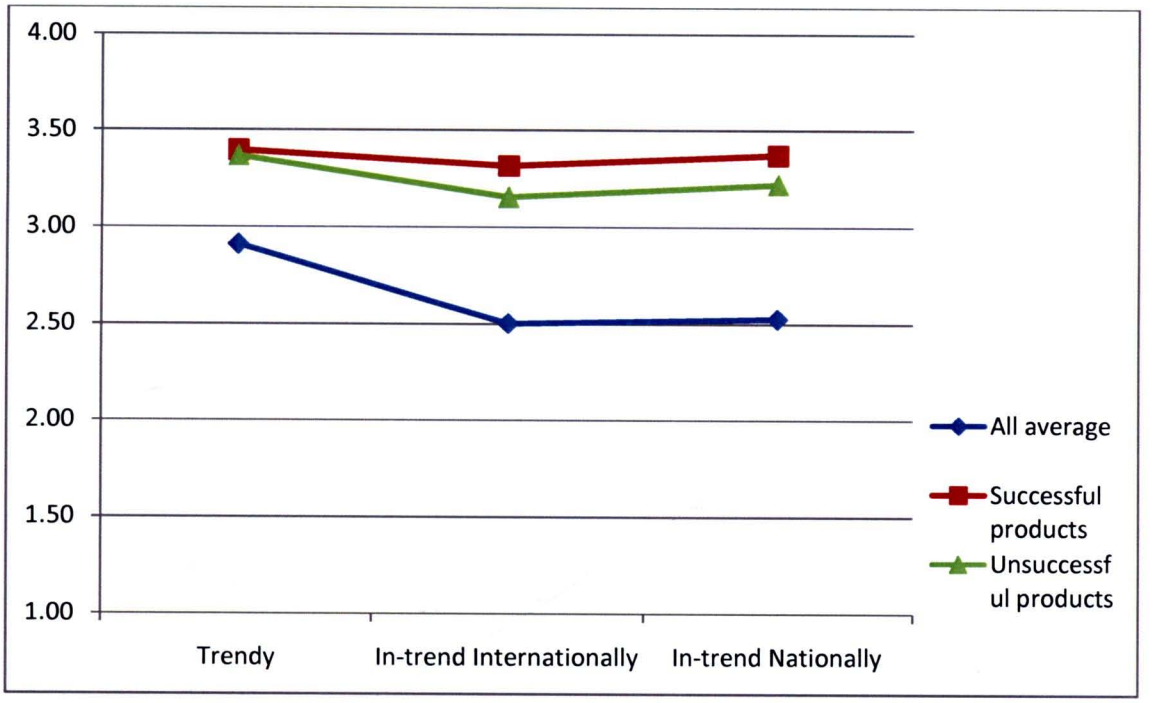

Figure 3.54: Comparative analysis of three key value curves of the trend value

As shown in Figure 3.54, the significant level of all factors of both groups of innovative products is evaluated much higher than the level of the average customer baseline.

3.4.10 Eco Value

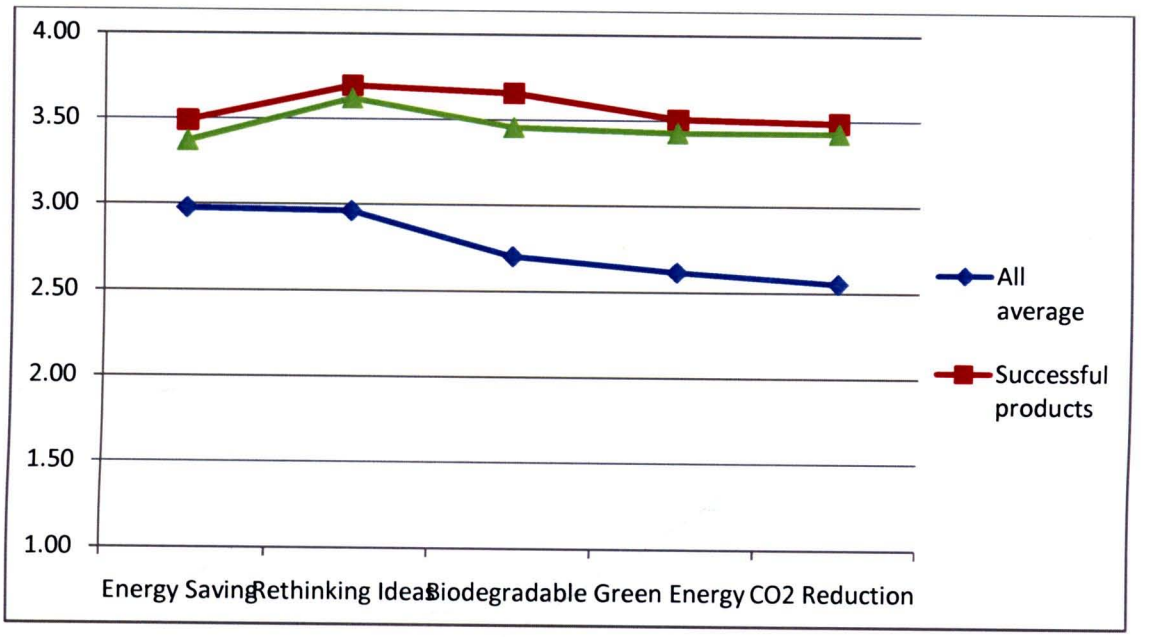

Figure 3.55: Comparative analysis of three key value curves of the eco value

As shown in Figure 3.55, the significant level of all factors of both groups of innovative products is evaluated much higher than the level of the average customer baseline.

3.4.11 Knowledge of the Company's Brand

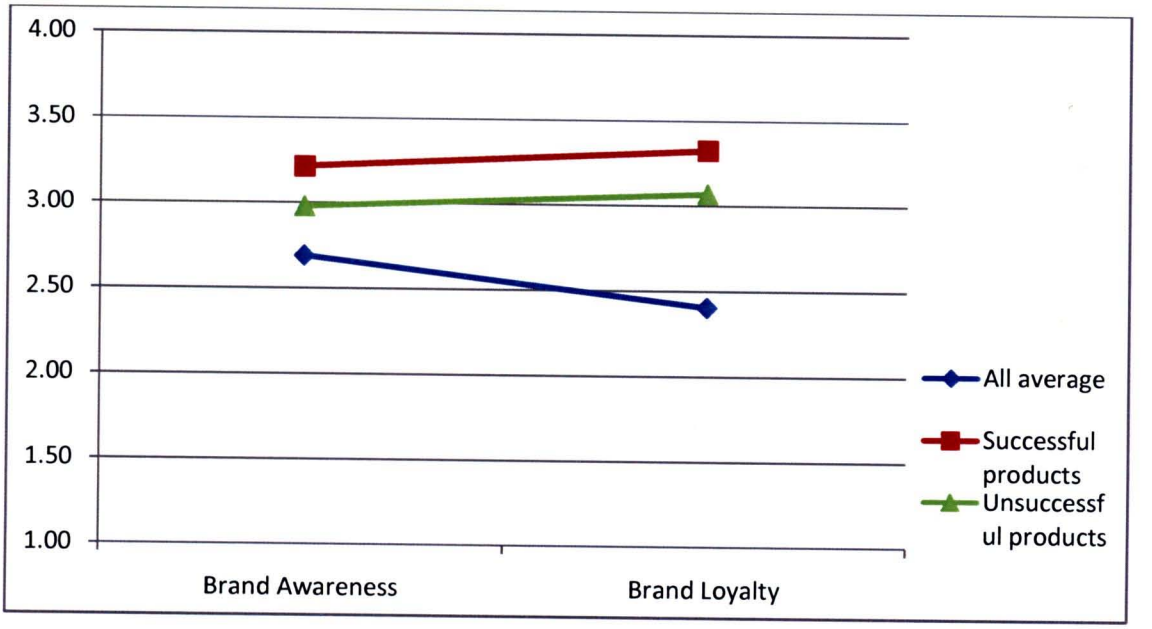

Figure 3.56: Comparative analysis of three key value curves of the value, knowledge of the company's brand

As shown in Figure 3.56, the significant level of all factors of both groups of innovative products is evaluated much higher than the level of the average customer baseline.

3.4.12 Knowledge of Product Competitors

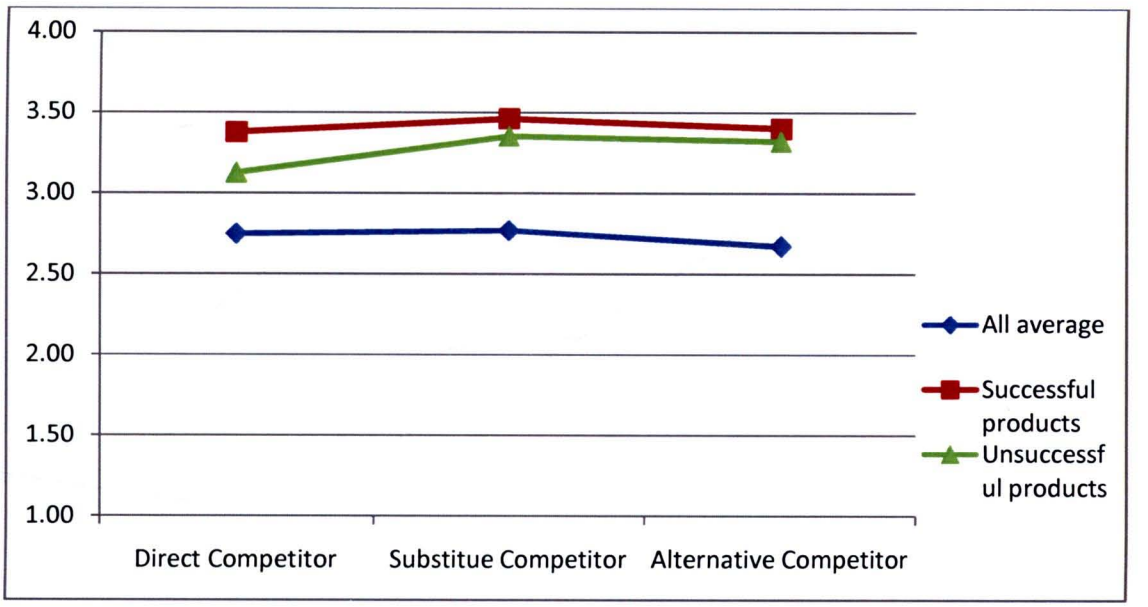

Figure 3.57: Comparative analysis of three key value curves of the value, knowledge of product competitors

As shown in Figure 3.57, the significant level of all factors of both groups of innovative products is evaluated much higher than the level of the average customer baseline. All factors of both innovative product groups are in the highly significant level.

3.4.13 Supportive Product/Service System

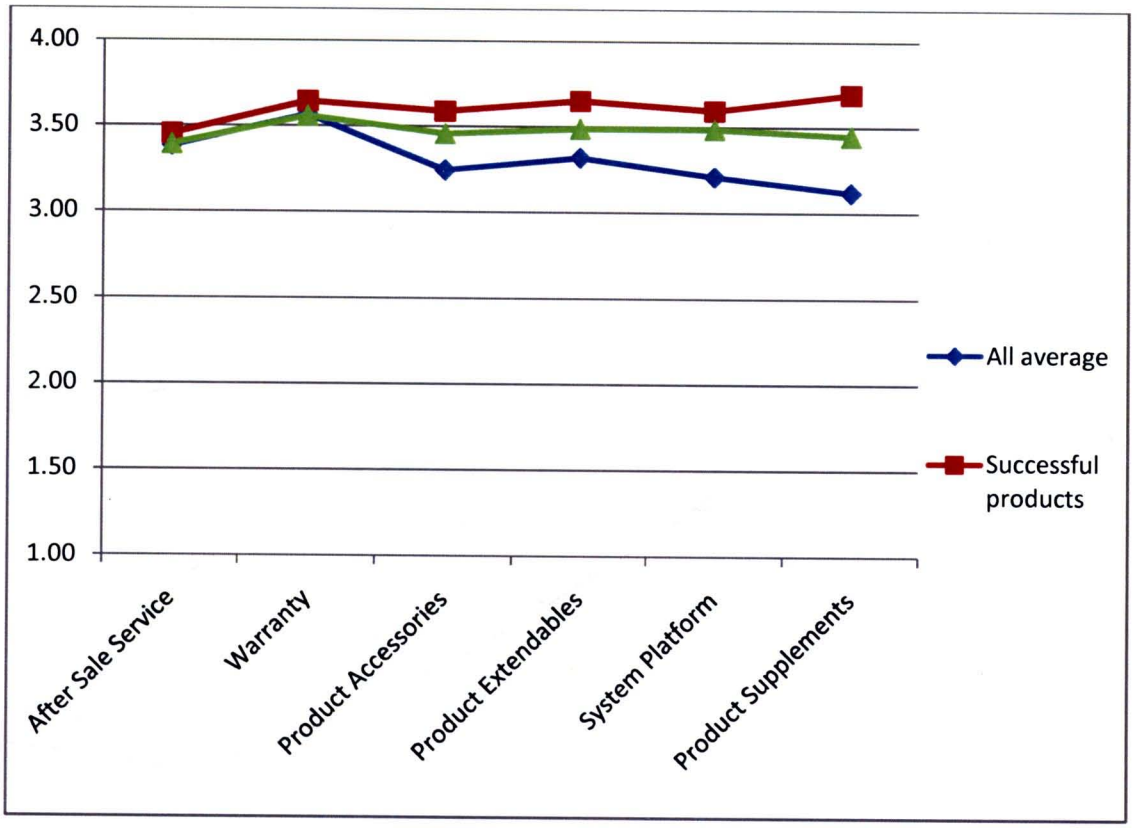

Figure 3.58: Comparative analysis of three key value curves of the value, supportive product/service system

As shown in Figure 3.58, the significant level of a majority of the factors of both groups of innovative products is evaluated higher than the level of the average customer baseline. The value curves of the customer baseline and the un/less successful innovative products are in the similar level. However, the value curve of the product success group is mainly in the most significant level, in particular Warranty, Product Accessories, Product Extendables, System Platform and Product Supplements.

3.4.14 Product Value Prioritsation

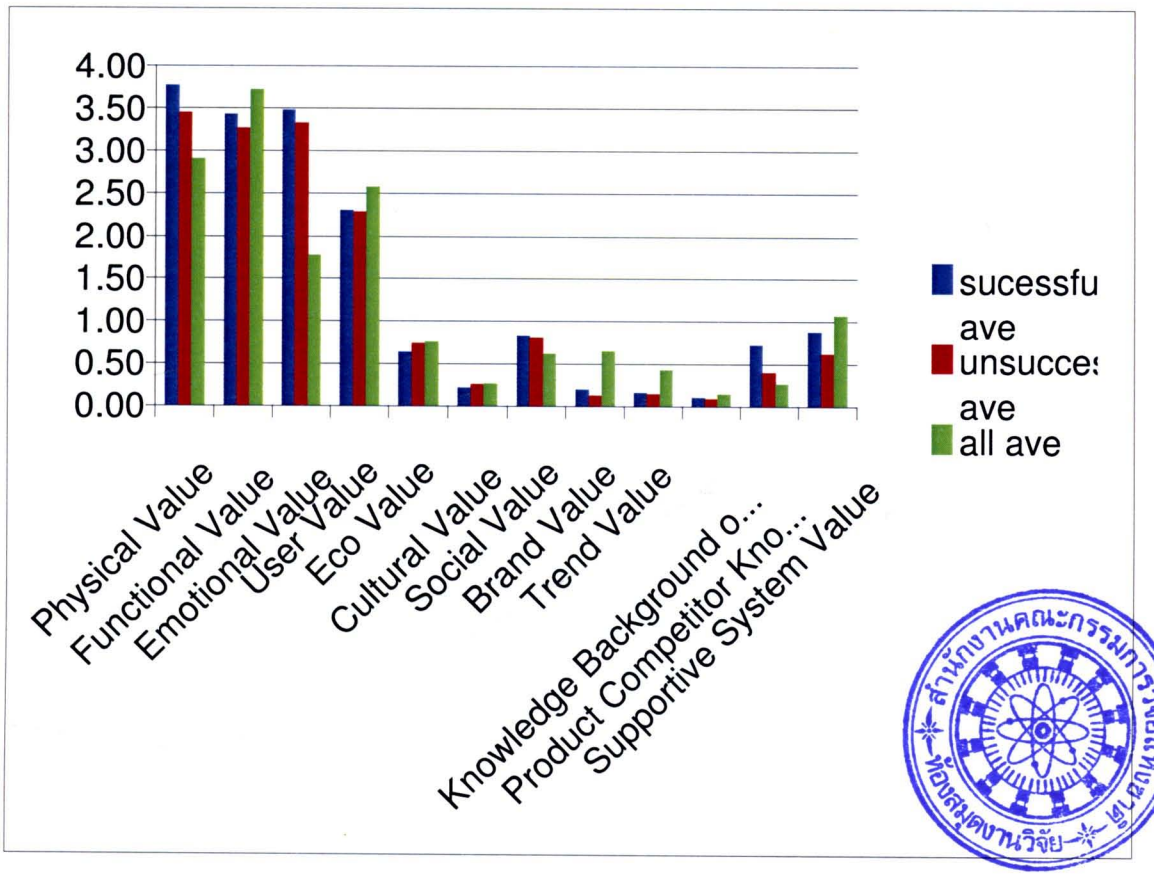

Figure 3.59: Comparative analysis of product value prioritization

Regarding the product value prioritization of three average groups, the consumers' baseline value, the successful innovative products, and the un/less successful innovative products, the comparative results are shown in Table 3.17.

Table 3.17: Product value prioritization of the consumers' perspectives on three groups

Priority	Baseline	Successful	Un/less Successful
1	Functional Value	Physical Value	Physical Value
2	Physical Value	Emotional Value	Emotional Value
3	User Value	Functional Value	Functional Value
4	Emotional Value	User Value	User Value
5	Support Product/Service System	Support Product/Service System	Social Value

The five values in the prioritised list are similar to the consumer's baseline prioritization, but not in the same order. The group of the un/less successful one is lack of one value in the prioritisation list, i.e. Support Product/Service System. The consumers exactly prioritised the product values of both innovative product groups in particular order from 1 to 4, i.e. Physical Value, Emotional Value, Functional Value and User Value.

APPENDIX 3

1: The value of three product categories and its average

Product Value (overall)	All average	Toy	Furniture	Sanitary
Physical Value	3.25	3.30	3.20	3.25
Functional Value	3.53	3.35	3.57	3.65
Emotional Value	2.90	3.18	2.70	2.83
User Value	3.03	2.93	2.97	3.20
Eco Value	2.76	3.07	2.59	2.63
Cultural Value	2.50	2.64	2.45	2.41
Social Value	2.91	2.94	2.79	3.01
Brand Value	2.80	2.68	2.88	2.83
Trend Value	2.65	2.46	2.71	2.77
Knowledge Background	2.55	2.41	2.67	2.57
Product Competitor	2.73	2.57	2.76	2.86
Supportive System Value	3.31	3.21	3.32	3.39

2: Physical value assessment of all product categories and its average value

Physical Value	All average	Toy	Furniture	Sanitary
Aesthetics	3.43	3.26	3.51	3.52
Good Quality	3.73	3.74	3.69	3.75
Appropriate to the context	3.62	3.58	3.61	3.66
Enabling	3.23	3.32	3.14	3.23
Durability	3.64	3.43	3.69	3.81
Differentiation	2.80	2.97	2.71	2.72
Uniqueness	2.83	3.04	2.78	2.66
Innovativeness	2.71	3.03	2.48	2.62

3: Functional value assessment of all product categories and its average value

Functional Value	All average	Toy	Furniture	Sanitary
Comfort	3.61	3.30	3.76	3.76
Safety	3.76	3.88	3.63	3.78
Ease of Use	3.55	3.40	3.55	3.70
Multi-functions	3.14	2.97	3.15	3.30
Convenience	3.57	3.22	3.76	3.73

4: Emotional value assessment of all product categories and its average value

Emotional Value	All average	Toy	Furniture	Sanitary
Adventure	2.72	3.21	2.42	2.54
Independence	2.70	3.07	2.43	2.59
Security	3.63	3.87	3.39	3.64
Sensuality	3.30	3.46	3.08	3.37
Confidence	3.16	3.35	2.90	3.22
Power	2.40	2.52	2.26	2.41
Fun	2.77	3.69	2.43	2.18
Affection	2.51	2.67	2.36	2.49
Memorability	2.79	3.19	2.49	2.68
Taste	3.06	2.78	3.26	3.15

5: Brand value assessment of all product categories and its average value

Brand Value	All average	Toy	Furniture	Sanitary
Brand Image	2.86	2.74	2.98	2.87
Brand Identity	2.80	2.73	2.90	2.78
Brand Promise	2.72	2.63	2.78	2.74
Brand Personality	2.80	2.62	2.85	2.93

6: Cultural value assessment of all product categories and its average value

Cultural Value	All average	Toy	Furniture	Sanitary
Thainess	2.44	2.55	2.40	2.37
Thai Knowledge	2.60	2.74	2.55	2.52
Thai Tradition	2.46	2.64	2.41	2.34

7: Social value assessment of all product categories and its average value

Social Value	All average	Toy	Furniture	Sanitary
No Child Labour	2.85	2.91	2.66	2.97
Human Rights	2.80	2.84	2.65	2.90
Made in Thailand	2.86	2.87	2.80	2.92
Social Well-being	2.93	2.97	2.74	3.08
Fair Trade	3.11	3.10	3.08	3.16

8: User value assessment of all product categories and its average value curve

User Value	All average	Toy	Furniture	Sanitary
Saving Expenses	3.26	3.20	3.19	3.38
Time Saving	3.10	2.93	3.05	3.32
Convenience	3.51	3.19	3.64	3.71
Efficiency	3.63	3.57	3.62	3.71
Role Fulfilling	2.96	2.96	2.77	3.14
Self-fulfillment	3.31	3.29	3.18	3.45
Social Image/Impression	2.61	2.52	2.60	2.70
Group Belongingness	2.54	2.67	2.39	2.55
Good Fortunate	2.40	2.07	2.32	2.82

9: Trend value assessment of all product categories and its average value curve

Trend Value	All average	Toy	Furniture	Sanitary
Trendy	2.91	2.63	2.96	3.14
In-trend Internationally	2.50	2.34	2.60	2.57
In-trend Nationally	2.53	2.40	2.57	2.61

10: Eco value assessment of all product categories and its average value

Eco Value	All average	Toy	Furniture	Sanitary
Energy Saving	2.98	3.12	2.86	2.95
Rethinking Ideas	2.96	3.20	2.84	2.85
Biodegradable	2.70	3.04	2.52	2.55
Green Energy	2.62	2.93	2.35	2.57
CO2 Reduction	2.55	3.04	2.39	2.23

11: The assessment of knowledge of the company's brand of all product categories and its average value

Knowledge Background of Brand	All average	Toy	Furniture	Sanitary
Brand Awareness	2.69	2.57	2.80	2.70
Brand Loyalty	2.40	2.25	2.53	2.43

12: The assessment of knowledge of the product competitors of all product categories and its average value

Product Competitor Knowledge	All average	Toy	Furniture	Sanitary
Direct Competitor	2.75	2.49	2.81	2.94
Substitue Competitor	2.77	2.61	2.76	2.93
Alternative Competitor	2.67	2.60	2.71	2.70

13: The assessment of supportive product/service system of all product categories and its average value

Supportive System Value	All average	Toy	Furniture	Sanitary
After Sale Service	3.38	3.03	3.56	3.56
Warranty	3.57	3.35	3.62	3.73
Product Accessories	3.24	3.14	3.23	3.36
Product Extendables	3.32	3.25	3.33	3.38
System Platform	3.21	3.32	3.14	3.17
Product Supplements	3.12	3.17	3.06	3.12

14: Product value prioritisation of three product categories

Value	Toy	Furniture	Sanitary
Physical Value	2.55	3.06	3.10
Functional Value	3.78	3.63	3.74
Emotional Value	2.45	1.32	1.56
User Value	2.64	2.72	2.37
Eco Value	1.17	0.66	0.47
Cultural Value	0.41	0.17	0.22
Social Value	0.60	0.61	0.64
Brand Value	0.53	0.94	0.47
Trend Value	0.20	0.47	0.62
Knowledge Background of Brand	0.21	0.12	0.13
Product Competitor Knowledge	0.11	0.13	0.58
Supportive System Value	0.58	1.14	1.49

15: Successful innovative product value assessment in comparison with the average baseline analysis

Product Value (overall)	All average	T1	T2	F1	F2	S1
Physical Value	3.25	3.38	3.46	3.64	3.61	3.85
Functional Value	3.53	3.27	3.13	3.64	3.70	3.89
Emotional Value	2.90	3.13	3.22	3.60	3.57	3.77
User Value	3.03	2.83	3.03	3.64	3.57	3.74
Eco Value	2.76	3.42	3.34	3.67	3.70	3.70
Cultural Value	2.50	2.83	2.89	3.52	3.51	3.63
Social Value	2.91	3.37	3.42	3.61	3.66	3.72
Brand Value	2.80	2.93	3.19	3.55	3.58	3.61
Trend Value	2.65	2.74	2.91	3.75	3.64	3.77
Knowledge Background	2.55	2.97	2.89	3.45	3.52	3.53
Product Competitor	2.73	3.05	2.94	3.64	3.63	3.80
Supportive System Value	3.31	3.33	3.32	3.71	3.79	3.87

16: Un/less successful Innovative product value assessment in comparison with the average baseline analysis

Value (overall)	All average	T3	T4	F3	F4	S2
Physical Value	3.25	3.19	3.39	3.48	3.30	3.80
Functional Value	3.53	3.07	3.25	3.62	3.45	3.79
Emotional Value	2.90	2.96	3.10	3.39	3.30	3.78
User Value	3.03	2.80	2.93	3.41	3.21	3.73
Eco Value	2.76	3.22	3.39	3.67	3.29	3.73
Cultural Value	2.50	2.57	2.95	3.50	3.23	3.69
Social Value	2.91	3.26	3.29	3.49	3.43	3.74
Brand Value	2.80	3.02	2.99	3.57	3.31	3.66
Trend Value	2.65	2.78	2.80	3.65	3.25	3.75
Knowledge Background	2.55	2.34	2.50	3.47	3.11	3.71
Product Competitor	2.73	2.77	2.85	3.58	3.35	3.77
Supportive System Value	3.31	3.33	3.24	3.68	3.25	3.87

17: Comparison both types of innovative products with the average baseline analysis in the toy category

Value (overall)	All average	Toy	T1	T2	T3	T4
Physical Value	3.25	3.30	3.38	3.46	3.19	3.39
Functional Value	3.53	3.35	3.27	3.13	3.07	3.25
Emotional Value	2.90	3.18	3.13	3.22	2.96	3.10
User Value	3.03	2.93	2.83	3.03	2.80	2.93
Eco Value	2.76	3.07	3.42	3.34	3.22	3.39
Cultural Value	2.50	2.64	2.83	2.89	2.57	2.95
Social Value	2.91	2.94	3.37	3.42	3.26	3.29
Brand Value	2.80	2.68	2.93	3.19	3.02	2.99
Trend Value	2.65	2.46	2.74	2.91	2.78	2.80
Knowledge Background	2.55	2.41	2.97	2.89	2.34	2.50
Product Competitor	2.73	2.57	3.05	2.94	2.77	2.85
Supportive System Value	3.31	3.21	3.33	3.32	3.33	3.24

18: Comparison both types of innovative products in the furniture category with the average baseline analysis

Value (overall)	All average	Furniture	F1	F2	F3	F4
Physical Value	3.25	3.20	3.64	3.61	3.48	3.30
Functional Value	3.53	3.57	3.64	3.70	3.62	3.45
Emotional Value	2.90	2.70	3.60	3.57	3.39	3.30
User Value	3.03	2.97	3.64	3.57	3.41	3.21
Eco Value	2.76	2.59	3.67	3.70	3.67	3.29
Cultural Value	2.50	2.45	3.52	3.51	3.50	3.23
Social Value	2.91	2.79	3.61	3.66	3.49	3.43
Brand Value	2.80	2.88	3.55	3.58	3.57	3.31
Trend Value	2.65	2.71	3.75	3.64	3.65	3.25
Knowledge Background	2.55	2.67	3.45	3.52	3.47	3.11
Product Competitor	2.73	2.76	3.64	3.63	3.58	3.35
Supportive System Value	3.31	3.32	3.71	3.79	3.68	3.25

19: Comparison both types of innovative products in the sanitary ware category with the average baseline analysis

Value (overall)	All average	Sanitary	S1	S2
Physical Value	3.25	3.25	3.85	3.80
Functional Value	3.53	3.65	3.89	3.79
Emotional Value	2.90	2.83	3.77	3.78
User Value	3.03	3.20	3.74	3.73
Eco Value	2.76	2.63	3.70	3.73
Cultural Value	2.50	2.41	3.63	3.69
Social Value	2.91	3.01	3.72	3.74
Brand Value	2.80	2.83	3.61	3.66
Trend Value	2.65	2.77	3.77	3.75
Knowledge Background	2.55	2.57	3.53	3.71
Product Competitor	2.73	2.86	3.80	3.77
Supportive System Value	3.31	3.39	3.87	3.87

20: Comparison the successful innovative products with the average baseline pattern, in the physical value

Physical Value	All average	T1	T2	F1	F2	S1
Aesthetics	3.43	3.62	3.56	3.64	3.68	3.98
Good Quality	3.73	3.38	3.52	3.66	3.48	4.00
Appropriate to the context	3.62	3.28	3.24	3.50	3.46	3.88
Enabling	3.23	3.42	3.24	3.74	3.60	3.86
Durability	3.64	3.56	3.72	3.52	3.62	3.98
Differentiation	2.80	3.34	3.38	3.66	3.72	3.66
Uniqueness	2.83	3.26	3.54	3.60	3.66	3.60
Innovativeness	2.71	3.16	3.48	3.76	3.62	3.84

21: Comparison the un/less successful innovative products with the average baseline pattern, in the physical value

Physical Value	All average	T3	T4	F3	F4	S2
Aesthetics	3.43	3.26	3.52	3.62	3.38	3.72
Good Quality	3.73	3.36	3.56	3.74	3.36	3.78
Appropriate to the context	3.62	2.90	3.18	3.64	3.26	3.78
Enabling	3.23	3.16	3.48	3.50	3.24	3.80
Durability	3.64	3.40	3.68	3.74	3.26	3.88
Differentiation	2.80	3.16	3.22	3.18	2.90	3.74
Uniqueness	2.83	3.06	3.20	3.14	3.38	3.80
Innovativeness	2.71	3.18	3.28	3.30	3.64	3.90

22: Comparison successful innovative products with the average baseline pattern, in the functional value

Functional Value	All average	T1	T2	F1	F2	S1
Comfort	3.61	3.34	3.16	3.52	3.46	3.84
Safety	3.76	3.48	3.32	3.62	3.76	3.88
Ease of Use	3.55	3.58	3.54	3.72	3.72	3.90
Multi-functions	3.14	2.82	2.50	3.60	3.76	3.94
Convenience	3.57	3.12	3.14	3.72	3.80	3.90

23: Comparison un/less successful innovative products with the average baseline pattern, in the functional value

Functional Value	All average	T3	T4	F3	F4	S2
Comfort	3.61	3.20	3.40	3.54	3.16	3.50
Safety	3.76	3.40	3.62	3.72	3.60	3.86
Ease of Use	3.55	3.38	3.46	3.76	3.50	3.90
Multi-functions	3.14	2.38	2.52	3.44	3.50	3.76
Convenience	3.57	2.98	3.26	3.64	3.50	3.92

24: Comparison successful innovative products with the average baseline pattern, in the emotional value

Emotional Value	All average	T1	T2	F1	F2	S1
Adventure	2.72	3.26	3.14	3.52	3.40	3.52
Independence	2.70	3.22	3.46	3.70	3.62	3.78
Security	3.63	3.48	3.14	3.72	3.58	3.98
Sensuality	3.30	3.60	3.54	3.58	3.74	3.94
Confidence	3.16	3.36	3.22	3.58	3.48	3.64
Power	2.40	2.74	3.22	3.58	3.64	3.80
Fun	2.77	3.34	3.34	3.54	3.50	3.64
Affection	2.51	2.90	3.14	3.46	3.58	3.68
Memorability	2.79	2.64	2.92	3.58	3.54	3.76
Taste	3.06	2.72	3.12	3.72	3.66	3.92

25: Comparison un/less successful innovative products with the average baseline pattern, in the emotional value

Emotional Value	All average	T3	T4	F3	F4	S2
Adventure	2.72	2.96	3.00	3.20	3.56	3.66
Independence	2.70	3.12	3.06	3.30	3.50	3.88
Security	3.63	3.34	3.44	3.66	3.22	3.78
Sensuality	3.30	3.42	3.50	3.66	3.28	3.90
Confidence	3.16	3.08	3.16	3.34	2.98	3.50
Power	2.40	2.12	2.50	3.34	3.24	3.88
Fun	2.77	3.10	3.20	3.26	3.16	3.80
Affection	2.51	2.70	3.02	3.26	3.34	3.70
Memorability	2.79	2.84	3.00	3.24	3.20	3.78
Taste	3.06	2.94	3.14	3.66	3.54	3.94

26: Comparison successful innovative products with the average baseline pattern, in the brand value

Brand Value	All average	T1	T2	F1	F2	S1
Brand Image	2.86	3.00	3.14	3.46	3.38	3.32
Brand Identity	2.80	2.84	3.28	3.58	3.60	3.64
Brand Promise	2.72	2.94	3.16	3.64	3.64	3.74
Brand Personality	2.80	2.94	3.16	3.52	3.70	3.72

27: Comparison un/less successful innovative products with the average baseline pattern, in the brand value

Brand Value	All average	T3	T4	F3	F4	S2
Brand Image	2.86	2.94	3.06	3.34	3.08	3.40
Brand Identity	2.80	2.98	3.00	3.70	3.32	3.66
Brand Promise	2.72	3.04	2.80	3.70	3.38	3.74
Brand Personality	2.80	3.12	3.08	3.54	3.44	3.84

28: Comparison successful innovative products with the average baseline pattern, in the cultural value

Cultural Value	All average	T1	T2	F1	F2	S1
Thainess	2.44	2.80	2.86	3.30	3.36	3.46
Thai Knowledge	2.60	2.92	2.82	3.64	3.58	3.68
Thai Tradition	2.46	2.78	3.00	3.62	3.58	3.74

29: Comparison un/less successful innovative products with the average baseline pattern, in the cultural value

Cultural Value	All average	T3	T4	F3	F4	S2
Thainess	2.44	2.52	3.00	3.26	3.04	3.46
Thai Knowledge	2.60	2.52	2.86	3.60	3.18	3.78
Thai Tradition	2.46	2.66	2.98	3.64	3.46	3.82

30: Comparison successful innovative products with the average baseline pattern, in the social value

Social Value	All average	T1	T2	F1	F2	S1
No Child Labour	2.85	3.40	3.46	3.48	3.50	3.52
Human Rights	2.80	3.46	3.48	3.66	3.68	3.78
Made in Thailand	2.86	3.32	3.46	3.64	3.60	3.74
Social Well-being	2.93	3.38	3.36	3.58	3.70	3.76
Fair Trade	3.11	3.30	3.32	3.68	3.82	3.80

31: Comparison un/less successful innovative products with the average baseline pattern, in the social value

Social Value	All average	T3	T4	F3	F4	S2
No Child Labour	2.85	3.40	3.24	3.20	3.14	3.44
Human Rights	2.80	3.34	3.20	3.50	3.56	3.84
Made in Thailand	2.86	3.12	3.34	3.46	3.50	3.82
Social Well-being	2.93	3.14	3.34	3.60	3.34	3.74
Fair Trade	3.11	3.30	3.32	3.70	3.62	3.88

32: Comparison successful innovative products with the average baseline pattern, in the user value

User Value	All average	T1	T2	F1	F2	S1
Saving Expenses	3.26	2.76	2.90	3.42	3.40	3.58
Time Saving	3.10	2.64	3.06	3.70	3.58	3.76
Convenience	3.51	3.06	3.28	3.64	3.60	3.64
Efficiency	3.63	3.24	3.40	3.68	3.68	3.72
Role Fulfilling	2.96	3.16	3.38	3.72	3.60	3.82
Self-fulfillment	3.31	3.36	3.54	3.66	3.64	3.72
Social Image/Impression	2.61	3.00	3.10	3.68	3.50	3.76
Group Belongingness	2.54	2.62	2.80	3.64	3.56	3.72
Good Fortunate	2.40	1.66	1.80	3.64	3.58	3.9

33: Comparison un/less successful innovative products with the average baseline pattern, in the user value

User Value	All average	T3	T4	F3	F4	S2
Saving Expenses	3.26	2.80	2.84	3.32	3.32	3.52
Time Saving	3.10	3.04	3.00	3.44	3.34	3.84
Convenience	3.51	2.98	3.24	3.46	3.46	3.76
Efficiency	3.63	3.12	3.28	3.5	3.42	3.72
Role Fulfilling	2.96	2.96	3.30	3.5	3.22	3.70
Self-fulfillment	3.31	3.22	3.28	3.5	3.14	3.84
Social Image/Impression	2.61	2.90	3.02	3.48	3.14	3.64
Group Belongingness	2.54	2.30	2.70	3.3	3.10	3.80
Good Fortunate	2.40	1.84	1.68	3.2	2.76	3.72

34: Comparison successful innovative products with the average baseline pattern, in the trend value

Trend Value	All average	T1	T2	F1	F2	S1
Trendy	2.91	2.62	2.82	3.82	3.76	3.96
In-trend Internationally	2.50	2.56	3.08	3.72	3.58	3.64
In-trend Nationally	2.53	3.04	2.84	3.70	3.58	3.70

35: Comparison un/less successful innovative products with the average baseline pattern, in the trend value

Trend Value	All average	T3	T4	F3	F4	S2
Trendy	2.91	2.92	2.80	3.76	3.44	3.92
In-trend Internationally	2.50	2.80	2.70	3.58	3.04	3.64
In-trend Nationally	2.53	2.62	2.90	3.62	3.28	3.68

36: Comparison successful innovative products with the average baseline pattern, in the environmental value

Eco Value	All average	T1	T2	F1	F2	S1
Energy Saving	2.98	3.28	3.26	3.58	3.66	3.66
Rethinking Ideas	2.96	3.54	3.48	3.80	3.84	3.82
Biodegradable	2.70	3.58	3.54	3.74	3.66	3.76
Green Energy	2.62	3.42	3.26	3.60	3.64	3.62
CO2 Reduction	2.55	3.26	3.18	3.64	3.70	3.66

37: Comparison un/less successful innovative products with the average baseline pattern, in the environmental value

Eco Value	All average	T3	T4	F3	F4	S2
Energy Saving	2.98	3.20	3.14	3.62	3.16	3.72
Rethinking Ideas	2.96	3.46	3.60	3.76	3.40	3.88
Biodegradable	2.70	3.30	3.52	3.66	3.14	3.66
Green Energy	2.62	3.18	3.36	3.64	3.34	3.62
CO2 Reduction	2.55	2.94	3.32	3.68	3.42	3.78

38: Comparison successful innovative products with the average baseline pattern, in the value, knowledge of the company's brand

Knowledge Background of Brand	All average	T1	T2	F1	F2	S1
Brand Awareness	2.69	3.00	3.00	3.40	3.36	3.32
Brand Loyalty	2.40	2.94	2.78	3.50	3.68	3.74

39: Comparison un/less successful innovative products with the average baseline pattern, in the value, knowledge of the company's brand

Knowledge Background of Brand	All average	T3	T4	F3	F4	S2
Brand Awareness	2.69	2.40	2.72	3.26	3.02	3.50
Brand Loyalty	2.40	2.28	2.28	3.68	3.20	3.92

40: Comparison successful innovative products with the average baseline pattern, in the value, knowledge of product competitors

Product Competitor Knowledge	All average	T1	T2	F1	F2	S1
Direct Competitor	2.75	3.08	3.10	3.60	3.50	3.60
Substitute Competitor	2.77	3.00	3.00	3.64	3.70	3.96
Alternative Competitor	2.67	3.06	2.72	3.68	3.70	3.84

41: Comparison un/less successful innovative products with the average baseline pattern, in the value, knowledge of product competitors

Product Competitor Knowledge	All average	T3	T4	F3	F4	S2
Direct Competitor	2.75	2.80	2.90	3.32	3.14	3.46
Substitute Competitor	2.77	2.80	2.92	3.74	3.36	3.94
Alternative Competitor	2.67	2.72	2.74	3.68	3.54	3.92

42: Comparison successful innovative products with the average baseline pattern, in the value, supportive product/service system

Supportive System Value	All average	T1	T2	F1	F2	S1
After Sale Service	3.38	3.18	3.40	3.44	3.64	3.60
Warranty	3.57	3.28	3.50	3.78	3.74	3.92
Product Accessories	3.24	3.34	3.12	3.70	3.84	3.94
Product Extendables	3.32	3.36	3.48	3.70	3.82	3.90
System Platform	3.21	3.38	3.22	3.72	3.78	3.88
Product Supplements	3.12	3.46	3.18	3.92	3.90	4.00

43: Comparison un/less successful innovative products with the average baseline pattern, in the value, supportive product/service syst

Supportive System Value	All average	T3	T4	F3	F4	S2
After Sale Service	3.38	3.50	3.34	3.46	3.08	3.58
Warranty	3.57	3.60	3.32	3.70	3.24	3.92
Product Accessories	3.24	3.24	3.04	3.72	3.36	3.92
Product Extendables	3.32	3.30	3.38	3.70	3.18	3.88
System Platform	3.21	3.16	3.20	3.74	3.42	3.92
Product Supplements	3.12	3.16	3.14	3.76	3.20	3.98

44: Product value prioritization of the successful innovative products

Product Value	T1	T2	F1	F2	S1
Physical Value	3.78	3.34	4.28	3.82	3.62
Functional Value	2.96	3.54	3.50	3.22	3.94
Emotional Value	3.32	3.54	3.30	3.50	3.74
User Value	2.06	2.52	2.48	2.00	2.46
Eco Value	0.78	0.39	1.07	0.85	0.10
Cultural Value	0.36	0.14	0.20	0.31	0.09
Social Value	0.90	0.38	0.70	0.64	1.56
Brand Value	0.17	0.28	0.02	0.07	0.45
Trend Value	0.13	0.05	0.08	0.11	0.41
Knowledge Background of Brand	0.04	0.02	0.00	0.26	0.22
Product Competitor Knowledge	0.88	1.66	0.20	0.38	0.54
Supportive System Value	0.74	1.30	0.20	0.62	1.56

45: Product value prioritization of the un/less successful innovative products

Product Value	T3	T4	F3	F4	S2
Physical Value	3.42	3.22	4.12	2.88	3.60
Functional Value	3.12	3.30	3.54	3.02	3.34
Emotional Value	3.64	2.70	3.42	3.12	3.76
User Value	2.28	2.06	2.02	2.72	2.34
Eco Value	0.62	0.53	0.92	1.11	0.53
Cultural Value	0.12	0.60	0.21	0.33	0.06
Social Value	0.52	0.78	0.52	0.70	1.56
Brand Value	0.29	0.19	0.10	0.00	0.05
Trend Value	0.05	0.04	0.11	0.07	0.46
Knowledge Background of Brand	0.10	0.22	0.00	0.00	0.14
Product Competitor Knowledge	0.98	0.56	0.26	0.12	0.10
Supportive System Value	1.14	0.52	0.50	0.12	0.84

46: Comparative analysis of three key value on twelve values

Value (overall)	All average	Successful products	Unsuccessful products
Physical Value	3.25	3.59	3.43
Functional Value	3.53	3.53	3.44
Emotional Value	2.90	3.46	3.31
User Value	3.03	3.36	3.21
Eco Value	2.76	3.57	3.46
Cultural Value	2.50	3.28	3.19
Social Value	2.91	3.56	3.44
Brand Value	2.80	3.37	3.31
Trend Value	2.65	3.36	3.25
Knowledge Background	2.55	3.27	3.03
Product Competitor	2.73	3.41	3.27
Supportive System Value	3.31	3.60	3.47

47: Comparative analysis of three key value of the physical value

Physical Value	All average	Successful products	Unsuccessful products
Aesthetics	3.43	3.70	3.50
Good Quality	3.73	3.61	3.56
Appropriate to the context	3.62	3.47	3.35
Enabling	3.23	3.57	3.44
Durability	3.64	3.68	3.59
Differentiation	2.80	3.55	3.24
Uniqueness	2.83	3.53	3.32
Innovativeness	2.71	3.57	3.46

48: Comparative analysis of three key value of the functional value

Functional Value	All average	Successful products	Unsuccessful products
Comfort	3.61	3.46	3.36
Safety	3.76	3.61	3.64
Ease of Use	3.55	3.69	3.60
Multi-functions	3.14	3.32	3.12
Convenience	3.57	3.54	3.46

49: Comparative analysis of three key value of the emotional value

Emotional Value	All average	Successful products	Unsuccessful products
Adventure	2.72	3.37	3.28
Independence	2.70	3.56	3.37
Security	3.63	3.58	3.49
Sensuality	3.30	3.68	3.55
Confidence	3.16	3.46	3.21
Power	2.40	3.40	3.02
Fun	2.77	3.47	3.30
Affection	2.51	3.35	3.20
Memorability	2.79	3.29	3.21
Taste	3.06	3.43	3.44

50: Comparative analysis of three key value of the brand value

Brand Value	All average	Successful products	Unsuccessful products
Brand Image	2.86	3.26	3.16
Brand Identity	2.80	3.39	3.33
Brand Promise	2.72	3.42	3.33
Brand Personality	2.80	3.41	3.40

51: Comparative analysis of three key value of the cultural value

Cultural Value	All average	Successful products	Unsuccessful products
Thainess	2.44	3.16	3.06
Thai Knowledge	2.60	3.33	3.19
Thai Tradition	2.46	3.34	3.31

52: Comparative analysis of three key value of the social value

Social Value	All average	Successful products	Unsuccessful products
No Child Labour	2.85	3.47	3.28
Human Rights	2.80	3.61	3.49
Made in Thailand	2.86	3.55	3.45
Social Well-being	2.93	3.56	3.43
Fair Trade	3.11	3.58	3.56

53: Comparative analysis of three key value of the user value

User Value	All average	Successful products	Unsuccessful products
Saving Expenses	3.26	3.21	3.16
Time Saving	3.10	3.35	3.33
Convenience	3.51	3.44	3.38
Efficiency	3.63	3.54	3.41
Role Fulfilling	2.96	3.54	3.34
Self-fulfillment	3.31	3.58	3.40
Social Image/Impression	2.61	3.41	3.24
Group Belongingness	2.54	3.27	3.04
Good Fortunate	2.40	2.92	2.64

54: Comparative analysis of three key value curves of the trend value

Trend Value	All average	Successful products	Unsuccessful products
Trendy	2.91	3.40	3.37
In-trend Internationally	2.50	3.32	3.15
In-trend Nationally	2.53	3.37	3.22

55: Comparative analysis of three key value curves of the eco value

Eco Value	All average	Successful products	Unsuccessful products
Energy Saving	2.98	3.49	3.37
Rethinking Ideas	2.96	3.70	3.62
Biodegradable	2.70	3.66	3.46
Green Energy	2.62	3.51	3.43
CO2 Reduction	2.55	3.49	3.43

56: Comparative analysis of three key value curves of the value, knowledge of the company's brand

Knowledge Background of Brand	All average	Successful products	Unsuccessful products
Brand Awareness	2.69	3.22	2.98
Brand Loyalty	2.40	3.33	3.07

57: Comparative analysis of three key value curves of the value, knowledge of product competitors

Product Competitor Knowledge	All average	Successful products	Unsuccessful products
Direct Competitor	2.75	3.38	3.12
Substitue Competitor	2.77	3.46	3.35
Alternative Competitor	2.67	3.40	3.32

58: Comparative analysis of three key value curves of the value, supportive product/service system

Supportive System Value	All average	Successful products	Unsuccessful products
After Sale Service	3.38	3.45	3.39
Warranty	3.57	3.64	3.56
Product Accessories	3.24	3.59	3.46
Product Extendables	3.32	3.65	3.49
System Platform	3.21	3.60	3.49
Product Supplements	3.12	3.69	3.45

59: Comparative analysis of product value prioritization

Value	Successful average	Unsuccessful average	All average
Physical Value	3.77	3.45	2.90
Functional Value	3.43	3.26	3.72
Emotional Value	3.48	3.33	1.78
User Value	2.30	2.28	2.58
Eco Value	0.64	0.74	0.77
Cultural Value	0.22	0.26	0.27
Social Value	0.84	0.82	0.62
Brand Value	0.20	0.13	0.65
Trend Value	0.16	0.15	0.43
Knowledge Background of Brand	0.11	0.09	0.15
Product Competitor Knowledge	0.73	0.40	0.27
Supportive System Value	0.88	0.62	1.07