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## An Empirical Study to Construct a Systematic Model for Product Bundles

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**Abstract:** Following a literature review, product bundles are classified into four types by two dimensions: degree of functional integrity and degree of symbolic increase. Through classification, this study could successfully present a systematic model for manufacturers and marketers concerning how to bundle products. This model not only utilizes a matrix of product attributes and product bundles to evaluate the imprecise requirements from customers but also provides an efficient approach to discuss the marketing strategy of bundling for improving satisfaction of customers' needs and wants.

**Key words:** Product bundle, systematic model, product attributes, marketing strategy of bundling

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### INTRODUCTION

Bundling is widely practiced in today's marketplace. Marketers utilize the joint pricing for the sale of two or more products and/or services in a single package (Kaicker *et al.*, 1995). Yadav and Monroe (1993), basing their views on transaction utility theory, considered consumers' perception of savings when they evaluated a bundle offer. They found that consumers gained transaction utility from discounts associated with the component products in a bundle plus any discount associated with the bundle. Simonin and Ruth (1995) adopted a quasi-experimental procedure to investigate the effects of bundling influence on consumers' evaluations and reservation price judgments. They found the form of the bundle and attitudes toward the brand to be important determinants of consumers' evaluation of the bundle itself. Mulhern and Leone (1991) and Harlam *et al.* (1995) observed complementary effects in their study. Bundles composed of complements, will have higher purchase intentions than the bundles of unrelated products.

There are two gaps in the literature which can be seen to emerge from this situation. Firstly, past research focusing on bundles has concentrated on the pricing strategy of bundles in most of the previous literature (Venkatesh and Mahajan, 1993; Johnson *et al.*, 1999; Soman and Gourville, 2001; Chung and Rao, 2003; Janiszewski and Cunha Jr., 2004) and there is very little work on the planning strategy focusing on the complementary components of a bundle. Secondly, past

research has paid much attention to monetary benefits of bundles; however, the product attributes of bundles in satisfying the needs of customers is seldom mentioned. Thus, this research proposed an analytic model to fill these gaps. For a valuable product bundle, there are two basic conditions which we need to consider. Firstly, each individual component of the bundle should provide suitable product attributes to match customers' needs; secondly, the complementary relationship of the overall bundle should be sufficient for customers to produce a high consumer surplus.

According to research by Euromonitor International in 2008, the market worth of the global cosmetics and toiletries (C and T) industry is about US\$ 330 billion (bn) in the 52 main countries; of these, the top 3 sales countries are North America (50.4 bn), Japan (29.8bn) and Brazil (18.2 bn). Concerning the sales amount of C and T retail channels, hypermarkets, pharmacies and department stores dominate over 50% of global sales. In the practice of C and T sales, single function products cannot satisfy the multiple requirements of customers. Customers consider issues of both attribute completeness and utility complementary. Various cosmetic bundles are available and play an increasingly important role in the C and T market to satisfy customer needs. Thus, this study utilizes three real cosmetic bundles to find the critical product attributes for improvement and to determine the priority weight of components for planning a complementary bundle.

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## LITERATURE REVIEW

**Product bundle:** Bundling occurs when two or more products or services are sold together as a single package for a single selling price (Yang, 2010; Montinaro and Sciascia, 2011). Stremersch and Tellis (2002) define bundling as “the sale of two or more separate products in one package”. Based on the above definitions, there are two themes about bundling strategies, the product form and the bundling focus. In the former case, pure bundling and mixed bundling are involved. Concerning the bundling focus, there are two major fields of bundling research, namely price bundling and product bundling (Asikhia, 2009; Jiang *et al.*, 2011). Stremersch and Tellis (2002) define price bundling as the sale of two or more separate products in a package at a discount with no integration of the products; on the other hand, product bundling is described as the integration and sale of two or more separate products or services, regardless of price.

In the previous literature, there is a plethora of price bundling research which views bundling just as a pricing and promotional tool used at short notice and for a short duration. Not surprisingly, this economics literature provides prescriptions for when and why price bundling is a revenue-maximizing or profit maximizing strategy (Sudhahar *et al.*, 2006; Lee *et al.*, 2009). For example, Harlam *et al.* (1995) adapted the value function of prospect theory (Thaler, 1985) to examine how consumers evaluate the outcomes of components as well as bundle pricing and make a purchase choice. Soman and Gourville (2001) used the concept of sunk cost to examine how price bundling affects the decision by the consumer. In contrast, few researchers are involved in product bundling, despite its potential for more strategic applications to create added value and provide a more long-term differentiation strategy (Stremersch and Tellis, 2002). For example, product bundling benefits customers by reducing the time and cognitive effort required to make purchase decisions (Moriarty and Kosnick, 1989). Product bundling also could be a strategy for new product introduction through bundling with an existing product (Simonin and Ruth, 1995). Sarin *et al.* (2003) applied product bundling as a strategy to reduce the perceived risk with new high-tech products because customers are subject to additional worries about compatibility between parts of a product system.

Whether, considering price bundling or product bundling research, the key to effective bundling is the degree of complementarity between services or products in the bundle (Hewahi, 2009; Hosseinpourtehrani and Ghahraman, 2011). The influence of complementarity depends on the attributes among the components of the bundle. Simonin and Ruth (1995) indicated that consumers’ perceptions of the degree to which the

products in the bundle “fit” together are expected to play a key role in the evaluation of the bundle and its effects on price judgment. Mulhern and Leone (1991) and Harlam *et al.* (1995) observed that bundles composed of complements will have higher purchase intentions than the bundles of unrelated products. Legarreta and Miguel (2004) indicated the benefits of bundles arise from the complementary nature of the products, the convenience and lower search cost of one-stop shopping, introduction to new service and the perception of added-value. To sum up the above results, the type of bundling will influence consumers’ evaluation and purchasing intention. However, there is a question as to how many types of bundling exist in bundling products? Besides the complementary one, are there any other relationships between products of a bundle? In previous studies, many scholars have used a rational model or “economic man” model to conduct research in price bundle strategy to maximize transaction utility (Lee *et al.*, 2008; Zanjani *et al.*, 2009). On the other hand, research about the type or image of whole product bundles is still limited. Simonin and Ruth (1995) utilized two dimensions—the degree of product integration and the degree of recognizability, so that the product bundles could be divided into four types—implicit bundles, multi-product bundles, integrated product bundles and single-product bundles. However, this classification just describes the bundling externally, so the implications of the product bundle and the correlation with consumer outcome are still not clear. Holbrook and Hirschman (1982) indicated that the rational model does not capture the multi-sensory imagery, fantasy, fun and emotions associated with the consumption of some products. Park *et al.* (1986) noted that consumers’ needs could be classified as being either symbolic or functional. They argued that functional needs are related to specific and practical consumption problems and symbolic needs are related to self-image and social identification. In the empirical study of Bhat and Reddy (1998), consumers do not have any trouble accepting brands that have both functional and symbolic appeal and could accept both functional and symbolic meaning at the same time.

However, a practical model of how to bundle individual products is also necessary. Through such a model, manufacturers and marketers could improve an existing bundle or plan new designs.

## EMPIRICAL STUDY

The brand Shiseido (S company) is a very famous C and T brand and has NO.1 annual sales in Taiwan (10.1% market share); however, compared to the main competitors—Lancôme (L’Oréal group; 7.5% market share) and SK-II (Procter and Gamble; 9.9% market share), brand

Table 1: The Relationship of PAs and CoB

	Cleanser		Lotion		Essence		Eye cream		Day and night care	
	Crisp	Rank	Cris	Rank	Crisp	Rank	Crisp	Rank	Crisp	Rank
SP	0.000		0.032		0.186	1	0.347	1	0.434	2
WT	0.119	5	0.158	5	0.148		0.237		0.338	
CN	0.229	1	0.252	2	0.151		0.174		0.194	
CO	0.176	3	0.211	3	0.161		0.208		0.244	
TP	0.159	4	0.196	4	0.174	5	0.224		0.248	
MS	0.077		0.127		0.181	2	0.274	5	0.340	
ES	0.220	2	0.277	1	0.137		0.160		0.207	
NU	0.000		0.031		0.179	2	0.341	2	0.450	1
FR	0.093		0.140		0.150		0.249		0.368	5
AP	0.051		0.085		0.142		0.289	3	0.433	3
RE	0.068		0.116		0.180	2	0.285	4	0.351	4

S has a lower sales amount in the department stores. S company has the poor sales of cosmetic bundle which is the main strategy for every C and T brand to attract customers in the special promotion activity. That is to say, customers prefer the competitors' cosmetic bundles than those of brand S. Thus, this study chose three cosmetics bundles of the above brands from a department store's sales literature to evaluate the performance of product attributes that Shiseido needs to improve. In the research samples, besides the 16 Very Important Persons (VIPs) of target customers aged 20 to 45 years old, three different types of 15 experts (including scholars, cosmetologists and sales clerks) are also included. Next, to develop a bundling model, this study combines the relationships between product attributes (PAs) and components of bundle (CoB) to construct a "House of Bundling". The methodology is illustrated in the following 10 steps.

**Step 1: Identify the needs of customers and product attributes:** To determine the needs of customers for cosmetics design, this study conducted in-depth interviews with 31 experts and VIPs with questions focusing on customer benefits of cosmetics purchases and the product attributes which could satisfy these benefits. Through sorting, classifying and structuring the customer needs, eleven product attributes were determined and are shown in the first column (from row 2 to row 12) of Fig. 1.

**Step 2. Determine the relative weight of PAs:** Utilizing a fuzzy AHP method, experts and VIPs of cosmetics were asked to compare a series of pairwise comparisons to establish the relative importance of customer requirements in achieving the upper level criterion. A linguistic scale was used to compare any two elements equally, moderately, strongly, very strongly, or extremely preferred. For example, the question asked to the expert (or VIP) was: "what is the relative impact on the benefit X by product attribute A when compared to product

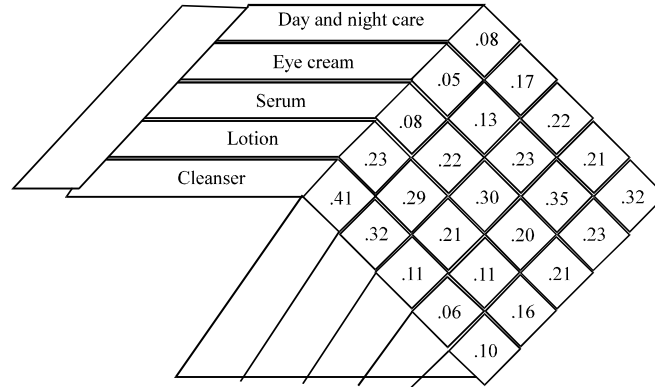
attribute B in using cosmetics?" The linguistic terms that people use to express their feelings or judgment are vague. In this paper, the weight is given in second column (from row 2 to row 13) of Fig. 1 and top 3 product attributes are "cleaning"(0.159), "sun protection"(0.142) and "firming"(0.137).

**Step 3: Determine the main components of bundle (CoB):** Based on market information and experts' opinions, five major components of cosmetics bundles-cleanser, lotion, serum, eye cream and day and night care-have been determined and are shown in the first row (from column 3 to column 7).

**Step 4: Assess and calculate the relationship between PAs and CoB:** By correlating required PAs and CoB, the symbol list is prepared to indicate the degree by which CoB influences the various PAs. Triangular fuzzy numbers, denoted as  $M = (l, m, u)$ , are used to represent the relationship strengths within each identified range to obtain a precise output. To integrate opinions from experts, this study averages the evaluation of experts to obtain the means of triangular fuzzy numbers. Next, this averaged triangular fuzzy number can be defuzzified by Equation 1 to a crisp number. After being normalized, the relation between PAs and CoB is completed (Table 1) and is shown in the bold rectangle of Fig. 1.

$$M_{CRISP} = (4m+1+u)/6 \tag{1}$$

Table 1 shows how the priority of product attributes for each component of the bundle was confirmed. For example, for Cleanser, the top 5 product attributes which should be included are "Cleaning", "Exfoliating scrubs", "Control oil", "Tightened pores" and "Whitening". Manufacturers could refer to the correlation between attributes and components to provide multiple attributes in an individual component. Marketers could use this result to design a suitable bundle and appeal strategy to match the multiple needs of customers'.



		Components of Bundle (CoB)													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Product attributes (PAs)	Weight	Cleanser	Lotion	Serum	Eye cream	Day and night care	Bundle A	Bundle B	Bundle C	Goal of PAs	Improvement ratio of PAs	Improved weight	Normalized score	Rank
2	Sun protection	0.142	0.000	0.032	0.168	0.348	0.434	1.781	2.355	1.972	2.355	1.322	0.188	0.118	2
3	Whitening	0.089	0.119	0.158	0.148	0.237	0.338	4.484	7.141	6.776	7.141	1.593	1.142	0.089	3
4	Cleaning	0.159	0.229	0.252	0.151	0.174	0.194	0.091	2.445	6.856	6.856	0.993	0.476	0.300	1
5	Control oil	0.054	0.176	0.211	0.161	0.208	0.244	0.599	0.513	5.440	5.440	2.093	0.113	0.071	6
6	Tightening pores	0.049	0.158	0.196	0.174	0.224	0.248	2.112	2.063	3.843	3.848	1.822	0.089	0.056	8
7	Moisturizing skin	0.130	0.078	0.127	0.181	0.274	0.340	7.253	6.051	4.533	7.253	1.000	0.130	0.082	5
8	Exfoliating scrubs	0.042	0.220	0.276	0.137	0.160	0.207	2.744	2.850	4.489	4.489	1.636	0.069	0.043	10
9	Nutrition	0.044	0.000	0.031	0.178	0.341	0.450	4.211	5.927	6.859	6.859	1.629	0.072	0.045	9
10	Firming	0.137	0.093	0.140	0.150	0.249	0.368	4.433	4.447	6.966	5.433	1.000	0.137	0.086	4
11	Activation	0.092	0.051	0.085	0.142	0.289	0.433	3.003	2.411	3.636	3.636	1.211	0.111	0.070	7
12	Equilibrium	0.062	0.068	0.116	0.180	0.285	0.351	6.852	3.591	6.124	6.852	1.000	0.062	0.39	11
13	Priority weight		0.158	0.226	0.221	0.189	0.207								
14	Bundle A		0.441	8.222	7.922	2.147	8.531								
15	Bundle B		1.783	5.671	8.838	6.941	7.588								
16	Bundle C		8.066	7.925	7.611	1.170	5.642								
17	Goal of CoB		8.066	8.222	8.838	6.941	8.531								
18	Improvement ratio of CoB		5.598	1.000	1.116	3.233	1.000								
19	Improved weight		0.881	0.226	0.246	0.610	0.207								
20	Normalized score		0.406	0.104	0.113	0.281	0.095								
21	Rank		1	4	3	2	5								

Fig. 1: Relating product attributes and components of bundle

**Step 5: Assess and calculate the correlation between CoB:** Focusing on the complementarily for use, experts and VIPs were asked to judge the correlation among components of the bundle. Similar to step 4, the symbol

list was prepared to indicate the level between CoB. To integrate opinions from experts, this study averaged the evaluation of experts and VIPs to obtain the means of triangular fuzzy numbers. After being defuzzified and

Table 2: The Correlation among CoBs

	Cleanser	Lotion	Essence	Eye cream	Day and night care
Cleanser	0.412	0.324	0.108	0.059	0.098
Lotion	0.228	0.290	0.214	0.110	0.159
Essence	0.078	0.220	0.298	0.199	0.206
Eye cream	0.050	0.133	0.233	0.350	0.233
Day and night care	0.076	0.174	0.220	0.212	0.318

Table 3: Initial supermatrix of product attributes and component of bundle

		Product attribute (PA)											Components of bundle (CoB)					
		OBJ	PA1	PA2	PA3	PA4	PA5	PA6	PA7	PA8	PA9	PA10	PA11	CoB1	CoB2	CoB3	CoB4	CoB5
Objective	OBJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sun protection	PA1	0.132	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Whitening	PA2	0.049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cleaning	PA3	0.145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Control oil	PA4	0.064	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tightening pores	PA5	0.035	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moisturizing skin	PA6	0.137	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exfoliating scrubs	PA7	0.048	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nutrition	PA8	0.024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Firming	PA9	0.178	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Anti-phlogistic	PA10	0.136	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Revitalizing	PA11	0.052	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cleanser	CoB1	0	0.000	0.119	0.229	0.176	0.159	0.077	0.220	0.000	0.093	0.051	0.068	0.412	0.228	0.078	0.050	0.076
Lotion	CoB2	0	0.032	0.158	0.252	0.211	0.196	0.127	0.277	0.031	0.140	0.085	0.116	0.324	0.290	0.220	0.133	0.174
Serum	CoB3	0	0.186	0.148	0.151	0.161	0.174	0.181	0.137	0.179	0.150	0.142	0.180	0.108	0.214	0.298	0.233	0.220
Eye cream	CoB4	0	0.347	0.237	0.174	0.208	0.224	0.274	0.160	0.341	0.249	0.289	0.285	0.059	0.110	0.199	0.350	0.212
Day and night care	CoB5	0	0.434	0.338	0.194	0.244	0.248	0.340	0.207	0.450	0.368	0.433	0.351	0.098	0.159	0.206	0.233	0.318

Table 4: Final supermatrix of product attributes and component of bundle

		Product attribute (PA)											Components of bundle (CoB)					
		OBJ	PA1	PA2	PA3	PA4	PA5	PA6	PA7	PA8	PA9	PA10	PA11	CoB1	CoB2	CoB3	CoB4	CoB5
Objective	OBJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sun protection	PA1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Whitening	PA2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cleaning	PA3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Control oil	PA4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tightening pores	PA5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moisturizing skin	PA6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exfoliating scrubs	PA7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nutrition	PA8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Firming	PA9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Anti-phlogist	PA10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Revitalizing	PA11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cleanser	CoB1	0.158	0.158	0.158	0.158	0.158	0.158	0.158	0.158	0.158	0.158	0.158	0.158	0.158	0.158	0.158	0.158	0.158
Lotion	CoB2	0.226	0.226	0.226	0.226	0.226	0.226	0.226	0.226	0.226	0.226	0.226	0.226	0.226	0.226	0.226	0.226	0.226
Serum	CoB3	0.221	0.221	0.221	0.221	0.221	0.221	0.221	0.221	0.221	0.221	0.221	0.221	0.221	0.221	0.221	0.221	0.221
Eye cream	CoB4	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189	0.189
Day and night care	CoB5	0.207	0.207	0.207	0.207	0.207	0.207	0.207	0.207	0.207	0.207	0.207	0.207	0.207	0.207	0.207	0.207	0.207

normalized, the correlation among CoB was completed (Table 2) and is shown in the ‘roof’ of Fig. 1.

**Step 6: Utilize Supermatrix to calculate CoB relative weight:** In this step, the supermatrix  $W$  is utilized to calculate the priority weights of CoB, where,  $W$  is given as follows, where  $W_{21}$ ,  $W_{32}$  and  $W_{33}$  are matrices (Table 3).

$$W = \begin{matrix} & \text{Goal} & \text{Attribute} & \text{Components} \\ \text{Goal} & \begin{bmatrix} 0 & 0 & 0 \\ W_{21} & 0 & 0 \\ 0 & W_{32} & W_{33} \end{bmatrix} & & \end{matrix}$$

$W_{21}$  is actually a vector that represents the importance of product attributes, which is given in column 2 of Fig. 1.  $W_{32}$  represents the importance of components for each product attribute; these values are contained within the bold rectangle of Fig. 1. Finally,  $W_{33}$  represents the interdependence of competitive priorities; these numbers correspond to the values contained within the roof matrix shown in Fig. 1.

Table 4 also shows how the vector of converged values ( $W_{31}$ ) is transported to provide the results for the modified QFD model. The converged values become the ‘priority’ row (row 13) in Fig. 1. This matrix shows that

the most important component is “lotion” with a percentage weight score of 22.6%. The next-most-important competitive priority is “essence” with 22.1%. Thus, in planning the components of a bundle, lotion is the first item to be put in the bundle. This is followed by essence, day and night care and eye cream. The cleanser is the last one to be considered.

**Step 7: Competitive analysis-product attributes:** In this step, experts are asked to evaluate the performance of PAs for three bundles. The linguistic variables list (Table 5), such as very unsatisfied, unsatisfied, fair, satisfied and very satisfied, is prepared to express their feeling. After integrating the opinions of experts and applying a defuzzification process, the results of the evaluation are complete. The data is shown in columns 8 to 10 of Fig. 1.

Column 11 of Fig. 1 shows where the manufacturer of bundle A desired to be in the future with respect to the competition in each product attribute. The value is the maximum one of these three bundles.

**Step 8: Determine final importance rating of PAs:** The improvement ratio (column 12) is calculated by dividing the goal of bundle A by its current situation. If the ratio is equal to 1.00, this means the PA performance is inferior to its competitors. For example, Bundle A currently has a score of 1.781 in “Sun protection” and has decided to improve that product attribute to 2.355 (Bundle B did it), resulting in an improvement ratio of 1.322. After calculating the above ratio, there are 8 product attributes that are larger than 1.00 and the top 3 product attributes are “Cleaning” (2.993), “Control oil” (2.093) and “Tightened pores” (1.822). However, the real improvement priority depends on the weight factor. The weight factor (column 13) is computed for each product attribute by multiplying the relative weight (column 2) and the improvement ratio. This weight factor indicates the importance of a specific product attribute to be improved

and could be converted into a percentage (column 14) and the rank (column 15) for bundle A. For example, “Whitening” has a low improvement ratio (1.593); however, by multiplying the relative weight (0.089 for “Whitening”) this becomes the second most important attribute for maintaining improvement. After calculation of the weighted factor, the top 3 product attributes that Bundle A needs to improve or enhance are “Cleaning” (0.476), “Whitening” (0.188) and “Sun protection” (0.142).

**Step 9: Competitive analysis-Components of bundle:** In this step, experts and VIPs utilize the linguistic variables list to evaluate the performance of CoB for the three bundles. After integrating the opinions of experts and undergoing a defuzzification process, the results of the evaluation are complete (Table 6) and rows 14 to 16 of Fig. 1 show the results of components for each bundle.

Row 17 shows where the manufacturer of bundle A desired to be in the future with respect to the competition in each product attribute. The value is the maximum of these three bundles.

**Step 10: Determine final importance rating of CoB:** The improvement ratio of CoB is calculated by dividing the goal of bundle A by its current situation. For example, Bundle A currently has a score 1.441 for “Cleaner” and has decided to improve that component to 8.066 (Bundle C did it), resulting in an improvement ratio of 5.598. From the results in row 18, “cleaner” and “eye cream” are two main components for Bundle A to be enhanced. Next, the weight of improvement (row 20) is computed for each component by multiplying the priority weight and the improvement ratio. This weight factor indicates the improving priority of a specific component and could be converted into a percentage (row 21) and the rank (row 22) of Bundle A. From the result of row 19, both “cleaner” (0.883) and “eye cream” (0.610) have a high improvement ratio with respect to competitors, which means that Bundle A needs to improve these two components immediately. In fact, after checking the list of components, these two components are not included in Bundle A. Thus, considering the components offered by competitors, “cleaner” and “eye cream” need to be put in the list of components of Bundle A (Fig. 1).

Table 5: The linguistic definition of triangular fuzzy numbers

Linguistic	Fuzzy No.	Triangular fuzzy No.
Very unsatisfied	1	(1, 1, 3)
Unsatisfied	3	(1, 3, 5)
Normal	5	(3, 5, 7)
Satisfied	7	(5, 7, 9)
Very satisfied	9	(7, 9, 9)

Table 6: The evaluation result of CoBs

Bundle	Cleanser		Lotion		Essence		Eye Cream		Day and Night care	
	Crisp	Rank	Crisp	Rank	Crisp	Rank	Crisp	Rank	Crisp	Rank
A	1.441	3	8.222	1	7.922	2	2.147	2	8.531	1
B	1.783	2	5.671	3	8.838	1	6.941	1	7.588	2
C	8.066	1	7.925	2	7.611	3	1.177	3	5.642	3

## CONCLUSIONS

There are several suggestions for S company. Firstly, focusing on the high improvement ratio of Pas (column 12), the manufacturer needs to intensify the performance for those product attributes in order to reduce the gap with competitors, so this suggests that the marketers should communicate with customers about these product attributes aggressively in order to enhance the customers' image or perception.

Secondly, besides the top 3 weighted factors of PAs ("Sun protection", "Cleaning" and "Whitening"), the manufacturer and marketer also need to pay more attention to "Firming" and "Moisturizing". Although these two PAs have the best performance and the lowest improvement ratios (the value is 1.000) in bundle A, after considering the relative weights of product attributes (column 2), "Firming" and "Moisturizing" rise to fourth and fifth place in importance of improved weight (Fig. 1).

Thirdly, the role of climatic features found in Asia could be an influential factor in this finding. Under conditions of intense sunlight, water easily evaporates from the skin surface, leading to the skin losing its original elastic ability and the formation of wrinkles. Thus, the product attributes mentioned above are of particular concern for Asian women. Marketers should therefore, focus on the variation of demand in order to provide a suitable product bundle.

In fact, marketers widely utilize bundles as a marketing strategy to introduce new products to the market. However, if this new product does not have a complementary relationship with the other components, it will represent a one-sided move on the part of the producer and it ignores the importance of customer-orientation.

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