Design of Marketed Drinks Packaging from the Perspective of Designers

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Abstract: Packaging is the main medium of information communication between producers and consumers. This is particularly true for marketed drinks—one of the most frequently purchased and consumed commodities in Taiwan. A time-consuming packaging design process can jeopardize producers' precious market shares (product competence) because new marketed drinks emerge quickly. Therefore, this research targets marketed drinks in Taiwan, evaluates the surface design in the packaging of various producers from the designers' perspective, and then examines whether the tendency in the use of trade dress converges or not. From the designers' perspective on the packaging design of marketed drinks, this research concluded that designers deem brand name, illustration, additional product information, commodity name, and bottle shape as the trade dress commonly used in drinks packaging design. We hope that the outcome of this research will help designers to simplify the design process and can be used as reference for teaching and learning packaging design.

Keywords: drinks, packaging surface design, trade dress

1. Introduction

Studies showed that strengthening brand or packaging features (e.g., proprietary color, unique graphics, personalized font, convenient structural design, etc.) to communicate design information can attract the short-term attention of consumers and promote sales [1]. In addition, effective packaging surface design can improve consumers' attention, prolong their stay at the shelf, and thus increase the opportunity to purchase [2, 3]. In general, designers create trade dress to stimulate consumers to purchase by using words, graphics, color, trademark, shape, dimension, material, texture, and other design elements [4].

The amount of drinks consumed in Taiwan is staggering. In 2008, the sales volume of the drink business was more than 10 million tons, and 2.5 bottles of a 600 cc packaged beverage were consumed per person per day [5]. At present, the beverages commercially available in Taiwan are varied, and there are differences among the designs for all varieties. On the basis of packaging surface design, design factors can be divided into visual and functional elements [6-8]: (a) visual - visual design elements, including layout constitution formed by shapes (forms), colors, words, illustrations (lines, symbols, pictures, patterns, graphics), and decoration; (b) functional -

functional design elements, including structural design (protection, storage, transportation, unsealing, and re-package function), material design (emotional appeal, window display value), and capacity design (economic function). Therefore, the designers not only need to optimize packaging visibility, but also consider how to enhance and show these factors on the shelves [9]. In summary, the present study focuses on the above design elements as the research content.

To sum up, this research aims to conduct an in-depth investigation on which design elements designers emphasize to create visual focus when they design packaging surfaces, as well as to determine the trade dress that helps in creating beverage packaging from the designers' perspective. The findings are expected to assist package designers in simplifying the design process, and to be a reference and basis for teaching packaging surface design. The research questions of this study are as follows:

- (a) What is the application trend of trade dress of different drinks packaging from the perspective of designers?
- (b) Do trade dress have a specific trend if the visual focus recognized by designers is applied to the packaging surface design of different drinks?

2. Literature

2.1 Taiwan beverage market

In 2008, the beverage market of chain brands had an annual market scale of NT\$ 40 billion, proving that consumers have a large demand for drinks [10]. From 2008 to 2010, the number of new products in the beverage market continued to grow at an average rate of 5% per annum [11], which suggests that the beverage market in Taiwan has a very high frequency of innovation. Therefore, it is very important that packaging design attracts the eyes of consumers.

A market research company conducted a network survey of beverage purchasing behavior of Taiwan consumers. The survey results showed that 92% of respondents drink a beverage once a week. Moreover, the survey on the information channel for obtaining new products showed that "television advertisement" and "make a discovery when visiting stores" are the important channels for obtaining information on new products that enter the market [12]. Packaging clearly plays an important role in the consumption process.

Enhancing product differentiation is becoming more important because of the high isomorphism of product types between all enterprises and the oversupply of similar products in the market [13]. Moreover, the diversification of products has intensified the competition of marketed drinks. In addition to establishing a brand image, packaging surface design has played an important role in stimulating consumers to purchase. In the following section, we will conduct an in-depth analysis of this role by looking into the packaging identification and packaging surface design of drinks.

2.2 Packaging identification and packaging surface design

The effect of product package is mainly reflected in the following seven aspects: (1) making the quality and number of goods safe and complete; (2) being the silent salesman of products (by affecting the first impression);

(3) building the corporate brand; (4) increasing profits and saving money; (5) guiding customers and explaining how to use the product functions; (6) package innovation is an important guarantor of product sales and a source of profits; and (7) the continuation of production can improve the added value of product sale. Clearly, the sale determinants of drinks is, product package, which is the important extrinsic value of drinks [14].

In short, packaging surface design represents the brand to a certain extent, even becoming as important as the product itself. The method to distinguish the quality of packaging surface design is to show the features of goods by the attraction of vision and mentality, and to ensure that consumers obtain the brand name and brand attributes clearly, as well as establish brand identification, to generate brand association and brand image. The core value is to influence strategy, product development, and communication [15, 16].

Among beverage products, packaging differentiation (shape or dimension), of which packaging bottle is the common container shape, can create a good brand image [17, 18]. The design emphasis of the packaging bottle is convenient for eating, safe, and beautiful [18, 19]. Based on field observations of the market and the evidence of related research results of beverage packaging, the current research confirms that packaging bottle is the most common shape of beverage products [20]. Therefore, this paper will regard this as the scope of the study.

2.3 Trade dress and relative study

The distinguishment of packaging design emphasizes the trade dress of commodity attribute, label design, and bottle shape, of which bottle shape is the most important. The elements to distinguish also trend into three characterization categories, namely, items, bottle shape, and bottle color [21]. However, when the designers make bottle-shaping design and enhance the differences, they should list items, bottle color, and carrying property of the handle as the important elements to distinguish. Therefore, determining how to make their products prominent in the market is the issue that package designers need to pay more attention to.

Characterization refers to the general visual appearance features of goods or packages [22]. It includes the color scheme of goods or packaging, material, dimension, design, shape, words, graphics, and decoration [23]. If trade name or company name, trade mark, product container, packaging, or other characteristics that show other products recognized commonly by consumers are used, it means that words, languages, sounds, graphics, marks, figures, images, colors, shapes, actions, subjects, or other objects are sufficient to make an expression or spread the information having commercial value or notion; these are called trade dress [24]. Moreover, some studies divided trade dress into two kinds: (a) trade dress of goods - covers the shape or surface configuration and other design features; and (b) packaging trade dress - the package of goods formed by all the design elements and arrangements, including figure, layout, color, or color scheme [25].

Some related research have pointed out that the best packaging design principle in image class is simple packaging surface design. Cartoon and leisure situation shaping can also get the preferences of participants. Moreover, using obvious color differences is useful to distinguish tastes. For the whole collocation, the samples with better evaluation had elegant, strong, and pleasant imagery [26]. Several studies pointed out that brand font and color design will affect the searching behaviors of consumers and help in brand recognition [27]. The current research aims to study the applications of trade dress of packaging design of marketed drinks from the perspective of designers by referring to the above research results.

3. Research method and implementation

This research uses as sample drinks packaging that are commercially available for investigation. The research is divided into three stages. The first stage covers sample collection and picture cards production; the second stage covers designer interviews and investigations; and the third stage covers data coding and analysis of trade dress. The detailed explanation of this research is presented below.

3.1 Sample collection and picture cards production

Some research have proved that image samples can be used to replace the entity under the premise of clear expression of features and details of goods [28]. To have samples with public credibility, the present research adopted RT-MART data on the top 200 beverage sales in 2011 as the basis of sample selection by considering the cognitive differences in price and individual preference between consumers. By referring to the related research of other drink packages [6], this research also divided packages into eight kinds (Table 1). According to the proportions of all kinds of packages in the market, 110 samples were selected. Therefore, researchers took photographs in convenience stores (7-11, Family Mart, OK) and variety stores (Carrefour, Rt-mart, a.mart) after confirming the samples. The photographs were then made into picture cards in 1:1 scale for future use.

Drink category	Number of	Number of	Number of	Sample	Scope of drink contents
	marketed	bottled	test	proportion	
	drinks	containers	samples	(%)	
(a) Tea	168	99	30	27.27	Green tea, black tea, flavored tea
(b) Coffee	32	5	5	4.55	Ground and blended coffee
(c) Juice	200	78	25	22.73	Fruit and vegetable juice
(d) Dairy drinks	200	44	9	8.18	Long-life milk, milk acid drinks
(e) Carbonated	91	42	15	13.63	Sarsaparilla, cola, and other
drinks					sodas
(f) Sports drinks	18	7	5	4.55	Shupao, FIN, and other
					supplement drinks
(g) Functional	40	21	7	6.36	Hard corn drinks, refreshing
drinks					drinks, fruit vinegar, etc.
(h) Packaged	51	29	14	12.73	Mineral water, alkaline water,
water drinks					etc.
Total	800	325	110	100.00	

Table 1. Specifications of all kinds of drink samples

3.2 Designer interview and investigation method

This research invited nine professional designers (6 male and 3 female) for the one-on-one interviews. The field gave priority to planar and packaging designers. The average age was 42.44 years with an SD of 4.77, and the average length of service in designing was 16.78 with an SD of 4.21. Each designer was required to complete the statement of trade dress application of different kinds of drink packages one by one. A total of 110 picture cards were used to make the test, which aims to identify the emphasis that designers focus on when creating a packaging surface design. The test samples occurred randomly in nonrepetitive sequence in the survey process. Researchers, in turn, recorded the application focus of trade dress stated by the designers in the picture card testing process.

3.3 Data coding and trade dress analysis

The research materials were sent to three collaborative researchers for logging and coding. After mutual discussion and after understanding the definition of trade dress, they evaluated the interview content and theme selection for category coding. The same parts were also used. For the different parts, a common view was obtained after in-depth discussion on the definition and situation before and after the interviews [29]. The consistency percentage formula was used to evaluate the reliability between evaluators [30] and thus confirm whether the data meets the basic reliability requirements or not (reliability coefficient ≥ 0.8) [31]. This research analyzed the differences in the applications of trade dress between all kinds of drink packaging surface designs by further referring to the statistical method in the multiple-choice frequency distribution table and by means of the SPSS statistical software [32].

4. Research results and analysis

4.1 Generalization of visual focus of packaging surface design of marketed drinks

Table 2. Definition of each trade dress

Comparison picture		$ \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \end{array}{0}\\ $
	(1)	Character design: the character design of foreign language of secondary mark
		mated with the headline on packaged drinks
	(2)	Name of commodity: the name of the content with adjective on packaged drinks
	(3)	Brand name: the brand of packaged drinks
	(4)	Company name: the name of the manufacturer on packaged drinks
	(5)	Information label: the supplementary graphic message in independent small block
	(6)	Brand mark: the brand or company badge on packaged drinks
	(0) (7)	Health logo: the health food label on packaged drinks
	(7)	Additional product information: the assistant words on packaged drinks
	(0)	Contents: the names of the contents without adjective on packaged drinks
	(10)	Taste: the seasoning production of the contents on packaged drinks
Definition and	(11)	Illustration: the pattern related directly to the contents
explanation of trade	(12)	Auxiliary pattern: the abstract pattern not directly related to the contents
dress	(12)	Material: the concave convex texture on packaged drinks
	(14)	Color of contents: the color of contents on packaged drinks
	(15)	Bottle shading: a large area of shading on packaged drinks
	(16)	Bottle color: a large area of pure color on packaged drinks
	(17)	Bottle curve: the whole shape lines below bottleneck on packaged drinks
	(18)	Bottleneck curve: the shape lines of the bottleneck on packaged drinks
	(19)	Bottle shoulder curve: the shape lines of the bottle shoulder on packaged drinks
	(20)	Bottle waist curve: the shape lines of the middle part of the bottle on packaged
		drinks
	(21)	Bottom curve: the bottom shape lines on packaged drinks
	(22)	Cap design: the different design of material and cap color on packaged drinks
	(23)	Bottle capacity: the marked capacity on packaged drinks

This research coded the survey results of nine designers. On the basis of the evaluation reliability of the consistency percentage formula, all of the results met the reliability coefficient ≥ 0.8 . The category attribution results were confirmed to belong to the acceptable scope. This research defined a total of 23 trade dress. Table 2 shows the details of each trade dress.

4.2 Application trend of trade dress of marketed drinks packaging

Based on Table 2, this research obtained the commodity application trend of all drinks packaging by means of selection ratio ranking of trade dress. Among 8 kinds of drinks, the maximum visual focus was 7 items; that is, among 110 drink packaging samples, 7 items of goods information that cause visual attention were listed by designers from 23 trade dress as important.

According to the statistical method of the multiple-choice frequency distribution table, designers' viewpoints were transferred into multiple-choice items and preference ranking. In addition, the application of trade dress of all kinds of drinks packaging was analyzed one by one after the selection threshold of the whole drinks and each drink option was in effect (Table 3).

Table 3. Statistics of the whole drinks and each kind of drink

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	Whole drinks
The number of drinks assessment	268	45	225	81	135	45	63	126	988
The number of total selected visual foci	1876	315	1575	567	945	315	441	882	6916
The number of actually selected visual foci	998	155	750	280	425	148	224	384	3364

*Codes ((a), (b), (c), ...) refer to Table 1.

(1) Tea drinks

Based on the statistical method in frequency distribution table, the survey results for designers to recognize the visual focus of packaging surface designs of 30 tea drinks are shown in Table 4. A total of 21 trade dress of packaging surface design for tea drinks were used cumulatively. According to the ranking and calculation as percentage, brand name was selected 222 times (accounting for 22.20% of the total number of times) and ranked first in the application of trade dress. This was followed by illustration (15.00%), commodity name (14.70%), additional product information (10.40%), and bottle curve (8.40%).

Table 4. Usage frequency of trade dress of tea drink packaging surface

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(15)	(16)	(17)	(19)	(20)	(21)	(22)	(23)	Total
Ν	7	147	222	27	63	1	23	104	24	5	150	21	1	22	34	84	48	9	2	1	3	998
Percent (%)	0.70	14.70	22.20	2.70	6.30	0.10	2.30	10.40	2.40	0.50	15.00	2.10	0.10	2.20	3.40	8.40	4.80	0.90	0.20	0.10	0.30	100.00
Percent of Cases (%)	2.60	54.90	82.80	10.10	23.50	0.40	8.60	38.80	9.00	1.90	56.00	7.80	0.40	8.20	12.70	31.30	17.90	3.40	0.70	0.40	1.10	372.40

*Codes ((1), (2), (3), ...) refer to Table 2. Grey refers to the trade dress of five big applications.

(2) Coffee drinks

Based on the statistical method in the frequency distribution table, the survey results for designers to recognize the visual focus of packaging surface designs of five coffee drinks are shown in Table 5. A total of 15 trade dress of packaging surface design for coffee drinks were used cumulatively. According to the ranking and calculation as percentage, brand name was selected 36 times (accounting for 23.20% of the total number of times) and ranked first in the application of trade dress. This was followed by illustration (11.60%), brand mark and bottle curve (10.30%), and commodity name (8.40%).

Table 5. Usage frequency of trade dress of coffee drinks packaging surface

	(1)	(2)	(3)	(4)	(6)	(8)	(10)	(11)	(12)	(15)	(16)	(17)	(18)	(19)	(23)	Total
Ν	4	13	36	10	16	12	7	18	6	2	5	16	1	7	2	155
Percent (%)	2.60	8.40	23.20	6.50	10.30	7.70	4.50	11.60	3.90	1.30	3.20	10.30	0.60	4.50	1.30	100.00
Percent of Cases (%)	8.90	28.90	80.00	22.20	35.60	26.70	15.60	40.00	13.30	4.40	11.10	35.60	2.20	15.60	4.40	344.40

*Codes ((1), (2), (3), ...) refer to Table 2. Grey refers to the trade dress of five big applications.

(3) Fruit and vegetable juice

Based on the statistical method in the frequency distribution table, the survey results for designers to recognize the visual focus of packaging surface designs of 25 fruit and vegetable juices are shown in Table 6. A total of 22 trade dress of packaging surface design for fruit and vegetable juices were used cumulatively. According to the ranking and calculation as percentage, illustration was selected 185 times (accounting for 24.70% of the total number of times) and ranked first in the application of trade dress. This was followed by additional product information (13.30%), brand name (11.70%), bottle curve (10.10%), and commodity name (10.00%).

Table 6. Usage frequency of trade dress of fruit and vegetable juice packaging surface

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(22)	(23)	Total
N	13	75	88	48	23	2	6	100	3	3	185	8	13	5	10	12	76	1	66	2	3	8	750
Percent (%)	1.70	10.00	11.70	6.40	3.10	0.30	0.80	13.30	0.40	0.40	24.70	1.10	1.70	0.70	1.30	1.60	10.10	0.10	8.80	0.30	0.40	1.10	100.00
Percent of Cases (%)	5.80	33.30	39.10	21.30	10.20	0.90	2.70	44.40	1.30	1.30	82.20	3.60	5.80	2.20	4.40	5.30	33.80	0.40	29.30	0.90	1.30	3.60	333.30

*Codes ((1), (2), (3), ...) refer to Table 2. Grey refers to the trade dress of five big applications.

(4) Dairy drinks

Based on the statistical method in the frequency distribution table, the survey results for designers to recognize the visual focus of packaging surface designs of nine dairy drinks are shown in Table 7. A total of 18 trade dress of packaging surface design for dairy drinks were used cumulatively. According to the ranking and calculation as percentage, brand name was selected 61 times (accounting for 21.80% of the total number of times) and ranked first in the application of trade dress. This was followed by character design (15.00%), assistant pattern (12.50%), bottle curve (11.80%), and illustration (8.90%).

	(1)	(2)	(3)	(4)	(5)	(6)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(19)	(20)	Total
N	42	9	61	11	7	5	13	5	7	25	35	1	2	1	6	33	15	2	280
Percent (%)	15.00	3.20	21.80	3.90	2.50	1.80	4.60	1.80	2.50	8.90	12.50	0.40	0.70	0.40	2.10	11.80	5.40	0.70	100.00
Percent of Cases (%)	51.90	11.10	75.30	13.60	8.60	6.20	16.00	6.20	8.60	30.90	43.20	1.20	2.50	1.20	7.40	40.70	18.50	2.50	345.70

Table 7. Usage frequency of trade dress of dairy drinks packaging surface

*Codes ((1), (2), (3), ...) refer to Table 2. Grey refers to the trade dress of five big applications.

(5) Carbonated drinks

Based on the statistical method in the frequency distribution table, the survey results for designers to recognize the visual focus of packaging surface designs of 15 carbonated drinks are shown in Table 8. A total of 20 trade dress of packaging surface design for carbonated drinks were used cumulatively. According to the ranking and calculation as percentage, brand name was selected 132 times (accounting for 31.10% of the total number of times) and ranked first in the application of trade dress. This was followed by assistant pattern (11.30%), bottle curve (9.60%), bottle color (8.20%), and bottle shoulder curve (6.60%).

Table 8. Usage frequency of trade dress of carbonated drinks packaging surface

	(1)	(2)	(3)	(4)	(6)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(19)	(20)	(21)	(22)	(23)	Total
Ν	14	3	132	14	9	24	2	8	15	48	3	3	3	35	41	28	10	23	1	9	425
Percent (%)	3.30	0.70	31.10	3.30	2.10	5.60	0.50	1.90	3.50	11.30	0.70	0.70	0.70	8.20	9.60	6.60	2.40	5.40	0.20	2.10	100.00
Percent of Cases (%)	10.40	2.20	97.80	10.40	6.70	17.80	1.50	5.90	11.10	35.60	2.20	2.20	2.20	25.90	30.40	20.70	7.40	17.00	0.70	6.70	314.80

*Codes ((1), (2), (3), ...) refer to Table 2. Grey refers to the trade dress of five big applications.

(6) Sports drinks

Based on the statistical method in the frequency distribution table, the survey results for designers to recognize the visual focus of packaging surface designs of five sports drinks are shown in Table 9. A total of 13 trade dress of packaging surface design for sports drinks were used cumulatively. According to the ranking and calculation as percentage, brand name was selected 42 times (accounting for 28.40% of the total number of times) and ranked first in the application of trade dress. This was followed by assistant pattern (23.00%), additional product information (12.80%), bottle curve (11.50%), and bottle color (7.40%).

Table 9. Usage frequency of trade dress of sports drinks packaging surface

	(1)	(2)	(3)	(4)	(7)	(8)	(12)	(13)	(15)	(16)	(17)	(19)	(20)	Total
Ν	8	1	42	2	3	19	34	2	1	11	17	7	1	148
Percent (%)	5.40	0.70	28.40	1.40	2.00	12.80	23.00	1.40	0.70	7.40	11.50	4.70	0.70	100.00
Percent of Cases (%)	17.80	2.20	93.30	4.40	6.70	42.20	75.60	4.40	2.20	24.40	37.80	15.60	2.20	328.90

*Codes ((1), (2), (3), ...) refer to Table 2. Grey refers to the trade dress of five big applications.

(7) Functional drinks

Based on the statistical method in the frequency distribution table, the survey results for designers to recognize

the visual focus of packaging surface designs of seven functional drinks are shown in Table 10. A total of 19 trade dress of packaging surface design for functional drinks were used cumulatively. According to the ranking and calculation as percentage, commodity name was selected 44 times (accounting for 19.60% of the total number of times) and ranked first in the application of trade dress. This was followed by illustration (13.40%), brand name (10.70%), bottle shoulder curve (10.30%), and brand mark (9.80%).

Table 10. Usage frequency of trade dress of functional drinks packaging surface

	(1)	(2)	(3)	(4)	(5)	(6)	(8)	(9)	(11)	(12)	(13)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	Total
Ν	4	44	24	8	8	22	16	3	30	2	4	3	1	21	1	23	1	1	8	224
Percent(%)	1.80	19.60	10.70	3.60	3.60	9.80	7.10	1.30	13.40	0.90	1.80	1.30	0.40	9.40	0.40	10.30	0.40	0.40	3.60	100.00
Percent of Cases (%)	6.30	69.80	38.10	12.70	12.70	34.90	25.40	4.80	47.60	3.20	6.30	4.80	1.60	33.30	1.60	36.50	1.60	1.60	12.70	355.60

*Codes ((1), (2), (3), ...) refer to Table 2. Grey refers to the trade dress of five big applications.

(8) Packaged water drinks

Based on the statistical method in the frequency distribution table, the survey results for designers to recognize the visual focus of packaging surface designs of 14 packaged water drinks are shown in Table 11. A total of 17 trade dress of packaging surface design for packaged water drinks were used cumulatively. According to the ranking and calculation as percentage, brand name was selected 70 times (accounting for 18.20% of the total number of times) and ranked first in the application of trade dress. This was followed by additional product information (13.80%), commodity name (12.50%), bottle curve (10.40%), and brand mark (7.60%).

Table 11. Usage frequency of trade dress of packaged water drinks packaging surface

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(11)	(12)	(13)	(15)	(16)	(17)	(19)	(20)	(21)	(23)	Total
N	5	48	70	21	11	29	22	53	4	16	20	1	8	40	18	13	1	4	384
Percent(%)	1.30	12.50	18.20	5.50	2.90	7.60	5.70	13.80	1.00	4.20	5.20	0.30	2.10	10.40	4.70	3.40	0.30	1.00	100.00
Percent of Cases (%)	4.00	38.10	55.60	16.70	8.70	23.00	17.50	42.10	3.20	12.70	15.90	0.80	6.30	31.70	14.30	10.30	0.80	3.20	304.80

*Codes ((1), (2), (3), ...) refer to Table 2. Grey refers to the trade dress of five big applications.

(9) Sorting and comparison of application trend of trade dress of the overall drink packaging

Finally, based on the statistical method in the frequency distribution table, the survey results for designers to recognize the visual focus of packaging surface designs of 110 drinks are shown in Table 12. A total of 23 trade dress of packaging surface design for the whole drinks were used cumulatively in this research. According to the ranking and calculation as percentage, brand name was selected 675 times (accounting for 20.10% of the total number of times) and ranked first in the application of trade dress. This was followed by illustration (12.70%), additional product information and commodity name (10.10%), and bottle curve (9.80%).

Table 12. Usage frequency of trade dress of the whole drinks packaging surface

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	Total
Ν	97	340	675	141	112	84	54	341	37	30	427	170	43	11	43	112	328	3	212	38	27	13	26	3364
Percent(%)	2.90	10.10	20.10	4.20	3.30	2.50	1.60	10.10	1.10	0.90	12.70	5.10	1.30	0.30	1.30	3.30	9.80	0.10	6.30	1.10	0.80	0.40	0.80	100.00
Percent of	0.00	24.40	69 20	14.20	11.20	0 50	5 50	24 50	2 70	2 00	12 20	17.20	4 40	1 10	4 40	11.20	22.20	0.20	21 50	2 00	2 70	1 20	2 60	240 50
Cases (%)	9.80	54.40	08.30	14.50	11.50	8.50	5.50	54.50	5.70	5.00	45.20	17.20	4.40	1.10	4.40	11.50	55.20	0.50	21.50	5.80	2.70	1.50	2.00	540.50

*Codes ((1), (2), (3), ...) refer to Table 2. Grey refers to the trade dress of five big applications.

The table shows that tea drinks and fruit and vegetable juice comply with the above results, that is, the visual design of these two kinds of packaging contains the richest information. Coffee drinks and packaged water are in second place, covering a total of four trade dress. The third are dairy drinks, sports drinks, and functional drinks, covering three kinds of trade dress in total. The final is carbonated drinks, only covering two kinds of trade dress. Specifically, the visual design of this kind of drink packaging contains the simplest information, without too much additional information design, but it emphasizes the structural design of the bottle package. To a certain extent, the trade dress of packaging surface design of carbonated drinks recognized by designers is similar to that of sports drinks.

Category	Application	Application	Application	Application	Application
category	ranking 1	ranking 2	ranking 3	ranking 4	ranking 5
(a)	Brand name	Illustration	Commodity name	Additional product information	Bottle curve
(b)	Brand name	Illustration	Bottle curve	Brand mark	Commodity name
(c)	Illustration	Additional product information	Brand name	Bottle curve	Commodity name
(d)	Brand name	Character design	Assistant pattern	Bottle curve	Illustration
(e)	Brand name	Assistant pattern	Bottle curve	Bottle color	Bottle shoulder curve
(f)	Brand name	Assistant pattern	Additional product information	Bottle curve	bottle color
(g)	Brand name	Illustration	Brand name	Bottle shoulder curve	Brand mark
(h)	Brand name	Additional product information	Commodity name	Bottle curve	Brand mark
Overall drink packaging	Brand name	Illustration	Additional product information	Commodity name	Bottle curve

Table 13. Sorting list of trade dress applications of packaging surface design of all drinks recognized by designers and verified by the statistical method of multiple-choice frequency distribution scale

*Codes ((a), (b), (c), ...) refer to Table 1. Grey refers to it is the same as the summarized results in Table 4.

5. Conclusion and suggestion

To sum up, this research aims to conduct an in-depth investigation on which design elements designers emphasize to create visual focus when they design packaging surfaces, as well as to determine the trade dress that helps in creating beverage packaging from the designers' perspective. The designers believe that brand name, illustration, additional product information, commodity name, and bottle curve are the commodity information that are enhanced in most packaging surface designs of drinks. The differences can be found in the trade dress of all kinds of designs. For example, designers believe that the most important trade dress of tea, coffee, and fruit and vegetable juice are brand name, illustration, bottle curve, and commodity name; for dairy drinks, carbonated drinks, and sports drinks, the most important are brand name, bottle curve, and assistant pattern. Among these trade dresses, the enhancement of additional product information can be considered by designers for visual focus in future packaging surface design.

The main purpose of this research is to realize the viewpoints of designers on the application trend of trade dress of different kinds of drinks packaging. Based on the three stages of summary, the checklist (Table 13) was sorted out by means of the research results of trade dress of all kinds of drinks packaging. The application trend of

different kinds of drinks packaging was clearly observed. The trade dress was also found to have specific trends for visual focus as recognized by designers on the packaging surface design of different drinks. The study is expected to examine the commercial available drinks in the Taiwan market; to assist in simplifying the packaging surface design process for tea, coffee, fruit and vegetable juice, dairy drinks, carbonated drinks, sports drinks, functional drinks, and packaged water; and to shorten the consideration time for effectively grasping the visual elements to be performed. This research can also be used as a reference in packaging design education.

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