

A Study on the Actual Conditions of and Satisfaction with the Existed Female Dress Forms Usage

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국내 여성용 인대 사용 실태 및 만족도에 관한 연구

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Abstract

To release fashion trends in an efficient way, many of the apparel business and fashion educational institutes in land adopt fashion shows employing fashion models. Modeling rather than flat pattern making realizes the majority of the complicated design works for the fashion shows. However, for the different measurements between the dress form and the real human model, problems often occur during the modeling and fitting processes. Researches on the standard dress form development representing professional fashion models' features are therefore in urgent need to enable the related apparel business and fashion institutes to make appropriate use of the dress form in their jobs. The study has been conducted as a preliminary study using a questionnaire method ultimately to develop the female dress form. A questionnaire in the research aimed at an investigation into the actual conditions of and satisfaction with the usage and the body measurements of existed dress forms. Approximately 30 fashion-related educational institutes and 10 apparel companies responded to the survey. Data derived from the survey was analyzed using SPSS version 10.1, the statistics tool. The results throughout the research were discussed in terms of largely three categories that are; (1) the general conditions of the usage of the dress form to prepare fashion shows: e.g. the frequency of holding the fashion show in an annual term, the proportion of professional and amateur models employed for the fashion show, the methods to construct garments, types and number of dress forms utilized and etc.; (2) factors considered to purchase the dress form e.g. its functionality, shapes, sizes, duration, price, A/S condition and etc.; and (3) satisfaction with the similarity between the dress form and the human body in the relation to the body measurements. Measurements in length wise, front and back waist lengths, neck to bust point on the dress forms were apparently differed from the ones of the actual body. In particular, differed torso length measurements cause the problem to have to alter the whole silhouette, consequently, the resultant patterns as well. In girth measurements, in order of bust and waist girths, the satisfaction was low.

Key words: Female Dress Form, Fashion Show, Professional Fashion Model, Dress Form Usage Condition, Measurement Satisfaction; 여성용 인대, 패션 쇼, 전문 패션 모델, 인대 사용 실태 및 치수만족도

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I. Introduction

Observing the diversified modern society and the customer demand driven industries, the fashion becomes a very important concept influencing modern societies. As the apparel industry grows along with the wide spread mass production technology, it required the promotion of sales on a regular basis. Fashion shows presenting the trends of colours, silhouettes, fabrics, styles, etc. used in garments have been held in this aspect. To release fashion trends in an efficient way, many of the apparel brands and the fashion educational institutes in South Korea also adopt the same means, i.e. 'fashion shows' employing the professional fashion models. Especially, majority of the works carried out for the fashion show held by relevant institutes and apparel brands, present various complicated designs, which are relevantly easy to be formed by modeling rather than by flat pattern making.

However, since the significant differences between body measurements of the dress form and the real human model, problems often occur after modeling and during fitting processes, which lead to the pattern or garment alteration. Researches on the development of the standard dress form representing body features of the professional fashion model are therefore in urgent need to enable the related apparel business and fashion institutes to make appropriate use of the dress form for a major task among many to prepare fashion show creations.

The study has been conducted as a preliminary study to ultimately develop a standard female fashion model dress form. The purpose of the study was, in turn, to provide with an investigation into the actual conditions of and the satisfaction with the usage of the existed dress forms in South Korea for the fashion show preparation, which would lead to the fundamental guideline to set the criteria of the professional fashion model's standard body features.

II. Literature Review

The standard dress form having other terms, such as, the body stand, the dummy, the dress form and the mannequin, is constructed on a basis of the body measurements and is diversified according to the body shape features. The garment items e.g. from lingerie to outer coats(Kwon, 1995) and the usages e.g. for modeling, sample fitting, quality controlling,

displaying and etc. also expand the dress form types (Song, 2003).

Draping on the standard dress form is an advantageous method to adopt the realistic body feature into the garment pattern. Here is the reason of importance to use the precisely-body-feature-reflecting dress form for pattern making. However, the national brand dress forms provide incoherent size specs from one to another companies and the forms shapes based on no statistical body measurement systems (Kang, 1988). According to Shin & Rha(2003), 76.7% of the total 30 investigation subjects designer brands in South Korea, in the research, utilized the imported dress forms for its more precise size measurements, various shape/size specs and realistic body features.

Previous researches on the standard dress form development, targeted human subjects within the 6 to 8, 12 to 14 year-old aged girl, college and middle-aged women groups(Kim, 1992; Kim & Chun, 1992; Kwon, 1995; Lim & Kim, 1999; Suk, 1999). Furthermore, these suggested the guideline to construct standard dress forms according to the aimed subjects' body shape types that were mostly derived from the analyses of the direct body measurements of each body part and thus of the significant body factors related. However, these studies rarely suggested the differences between front and back body proportion features within the circumference measurements or the angular measurements so that it is difficult to adopt these results directly into developing the dress forms.

The professional fashion models' body features are obviously dissimilar from the standard women's compared in the same age cluster. Though the researches on the development of the dress form representing the professional fashion models' body features have seldom carried out, instead of the significance of its uses. In turn, the analysis of the professional fashion models body measurements and shape features and, as its result, the dress form developed would improve the efficiency and quality in the relevant fashion industry and education both.

III. Research Methodology

1. Objectives

A questionnaire in the research was designed to provide with an investigation into:

(1) the actual maintaining and usage conditions of

the dress forms at the fashion show holding apparel firms and educational institutes; and

(2) the problems occurring during the real human model fitting process and satisfaction with the dress forms measurements.

2. Questionnaire

The questionnaire in the research consisted of (1) general facts of the subjects under the investigation: the name of the brand/institute, the frequency of the fashion show held per year, the number of garments per fashion show, and etc.; (2) the purchase and maintenance of the dress forms: the dress form purchase effecting factors, the interval time between the purchases, expecting price and so on; (3) inquiries about dress form usage conditions: purposes and types of the dress forms and etc.; (4) satisfaction with the dress form usage: the problems occurring or fit aspect during the real human model fitting process and satisfaction to the dress forms measurements.

3. Subjects and Investigation Period

The investigation was performed during Jan. and Feb. in 2005 and the investigation subjects were divided into two, i.e. 2004 SFAA participated or fashion show holding apparel brands and fashion show holding educational institutes in land (Table 1). Excluding incomplete questionnaires, 7 from

designer name brands, 3 from the national lady's wear brands and 24 from the fashion related departments/schools at universities (12 in Seoul and Kyungki-Do, 2 in Chungcheong-Do, 5 each in Jeolla-Do and Kyungsang-Do provinces) that make the total of 34 subjects. Respondents were 9 full-time lecturers, 5 assistant professors, 3 associate professors, 5 professors, 7 senior managers and so forth.

Table 1. Investigation subject components-fashion education and company brands (Frequency: %)

Subject	Frequency	Total
Designer Brand	7(20.6)	34(100.0)
National Apparel Brand	3(8.8)	34(100.0)
Fashion College	2(5.9)	34(100.0)
Fashion School Univ.	22(64.7)	34(100.0)

4. Statistical Analysis

Data derived from the survey was analyzed to show the frequency, descriptive statistics and t-tests using the statistics tool, SPSS Win version 10.1.

IV. Results and Discussion

1. General Facts of the Subjects

<Table 2> represents the general facts of the investigation respondents. The frequency of the fashion

Table 2. General facts of the subject institutes and apparel brands (Frequency: %)

Descript.	Frequency					Total
	Once	Twice	Three times	Four times	More than five times	
No. of fashion show held per year	Once	Twice	Three times	Four times	More than five times	34 (100.0)
	7(20.6)	1(2.9)	2(5.9)	21(61.8)	-	
No. of garments per show	50-60 Garments	60-80 Garments	80-100 Garments	100-120 Garments	Over 120 Garments	34 (100.0)
	10(29.4)	3(8.8)	20(58.8)	1(2.9)	0(0.0)	
Model grouping	All Professional	Mainly Professional +Amateur	Professional +Mainly Amateur	Others		34 (100.0)
	22(64.7)	9(26.5)	2(5.9)	2(5.9)		
No. of garments per model per show	1-2 Garment(s)	3-5 Garments	6-7 Garments	Over 7 Garments		34 (100.0)
	2(5.9)	16(47.1)	15(44.1)	1(2.9)		
No. of muslin fitting	N/A	Once	Twice	More than three times		34 (100.0)
	4(11.8)	15(44.1)	10(29.4)	5(14.7)		
No. of main fabric fitting	N/A	Once	Twice	More than three times		34 (100.0)
	0(0.0)	16(47.1)	12(35.3)	6(17.6)		

show held per year was in order of: once(67.6% i.e. 23 subjects responded), twice(14.7% i.e. 5 subjects responded) and four times(11.8% i.e. 4 subjects responded). While the most of the fashion educational institutes hold the fashion show once a year with the total number of garments of over 80 and the designers' brands hold utmost the maximum of 4 times shows a year with the total number of garments, 60 to 80. The number of garments per fashion show was: 26.5% i.e. 9 answers for '60 to 80', 23.5%, 8 answers for '80 to 100' and 20.6%, 7 answers for 'more than 120'. The average garment number put on by a model per fashion show was 3 to 7.

Problems often occurred during the model fitting process were: 'model's irregular body shapes apart from the basic body measurements e.g. bust, waist and hip girths(38.2%, 13 answers)', 'out of the model's standard body measurements(35.3%, 12 answers)' and 'alteration for the model replacement (26.5%, 9 answers)'. Especially, many of the universities responded to the fitting difficulty question - 'out of the model's standard body measurements(35.3%, 12 answers)' and employing the amateur fashion models have possibly caused this.

The number of muslin fitting per garment was answered in order of once(44.1%, 15 responses), twice(29.4%, 10 responses) and over three times (14.7%, 5 responses); and main fabric fitting: once (47.1%, 16 responses), twice (35.3%, 12 responses) and over three times (17.6%, 6 responses).

2. Dress Form Purchase and Maintenance

The investigation on the dress form purchase and its maintenance produced the results shown in table

3. The types of the dress forms: most of the educational institutes utilized the national brand dress forms(size 55) while the designer brands used the imported ones(for they were considered to provide a better silhouettes and enhanced modeling functions than the national brand dress forms) and national apparel brands ordered the customized dress forms reflecting their own size specs.

According to the study carried out by Song(2003) on the female dress form usage condition at the women's wear national brands, more than 70% of the subject companies investigated in her research used the national brand forms. Moreover, Shin and Rha (2003) considered the cases of the designer brands and showed that the percentage of using the imported dress forms compared to using the national brand forms was 63.2% to show the similarity to the results derived from this research. Since the national brand dress forms made of FRP(Fiberglass Reinforced Plastics) were considered to cause inconvenient pinning performance, the designer brands(developing patterns by the draping and model fitting methods) preferred to the imported dress forms.

The answers about the experience in using the imported dress forms: 'experienced(52.9%, 18 responses)' and 'not experienced(47.1%, 16 responses)'. The imported dress form's benefits were answered as: 'better body shape/silhouettes(52.6%, 10 responses)', 'size control function', 'better pinning' and etc. The studies on the specific body features for developing other dress forms have been conducted, however, the national dress form manufacturers are too small-sized to produce the dress forms reflecting the diversified body shapes and measurements. Consequently, it has been hardly possible to link the results derived from the

Table 3. Dress form purchase and maintenance conditions

(Frequency: %)

Descript.	Frequency					Total
	1-2 yrs	3-4 yrs	5-6 yrs	7-10 yrs	Over 10 yrs	
Purchase Interval	1-2 yrs	3-4 yrs	5-6 yrs	7-10 yrs	Over 10 yrs	34(100.0)
	6(17.6)	12(35.3)	12(35.3)	2(5.9)	2(5.9)	
Purchase Information	Catalogue	Internet	Consumer Suggestion	Others	-	34(100.0)
	11(33.3)	2(5.9)	15(44.1)	6(17.6)	-	
Purchase Motivation	Worn-out/Breakdown			21(61.8)		34(100.0)
	New dress form products			3(8.8)		
	Targeted garment size altered			6(17.6)		
	Targeted garment item shifted			2(5.9)		
	Others			2(5.9)		

previous relevant studies with the realistic dress forms manufacture.

The inquiry about the interval between the purchases was responded in order of '3 to 4(35.3%)', '5 to 6(35.3%)', '1 to 2(17.6%)', '7 to 10(5.9%)' and 'over 10 (5.9)' years. The most importantly considering factor to purchase dress forms was the resemblance between the dress form and the human body (30 responses, 88.2%). According to Song(2003), the key factors influencing to purchase the dress forms were 'the size measurements showing the realistic body features of the target customer group(71.4% of the total responses)' and 'the size resemblance for the fitting processes(28.6%)'.

3. Dress Form Usage Conditions

The purposes of the dress form uses are responded in order of 'to model difficult styles e.g. draped or asymmetrical designs rather than to draft flat patterns(10 answers, 29.4%)', 'to model most of styles(8 answers, 23.5%)', 'for fitting after flat pattern making(7 answers, 20.6%)'. The most convenient garment items to model on the dress form were answered as 'the evening dress(21 answers, 61.8%)' and 'the jacket (7 answers, 20.6%)' whereas the flat pattern making method preferred items were 'pants(20 answers, 58.8

%)' and 'jackets(10 answers, 29.4%)'.

When garment styles require the dress form's length to be expanded: 19 answers(55.9%) went for 'using the card paper to expand the dress form's length', 8 answers(23.5%) for 'using a dress form only for fitting and flat pattern drafting method used' and 7 answers(20.6%), 'performing both modeling and flat pattern drafting'. In addition, the arm attached torso type dress form was preferred(26 answers, 76.5%) than the one without the arm(8 answers, 23.5%) for the reasons of the convenient modeling(10 answers, 38.5%) the styled sleeve patterns like grown-on sleeves(8 answers, 30.8%) or irregularly draped/bulky styled sleeves(7 answers, 26.9%). Considering the industrial case, the arm attached torso type forms were preferred by only the companies adopting the draping method to develop patterns. 'Drafting can develop the sleeve patterns(6 responses, 75.0%)' and 'inconvenience to develop the bodice patterns when it is attached(1 answer, 12.5%)', etc. were reasons not to purchase the arm attached torso type forms.

4. Dress Form Usage Satisfaction

The investigation of the satisfaction to the dress forms uses was explored considering 7 factors, i.e.

Table 4. Comparisons of the satisfactions with the imported and the national brand dress forms

Satisfaction Factors	Subject Descript.	N	Mean	Standard Deviation	Difference Between Means	t-test
Body Silhouettes	National	29	2.14	1.19	-1.06	0.003***
	Imported	5	3.20	0.45		
Realistic Body Measurements	National	29	1.86	1.06	-2.14	0.000***
	Imported	5	4.00	0.71		
Performance (E.g. pinning draping related)	National	29	2.66	0.90	-0.94	0.030*
	Imported	5	3.60	0.55		
Durability	National	29	2.41	0.87	-1.39	0.002**
	Imported	5	3.80	0.84		
Designs in Detail (E.g. seam lines, over edging, etc.)	National	29	2.45	1.02	-1.15	0.020*
	Imported	5	3.60	0.55		
Prices	National	29	2.97	0.87	0.37	0.410
	Imported	5	2.60	1.14		
A/S (Delivery, repairs, etc.)	National	29	2.00	0.80	-0.20	0.612
	Imported	5	2.20	0.84		

*** $p \leq .001$, ** $p \leq .01$, * $p \leq .05$

silhouette, realistic body measurements, performance, durability, finishing/details, price and A/S, of the national brand and imported dress forms. In addition, whether the differentiated results from the comparisons between the national brand and imported dress forms are within the significant level, t-tests were carried out. <Table 4> shows the consequent statistics.

In 5 satisfaction factors of the dress form, i.e. silhouette, realistic body measurements, performance, durability and finishing/details, the imported forms were regarded to be better than the national brand forms using t-test at the confidence level of $p < .05$. The satisfaction with the national brand dress forms was higher than or similar with the imported ones only in the price and A/S factors. In particular, the resemblance of the national brand dress form's body

measurements could not fulfill the users expectation. In the previous research of Song(2003), not only the national brand forms but also the customized dress forms(that were supposed to represent the ordered size spec by apparel companies) showed low similarity with the real body measurements in terms of 'neck point to breast point', 'waist back length', 'hip and bust circumferences'. The national brand dress forms were generally used for sample garment making and displaying. In particular, when draping and fashion model fitting methods were adopted to develop the actual patterns, companies have selected the imported dress forms. Considering these, further study on the professional fashion model dress form development must achieve the realistic body measurements features and various shape types.

Table 5. Comparisons of the body measurement satisfactions to the imported and the national brand dress forms usage

Body Measurements	Subject Descript.	N	Mean	Standard Deviation	t-test	Body Measurements	Subject Descript.	N	Mean	Standard Deviation	t-test
Center Front Length	National	28	2.29	.90	0.012*	Hip Circumference	National	28	2.29	.90	0.243
	Imported	5	3.40	.55			Imported	5	2.80	.84	
Neck Point to Breast Point	National	28	2.14	.80	0.001***	Neck Breadth	National	28	2.89	.57	0.732
	Imported	5	3.60	.55			Imported	5	2.80	.45	
Shoulder Length	National	28	2.14	.85	0.000***	Width Across Shoulders	National	28	2.36	1.03	0.135
	Imported	5	3.00	.00			Imported	5	2.80	.45	
Bishoulder Length	National	28	2.39	.96	0.011*	Chest Breadth	National	28	2.50	.88	0.809
	Imported	5	3.20	.45			Imported	5	2.60	.55	
Full Back Length	National	28	2.25	.97	0.015*	Bust Breadth	National	28	2.46	.79	0.001***
	Imported	5	3.40	.55			Imported	5	3.00	.00	
Waist Back Length	National	28	2.07	.81	0.001***	Waist Breadth	National	28	2.68	.82	0.839
	Imported	5	3.40	.55			Imported	5	2.60	.55	
Front Interscye Length	National	28	2.07	.77	0.001***	Hip Breadth	National	28	2.36	.78	0.512
	Imported	5	3.40	.55			Imported	5	2.60	.55	
Back Interscye Length	National	28	2.43	.96	0.103	Back Bust Breadth	National	28	2.43	.74	0.000***
	Imported	5	3.20	.84			Imported	5	3.00	.00	
Neck Base Circumference	National	28	2.43	.96	0.037*	Neck Depth	National	28	2.75	.84	0.258
	Imported	5	3.40	.55			Imported	5	3.20	.45	
Chest Circumference	National	28	2.86	.65	0.255	Bust Depth	National	28	2.25	.80	0.015*
	Imported	5	3.00	.00			Imported	5	3.20	.45	
Bust Circumference	National	28	2.39	.83	0.393	Waist Depth	National	28	2.39	.79	0.298
	Imported	5	2.60	.55			Imported	5	2.80	.84	
Waist Circumference	National	28	2.46	.79	0.189	Shoulder Slope	National	28	2.14	.80	0.234
	Imported	5	3.00	1.00			Imported	5	2.60	.55	

*** $p \leq .001$, ** $p \leq .01$, * $p \leq .05$

The detailed investigation of the satisfaction with the body measurements of the national brand and imported dress forms produced the analysis in terms of the major body measurement factors i.e. length, circumference, breadth and angular measurements (Table 5).

6 length measurements: center front length, waist front length, neck point to breast point, shoulder length, bishoulder length, full back length, waist back length, front interscye length; 1 circumference: neck base circumference; 2 width/breadth: bust and back bust breadths; and 1 depth: bust depth measurements of the imported dress forms showed the relative similarity with the real body measurements.

In addition, the imported dress forms were evaluated to reflect the human body shape features more realistically than the national brand dress forms did.

V. Conclusion

The results in summary throughout the investigation on the conditions of and the satisfaction to the dress form usage for the fashion show holding apparel brands and fashion institutes are as follows:

First, to prepare various and complicate styled garments specially for the fashion shows, modeling on the standard dress form method was preferred by both academia and industry. Second, most of the educational institutes utilized the national brand dress forms while the designer brands used the imported ones(for they enabled to provide a better silhouette and enhanced modeling functions) and national apparel brands ordered the customized dress forms presenting their own size specs. Finally, the investigation into the satisfaction at using the dress form showed relatively better statistics in the case of the imported dress form than the case of the national brand forms in the contexts of its silhouette, accordance with the real body measurements, modeling performance, durability and

product details. Though, there is still the need to get improved for the imported dress forms when it is for the Korean female body features.

Thereafter, in the following research, the analyses of the professional fashion models' body shape and front - back proportion features and measurements must be carried out to develop the national brand dress forms with quality for the fashion show preparation in an efficient way.

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요 약

외국의 기성복산업이 대량생산 기술도입과 함께 정규적인 판매촉진활동으로 패션 모델이 등장하는 패션 쇼를 개최한 이래로 국내에서도 패션 트렌드를 의상을 통해 효과적으로 표현하기 위해 많은 업체와 의상관련 교육기관에서 패션 쇼를 진행하고 있다. 특히 대학과 같은 교육기관에서는 졸업작품 패션 쇼를 위한 의상작품 제작 시, 보다 복잡하고 다양한 응용을 필요로 하는 디자인들이 많이 선보여지고 있다. 이를 위해 평면패턴 방식보다는 인대를 사용하는 입체패턴 방식이 선호되고 있지만 기존에 사용되고 있는 인대의 치수와 형태는 전문 패션 모델의 표준 체형 특성과는 상당히 거리가 있어 피팅작업이나 작품제작 과정에서 많은 불만족 요인을 낳고 있다. 그러므로 국내 디자이너 브랜드나 각 교육기관들에 의해 매년, 시·군·별로 진행되고 있는 패션 쇼 준비에 실제적인 도움이 되는, 전문 패션 모델의 표준 체형을 반영한 인대의 개발이 절실히 요구되는 실정이다. 본 연구는 궁극적으로 국내에서 활동하고 있는 전문 패션 모델들의 신체계측 데이터에 기초한 입체 재단용 인대를 개발하기 위한 기초 연구로서, 설문조사를 통해 현재 국내에서 사용되고 있는 인대 사용 실태와 만족도 그리고 인대 치수와 모델치수 비교를 통한 만족도 등을 조사 분석하여 기초 자료를 제공하고자 한다. 연구의 목적은 첫째, 국내 패션 쇼를 위한 작품제작을 담당하는 교육기관과 기업체 담당자를 대상으로 인대 보유 및 사용 실태를 파악한다. 둘째, 기존 인대를 사용하여 만든 작품을 모델에게 피팅할 때 발생하는 문제점과 치수에 대한 만족도를 분석한다. 이를 위하여 국내에서 패션 쇼를 개최하는 의상관련학과 30여 곳과 여성복 업체 10곳을 대상으로 설문조사를 실시하였다. 자료분석은 통계 패키지 SPSS WIN Ver. 10.1을 사용하였으며 설문조사 결과는 다음과 같이 크게 세 가지 관점에서 논의되었다. (1) 인대 관련 일반적 항목: 연간 패션 쇼 개최 횟수(교육기관: 1회, 업체: 1~2회) 및 작품 수(80~100벌), 패션 모델의 전문 및 비전문 구성 비율(교육기관: 전문 및 비전문 모델 구성, 업체: 전문 모델), 패션 쇼를 위한 작품 제작방법(평면 및 입체방법 병행); (2) 보유하고 있는 인대의 종류 및 구매결정 요인: 사이즈 및 형태의 일치성이 가장 중요하게 고려되었고 가격이나 A/S는 큰 영향을 미치지 않는 것으로 나타났다; (3) 인대 사용 후 느끼는 만족도: 실제 인체와 유사한 실루엣 항목은 ‘보통’~‘약간 불만족’ 평가되었다. 인대와 모델간의 치수 일치성에 관한 분석결과는 앞길이, 유장, 등길이, 어깨끝점 사이길이 등의 길이 항목에서 크게 차이가 나는 것으로 나타났다. 특히 앞길이, 등길이가 맞지 않을 경우에 허리선 위치가 달라지므로 전체적인 실루엣을 다시 수정해야 하는 등의 어려움이 발생하는 등 가봉 시에 많은 어려움이 있는 것으로 나타났다. 인대의 기능성 측정 항목에서도 불만족하다는 응답이 많았으며, 봉제선이나 마무리 상태 등 부수적인 디자인 항목에서는 만족정도가 대부분 ‘보통’이었다.