

The effects of technical knowledge related to garment production process on fashion designers' designs

Fatma Gursoy *, Art and Design Faculty, Fashion Design Department, Selcuk University, Konya, 42075, Turkey.

Nurgul Kilinc, Art and Design Faculty, Fashion Design Department, Selcuk University, Konya, 42075, Turkey.

Suggested Citation:

Gursoy, F. & Kilinc, N. (2016). The effects of technical knowledge related to garment production process on fashion designers' designs, *Global Journal on Humanities & Social Sciences*. [Online]. 03, pp 628-627. Available from: <http://sproc.org/ojs/index.php/pntsbs>

Received January 01, 2015; revised March 15, 2015; accepted April 23, 2015.

Selection and peer review under responsibility of Prof. Dr. Milan Matijevic.

©2016 SciencePark Research, Organization & Counseling. All rights reserved.

Abstract

Today, in the fashion sector, which can be regarded as the driving force behind Turkish exports, the need for designs and designers is increasing day by day in parallel with the developments in domestic and foreign markets. The process of production in the fashion sector can be divided into four groups, namely design, planning, production and marketing. The fundamental properties of the product are determined in the design department, which constitutes the basis of the production process. In this study, the purpose was to investigate how effects having or not having technical knowledge related to the garment production process on fashion designers' designs. This study, in which qualitative research methods were used, was conducted using the case study design. For the sample group, criterion sampling, one of the purposeful sampling methods, was used and four designer were selected as the sample group. Research data were collected through interview, observation and document review. The data that were collected were evaluated through description and comparative analysis and then made into a report. After evaluation of research findings it has been reached that designers with technical knowledge on garment production process scored higher points on their illustrations. In terms of sub dimensions, in evaluations related to creativity dimensions, designers with technical knowledge, even with a slight difference, scored higher. When design is studied in terms of commercial value which is the other sub dimension, again, points of designers with technical knowledge found higher.

Keywords: Fashion Designer, Illustration, Creativity, Technical Knowledge

* ADDRESS FOR CORRESPONDENCE: **Fatma Gursoy**, Art and Design Faculty, Fashion Design Department, Selcuk University, Konya, 42075, Turkey. E-mail address: fatmayildiran@gmail.com / Tel.: +90-332-223-1783

1. Introduction

This study has been planned and conducted to determine the influences on illustrations whether the fashion designers have technical information or not. In this research, the answers to the following questions are sought in accordance with this general purpose:

- Does the technical information impress the creativity of fashion designers in terms of their illustrations?
- Does the technical information impress commercial value in the illustrations of fashion designers?

Moreover, the number of publications about creative performance measurement and evaluation is very low in the literature (Varol, 2010). This study that involves the evaluations of illustrations with different criteria covers design discipline, fashion design and the education of this area. So it has been thought that this study can be useful for all of these processes.

With the quick globalization in the world, competition in textile and garment industry as powerful and privileged sector with its dynamic structure has been experienced intensely day by day. The main focusing point of this intensity is the preference of consumers in terms of much different and special designs and getting the product that rapidly reaching their hand, more quality and economical ones (Çakar, 1998).

The needs of design and designers have increased day by day, according to the developments of domestic and foreign markets in the fashion sector that are accepted the locomotive of Turkey's exports. As it has been seen something new as the days went on, new information has been learnt, read and used each day and of course seeing new things and experiment request, requires producing new fashion designs. The fashion design that places in design science is one of the most important areas that provide good development for our country in terms of both technological and artistic way. The production process in fashion sector is divided into four groups including designing, planning, production and marketing. The basic specialities of the product have been determined in design department that forms the basis of the production process.

In the applied arts, the design process begins with the editing of the product and goes on till sketches and structure. Making or creating powerful designs in twenty-first century named as design century have impressed much in terms of economical development of the country and its competitiveness in world markets (Alp, 2009). However the designs are enough and effective for the people and environment, changes and competition ability will be very quick as well and all of these will increase the power of living seriously (Yıldırım, 2012).

According to Kobu (1979), value analysis is done to search the needs of clothing design by looking for the answers to related questions. As a result, three separated value including cost, usage and the power of competition are determined. To being successful in intensely competitive environment for the sectors, depends on use of design factor actively. For this, consumer preferences that determinative, processing the themes that influencing the consumers in garment production and the originality in designs have a great importance (as cited in Çakar, 1998). Another important factor for the design to be accepted as a design is its being functional and aesthetics (Yazıcı, 2013).

The important thing is to guess what the people want previously and find best solutions for the production as soon as possible (Anonim, 2011). Of course there is trend concept that states and reveals the value of consumers, needs, desires related with this occasion (Akıncı, 2014). Trends give new ideas to designers by influencing them and gives clues about the ideas in which way they should think, interpret and go (Atılğan, 2014). The colours, patterns, fabrics, silhouettes and view that will be accepted as fashion for next seasons have been determined by trend guess and analysis (Kartal, 2014).

The important thing for the clothing design that has a visual thought and production system is the designer who will get the technology and raw material inputs come together, give them scientific qualifications and make functional (Çakar, 1998). There should be designers who can create designs in contemporary qualifications original, who has a good creativity and capacity to solve problems easily, dominant for the designs in fashion design of course and has all necessary aesthetic values (Koca ve Koç, 2009). The designers, that will be needed for the clothing design areas, have been tried to be educated in the universities on this area of course with the current fashion design programs. Creative thinking that combines the science and art has been adopted in designs. It has been aimed to educate the designers who can satisfy the needs of the area by designing functional, aesthetic, original, and producible products (Varol, 2010).

Irving A. Taylor (1975) explained seven factors in creative thinking scale that he had improved, to evaluate the creativity of the product (as cited in Becer, 1993). These factors are generation, reformulation, originality, relevancy, hedonics, complexity and condensation. (O'Quin & Besemer, 1999)

One of the principles that are necessary for the creative thinking to become real is able to transfer ability to the production of cloth (Çakar, 1998). Especially in applied arts, the designer should have a good technique and material information (Alp, 2009). According to Hicks and Gullet, imagination, intuition, sensitivity and flexibility are good characteristics when they combine with creative people but if all of them combine with information, different ideas and new behaviours can occur (as cited in Bender, 2014).

2. Methodology of Research

The research that qualitative research techniques have been used, conducted with the use of criterion sampling model. Four fashion designers have been determined by using the criterion sampling from sample methods for study group. The fashion designers have been chosen among graduate students who study in Selcuk University, Institute of Social Sciences, Department of Art & Design. Two students in study group has gotten education in degree program in clothing department and they have the technical knowledge about pattern and sewing techniques in the garment production processes. The identified two other designer don't have any information about garment production process because of they have graduated from different branches, but they had design education.

The research data have been gathered by observation and examination of documents. From the study group designers, designing illustrations about 2017 summer collection has been wanted, by using "smile" theme for the young women who are in 20s in order to get the research data according to stated question. The designers did three-four hours study as pre study, designing and drawing of illustrations. The illustrations coming out have been observed by twelve specialists in their areas who work as academics in Art and Design Faculty in Selcuk University. The specialists gave scores according to Design Evaluation Scale that they had improved in likert type. While Design Evaluation Scale was being improved, criterions that form and reveal to give commercial value and creativity related with subscales, have been chosen. For the measurement of designs performances, determining the scales of performance well is the basic for reliable measurement. So, many researchers have been observed in literature to determine the best right criterion in prepared scale.

In order to determine the creativity values of illustrations that are 1st subscale, originality value (Seçim, 2013; Yıldırım, 2012); including creative new ideas (Biber, 2006; Yıldırım, 2012); using creative decorations and sewing or application techniques; fabric, material and accessories that will suit the design well aesthetically (Alp, 2009) criterions have been mentioned. But for the 2nd subscale about commercial value, suitability to the target audience (Atılğan, 2014); reflecting the chosen theme

(Çakar, 1998); compliance with the fashion trends (Akıncı , 2014); compliance with the season features; productivity in terms of pattern and sewing techniques; selling of these products and the high preferability (Atılğan, 2014) have been emphasized. The obtained data were compiled in a report evaluating with descriptive and comparative analysis.

3. Findings

Designers have designed their illustrations for young women in their 20s, as part of "smile" themed "summer 2017 collection". Four designers' illustrations, two of which have the relevant technical knowledge of the garment manufacturing process are evaluated by twelve specialists.

3.1. Findings related to the First Sub Problem

After the evaluation made by field specialists' findings related to impacts on the creative value of the status of whether or not they have technical knowledge, which is 1st sub problem are given in tables separately for each and every designer's illustration.

Evaluation results related to creativity dimension for the 1st illustration, made by 12 field specialist are given in Table 1.

Table 1. The Assessment of 1st Illustration About Creativity

CREATIVITY	1. Evaluator	2. Evaluator	3. Evaluator	4. Evaluator	5. Evaluator	6. Evaluator	7. Evaluator	8. Evaluator	9. Evaluator	10. Evaluator	11. Evaluator	12. Evaluator	Average Score
The value of originality	2	3	2	2	3	2	3	3	3	3	2	2	2,5
Includes creative new ideas	2	3	2	2	4	3	4	2	3	3	2	3	2,83
Creative use of sewing, ornament or application technique	3	2	3	2	3	3	3	3	3	4	2	2	2,75
Use of fabrics, materials and accessories in design, which provides aesthetic integrity with the model	5	3	4	4	3	5	4	3	3	4	1	3	3,5
Total Creativity Score	12	11	11	10	13	13	14	11	12	14	7	10	11,58

When Table 1 is examined, according to average of evaluation results made by 12 field specialists, can be seen that creativity score of 1st illustration is accounted as 11,5. Looking at the value of creativity in terms of sub dimensions, can be seen that originality value is low, on usage of fabrics, materials and accessories in design, which provides aesthetic integrity with the model scores are high.

Evaluation results related to creativity dimension for the 2nd illustration, evaluated by 12 field specialist are given in Table 2.

Table 2. The Assessment of 2nd Illustration About Creativity

CREATIVITY	1. Evaluator	2. Evaluator	3. Evaluator	4. Evaluator	5. Evaluator	6. Evaluator	7. Evaluator	8. Evaluator	9. Evaluator	10. Evaluator	11. Evaluator	12. Evaluator	Average Score
The value of originality	5	4	5	5	5	5	4	5	5	4	2	2	4,25
Includes creative new ideas	5	4	4	4	4	5	4	5	4	3	1	1	3,66
Creative use of sewing, ornament or application technique	5	3	3	4	4	4	4	3	4	3	1	2	3,33
Use of fabrics, materials and accessories in design, which provides aesthetic integrity with the model	5	4	5	5	4	5	4	5	4	3	3	2	4,08
Total Creativity Score	20	15	17	18	17	19	16	18	17	13	7	7	15,33

When Table 2 is examined, according to average of evaluation results made by field specialists, can be seen that creativity score of 2nd illustration is accounted as 15,33. Studying the value of creativity in terms of sub dimension, on originality value and on usage of fabrics, materials and accessories in design, which provides aesthetic integrity with the model appears that loses point.

Evaluation results related to creativity dimension for the 3rd illustration, evaluated by 12 field specialist are given in Table 3.

Table 3. The Assessment of 3rd Illustration About Creativity

CREATIVITY	1. Evaluator	2. Evaluator	3. Evaluator	4. Evaluator	5. Evaluator	6. Evaluator	7. Evaluator	8. Evaluator	9. Evaluator	10. Evaluator	11. Evaluator	12. Evaluator	Average Score
The value of originality	3	3	4	3	4	2	3	3	2	4	4	5	3,33
Includes creative new ideas	3	3	4	3	4	2	3	2	2	4	3	5	3,17
Creative use of sewing, ornament or application technique	3	2	4	3	4	2	4	2	3	3	4	4	3,17
Use of fabrics, materials and accessories in design, which provides aesthetic integrity with the model	4	3	4	4	4	3	3	3	3	4	3	5	3,58
Total Creativity Score	13	11	16	13	16	9	13	10	10	15	14	19	13,25

In Table 3, according to average of evaluation results made by 12 field specialists, can be seen that creativity score of 3rd illustration is accounted as 13,25. On distribution of creativity points to the sub dimensions there is no distinctive difference.

Evaluation results related to creativity dimension for the 4th illustration, evaluated by 12 field specialist are given in Table 4.

Table 4. The Assessment of 4th Illustration About Creativity

CREATIVITY	1. Evaluator	2. Evaluator	3. Evaluator	4. Evaluator	5. Evaluator	6. Evaluator	7. Evaluator	8. Evaluator	9. Evaluator	10. Evaluator	11. Evaluator	12. Evaluator	Average Score
The value of originality	5	3	4	4	5	4	3	5	4	4	5	4	4,17
Includes creative new ideas	5	3	5	3	5	4	3	4	4	5	4	4	4,08
Creative use of sewing, ornament or application technique	5	2	4	4	5	4	4	3	3	4	4	3	3,75
Use of fabrics, materials and accessories in design, which provides aesthetic integrity with the model	5	3	5	4	5	4	3	4	4	5	4	4	4,17
Total Creativity Score	20	11	18	15	20	16	13	16	15	18	17	15	16,16

When Table 4 is examined, according to average of evaluation results made by field specialists, can be seen that creativity score of 4th illustration is accounted as 16,16. Studying in terms of sub dimensions, the lowest point is scored from usage of creative ornamentation, stitching or application techniques. According to results of evaluations related to creativity dimensions this one is the one that scored the highest among 4 illustrations.

3.2. Findings related to the Second sub Problem

After the evaluation done by the field specialists, findings related to the impacts on the commercial value of whether or not they have technical knowledge on production process of garments that are the 2nd sub problem are given in tables separately for each and every designer's illustration.

For the 1st illustration, evaluation results on sub dimension of commercial value done by 12 field specialist are given in Table 5.

Table 5. The Assessment of 1st Illustration About Commercial Value

COMMERCIAL VALUE	1. Evaluator	2. Evaluator	3. Evaluator	4. Evaluator	5. Evaluator	6. Evaluator	7. Evaluator	8. Evaluator	9. Evaluator	10. Evaluator	11. Evaluator	12. Evaluator	Average Score
Target audience suitability	2	3	2	1	2	5	3	2	4	4	1	3	2,66
Reflects the chosen theme	4	3	3	1	3	5	2	2	3	3	2	2	2,75
Compliant with fashion trends	1	3	2	2	2	5	3	2	3	3	1	2	2,42
Compliant with season features	3	3	3	2	1	4	4	3	3	4	1	2	2,75
Producibility in terms of pattern and other sewing techniques	5	4	4	5	5	5	4	4	4	4	3	2	4,08
A high merchantability and preferability	2	4	3	3	4	4	4	3	3	4	1	2	3,08
Total Commercial Value Score	17	20	17	14	17	28	20	16	20	22	9	13	17,75

According to Table 5, evaluating the design in terms of the criterias of commercial values can be seen that 1st Illustration is scored 17,75 points. When studied in terms of sub dimensions of commercial value, has seen that scored the highest point with the average of 4,08 from the criteria of pattern and sewing techniques.

Evaluation results on commercial value dimension for 2nd illustration are given in Table 6.

Table 6. The Assessment of 2nd Illustration About Commercial Value

COMMERCIAL VALUE	1. Evaluator	2. Evaluator	3. Evaluator	4. Evaluator	5. Evaluator	6. Evaluator	7. Evaluator	8. Evaluator	9. Evaluator	10. Evaluator	11. Evaluator	12. Evaluator	Average Score
Target audience suitability	4	3	4	4	5	3	4	5	4	4	1	1	3,5
Reflects the chosen theme	5	3	5	4	5	4	4	5	5	4	1	2	3,92
Compliant with fashion trends	4	3	4	4	4	5	4	5	4	4	1	1	3,58
Compliant with season features	5	4	4	4	5	5	4	5	5	4	2	2	4,08
Producibility in terms of pattern and other sewing techniques	3	4	4	3	3	5	4	4	4	4	2	1	3,42
A high merchantability and preferability	3	3	3	3	4	5	3	3	5	5	1	1	3,25
Total Commercial Value Score	24	20	24	22	26	27	23	27	27	25	8	8	21,75

In Table 6 according to evaluations made by field specialists the point design scored on commercial value is 21,75. When studied in terms of sub dimensions, can be seen that the highest point average comes from suitability to the season features and reflectability of defined theme.

Evaluation results on commercial value dimension for 3rd illustration are given in Table 7.

Table 7. The Assessment of 3rd Illustration About Commercial Value

COMMERCIAL VALUE	1. Evaluator	2. Evaluator	3. Evaluator	4. Evaluator	5. Evaluator	6. Evaluator	7. Evaluator	8. Evaluator	9. Evaluator	10. Evaluator	11. Evaluator	12. Evaluator	Average Score
Target audience suitability	4	3	4	4	3	5	2	3	3	3	4	5	3,58
Reflects the chosen theme	5	3	3	3	2	5	3	4	3	4	4	5	3,67
Compliant with fashion trends	3	3	3	3	4	5	3	3	3	4	3	4	3,42
Compliant with season features	4	3	4	4	4	5	4	4	3	3	3	4	3,75
Producibility in terms of pattern and other sewing techniques	5	4	3	5	5	4	4	4	3	4	4	5	4,17
A high merchantability and preferability	4	4	3	4	5	3	3	5	4	4	3	4	3,83
Total Commercial Value Score	25	20	20	23	23	27	19	23	19	22	21	27	22,41

Studying Table 7, can be seen that the average of the points that are given by specialists for commercial value of 3rd illustration is 22,41. When the sub dimensions are studied stands out that highest point is received from producibility in terms of pattern and sewing techniques.

Evaluation results on commercial value dimension for 4th illustration are given in Table 8.

Table 8. The Assessment of 4th Illustration About Commercial Value

COMMERCIAL VALUE	1. Evaluator	2. Evaluator	3. Evaluator	4. Evaluator	5. Evaluator	6. Evaluator	7. Evaluator	8. Evaluator	9. Evaluator	10. Evaluator	11. Evaluator	12. Evaluator	Average Score
Target audience suitability	5	3	5	4	3	5	2	5	4	5	4	5	4,17
Reflects the chosen theme	5	3	5	5	5	4	4	5	4	4	4	5	4,41
Compliant with fashion trends	4	3	5	4	4	5	2	5	4	4	5	5	4,17
Compliant with season features	5	3	5	5	5	5	4	5	4	5	4	4	4,5
Producibility in terms of pattern and other sewing techniques	5	4	5	5	5	5	4	5	4	4	4	5	4,58
A high merchantability and preferability	5	4	4	4	3	4	3	5	4	4	5	4	4,08
Total Commercial Value Score	29	20	29	27	25	28	19	30	24	26	26	28	25,91

In Table 8, when 4th illustration is studied in terms of commercial value it carries, can be seen that average of the points field specialists have given is 25,91. When studied in terms of commercial value sub dimensions stands out that it received the similar points from all criterias. 4th illustration has the highest average of points in terms of creativity as well as commercial value.

3.3. Comparison of the Illustrations of Designers with and without Technical Knowledge in Terms of Creativity and the Commercial Value

Illustrations that created by 4 different designers with the theme of smile for 2017 summer collections are evaluated by 12 field specialists. As result of evaluations, points that are scored in terms of creativity and commercial value and total points are given in Table 9.

Table 9. Comparison of Total Creativity and Commercial Value Points in Terms of Status of Having Technical Knowledge

	Designers without Technical Knowledge			Designers with Technical Knowledge		
	1 st illustration	2 nd illustration	Average Score	3 rd illustration	4 th illustration	Average Score
Average Creativity Score	11,58	15,33	13,46	13,25	16,16	14,70
Average Commercial Value Score	17,75	21,75	19,75	22,41	25,91	24,16
Total Score	29,33	37,08	33,21	35,66	42,07	38,86

In Table 9, when total points of illustrations by designers with and without technical knowledge on garment production process, can be seen that designers with technical knowledge score higher points. Considering the average points of creativity and commercial value that determined as sub dimensions, points of designers with technical knowledge are higher than that of without knowledge.

4. Discussion

According to Loschek (2009), ability of generating creative ideas in designs can be earned and even developed afterward. Especially if it is studied within the scope of garment design, it is almost impossible for an uneducated eye and perception to get creative results in design process. Creative intelligence on its own is not enough to become a designer. A designer must own qualities such as being non accepting the given status as is, curious, querent, scrutinizer for affects, results, reasons, not satisfied with what he/she finds, able to offer multiple solutions to a problem. In this research designers with technical knowledge on garment production processes are succeeded more. It is assumed that having little difference in success results originates from the fact that they received education on design even though they have no knowledge received in the field of garment.

A limitless designer, won't drift in the creativity field of design; because, he/she has to assert an aesthetic design within the boundaries of intended use (Alp, 2009: 52). Having designers with technical knowledge who pay more attention to producability in terms of pattern and sewing techniques confirms this information.

According to Yıldırım (2012), a thing that emerges as result of human labour is not an object it is a product of knowledge. Producing a new object outside of nature requires knowledge and technic. Every object that produced by a human being using tools and equipment and methods is a commodity with a market value as a product of knowledge. In this research commercial value of illustrations of designers with technical value found higher.

5. Conclusions

After evaluation of research findings following results are reached;

- Designers with technical knowledge on garment production process scored higher points on their illustrations,
- In terms of sub dimensions, in evaluations related to creativity dimensions, designers with technical knowledge, even with a slight difference, scored higher.
- When design is studied in terms of commercial value which is the other sub dimension, again, points of designers with technical knowledge found higher.
- When criteria used in evaluation of creativity dimension are studied in its own merits, all designers are usually scored high on originality of design and usage of fabric, material and accessories in design, which provide aesthetic integrity with the model. From point of view of commercial value, the field where highest points designers with technical knowledge scored are producability in terms of pattern and sewing techniques.

References

- Akıncı, Biray, Ozlem (2014). Clothing Choice of Fashion Trends and Buying Influences, Unpublished Master's Thesis, Gazi University, Institute of Education Sciences, Ankara.
- Alp, O. (2009). Design in Applied Arts Education, Structure, Function, Aesthetic and Perception Problem, 100. Year University, *Journal of the Faculty of Education*. June, Volume: V1, Number: I, page: 48-59 <http://efdergi.yyu.edu.tr>

Gursoy, F. & Kilinc, N. (2016). The effects of technical knowledge related to garment production process on fashion designers' designs, *Global Journal on Humanities & Social Sciences*. [Online]. 03, pp 628-627. Available from: <http://sproc.org/ojs/index.php/pntsbs>

Anonim (2011). Trend Concept in Turkey, 21.06.2015, Retrieved from <http://trendlervetasarim.blogspot.com.tr/2011/01/turkiyede-trend-kavram.html>

Atılğan, Kocabas, Duygu (2014). The effect of Inspired Clothing Design and Research to the Creativity, *International Journal of Social Science Doi number: http://dx.doi.org/10.9761/JASSS2486*, Number: 27 , p. 471-487, Autumn I 2014

Becer, E. (1993). *Creativity and Graffic Art, Anatolian Art*, Number: 1-3, AUGSF Publication, p: 43-49

Bender, Tekin Merih (2014). Research on Creativity, Personality and Artistic Creation, Erciyes Art, *Journal of the Erciyes University Institue*, Number:1

Biber, M. (2006). *Elementary exploring the Learning Method II. Creativity and Its Impact on the Level Mathematics Students*. Unpublished Master's Thesis, Dokuz Eylul University, Institute of Education Sciences, İzmir.

Çakar, Erenler, & Gulsen (1998). Competitiveness and Strategy in terms of Design Factors of Garment Industry, *Economic Approach*, volume: 9, Number: 29, page: 65-77.

Loschek, Ingrid (2009). *When Clothes Become Fashion: Design and Innovation System*, New York, Berg Publication.

Kartal, E. (2014). *Fashion trend forecasting and analysis of the level of consumer expectation fashion products*, Unpublished Master's Thesis, Halic University, Institute of Social Sciences

Koca, E. & Koç, F. (2009). Creativity on Clothing Design, e-Journal of New World Sciences Academy Vocational Education, Article Number: 2C0004, 4, (1), 33-44.

O'Quin, Karen & Besemer, P. Susan (1999). *Encyclopedia of Creativity*, Volume I, Creative Products, Academic Press, p:413-422.

Seçim, E. (2013). Collection and Design Value reflection of the socio-economic and cultural life of Fashion Design Students, Unpublished Master's Thesis, Gazi University, Institute of Education Sciences, Ankara.

Varol, E. (2010). *To Develop an Assessment Tool for the Evaluation of Designs in Fashion Design Education*, Unpublished PhD Thesis, Gazi University, Institute of Education Sciences, Ankara.

Yazıcı, F. (2013). Creating Brand Value by Design, Retrieved from <http://www.medyadernegi.org/tasarimla-marka-degeri-olusturmak/>

Yıldırım, M. (2012). The Importance of Creativity in Process of Graphic Design Education, ERUIFD, volume:1, Number: 14, page:39-49