

Consumers in a social network: the perception of clothing quality per gender

José Sarto Freire Castelo

Universidade de Fortaleza, Management Graduate Program, Fortaleza, Brazil

José Ednilson de Oliveira Cabral

Universidade de Fortaleza, Management Graduate Program, Fortaleza, Brazil

Received on

01/19/2017

Approved on

09/05/2017

Responsible editor:

Prof. Dr. Susana Costa e Silva

Evaluation process:

Double Blind Review

Abstract

Purpose – The general objective of this paper is to evaluate the determinant attributes of the perception of clothing quality by the users of a social network and to verify if there are any differences of evaluation of these determinants between genders.

Design/methodology/approach – To achieve the objective, a survey was conducted with a sample of 295 consumers. All participants, regardless of gender, were asked to access the SurveyMonkey site link and to answer the questions regarding the quality of clothing for both men and women. Data analysis was performed using descriptive statistics and variance analysis (ANOVA).

Findings – The main results show that: 1. The consumers of garments regard as highly important to take into consideration quality attributes when deciding to buy clothes, especially for women in relation to menswear; 2. Women has a higher perception than men as for the evaluation of the quality attributes of both women's wear and menswear; and, 3. Clothing consumers, in particular consumers of women's products, only consider to purchase such products if they have, in particular, style, fabric quality and fair price.

Originality/value – This research filled in some theoretical and methodological gaps with regard to giving emphasis to gender differences in clothing quality assessment. This is in line with the conclusions of quality research conducted long ago, such as Olson & Jacoby's (1972), which findings are specific to the type of product and/or consumer investigated. Therefore, generalizations beyond the product or the consumers examined are of dubious validity.

Keywords – Clothing; assessment; consumers



**Review of Business
Management**

DOI:10.7819/rbgn.v20i1.3684

I Introduction

Consumers' perception of the intrinsic and extrinsic components of a garment is an important element in the decision-making process of the manufacturers on what to offer. This is essentially because consumers change their buying behaviors depending on their perception of the overall quality of a garment. The evaluation of the quality of the product is not only limited to the functional aspects, but also includes the aesthetics. Aesthetics can be defined as the study of human reaction to the non-instrumental qualities of an object. The total aesthetic experience includes the appreciation of the expressive and symbolic formal qualities of a garment, its appearance, its origin and performance (De Klerk & Lubbe, 2008; Fiore & Delong, 1994; Fiore & Kimle, 1997; Lu, 2015; O'Neal, 1998; Swinker & Hines, 2006).

Clothing products not only stimulate sensory reactions from consumers but also arouse emotional and cognitive reactions, which, according to Fiore and Kimle (1997), usually result from the formal qualities (such as color, texture, lines and trim) that make up clothing.

Rahman (2011) attests that intrinsic factors play a more significant role than extrinsic factors as he observed in the case of denim products. These formal qualities are inherent, especially in the style and materials that make up the garment. For the consumers, therefore, they not only refer to the functional quality of the garment but in fact, to all the sensory, emotional and cognitive satisfaction that can provide a complete aesthetic experience as part of the quality of clothing (De Klerk & Lubbe, 2008; Fiore & Damhorst, 1992; Fiore & Kimle, 1997; Swinker & Hines, 2006). However, consumers (Men and Women) differ in their buying behaviors when assessing the overall quality of a garment, sometimes having limited information about the intrinsic and extrinsic components of a garment. Men and Women, in many buying experiences, are not fully aware of how to evaluate the items that make up the garments. Therefore, in these

situations, consumers decide whether or not to buy the garments, without due attention to important factors that could play a significant role in the decision-making process (Brown & Rice, 1998; Chen-Yu et al., 1999; De Klerk & Lubbe, 2008; Shim & Bickle, 1994).

However, Dickerson (2003) argues that the apparel industry faces difficulties in satisfying the consumer, because consumer priorities changed significantly in the previous decade (the 1990s). During the 1980s and into the 1990s, consumers tended to buy fashionable clothing without much consideration of the price of a particular brand. However, consumers today are generally more value-oriented, that is, they demand more than they can afford.

At the same time, Rabolt and Solomon (2004) corroborate the fact that the demands of clothing consumers have increased since the 1990s, and they find themselves less satisfied with what has been offered, since clothing is important in their lives. In this context, Tungate (2005) states that there is nothing more internalized in everyone's mind than fashion, although there is no consensus on this topic. It would be a mistake to underestimate the importance of fashion in society. Clothing and accessories are expressions of the way people see themselves, and how they want to be treated by others.

Regarding gender, female consumers are often responsible for purchasing not only their own but also their family's clothing. They buy clothes both in traditional stores and on the internet (Goldsmith & Goldsmith, 2002; Hye & Stoel, 2002; Pentecost & Andrews, 2010). They also differ from male consumers on how to evaluate garment quality (Gitimu, Workman, & Robinson, 2013) and in the characteristics of the decision-making process (Bakewell & Mitchell, 2006).

In this context, the general objective of this article is to evaluate the determinant attributes of the perception of the quality of clothing by consumers (users of social networks), and to verify if there are differences of evaluation of these

determinants between genders. This objective is relevant because, according to De Klerk and Lubbe (2008), there is a shortage of research addressing how consumers evaluate the quality of clothing products during the purchase decision making process. In addition, the application of our research model, based on the Swinker and Hines (2006) model, has original aspects such as the fact that: the research participants, regardless of gender, answered questions about the factors related to the quality of clothing for both men and women; the position of men and women are assessed separately and compared; and, our model is applied for the first time in the Brazilian context. Hence, this research filled in some theoretical and methodological gaps with regard to giving emphasis to gender differences in clothing quality assessment. This is in line with the conclusions of quality research made long ago, such as Olson and Jacoby's (1972), which findings are specific to the type of product and/or consumer investigated. Therefore, generalizations beyond the product or the consumers examined are of dubious validity.

Besides this introduction, this article presents four parts. The first refers to the review of the theoretical and empirical literature on the evaluation of clothing quality by consumers, concluding with the conceptual model of the study. The second presents the methodology, highlighting the population and sample of the research, the data collection and the analytical techniques employed. Following that, the analysis and discussion of the results are presented. Finally, the fourth part presents the conclusions of the study, including its limitations.

2 Theoretical background

The perceived quality of garments is very important in influencing consumers' purchasing behaviors. There is, therefore, a long tradition of studies about the concrete attributes that determine the perception of the quality of the garments and in the end the buying-decision, as exemplified by the works of Dodds, Monroe

and Grewal (1991), Olson and Jacoby (1972), Richardson, Dick and Jain (1994), amongst many others. Olson and Jacoby (1972), for example, found that intrinsic attributes were generally perceived as the most accurate indicators of quality.

The intrinsic or extrinsic attributes of a product are studied to make inferences about the quality and ability to satisfy the consumers' needs and desires. Intrinsic attributes are those which are inherent in the product and cannot be modified without altering the product, such as sewing or fabric techniques. In turn, extrinsic attributes, such as reputation and brand, are not part of the physical product (Olson & Jacoby, 1972; Swinker & Hines, 2006). The research on this topic has evolved a lot, while maintaining the emphasis on the role of these intrinsic and extrinsic specific attributes. This is exemplified by Bezuidenhout and Sonnenberg (2016) who investigated the relative importance of these attributes to female consumers of the apparel retail sector, and by Coelho (2016) who investigated the expectations of older female consumers regarding clothing attributes (construction, price, clothing care, fit, fabric, sizing, style and color). Bezuidenhout and Sonnenberg (2016) found that some attributes were evaluated as prominent whilst others were not. In turn, Coelho (2016) found that the women considered all attributes as being important or very important, in contrast to the performance rating of each, which was low. In this line, Gitimu et al. (2013) found that fashion leadership, fashion involvement, and gender significantly influenced how consumers evaluated garment quality.

In this area, many studies have shown differences in quality assessment depending on the context and the sector. In fact, Swinker and Hines (2006) point out that consumer perceptions of garment quality is a multidimensional concept and should be evaluated at various levels, since some studies have reported an effect of concrete attributes on consumer perceptions of clothing

quality and others have not. For example, in the studies of Dickerson (1982) and Wall and Heslop (1986), a strong relationship was reported between the country of origin and the perceived quality of clothing. Zeithaml (1988), using means-end chain theory, also suggests that quality is a multidimensional concept, based on both the intrinsic and extrinsic attributes of goods.

However, Sternquist and Davis (1986) found no evidence of the later relationship. In line with these results and based on an in depth review of the literature, Swinker and Hines (2006) showed that the effect of concrete attributes such as fabric, fiber content, construction, brand or designer labels, country of origin, and store image on consumers' perceptions of clothing quality have presented contradictory results. Some of these studies have found an effect of these attributes on consumers' perception of clothing quality (e.g. Dickerson, 1982) and others have not (e.g. Sternquist & Davis, 1986), while other studies have found their relative importance (e.g. Hsu & Burns, 2002; Wu & Delong, 2006).

The differences in results are probably due to methodological aspects. Workman and Cho (2013) claim that preferences are affected by the culture in which an individual grows up as well as by individual differences between consumers such as differences in gender, fashion leadership and need to touch. They are also due to differences in context. For example, Lu (2015) recently conducted a study into the two largest apparel markets in the world (the United States and China) and found that the most important attributes taken into consideration by consumers in the evaluation of garments' quality in these countries are different: value performance for the American consumers; extrinsic attributes, appearance and comfort for the Chinese consumers.

Swinker and Hines (2006), also based on the literature, showed that in some studies (e.g. Lennon & Fairhurst, 1994; O'Neal's, 1988) consumers assessed quality, based not only on concrete attributes, but also on

abstract cues such as performance expectations, psychological expectations and aesthetic appeal. In turn, Hines and O'Neal (1995) identified four consequences or expectations that consumers associated with high-quality clothing (aesthetic, economic/performance, physiological and social/psychological).

Based on this review, we can conclude that the ways through which consumers assess clothing quality is multidimensional, based on personal values, including a variety of informational cues as well as personal expectations of a quality garment (Swinker & Hines, 2006).

2.1 The concept of quality and the quality of clothing products

Consumers' quality perception is a crucial aspect for the competitive advantage and sustainability of most firms, especially in some industries such as the garment one. Even though it is very difficult for consumers to define quality, they "feel" it when having an experience of buying goods or paying for services.

For Syduzzaman, Rahman, Islam, Habib, & Ahmed (2014), there is no single universal definition of quality, with some people viewing quality as "performance to standards"; others as "meeting the customer's needs" or "satisfying the customer." According to these authors, the best definitions of quality encompass "conformance to specifications", "fitness for use", "value for price paid", "support services", and "psychological criteria".

Compliance with specifications presents the advantage of being directly measurable; however, it may not be directly related to the consumer's idea of quality. Fitness for use focuses on how well the product performs its intended function or use. Value for price paid is a definition of quality that is price sensitive, that is, the goods or services of quality are worth the price paid. Support services means that the quality of a product is judged also based on the efficiency and accuracy of the service at and post sales. Psychological criteria focus on the judgmental

evaluation of what constitutes product or service quality, based on factors such as the atmosphere of the environment or the perceived prestige of the product (Syduzzaman et al., 2014).

In turn, The International Organization for Standardization defines quality as the totality of characteristics of a whole that has the capacity to meet the explicit and implicit needs of consumers (Brown & Rice, 1998; De Klerk & Lubbe, 2008). In general, quality can be defined as the superiority or excellence of a product, while the observed quality can be considered as the evaluation of the total superiority or excellence of a product by the consumer (De Klerk & Lubbe, 2008; Fiore & Damhorst, 1992; Zeithaml, 1988). Fowler and Clodfelter (2001) argue that the quality level of an item of clothing is a difficult factor to isolate and to define when an item of clothing has to be evaluated. However, quality is still considered to be one of the main reasons for consumer dissatisfaction with clothing products.

Considering the fashion-marketing perspective, Sieben (1991) and Yoon and Kijewski (1997) point out that the quality of clothing products is associated with the extent to which it meets the consumer needs. Brown and Rice (1998) add that the quality of clothing products has two dimensions: a physical dimension, specifying what the item of clothing is; and, a behavioral dimension that indicates what the item can contribute towards. As physical characteristics can influence behavioral characteristics, consumers should select apparel products taking into account the physical characteristics they believe will cause a specific behavior.

Physical characteristics include the intrinsic factors of the product, such as design, textiles, construction and finishing, which cannot be changed without changing the item itself. Brown and Rice (1998), Gersak (2002) and Sieben (1991) add that the behavioral characteristics of clothing products can be divided into functional as well as aesthetic behavioral characteristics.

Functional behavioral characteristics refer to properties such as the durability and comfort of the item. Aesthetic behavioral characteristics refer to the beauty or aesthetic experience that clothing can actually bring about, whether on a sensory level (for example, whether the color of the fabric is pleasing to the user or the fact that the fabric is soft in contact with the skin), emotional (evoking specific feelings for the user), or cognitive (insofar as it has a certain symbolic meaning for the user) (De Klerk & Lubbe, 2008).

According to Abraham-Murali and Littell (1995), Brown and Rice (1998) and Zeithaml (1988), consumers can evaluate a product when purchasing or when using it. They have found that a consumer's overall satisfaction with the quality of an article of clothing can be measured at the point of sale, when the product is used repeatedly, and when it is discarded. It is, however, important that the quality is assessed during the buying decision-making process. However, clothing consumers in many cases do not intentionally evaluate the quality of the item before, during or after the purchase. In many cases, quality is evaluated from specific extrinsic indicators, such as the brand name or the store where it is purchased. Clothing consumers have specific expectations about the product because of previous experiences with a similar product or available information regarding its quality. Therefore, it is important that they evaluate the quality of any new items at the point of sale. The ultimate objective of assessing the quality of clothing products is that the consumer is satisfied to the point of making new purchases.

2.2 Conceptual model for evaluating the quality of clothing products

The conceptual model (Figure 1) in this study derived from the evaluation of the studies on the quality of clothing products by Hines and Swinker (2001) and Swinker and Hines (2006), as suitable to research Brazilian clothing consumers and in accordance with the revised literature.

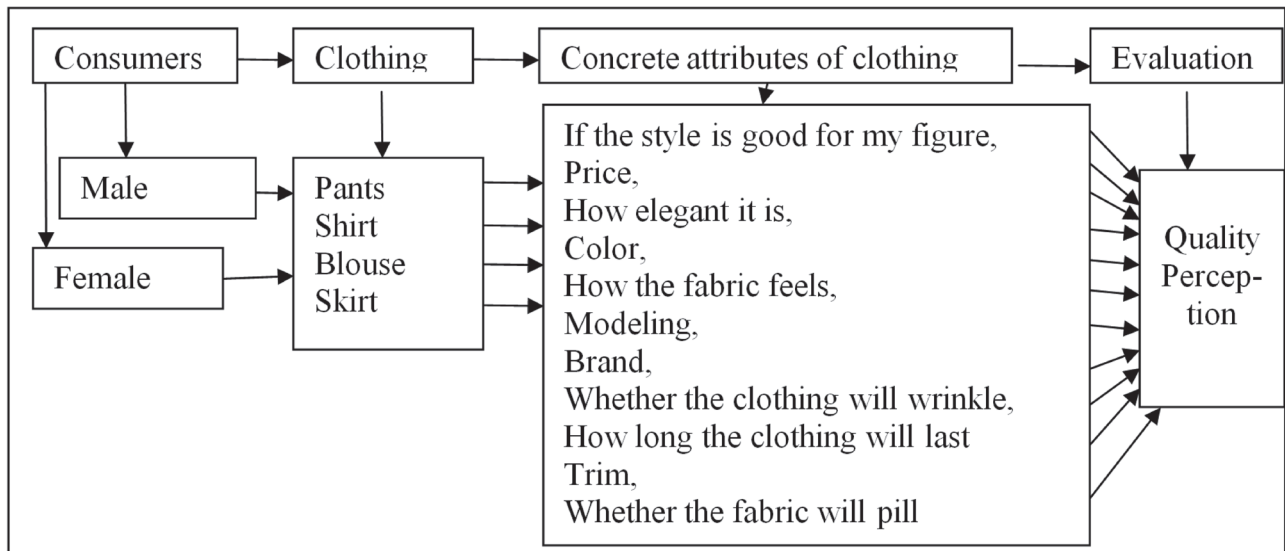


Figure 1. Conceptual model.

3 Methodology

In order to meet the general objective of this paper, an exploratory bibliographical research on the most qualified journals on the subject, such as the *Journal of Fashion Marketing and Management: An International Journal*, *Journal of Retailing and Consumer Services*, *International Journal of Consumer Studies*, *Clothing and Textile Research Journal*, was initially carried out.

Following the exploratory step of the literature review, we used the snowball sampling method, recruiting participants online from the main author's Facebook friends list. The author lives in Fortaleza, capital of the Brazilian state of Ceará, with a population of above three million inhabitants. It should be noted, however, that although the initial selection of the interviewees followed a probabilistic process, the final sample could not be considered a probabilistic sample (Malhotra, 2012). Actually, it is a sample by convenience.

In this case, the potential respondents were asked to access the SurveyMonkey site link to participate in the survey that addressed factors related to the quality of the male and female garments independently of the gender. The sample size was defined in order to comply with the minimum requirements of at least five

respondents for each estimated parameter (Hair, Black, Babin, Anderson, & Tatham, 2009), in the total of 200. The sample comprised 295 respondents, stratified by sex, age, schooling and income. In this study, there was a slight predominance of female respondents (123 or 58.3%) and those in the highest age group (104 or 35.3% respondents are in the upper age group of people over 37 years old). A high majority (274 or 92.9% of respondents are doing an undergraduate course, are graduated or are post-graduated) and they belong to the upper family income (115 or 39% of respondents are in the corresponding income class higher than 10 to 20 minimum wages).

Questions were selected based on the work of Swinker and Hines (2006). In order to develop a research instrument that aimed to understand consumers' perceptions of quality of clothing, a pre-test was carried out with six experts, three of whom were from garment firms (production manager, production supervisor and quality control) of one of the largest clothing manufactures in Brazil, plus three professors of the course of fashion design of a recognized University in the Northeast region of Brazil.

The data were collected through a questionnaire with 44 questions about the quality assessment of garments, deposited in

the SurveyMonkey tool. Starting with the main proposition, “when thinking about the quality of the garments (pants, shirt, skirt and blouse)”, participants were asked to respond 11 items (I consider: if the style is good for my figure; price; how elegant it is; color; how I feel with the fabric; modeling; brand; whether the clothing will wrinkle; how long the clothing will last; trim; whether the fabric will pill), on a 5-point Likert scale, being 1 – I strongly disagree, 2 – I partially disagree, 3 – I am indifferent, 4 – I partially agree and 5 – I totally agree.

4 Analysis and discussion of results

Data analysis was performed using descriptive analysis and variance (ANOVA) statistical techniques, using SPSS version 20, from the sample of Facebook friends list of 295 participants, the results of which are described in the following section.

The evaluation performed by the respondents is presented in Table 1, by means of

the answers to the 44 questions. In this table, 40 items (male and female) presented mean values equal to or greater than 4.0, and 48 (male and female) items presented mean values lower than 4. The highest mean (4.47) was attributed to the perception of Quality of a trim shirt attributed by the female sex. In the second place, the average of 4.45 was attributed to the modeling and trim of pants and to the skirt style. The third highest average, 4.44, refers to whether the style is ‘good for my figure’ as a criterion for assessing the quality of the blouse. In sequence, comes the quality ‘if the style is good for myself’ regarding the shirt (4.43), modeling of the shirt and the trim of the blouse (4.42). It is interesting to note that in the seventh position an item of women’s clothing, modeling (shirt) and trim (blouse), appears, with an average of 4.42. It is also interesting to observe that from the seventh to the eighth position, the items refer to the women’s clothing, except for the shirt of the menswear.

Table 1
Quality assessment of clothing

What is your gender?		N	Mean	Standard deviation	Mean error standard deviation
When thinking about the quality of PANTS, I consider: - whether the style is good for my figure	male	121	4.29	1.091	.099
	female	167	4.40	0.988	.076
When thinking about the quality of PANTS, I consider: - the price	male	121	4.07	1.014	.092
	female	165	4.20	0.964	.075
When thinking about the quality of PANTS, I consider: - how elegant they are	male	121	4.03	1.008	.092
	female	162	3.99	1.048	.082
When thinking about the quality of PANTS, I consider: - the color	male	118	4.02	1.062	.098
	female	163	4.15	0.991	.078
When thinking about the quality of PANTS, I consider: - How the fabric feels	male	117	3.91	1.091	.101
	female	163	4.09	1.080	.085
When thinking about the quality of PANTS, I consider: - the modeling	male	118	4.05	1.061	.098
	female	163	4.45	0.957	.075
When thinking about the quality of PANTS, I consider: - the brand	male	117	3.48	0.970	.090
	female	163	3.06	1.084	.085
When thinking about the quality of PANTS, I consider: - if the pants will wrinkle	male	117	3.39	1.129	.104
	female	162	3.55	1.221	.096

What is your gender?		N	Mean	Standard deviation	Mean error standard deviation
When thinking about the quality of PANTS, I consider: - how long the pants last	male	119	3.69	1.206	.111
	female	162	3.62	1.153	.091
When thinking about the quality of PANTS, I consider: - the trim	male	119	3.98	1.193	.109
	female	166	4.45	1.018	.079
When thinking about the quality of PANTS, I consider: - if the fabric will pill	male	120	3.27	1.301	.119
	female	162	3.65	1.258	.099
When thinking about the quality of a SHIRT, I consider: - if the style is good for my figure	male	122	4.40	1.081	.098
	female	168	4.43	1.041	.080
When thinking about the quality of a SHIRT, I consider: - the price	male	121	4.12	0.945	.086
	female	165	4.22	0.965	.075
When thinking about the quality of a SHIRT, I consider: - how elegant it is	male	119	4.21	0.964	.088
	female	165	4.20	1.031	.080
When thinking about the quality of a SHIRT, I consider: - the color	male	121	4.13	1.087	.099
	female	162	4.10	1.073	.084
When thinking about the quality of a SHIRT, I consider: - how the fabric feels	male	116	4.16	0.969	.090
	female	166	4.18	1.130	.088
When thinking about the quality of a SHIRT, I consider: - the modeling	male	119	4.19	1.027	.094
	female	166	4.42	1.057	.082
When thinking about the quality of a SHIRT, I consider: - the brand	male	120	3.51	0.979	.089
	female	166	3.15	1.077	.084
When thinking about the quality of a SHIRT, I consider: - if the shirt will wrinkle	male	119	3.71	1.121	.103
	female	164	3.81	1.211	.095
When thinking about the quality of a SHIRT, I consider: - how long the shirt lasts	male	119	3.82	1.086	.100
	female	164	3.76	1.145	.089
When thinking about the quality of a SHIRT, I consider: - the trim	male	119	4.09	1.200	.110
	female	161	4.47	0.975	.077
When thinking about the quality of a SHIRT, I consider: - the fabric will pill	male	118	3.56	1.258	.116
	female	162	3.79	1.238	.097
When thinking about the quality of a SHIRT, I consider: - if the style is good for my figure	male	119	3.17	1.291	.118
	female	168	4.45	0.996	.077
When thinking about the quality of a SKIRT, I consider: - the price	male	120	3.06	1.176	.107
	female	165	4.18	1.018	.079
When thinking about the quality of a SKIRT, I consider: - how elegant it is	male	117	3.18	1.264	.117
	female	166	4.14	1.119	.087
When thinking about the quality of a SKIRT, I consider: - how elegant it is	male	117	3.07	1.251	.116
	female	163	4.01	1.108	.087
When thinking about the quality of a SKIRT, I consider: - how the fabric feels	male	115	3.08	1.208	.113
	female	163	4.15	1.129	.088
When thinking about the quality of a SKIRT, I consider: - the modeling	male	119	3.09	1.289	.118
	female	167	4.36	1.025	.079
When thinking about the quality of a SKIRT, I consider: - the brand	male	117	2.90	1.086	.100
	female	159	3.15	1.068	.085

What is your gender?		N	Mean	Standard deviation	Mean error standard deviation
When thinking about the quality of a SKIRT, I consider: - if the skirt will wrinkle	male	116	3.01	1.168	.108
	female	164	3.68	1.208	.094
When thinking about the quality of a SKIRT, I consider: - How long the skirt will last	male	117	3.04	1.206	.112
	female	162	3.73	1.130	.089
When thinking about the quality of a SKIRT, I consider: - the trim	male	115	3.03	1.277	.119
	female	164	4.35	1.078	.084
When thinking about the quality of a SKIRT, I consider: - if the fabric will pill	male	117	2.91	1.200	.111
	female	163	3.60	1.274	.100
When thinking about the quality of a BLOUSE, I consider: - if the style is good for my figure	male	121	4.01	1.194	.109
	female	165	4.44	1.044	.081
When thinking about the quality of a BLOUSE, I consider: - the price	male	120	3.78	1.148	.105
	female	165	4.16	1.042	.081
When thinking about the quality of a BLOUSE, I consider: - how elegant it is	male	117	3.94	1.132	.105
	female	166	4.19	1.084	.084
When thinking about the quality of a BLOUSE, I consider: - the color	male	120	3.84	1.216	.111
	female	163	4.10	1.067	.084
When thinking about the quality of a BLOUSE, I consider: - how I feel the fabric	male	119	3.84	1.150	.105
	female	166	4.20	1.091	.085
When thinking about the quality of a BLOUSE, I consider: - the modeling	male	117	3.72	1.202	.111
	female	165	4.33	1.049	.082
When thinking about the quality of a BLOUSE, I consider: - the brand	male	116	3.45	1.082	.100
	female	165	3.17	1.086	.085
When thinking about the quality of a BLOUSE, I consider: - if the blouse will wrinkle	male	117	3.50	1.186	.110
	female	164	3.80	1.208	.094
When thinking about the quality of a BLOUSE, I consider: - how long the blouse lasts	male	117	3.58	1.161	.107
	female	166	3.84	1.124	.087
When thinking about the quality of a BLOUSE, I consider: - the trim	male	117	3.77	1.241	.115
	female	166	4.42	1.034	.080
When thinking about the quality of a BLOUSE, I consider: - if the fabric will pill	male	117	3.44	1.296	.120
	female	165	3.84	1.186	.092

In turn, the lowest mean (2.90) refers to an item of women's clothing, skirt brand as an evaluation criterion. The following lower averages, 2.91, 3.01 and 3.03 also refer to whether the fabric has polka dots, whether it will wrinkle, and the trim of the skirts evaluated by the male gender, respectively. To a certain extent, these lower averages attributed to the brand as a criterion of quality evaluation are surprising given the importance attached to brand strategies in

companies. The quality level of an item of clothing is a difficult factor to isolate and define when this item of clothing has to be evaluated. (Fowler & Clodfelter, 2001).

Therefore, the importance of the questions of this research lies in identifying if there are differences between genders in the perception of quality of garments. The main question is: Is there a significant difference between men and women concerning the low average given to the

importance of the brand of skirt as a criterion of clothing evaluation? If so, which genre has the highest mean? This is the assessment that follows.

By means of the calculation of the averages and standard deviations by gender and independent t-tests, the results obtained are shown in Table 2.

Table 2
Mean, standard deviation and significance of mean gap differences

Quality Criterion: When thinking about the quality of:	Male			Female			t-value	Significant
	N	Mean	DP	N	Mean	DP		
Pants - Figure	121	4.29	1.091	167	4.40	0.988	-0.908	N S
Pants - Price	121	4.07	1.014	165	4.20	0.964	-1.135	NS
Pants - Elegance	121	4.03	1.008	162	3.99	1.048	0.317	NS
Pants - Color	118	4.02	1.062	163	4.15	0.991	-1.105	NS
Pants - Fabric	117	3.91	1.091	163	4.09	1.080	-1.369	NS
Pants - Modeling	118	4.05	1.061	163	4.45	0.957	-3.329	***
Pants - Brand	117	3.48	0.970	163	3.06	1.084	3.366	***
Pants - Wrinkle	117	3.39	1.129	162	3.55	1.221	-1.088	NS
Pants - Last	119	3.69	1.206	162	3.62	1.153	0.462	NS
Pants - Trim	119	3.98	1.193	166	4.45	1.018	-3.564	***
Pants - Pill	120	3.27	1.301	162	3.65	1.258	-2.481	*
Shirt - Figure	122	4.40	1.081	168	4.43	1.041	-0.214	NS
Shirt - Price	121	4.12	0.945	165	4.22	0.965	-0.876	NS
Shirt - Elegance	119	4.21	0.964	165	4.20	1.031	0.084	NS
Shirt - Color	121	4.13	1.087	162	4.10	1.073	0.211	NS
Shirt - Fabric	116	4.16	0.969	166	4.18	1.130	-0.131	NS
Shirt - Modeling	119	4.19	1.027	166	4.42	1.057	-1.772	NS
Shirt - Brand	120	3.51	0.979	166	3.15	1.077	2.880	*
Shirt - Wrinkle	119	3.71	1.121	164	3.81	1.211	-0.684	NS
Shirt - Last	119	3.82	1.086	164	3.76	1.145	0.454	NS
Shirt - Trim	119	4.09	1.200	161	4.47	0.975	-2.917	*
Shirt - Pill	118	3.56	1.258	162	3.79	1.238	-1.530	NS
Skirt - Figure	119	3.17	1.291	168	4.45	0.996	-9.465	***
Skirt - Price	120	3.06	1.176	165	4.18	1.018	-8.567	***
Skirt - Elegance	117	3.18	1.264	166	4.14	1.119	-6.771	***
Skirt - Color	117	3.07	1.251	163	4.01	1.108	-6.616	***
Skirt - Fabric	115	3.08	1.208	163	4.15	1.129	-7.553	***
Skirt - Modeling	119	3.09	1.289	167	4.36	1.025	-9.247	***
Skirt - Brand	117	2.90	1.086	159	3.15	1.068	-1.935	NS
Skirt - Wrinkle	116	3.01	1.168	164	3.68	1.208	-4.621	***
Skirt - Last	117	3.04	1.206	162	3.73	1.130	-4.905	***
Skirt - Trim	115	3.03	1.277	164	4.35	1.078	-9.315	***
Skirt - Pill	117	2.91	1.200	163	3.60	1.274	-4.556	***
Blouse - Figure	121	4.01	1.194	165	4.44	1.044	-3.224	***
Blouse - Price	120	3.78	1.148	165	4.16	1.042	-2.932	*
Blouse - Elegance	117	3.94	1.132	166	4.19	1.084	-1.896	NS

Quality Criterion: When thinking about the quality of:	Male			Female			t -value	Significant
	N	Mean	DP	N	Mean	DP		
Blouse - Color	120	3.84	1.216	163	4.10	1.067	-1.883	NS
Blouse - Fabric	119	3.84	1.150	166	4.20	1.091	-2.674	*
Blouse - Modeling	117	3.72	1.202	165	4.33	1.049	-4.522	***
Blouse - Brand	116	3.45	1.082	165	3.17	1.086	2.121	*
Blouse - Wrinkle	117	3.50	1.186	164	3.80	1.208	-2.072	*
Blouse - Last	117	3.58	1.161	166	3.84	1.124	-1.862	NS
Blouse - Trim	117	3.77	1.241	166	4.42	1.034	-4.807	***
Blouse - Pill	117	3.44	1.296	165	3.84	1.186	-2.688	*

Note. *** Significant at the 0.1% level; ** 1% and * 5%, NS = Not Significant.

The results in Table 2 show that 24 out of the 44 questions answered present differences between the two genders with statistical significance up to 5%. Only six out of these 24 significant differences refer to questions related to the evaluation of predominantly male garments. Therefore, 18 out of the 22 questions related to women's apparel presented statistically significant differences. It should be emphasized that the four questions that were not considered significantly different at the established level would have been considered if we had raised the significance to 10%.

Concerning the 16 non-significant differences of men's clothing, seven refer to pants (style, price, elegance, color, fabric, wrinkle and duration) and nine refer to the shirt (style, price, elegance, color, wrinkling, duration, and pill). With reference to non-significant differences related to women's clothing, only one attribute (brand) refers to the skirt, and three (elegance, color and duration) refer to blouse. The following paragraph will analyze the statistically significant differences between both genders.

First of all, it is worth mentioning that three out of the six significant differences related to attributes of men's clothing have higher averages attributed by the female sex. On the other hand, in all the significant differences related to the attributes of the feminine clothing, the superior average was attributed by this same gender.

The significant differences in evaluation of men's clothing correspond to four attributes

of pants (modeling, brand, trim and formation of balls in the fabric) and two of shirt (mark and trim). The attributes modeling and formation of balls in the fabric of pants and the shirt trim presented the highest average attributed by the female gender, whereas the attributes of brand and trim of pants and shirt had a higher average attributed by the masculine gender. In a way, attributes privileged by women are intrinsic to men's attire, while those privileged by men relate to elements of marketing (brands). The low average attributed by women in the menswear brand assessment may explain, in part, the general low average given to the above-mentioned attribute.

Concerning the significant differences related to women's clothing, 10 out of the 11 attributes are related to the skirt (style, price, elegance, color, fabric, modeling, wrinkling, length, trim and ball formation) and eight out of the 11 are related to the blouse (style, price, fabric, modeling, brand, wrinkling, trim and polishing). Therefore, consumers of women's clothing will not consider purchasing a product, unless they have these attributes.

The quality level of an item of clothing is a difficult factor to isolate and define when an item of clothing has to be evaluated. However, consumers (men and women) differ in their behavior when assessing the overall quality of a garment. Consumers are not often aware of the role of the intrinsic and extrinsic components of a garment. In many cases, men and women are not

informed on how they should evaluate the items that make up the garments. (DeKlerk & Lubbe, 2008; Fowler & Clodfelter, 2001; Goldsmith & Goldsmith, 2002; Hye & Stoel, 2002; Pentecost & Andrews, 2010).

From these results, it can be deduced that women assess the quality attributes of clothing more markedly than men, and this is important in that female consumers are often responsible for buying not only their own but also the family's clothing. They make clothing purchases in traditional stores as well as online (Goldsmith & Goldsmith, 2002; Hye & Stoel, 2002; Pentecost & Andrews, 2010). However, it should be noted that 12 out of the 13 highest averages of evaluation referred to male garments. Whereas women have a higher average than men, it can be deduced that their level of demand for such clothing is quite high.

5 Conclusions

This research was developed with the purpose of evaluating and comparing the attributes determining the perception of quality of garments by the consumers of Fortaleza, connected on a social network.

From the descriptive analysis, it can be concluded that the consumers of garments regard as highly important to take into consideration quality attributes when deciding to buy clothes, especially women in relation to menswear. From the analytical part, it can be concluded that women present a superior perception to men in relation to the evaluation of the quality attributes of their predominant clothing. For the most part, the items are related to qualitative characteristics inherent to the products, while brand, a marketing strategy, stood out in the two types of masculine garments for respondents of this gender.

In any case, clothing consumers, in particular consumers of women's products, will only consider the purchase of such products if they have, in particular, style, quality fabric and fair price. For them, according to the survey results, brand is the least important. Hence, we can say

that intrinsic attributes are perceived to be more important than extrinsic effect upon judgments of quality from Fortaleza clothing consumers.

Matching the clothing characteristics valued by consumers is a big challenge for garment firms. However, as stressed by Molfino; Zoppi; Montorsi (2009), the garment industry is mass customization oriented which combines fit (shape, measurement, size), functionality (features, taste, forms) and aesthetic design (fashion), at low price. Products that require superior and customized physical dimensions (e.g. fabric quality) and functional requirements (e.g. style) often engender a higher price. Therefore, the clothing manufacturers should involve customers in the aesthetic design and the adaptation of functional requirements to increase the value of products and user's satisfaction, as claimed by Molfino et al. (2009). Also, to achieve a good combination of style, fabric quality and price in the customers' perception, clothing manufacturers need to communicate to the clients that what is being offered is the best at the minimum price. Their communication programs should focus on these characteristics when targeting clothing consumers, mainly women.

Finally, regarding the study limitations, the main one refers to the fact that, since the sample was defined by convenience, it is biased and the results cannot be generalized to social network users, let alone to the state or country consumers. However, we can generalize it to the public of clothing consumers with the profile of the sample, in particular to Facebook users.

References

- Abraham-Murali, L., & Littrell, M. A. (1995). Consumers' conceptualization of apparel attributes. *Clothing and Textiles Research Journal*, 13(2), 65-74.
- Bakewell, C., & Mitchell, V. W. (2006). Male versus female consumer decision making styles. *Journal of Business Research*, 59(12), 1297-1300.

- Bezuidenhout, L., Jacobs, B., & Sonnenberg, N. (2016). Diagnostic cues used by female consumers to evaluate work wear assortments of major South African department stores. *The Retail and Marketing Review*, 12(2), 28-45.
- Brown, P., & Rice, J. (1998). *Ready-to-wear apparel analysis*. Columbia: Pearson Higher Ed.
- Coelho, D. C. (2016). *Older female consumers' quality perception of clothing during pre-and post-purchase decision-making* (Master Dissertation). North-West University, Potchefstroom, Africa do Sul.
- Chen-Yu, H. J., Williams, G., & Kincade, D. H. (1999). Determinants of consumer satisfaction/dissatisfaction with the performance of apparel products. *Family and Consumer Sciences Research Journal*, 28(2), 167-192.
- De Klerk, H. M., & Lubbe, S. (2008). Female consumers' evaluation of apparel quality: Exploring the importance of aesthetics. *Journal of Fashion Marketing and Management: An International Journal*, 12(1), 36-50.
- Dickerson, K. G. (1982). Imported versus US produced apparel: Consumer views and buying patterns. *Home Economics Research Journal*, 10(3), 241-252.
- Dickerson, K. G. (2003). *Inside the fashion business: Recording for the Blind & Dyslexic*. Columbia: Pearson.
- Dodds, W. B., Monroe, K. B., & Grewal, D. (1991). Effects of price, brand, and store information on buyers' product evaluations. *Journal of Marketing Research*, 28(3)307-319.
- Fiore, A. M., & Damhorst, M. L. (1992). Intrinsic cues as predictors of perceived quality of apparel. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 5, 168-178.
- Fiore, A. M., & DeLong, M. (1994). Introduction to aesthetics of textiles and clothing: Advancing multi-disciplinary perspectives. *ITAA Special Publication*, 7, 1-6.
- Fiore, A. M., & Kimle, P. A. (1997). *Understanding aesthetics: For the merchandising & design professional*. New York: Fairchild.
- Fowler, D., & Clodfelter, R. (2001). A comparison of apparel quality: Outlet stores versus department stores. *Journal of Fashion Marketing and Management: An International Journal*, 5(1), 57-66.
- Geršak, J. (2002). Development of the system for qualitative prediction of garments appearance quality. *International Journal of Clothing Science and Technology*, 14(3/4), 169-180.
- Gitimu, P. N., Workman, J., & Robinson, J. R. (2013). Garment quality evaluation: Influence of fashion leadership, fashion involvement, and gender. *International Journal of Fashion Design, Technology and Education*, 6(3), 173-180.
- Goldsmith, R. E., & Goldsmith, E. B. (2002). Buying apparel over the internet. *Journal of Product & Brand Management*, 11(2), 89-102.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2009). *Análise multivariada de dados*. São Paulo: Bookman Editora.
- Hines, J. D., & Swinker, M. E. (2001). Knowledge: A variable in evaluating clothing quality. *International Journal of Consumer Studies*, 25(1), 72-76.
- Hsu, H. J., & Burns, L. D. (2002). Clothing evaluative criteria: A cross-national comparison of Taiwanese and United States consumers. *Clothing and Textiles Research Journal*, 20(4), 246-252.
- Hye Park, J., & Stoel, L. (2002). Apparel shopping on the internet: Information availability on US apparel merchant web sites. *Journal of Fashion Marketing and Management: An International Journal*, 6(2), 158-176.

- Lennon, S. J., & Fairhurst, A. E. (1994). Categorization of the quality concept. *Home Economics Research Journal*, 22(3), 267-285.
- Lu, Y. (2015). *Understanding consumers' perceptions of apparel quality in the US and China through online reviews* (Master Thesis). North Carolina State University, Raleigh, North Carolina, USA.
- Malhotra, N. K. (2012). *Pesquisa de marketing: Uma orientação aplicada*. São Paulo: Bookman Editora.
- Molfino, R; Zoppi, M.; Montorsi, R. (2009). Garment manufacturing plant design and concepts. In L. Walter, K. George-Alexander, K., & S. Carosio. *Transforming clothing production into a demand-driven, knowledge-based, high-tech industry* (pp. 41-51). London: Springer-Verlag.
- Olson, J. C., & Jacoby, J. (1972). Cue utilization in the quality perception process. *SV-proceedings of the third annual conference of the association for consumer research*, Chicago Illinois, USA.
- O'Neal, G. S. (1998). African-American aesthetic of dress: Current manifestations. *Clothing and Textiles Research Journal*, 16(4), 167-175.
- Pentecost, R., & Andrews, L. (2010). Fashion retailing and the bottom line: The effects of 19 generational cohorts, gender, fashion fanship, attitudes and impulse buying on fashion expenditure. *Journal of Retailing and Consumer Services*, 17(1), 43-52.
- Rabolt, N., & Solomon, M. (2004). *Consumer behavior in fashion*. Massachusetts: Prentice-Hall.
- Rahman, O. (2011). Understanding consumers' perceptions and buying behaviours: Implications for Denim Jeans Design. *Journal of Textile and Apparel, Technology and Management*, 7(1), 1-16.
- Richardson, P. S., Dick, A. S, & Jain, A. K. (1994). Extrinsic and intrinsic cue effects on perceptions of store brand quality. *Journal of Marketing*, 58(4), 28-36.
- Shim, S., & Bickle, M. C. (1994). Benefit segments of the female apparel market: Psychographics, shopping orientations, and demographics. *Clothing and Textiles Research Journal*, 12(2), 1-12.
- Sieben, W. (1991). An interdisciplinary concept of apparel quality. *Critical Linkage in Textiles and Clothing Subject Matter: Theory, method and practice*. ITAA, Monument, CO, 4, 65-73.
- Sternquist, B., & Davis, B. (1986). Store status and country of origin as information cues: Consumer's perception of sweater price and quality. *Home Economics Research Journal*, 15(2), 124-131.
- Swinker, M. E., & Hines, J. D. (2006). Understanding consumers' perception of clothing quality: A multidimensional approach. *International Journal of Consumer Studies*, 30(2), 218-223.
- Syduzzaman, S., Rahman, M., Islam, M., Habib, A., & Ahmed, S. (2014). Implementing total quality management approach in garments industry. *European Scientific Journal*, ESJ, 10(34), 341-358.
- Tungate, M. (2005). *Fashion brands: Branding style from Armani to Zara*. United Kingdom: Kogan Page Publishers.
- Wall, M., & Heslop, L. A. (1986). Consumer attitudes toward Canadian-made versus imported products. *Journal of the Academy of Marketing Science*, 14(2), 27-36.
- Workman, J. E., & Cho, S. (2013). Gender, fashion consumer group, need for touch and Korean apparel consumers' shopping channel preference. *International Journal of Consumer Studies* 37(5), 522-529.
- Wu, J., & Delong, M. (2006). Chinese perceptions of western-branded denim jeans: A Shanghai case study. *Journal of Fashion Marketing and Management: An International Journal*, 10(2), 238-250.


Yoon, E., & Kijewski, V. (1997). Dynamics of the relationship between product features, quality evaluation, and pricing. *Pricing strategy and Practice*, 5(2), 45-60.

Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *The Journal of marketing*, 52, 2-22.

About the authors:

José Sarto Freire Castelo, Doctor in Business Administration, Universidade de Coimbra, Coimbra, Portugal. E-mail: sarto@unifor.br

ORCID

 0000-0003-3552-9986

2. José Ednilson de Oliveira Cabral, PhD. in Economics of Technology and Innovation Management, University of Reading, Reading, UK. E-mail: ednilson@unifor.br.

ORCID

 0000-0002-4033-1125

Contribution of each author:

Contribution	José Sarto Freire Castelo	José Ednilson de Oliveira Cabral
1. Definition of research problem	√	√
2. Development of hypotheses or research questions (empirical studies)	√	√
3. Development of theoretical propositions (theoretical work)	√	√
4. Theoretical foundation/Literature review	√	√
5. Definition of methodological procedures	√	√
6. Data collection	√	
7. Statistical analysis	√	√
8. Analysis and interpretation of data	√	√
9. Critical revision of the manuscript	√	√
10. Manuscript writing	√	√