



Journal Homepage: -www.journalijar.com
**INTERNATIONAL JOURNAL OF
 ADVANCED RESEARCH (IJAR)**

Article DOI:10.21474/IJAR01/8551
 DOI URL: <http://dx.doi.org/10.21474/IJAR01/8551>



RESEARCH ARTICLE

INVESTIGATING THE PRODUCT QUALITY ATTRIBUTES THAT INFLUENCE CUSTOMERS SATISFACTION OF ONLINE APPARELS.

Yuhanis Mohamed Noor, Noorshella Che Nawi, Noorul Azwin Md Nasir and Nurhaiza Nordin.
 Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan City Campus, 16100 Kota Bharu.

Manuscript Info

Manuscript History

Received: 14 December 2018
 Final Accepted: 16 January 2019
 Published: February 2019

Keywords:-

Behaviour, determinant, factor, health, seeking.

Abstract

This study has investigated the product quality attributes that influence customers satisfaction of online apparels. This study adapted a model from Garvin (1984) in measuring product quality which consist of eight variables namely performance, features, reliability, conformance, durability, serviceability, aesthetics and perceived quality. The main objectives of this study are to examine the relationship between product quality attributes on customer satisfaction in purchasing online apparel and to determine the most dominant factors in attributes of product quality towards customer satisfactions of online apparels. Therefore, a total 389 respondents were involved in this research by participating in online survey. Then, the result was analysed using SPSS and Smart-PLS. The result revealed that performance, reliability, conformance and aesthetic are the factors that influence customer satisfaction in online environment.

Copy Right, IJAR, 2019. All rights reserved.

Introduction:-

In today's business world, online shopping is a growing phenomenon, mainly in technologically advanced countries as they are providing facilities of E- malls over Internet. Nowadays, more than 1.7 billion people are connected to the Internet and these connections are growing by staggering rate. This might lead to a considerable increase in online shopping. Online shopping is a process through which goods and services are exchanged between customers and sellers via Internet. All cash flow, information flow and logistics operations via Internet are all included in the online shopping. This is an important part of electronic commerce. In Malaysia, online retail will grow at 23 percent per year through 2021, driven by electronics and media, which will account for 40 percent of total online sales in 2017 (Kearney, 2017).

The reach of e-commerce will expand further as a result of government's \$280 million plan to roll out high-speed broadband access to rural areas starting in 2016. The government, seeking to position Malaysia as a hub for cross-border e-commerce, also established the world's first Digital Free Trade Zone in collaboration with Alibaba. As part of these agreement, Alibaba will set up a regional fulfilment hub in Kuala Lumpur and a one-stop cross-border online trading platform, which will allow Malaysia's small and medium-size enterprises to sell online with transactions fulfilled through Alibaba. Meanwhile, Lazada, Southeast Asia's largest e-commerce platform, saw 100 percent sales growth in Malaysia in 2016, the highest growth in the region.

Corresponding Author:-Yuhanis Mohamed Noor.

Address:-Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan City Campus,
 16100 Kota Bharu.

As online business or electronic business became important and continues to rise, there are also increase in the number of consumer purchase through the net. Among all products purchased online, apparel purchases represent one of the increasing trends in online shopping (San Lim, Heng, Ng, & Cheah, 2016). Critics said online apparel purchasing was difficult in the early days of e-commerce because of consumers who like to touch and physically try on clothes. However, this changed recently when the volume of apparel sold, including shirts, footwear and fashion adornments increased steadily and online revenues for fashion or apparel websites have grown also (San Lim et al., 2016).

When online apparel purchase became common, consumers became more accepting of it. San Lim et al. (2016) claimed that many shoppers show strong enthusiasm and confidence in purchasing apparel using the Internet. In the USA, online apparel provides the highest revenue amongst online product categories (San Lim et al., 2016). eMarketer (2012) reported that online apparel merchandise in the USA reached \$34.2 billion in 2012. The same phenomenon happened in Asia, for example in Taiwan, online apparel has become the biggest category of merchandise in online sales (Wang & Cho, 2012). Annual sales in Taiwan have shown the increasing rate of over 30% of total online sales every year.

Thus, this study is to give a clearer view of how eight attributes of product quality namely performance, features, reliability, conformance, durability, serviceability, aesthetics and perceived quality as derived by Garvin (1984) and plays very important role in being influential to customer satisfaction towards online apparels. This research will determine customer satisfaction on each attributes in the product quality from eight types of attributes and e-service quality from five attributes mentioned when buying online apparel. Thus the research objective of this study is to examine the relationship of product quality attributes to customer satisfactions of online apparel.

Literature Review

Performance

Consumers expected the products in high performance based on to effectiveness product performance which achieves their needs (Bubonia, 2014; Ghaani Farashahi, Easter, & Annett-Hitchcock, 2018). Typically, performance defined as one of the determinants for product quality since consumers perceive performance based on product attributes, product design, product packaging as well as brands (Bubonia, 2014; Ghaani Farashahi et al., 2018). Therefore, performance defined as main operating characteristics of the products as well as a combination of product elements and user-approaches (Jaskulska, 2013). However, Kumar and Noble (2016) argued that consumers perceive product performance not determined by the product functionality but benefits gained as well since consumers organized information in each stage according to simple product attributes till complex personal values. In garments items, consumers determined performance based on shrinkage in laundry or dry-cleaning process, colourfastness, abrasion resistance as well as the strength of the garments products (Fletcher, 2013; Jaskulska, 2013). Indeed, online consumers feel satisfied if the garments products that purchase online were capable to provide brilliant functionality and benefits among them.

Feature

According to Jolhe and Subash Babu (2014) and Ghaani Farashahi et al. (2018), features defined as second determinants for products and one of the parts for physical products due to this dimensions recognised as a supporter for main product functionality. Jaskulska (2013) argues that individuals feel difficult to determine and differentiate primary performance characteristics and secondary features for products. This not doubts that these dimensions are important since it provides a great contribution for product performance that can achieve consumers' objectives and product measurable attributes (Ghaani Farashahi et al., 2018; Mallapragada, Chandukala, & Liu, 2016). Therefore, features can result in individuals to evaluate product quality. Based on Bubonia (2014) and Jaskulska (2013), consumers perceive features for garments products based on as functional fabric finishes included durable press, stain release and soil release as well as odour resistance. In result, online consumers gained high satisfaction from garments products that purchase online if the products have great functional fabric finishes based on a review from Bubonia (2014) and Jaskulska (2013).

Reliability

Consumers perceive reliability for a product based on the possibility for products will be malfunctioning or failing within a specific time (Beneke, Flynn, Greig, & Mukaiwa, 2013). Based on Kenyon and Sen (2015), there are three determinants for consumers measure the product reliability which is: "the mean time to first failure", "the mean time between failures", and "the failure rate per unit time". In order words, this dimensions reflected as product durable

based on three factors as a review by Kenyon and Sen (2015). In garments products, consumers really concerned with this dimension neither the products for short and long-term usage. This is due to consumers measured this dimensions for garments products based on resistance that daily wear usage and refurbishing (Park, 2012). Tsyewu (2013) added consumers perceive reliability for garments products in special events as well. In other words, consumers achieve high satisfaction if online garments products that purchased were great durability although in daily use or special events.

Conformance

Ghaani Farashahi et al. (2018) and Jaskulska (2013) defined conformance as the magnitude of products' design as well as product operating characteristics that achieve established quality terms. Xia, Singhal, and Peter Zhang (2016) argued that individual perceives dimensions of reliability and conformance for the product similarly. However, there are slightly different for both dimensions since conformance is about the magnitude for products' design and characteristics of functionality capable to achieve pre-established standards and industry specification (Bubonia, 2014; Xia et al., 2016). Therefore, conformance normally related to manufacturing-based approach. According to Bian and Forsythe (2012), this dimensions is vital for garments products when consumers make comparison among similar garments products. This is due to this dimensions recognised as the magnitude for products' design and characteristics of functionality capable to achieve pre-established standards and industry specification well as compromise of quality (Bian & Forsythe, 2012; Jaskulska, 2013). In result, consumers fell satisfy if the online garments products have great design specification based on the review from Ghaani Farashahi et al. (2018), Jaskulska (2013), and Bian and Forsythe (2012).

Durability

Based on Ghaani Farashahi et al. (2018), durability defined as the number of usage that individuals used from a product before the product become progressively worse. However, individually perceive durability is a similarity with reliability but both have slight differences in durability recognised as a measurement of product life that applicable in economic and technical dimensions (Kenyon & Sen, 2015). In garments products, consumers perceive this dimension based on how long time for the garment items long lasting before the products must be discarded (Ghaani Farashahi et al., 2018; Jaskulska, 2013). Therefore, the durability of garments products can be determined by least technical from material and structural as well as stylistic durability (Armstrong, Niinimäki, Kujala, Karell, & Lang, 2015; Bubonia, 2014). This is no doubt that consumers achieve high satisfaction if the online garments products were great durable based on least technical from material and structural as well as stylistic durability.

Serviceability

Based on Gerolamo, Poltronieri, Yamada, and Cintra (2014), serviceability known as "the speed, courtesy, courtesy, competence, and ease of repair" from sellers to consumers. In other meanings, serviceability measured by the ability for sellers provide immediate restoration by personal services for consumers before the products go fall (Gerolamo et al., 2014). Therefore, serviceability is related to responsiveness from the seller whereby the sellers have great intention make repair process at the right time and methods (Kenyon & Sen, 2015). However, the researchers have a slightly different opinion towards this dimension when coming to garments products. According to Jaskulska (2013) and Bubonia (2014), this dimension reflects as the performance for garments items whereby the garments' materials were made by special materials and required service demands special attention. Ghaani Farashahi et al. (2018), Hyllegard, Yan, Ogle, and Lee (2012) and Beneke et al. (2013) added the sellers need placed labels about care method, guarantees, and others important special attention information for garments products to aware consumers. Therefore, serviceability in this study was defined based on the review from Ghaani Farashahi et al. (2018), Hyllegard et al. (2012) and Beneke et al. (2013).

Aesthetics

Ghaani Farashahi et al. (2018) and Bubonia (2014) argued that aesthetics is the most subjective in quality dimensions and strongly related to the individual-based approach. This is due to consumer perceive aesthetics value based on the senses that provided from products during product comparison process (Kenyon & Sen, 2015). In result, consumers evaluate the products quality based on their five senses when coming to this dimension. According to Jaskulska (2013), Ghaani Farashahi et al. (2018), and Bubonia (2014), consumers perceive aesthetics value for garments products based on the design and attractiveness as well. Besides, Chattaraman, Simmons, and Ulrich (2013) added others influential factors such as drape, garments' size and how well it fits for consumers can affect individuals' aesthetics perceptible. Furthermore, the high ambitions aesthetics value from the designer which

provided great confidence for consumers can be a major determinant for aesthetics factor when consumers perceive garments products (Hwang, Chung, & Sanders, 2016).

Perceived Quality

According to Jaskulska (2013), Ghaani Farashahi et al. (2018), and Bubonia (2014), individual have a different point of view when perceiving product quality and mainly influenced by estimation of aesthetics. This is due to some quality dimensions are imminent while others are attributed to the products. However, consumers tend to feel difficult to observe directly towards products on certain quality characteristics (Tsyewu, 2013). Tsyewu (2013) added sellers can provide cues as a conjecture to reduce difficulties of product quality characteristics when consumers came to product observations process. Tsyewu (2013) added if the products have great image and brands name as well as interesting advertising which reduce consumers to make evaluate towards product characteristics. Typically, consumers perceive garments products based on the origin of the country made. As supported by the review from Jaskulska (2013) and Lee, Phau, and Roy (2013), consumers perceive high-quality perspectives towards garments products that made from Italy, Germany or Japan compare to Asian countries made. Therefore, perceived quality in this study defined as based on the review from Tsyewu (2013), Jaskulska (2013) and Lee et al. (2013).

Methodology:-

This section discussed the hypothesis, research design, followed by sampling design and the research instrument and also data analysis. The research aim to investigate the product quality attributes that influence customer satisfaction of online shopping products. The proxies of product quality are performance, features, reliability, conformance, durability, serviceability, aesthetics, and perceived quality. Eight (8) hypotheses tested are:

1. H1: Performance of a product is positively related to the level of satisfaction towards the quality of online apparel.
2. H2: Features of a product that supplements its basic function is positively related to the level of satisfaction towards the quality of online apparel.
3. H3: Reliability of a product is positively related to the level of satisfaction towards the quality of online apparel.
4. H4: Conformance of a product is positively related to the level of satisfaction towards the quality of online apparel.
5. H5: Durability of a product is positively related to the level of satisfaction towards the quality of online apparel.
6. H6: Serviceability of a product is positively related to the level of satisfaction towards the quality of online apparel.
7. H7: Aesthetics of a product is positively related to the level of satisfaction towards the quality of online apparel.
8. H8: Perceived quality of a product is positively related to the level of satisfaction towards the quality of online apparel.

Research Design

This study implement quantitative research approach using non-probability sampling which is convenience sampling. The population includes online shopping users in Malaysia who were experienced on buying cloth from the net. According to the report of Internet Users Survey 2017 by Malaysian Communications and Multimedia Commission (MCMC), there were 24.5 million Internet users in Malaysia and about 48.8% has made purchases via online platform with total of 11,956, 000 online users. Respondents' participation is based on voluntary basis or so called self-administered. This sampling method was being used because the respondents are accessible and cooperative. Besides that, this method is also less expensive and required minimum time compared to the other techniques such as systematic sampling and area sampling.

According to Malhotra (2010), the nature of the research would have an impact on selecting the sample size. According to Sekaran and Bougie (2016), sample is a subset of the population. The amount of respondents have been selected from the population for research purpose. This study is considered the common rule for the unknown population emphasized by Hair, Celsi, Money, Samouel, and Page (2016). The sample size was at least five times more than items to be analysed. (Fives & Looney, 2009). Since the study consists of 51 items in questionnaire, hence, 255 respondents are required in this research. Thus, in order to ensure that it could obtain at least 255 samples from its population, a total number of 400 questionnaires was distributed to the respondents for this study. The questionnaire is designed into 3 sections that is demographic, product quality attributes and customer satisfaction.

Upon the completion of data collection, the collected data was analyzed by using the Statistical package for Social Science (SPSS) version 23. Frequency distribution, reliability and multiple regression analysis are used in analysing the data.

Multiple Regression Analysis

Multiple regression analysis is performed for the study, to test the correlation between the dependent and independent variables. The multiple regression analysis is estimated as per following equation:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Where;

Y = Dependent variable

α = Constant

β = Regression Coefficients

e = Errors

The Pearson Correlation analysis is used to test on the hypotheses as well as the relationship between the variables. The coefficient indicates the strength of the correlation.

Coefficient Range	Strength of Association
$\pm 0.91 - \pm 1.00$	Very strong
$\pm 0.71 - \pm 0.90$	High
$\pm 0.41 - \pm 0.70$	Moderate
$\pm 0.21 - \pm 0.40$	Small but define relationship
$\pm 0.01 - \pm 0.20$	Slight, almost negligible

(Source: Hair et al. (2016))

Table 1.0 show the demographic characteristics of respondent by gender which the highest percentage of purchasing product online is female (75.8%). The range of age of the respondent are 18-29 years and the lowest is 1 per cent of the respondent is 17 and below. The total respondent who spent RM101-Rm150 are the highest group (33.8%) while respondent who spent RM51-RM100 is the second highest amount spent (27.8%). Most of the respondents spent 1-3 hours on the Internet by 38.4 per cent and the lowest hour spent is less than 1 hour.

Table 1.0:-Demographics Characteristics of Respondent

		Frequency	Percent
Gender	Female	292	75.8
	Male	93	24.2
Age	17 and below	4	1
	18-29	299	77.7
	30-39	56	14.5
	40 and above	26	6.8
Amount Spend	Rm 50 and below	74	19.2
	RM 51- RM 100	107	27.8
	RM 101- RM 150	130	33.8
	RM 151- RM 200	34	8.8
	RM 201- RM 250	18	4.7
	RM 251 and above	22	5.7
Hour Spent	< 1H	42	10.9
	1-3 hour	148	38.4
	4-6 hours	122	31.7
	7-9 Hours	45	11.7
	10 Hours and above	28	7.3

The main objective of reliability analysis is to identify the stability and reliability of the data collected for further analyze. The entire variable shows Table 2.0 range between 0.785 and 0.910. The high coefficient sores (more than 0.7) led to the conclusion that the scales were acceptably reliable. No items were deleted as to maintain the integrity of these established, original instruments.

Table 2.0:-Result of Reliability Analysis

Variable	No of items	Reliability
Feature	4	0.809
Performance	4	0.854
Reliability	4	0.785
Conformance	4	0.846
Durability	3	0.855
Serviceability	4	0.890
Aesthetics	4	0.844
Perceived quality	4	0.865
Customer Satisfaction	4	0.918

The correlation analysis is to measure the strength and direction of linear relationship between two variables that is performance, feature, reliability, conformance, durability, service ability, aesthetic and perceived quality on customer satisfaction. Table 3.0 illustrates all variables have significant and positive relationship between all dimension of product quality (performance, feature, reliability, conformance, durability, service ability, aesthetic and perceived quality) and customer satisfaction.

Table 3.0:-Regression Analysis

	1	2	3	4	5	6	7	8	9
PERFORMANCE (1)	1								
FEATURE (2)	.411**	1							
REALIBILITY (3)	.420**	.383**	1						
CONFORMANCE (4)	.475**	.332**	.486**	1					
DURABILITY (5)	.538**	.372**	.470**	.577**	1				
SERVICE_ABILITY (6)	.397**	.303**	.447**	.508**	.590**	1			
AESTTHETIC (7)	.510**	.345**	.536**	.580**	.587**	.545**	1		
PERCEIVED_QUALITY (8)	.487**	.367**	.522**	.570**	.576**	.590**	.671**	1	.511*
CUSTOMER_SATISFACT ION (9)	.481**	.295**	.483**	.501**	.480**	.439**	.565**	.511**	1

Results of regression analysis presented in Table 4.0, shows the overall significant model fit ($F= 34.401$, $p<0.000$). The R^2 value is 0.423, which indicates that 42 percent of the total variation in the customer satisfaction was explained by the independents variables. The balance of R square 58% can be explained by other factors or variables that excluded in this study. Performance ($\beta= 0.165$, $p<0.05$) has a significant positive effect on customer satisfaction, while Reliability ($\beta=0.153$, $p<0.005$) has a significant positive effect on customer satisfaction, Conformance ($\beta =PU$ ($\beta=0.127$, $p<0.05$) and aesthetic ($\beta=0.223$, $p<0.00$) also has a significant positive effect on customer satisfaction. Meanwhile other dimension of product quality (feature, durability, service ability, and perceived quality) does not show a significant association or influence on customer satisfaction.

Table 4.0:-Regression Analysis

Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.258	0.223		5.633	0
	PERFORMANCE	0.169	0.052	0.165	3.257	0.001
	FEATURE	-0.009	0.039	-0.011	-0.235	0.814
	REALIBILITY	0.148	0.049	0.153	3.039	0.003
	CONFORMANCE	0.124	0.053	0.127	2.346	0.02
	DURABILITY	0.046	0.058	0.045	0.783	0.434
	SERVICE_ABILITY	0.047	0.05	0.05	0.937	0.349
	AESTTHETIC	0.227	0.061	0.223	3.742	0
	PERCEIVED_QUALITY	0.08	0.061	0.078	1.305	0.193
a. Dependent Variable: CUSTOMER_SATISFACTION						

Therefore, from the Table 5, the equation can be drawn as below:

$$CS = 0.211 + 0.049(\text{Performance}) + 0.047(\text{Reliability}) + 0.050(\text{Conformance}) + 0.054(\text{Aesthetic}) + e$$

* cs=customer satisfaction

Table 5:-Regression coefficients

Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.337	.211		6.333	.000
	PERFORMANCE	.190	.049	.186	3.892	.000
	REALIBILITY	.169	.047	.175	3.595	.000
	CONFORMANCE	.161	.050	.165	3.235	.001
	AESTTHETIC	.286	.054	.280	5.245	.000
a. Dependent Variable: CUSTOMER_SATISFACTION						

Discussion and Conclusion:-

This study observed the link between product quality and customer satisfaction among online apparel customers in Malaysia. The finding from correlation analysis showed that all the dimension of product quality, which is performance, feature, durability, conformance, serviceability, aesthetic and perceived quality has a significant relationship with the customer satisfaction. The finding appears to support the previous research done by Hussain and Ranabhat (2013) appended product quality as an extension for a product that can succeed to meet customers' needs. This is no doubt that product quality is important tools for the company designed the product development process in order to achieve consumer satisfaction as well as to upgrade the performance quality in result to sustain in the current market (Kenyon & Sen, 2015). Therefore, it is believed that online apparel sold through the net are considered as quality products. From regression analysis, a factor of performance has a significant towards the customer satisfaction. This result can be supported by Jaskulska (2013) and Fletcher (2013) stated that consumers

analysis product performance of the garments product based on shrinkage in laundry or dry-cleaning process, colourfastness, abrasion resistance as well as the strength of the garments products. Therefore, the researcher justifies that consumers expected the products included garments in high performance (Bubonia, 2014; Ghaani Farashahi et al., 2018) based on to effectiveness garments product performance as a review from Jaskulska (2013) and Fletcher (2013) which achieve their satisfaction. Another factor that found to be significant in this study is conformance. This is aligned with the past study by Ghaani Farashahi et al. (2018), Jaskulska (2013), and Bian and Forsythe (2012) appended conformance is vital when consumers make comparison among similar garments products due to conformance defined as a quality guarantee. Therefore, the researcher justifies that respondents concerned this dimension due to compromise of quality for garments products based on great design specification as a review from Ghaani Farashahi et al. (2018), Jaskulska (2013), and Bian and Forsythe (2012). Furthermore, another one factors found significant in this study is aesthetic. This line with a study from Hwang et al. (2016) argued that perceptive from the user is the major determinant for aesthetics factor due to the consumers might seek suitable the designer since the high ambitions aesthetics value from the designer became the great confidence for consumers. Online consumers tend to perceive this dimension based on brands name or designer reputation for garments products in order to achieve high satisfaction. Besides, it can be supported by the study from Chattaraman et al. (2013) appended others determinants such as drape, garments' size and how well it fits for consumers can affect individuals' aesthetics perceptive. Therefore, the researcher justifies respondents in this study concerned the garments products quality based on their five senses based on this dimension. Lastly, respondents in this study reviewed that the most dominant significant factors study was aesthetics. This line with study from Jaskulska (2013), Ghaani Farashahi et al. (2018), and Bubonia (2014), consumers perceive aesthetics value for garments products based on the design and attractiveness as well since aesthetics is the most subjective and typically related to individual-based approach (Bubonia, 2014; Ghaani Farashahi et al., 2018). This is due to individual perceive aesthetics value based on the senses that provided from products during making product comparison in shopping process (Kenyon & Sen, 2015). Therefore, the researcher justifies that online consumers in this study concerned aesthetics value compare to another dimension because sense provided from garments products to achieve high satisfaction.

Acknowledgments:-

This study was funded by the RMIC, Universiti Malaysia Kelantan, Malaysia; under the grant titled 'Short Term Research Grant' (SGJP) Project title: Investigating the Product Quality Attributes That Influence Customers Satisfaction of Online Apparels. Total grant: RM5000.00 (Ringgit Malaysia).

Author Contributions:

Lead author (Yuhanis, Mohamed Noor) prepared the research proposal, managed the research project, questionnaire design, data analysis, and wrote this paper. The remaining authors contributed in developing the research model, literature review, sample selection, data collection and preparing the manuscript.

Conflicts of Interest:

The authors declare no conflict of interest

References:-

1. Armstrong, C. M., Niinimäki, K., Kujala, S., Karell, E., & Lang, C. (2015). Sustainable product-service systems for clothing: exploring consumer perceptions of consumption alternatives in Finland. *Journal of Cleaner production*, 97, 30-39.
2. Beneke, J., Flynn, R., Greig, T., & Mukaiwa, M. (2013). The influence of perceived product quality, relative price and risk on customer value and willingness to buy: a study of private label merchandise. *Journal of Product & Brand Management*, 22(3), 218-228.
3. Bian, Q., & Forsythe, S. (2012). Purchase intention for luxury brands: A cross cultural comparison. *Journal of Business Research*, 65(10), 1443-1451.
4. Bubonia, J. E. (2014). *Apparel quality: a guide to evaluating sewn products*. New York, NY: Bloomsbury Publishing.
5. Chattaraman, V., Simmons, K. P., & Ulrich, P. V. (2013). Age, body size, body image, and fit preferences of male consumers. *Clothing and Textiles Research Journal*, 31(4), 291-305.
6. Fletcher, K. (2013). *Sustainable fashion and textiles: design journeys*: Routledge.
7. Garvin, D. A. (1984). Product quality: An important strategic weapon. *Business horizons*, 27(3), 40-43.

8. Gerolamo, M. C., Poltronieri, C. F., Yamada, T. T., & Cintra, A. L. (2014). Quality Management: How do Brazilian Companies use it? *Procedia-Social and Behavioral Sciences*, 143, 995-1000.
9. Ghaani Farashahi, B., Easter, E., & Annett-Hitchcock, K. (2018). Price and perceived product quality: a comparison of denim jeans in three price categories. *Journal of Fashion Marketing and Management: An International Journal*, 22(3), 369-386.
10. Hair, Celsi, M., Money, A., Samouel, P., & Page, M. (2016). *The essentials of business research methods*, 3rd Edition. New York, NY: Routledge.
11. Hussain, M., & Ranabhat, P. (2013). Influence of service and product quality on customer retention: A Swedish grocery store. University of Gävle, Sweden.
12. Hwang, C., Chung, T.-L., & Sanders, E. A. (2016). Attitudes and purchase intentions for smart clothing: Examining US consumers' functional, expressive, and aesthetic needs for solar-powered clothing. *Clothing and Textiles Research Journal*, 34(3), 207-222.
13. Hyllegard, K. H., Yan, R.-N., Ogle, J. P., & Lee, K.-H. (2012). Socially responsible labeling: The impact of hang tags on consumers' attitudes and patronage intentions toward an apparel brand. *Clothing and Textiles Research Journal*, 30(1), 51-66.
14. Jaskulska, J. (2013). Quality of service and product as the main factors influencing customers' satisfaction in the clothing retailing industry in Ireland-case study of Zara Plc. Dublin Business School,
15. Jolhe, D. A., & Subash Babu, A. (2014). A structured approach to prioritise critical-to-customer-satisfaction attributes of consumer durable products. *International Journal of Business Innovation and Research*, 8(6), 634-670.
16. Kenyon, G. N., & Sen, K. C. (2015). The dimensions of product quality. In *The Perception of Quality*. London: Springer.
17. Kumar, M., & Noble, C. H. (2016). Beyond form and function: Why do consumers value product design? *Journal of Business Research*, 69(2), 613-620.
18. Lee, W. J., Phau, I., & Roy, R. (2013). " Bonds" or" Calvin Klein" Down-under: Consumer ethnocentric and brand country origin effects towards men's underwear. *Journal of Fashion Marketing and Management*, 17(1), 65-84.
19. Malhotra, N. K. (2010). *Marketing research: An applied orientation* (6th Ed.) United State: Pearson Education Inc.
20. Mallapragada, G., Chandukala, S. R., & Liu, Q. (2016). Exploring the effects of "What"(product) and "Where"(website) characteristics on online shopping behavior. *Journal of Marketing*, 80(2), 21-38.
21. Park, J. S. (2012). Effects of online consumer reviews on attitudes and behavioral intentions toward products and retailers. University of Tennessee, Knoxville.
22. San Lim, Y., Heng, P. C., Ng, T. H., & Cheah, C. S. (2016). Customers' online website satisfaction in online apparel purchase: A study of Generation Y in Malaysia. *Asia Pacific Management Review*, 21(2), 74-78.
23. Sekaran, U., & Bougie, R. J. (2016). *Research methods for business: A skill building approach* (7th ed.). United Kingdom: John Wiley & Sons.
24. Tsyewu, O. A. (2013). The influence of constructional factors on the serviceability and discard of custom-made clothing among female students in the university of cape coast. university of cape coast,
25. Wang, Y., & Cho, H. (2012). The effect of fashion effectiveness on consumer's online appear customization. *International Journal of Organizational Innovation*, 5(2), 263-283.
26. Xia, Y., Singhal, V. R., & Peter Zhang, G. (2016). Product design awards and the market value of the firm. *Production and Operations Management*, 25(6), 1038-1055.