Quality Attributes: Consumers' Evaluation of Tailored Clothing in Ghana

Quality Attributes: Consumers' Evaluation of Tailored Clothing in Ghana

Haruna Alhassan[1]; Ninette Afi Appiah*[2], Boateng Kojo Ankai[3]

[1, 3] Kwame Nkrumah University of Science and Technology, Kumasi

Faculty of Arts and Built Environment

Department of Industrial Art

[2] Akenten Appiah Menka University of Skills Training and Entrepreneurial Development (AAMUSTED)

Faculty of Vocational Education

Department of Fashion Design and Textiles Education

Corresponding Author's Email: npafienyonam90@gmail.com

Abstract

Purpose: There are challenges in arriving at quality garments that meet the consumers' specifications for Ghanaian fashion designers. To appreciate consumers' conceptualization of quality attributes of tailored clothing produced by small-scale garment manufacturers, the study assessed the quality attributes of tailored clothing produced by small-scale garment manufacturers.

Methodology: The descriptive research design was adopted. The study further employed the quantitative data collection and analysis technique. This study's population comprised all clothing product consumers in the Wa Metropolis in the Upper West Region of Ghana. In determining the sample size of consumers, the study resorted to the convenience sampling technique and selected a sample size of 400 consumers. Descriptive and inferential analysis and interpretation (mean and standard deviation) was used.

Findings: The study found that consumers are more likely to accept a manufacturer's reputation or brand, the clothing's price, and whether it seems perfectly tailored as indicators of the garment's quality and that they do not evaluate the quality of tailored clothing based on convenience and how difficult it is to come by tailored clothing that fit accurately.

Contributions to Theory, Policy and Practice: The study provides insights into consumer behavior in the context of the clothing industry in Ghana and other developing countries and help in explaining how tailoring habits or industry may differ from other more developed countries. Practically, this is useful for manufacturers, retailers, and researchers in the clothing industry who are looking to understand consumer preferences and improve the quality of their products. The findings can be used to inform policies aimed at increasing consumer confidence in the quality of tailored clothing in Ghana which may include measures such as mandatory quality testing or certification programs.

Keywords: *fit, tailored garments, small-scale garment manufacturers, quality attributes,*

customized clothing, Wa Metropolis

1. Introduction

Quality may be described as the level of acceptance of goods or services. For every industry to gain increased sales and heightened brand name amongst consumers and competitors, it is vital to meet a certain level of quality. Albari and Kartikasari (2019) asserts that product quality and price are the leading factors of customer satisfaction and loyalty, which are essential aspects of management theory and practices. In garment production, a sound quality management system would be concerned with the ideas used to make garments, skills, and adequate sewing machines that use quality threads (Lee and Workman, 2021; Hines and Swinker, 2001).

The garment sector is vital in both economic and social terms, in the short run by providing revenues and occupations for individuals and foreign currency receipts, as well as in the long run by providing countries with the opportunity for continued economic development with appropriate policies and institutions to improve the dynamic effects of garments (Connor-Crabb and Rigby, 2019; Pavlinic and Gersak, 2009). The potential of the garment sector to contribute to long-run growth and development will depend not only on the effectiveness of government policies and institutions in developing countries but also on quality.

Since the garment industry contributes immensely to the country's Gross Domestic Product (GDP), assessing the quality of garment production could drive the sector to perform better. The quality of garment products is linked to the degree to which it gratifies the consumer's requirements. Quality of clothing products have two basic dimensions: a physical dimension, stipulating what the garment product is, and a behavioural dimension representing what the product can achieve (Klerk and Lubbe, 2008). Physical characteristics comprise the intrinsic features of the product, like the design, textile construction, and finishes, that cannot be altered without changing the garment product itself. Whereas the behavioural characteristics of garment products can be alienated into functional and aesthetic behavioural characteristics (Wang et al., 2022).

Functional behavioural features denote properties like the durability and comfort of the garment products, whereas aesthetic behavioural characteristics symbolize the attractiveness or aesthetic experience the garment product can bring about, whether sensory level, emotional or cognitive (Pina et al., 2020; Wang et al., 2018). Garvin (1984) specified eight (8) dimensions of quality: performance, features, reliability, conformance, durability, serviceability, aesthetics, and perceived quality. Another generally utilized characterization of quality is fit for purpose (Juran, 1992), which should be judged from the customer's standpoint and not from the producer's perspective.

This concept can be applied to garments as well. For a garment to be fit for purpose, it must be free from defects (stains, fabric defects, open seams, untrimmed threads, misaligned buttons and buttonholes, and defective zippers); fit accurately for the categorized size; perform reasonably in regular use (the garment must be able to withstand normal laundering, dry-cleaning, pressing cycles without colour loss or shrinkage seams

must not come apart, and fabric must not tear (Mehta and Bhardwaj, 1998). Since consumer requirements are shifting, quality is generally expected to keep shifting to respond to rising shifts (Lekamge and Ekanayake, 2021; Dobrosavljevic´ and Uroševic´, 2019).

Consequently, continuous quality improvement is required in the garment manufacturing sector since there is competitive pressure, necessitating the conduct of the current study. Again, consumers now have more choices in terms of quality, price, and design, a reason why apparel chains globally focus more on refining the quality of their products and offering a diverse range of garment designs (Bashar and Hasin, 2019; Iqbal et al., 2018). Globally, the trend of garment purchases is ever-changing, from customized clothing to ready-to-wear clothing. With the standardization of products and the surge in demand for global brands, garment production and its quality are essential (Rajput et al., 2018; Klerk and Lubbe, 2008).

The core aim of every business is to make a profit, and its targets are consumers. These patrons are the people who use the finished products. Nevertheless, quality appreciates how products are developed, and production is integrated to satisfy consumer expectations (Workman and Cho, 2012; Klerk and Tselepis, 2007). The approach to realizing quality in a product is not uniform because the factors of importance differ amongst industries; however, some basic concepts are interrelated to internal operations, like identifying consumers' requirements and meeting business goals. How the management of a business views quality affects every activity undertaken. As indicated earlier, Juran (1992) describes quality as conformance to requirements. Clients directly or indirectly set these requirements by utilizing some form of specifications. Swinker and Hines (2006) specified that any garment's design must have aesthetic objectives, and the design process must overcome fit issues. The concept of fit could infer different ideas from one garment to another.

A good garment design also demands decisions concerning the methods of assembling. The designer, therefore, chooses the appropriate seam type and stitch that gives the best combination of beauty, aesthetics, elasticity, strength, and durability (Syduzzaman et al., 2016, 2014; Rahman and Masud, 2011). However, the concept of quality is complex and dimensional. The concept of quality as goodness, luxury, or the best is not adequate for a quality professional. This implies that quality depends on an individual's viewpoint (Connor-Crabb and Rigby, 2019; Gurarda, 2019).

In the Ghanaian context, the garment industry is predominately small-scale in nature, and the mode of production in the fashion houses is custom-made. Custom-made garments are made to order for individual measurements and are usually done by small fashion houses that sew for their customers. Fashion designers operate mostly in their homes and use their own equipment in this industry. The customers enter the shop with a design in mind; the designer examines it and ensures it fits the figure type or suggests a different

design.

Figure 1: **A typical tailoring workshop Source: courtesy Saana Klothing Kumasi**

However, the consumer remains the ultimate judge of garment quality and performance. The consumer perception of quality incorporates the materials and the production techniques used (Nawaz and Nayak, 2015). The garment produced must meet the required design and specifications to satisfy the consumer. Most Ghanaian small-scale fashion designers construct garments without standard specifications. In producing a quality garment, the technique for cutting, sewing, and pressing all affect the garment's style, durability, drape, and fit. There are challenges in arriving at quality garments that meet the customer's specifications for Ghanaian fashion designers. In order to appreciate consumers' conceptualization of quality attributes of tailored clothing produced by small-scale garment manufacturers, a study is required to assess the attributes consumers use to judge the quality of tailored clothing produced by small-scale garment manufacturers. Specifically, thus, this study seeks to assess the attributes consumers use in evaluating the quality of tailored clothing in the Ghanaian context.

1.1 Literature Review

1.1.1 The Concept of Quality

Quality has become a major factor in global competition currently. Intensifying global competition and increasing customer demand for better quality have caused more establishments to realize they have to provide quality services to compete successfully in

the marketplace (Durana et al., 2019; Srinivasan and Kurey, 2014). In facing the challenge of this global change, many businesses have invested substantial resources in adopting and implementing quality strategies. As Aakko and Niinimäki (2021) put it, the development and utilization of effective mechanisms for quality are critical to a successful manufacturing business everywhere.

Uhl-Bien and Arena (2018) infer that the rise of complex organizations in modern times triggers the need to enhance the implementation of quality and the capacity to measure it. Quality is an ongoing practice and must be implemented throughout the entire business if continuous improvement and optimum results are to be achieved. The role of quality is widely recognized as being a critical determinant of the success and continuance of a business in today's competitive environment. A decline in customer satisfaction owing to lower quality would be an issue of concern. Consumers are becoming more conscious of increasing standards in product quality, prompted by competitive trends that have developed higher expectations (Anam et al., 2018).

As pointed out by Pereira et al. (2019) and Abdulhameed et al. (2019), a manufacturing firm with several complexities can be enormously challenged when maintaining product quality standards. Tailored clothing manufacturing is a multifaceted business for several reasons. For one, the product line is an intricate range of styles, perfect fit, seasons, changing lifestyles, and multidimensional sizing (Jucevicˇius and Rybakovas, 2010). Besides, every component of tailored clothing, including lapel widths, pleats, tapering, shoulders, bodice, and waist, must be specifically tailored to satisfy the client and make them feel better and love the way they appear in their outfit.

The issue of quality in tailored clothing can be expressed as the lack of consistency in a clothing product's ability to meet customer expectations. Inconsistencies in products' ability to meet consumer needs can cost the manufacturer the future opportunity to generate more income (Ashima et al., 2021). Consequently, the traditional concept of quality is related to offering a product and service that is distinctive and distinct and which confers position on the user. Quality is a philosophical concept that describes the features of products and the performance of humans, establishments, and societies (Hardjono & van Kemenade, 2021). Although quality is a fundamental character in several contexts, its description is vague (Maganga and Taifa, 2022; Sader et al., 2021). The concept of quality is relative and, thus, may have diverse undertones depending on the situation and the set criteria being compared (Zonnenshain and Kenett, 2020; Chiarini, 2020).

Stylidis et al. (2020) underscore that the industry needs a toolbox of valuation systems to profit from the theoretical appreciation of quality. In general, the same vocabularies and characterizations related to quality are also applied in the garment setting (Aakko and Niinimäki, 2021). According to Aakko and Niinimäki (2021), material features can be perceived as the objective quality of garments and assessed with a diversity of approaches, including tests for breaking strength, tear strength, abrasion resistance, colour- fastness, effects of laundering (e.g., colour and dimensional change), seam strength and pilling (Castelo and Cabral, 2018; Coelho, 2016).

1.1.2 The Eight Dimensions of Quality

Garvin (1984) offered eight essential dimensions or categories of quality that might act as a framework for strategic analysis. These categories and dimensions can be broken down into subcategories. Some of these aspects are performance, features, reliability, compliance, durability, serviceability, aesthetics, and perceived quality. According to Garvin, a product or service might have a high ranking on one quality dimension while having a low ranking on another, and an improvement in one quality dimension may only be achieved by sacrificing another quality dimension. Following is a description of each of the eight (8) dimensions.
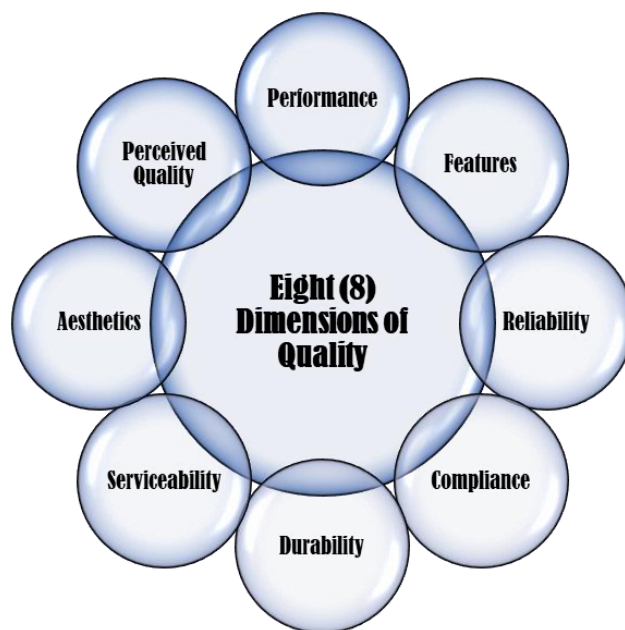

Figure 2: **The Eight (8) Dimensions of Quality Source: Adapted from Garvin (1984)**

i. **Performance**: The performance of a product is measured in relation to its major operating features. This aspect of quality refers to the characteristics that can be measured. The vast majority of clothing brands are, in most cases, capable of being objectively assessed on the basis of individual performance aspects. Overall performance rankings are more difficult to create, particularly when they incorporate perks that all customers do not require. Some people who wear fitted garments rate the quality of the item based on how well it prevents the figure from becoming distorted. Therefore, the answer to the question of whether variations in performance constitute variances in quality may depend on preferences that are determined by the requirements of specific functions. The vast majority of performance standards are derived from an individual's subjective preferences, yet, these preferences are shared by virtually everyone, which gives them the weight of an objective norm.

ii. **Features**: This is another facet of quality, and it is typically a secondary component

of performance. The "bells and whistles" of a product are its features, defined as any traits in addition to its primary functionality. It is often challenging to create a clear line between core performance criteria and secondary elements of a product. The fact that features involve objective and measurable characteristics is of the utmost im- portance. Their translation into quality disparities is influenced by preconceived notions and actual human demands. For many consumers, the greater quality of a product or service reflects less on the availability of specific features than on the overall quantity of accessible options. The issue of quality frequently arises.

iii. **Reliability**: This dimension assesses the risk that a product may develop a defect or stop performing properly within a given time frame. The mean time to first failure, the average duration of failures, and the failure frequency per unit of time are three of the most used reliability measurements. Because compliance with these criteria requires that a product be utilized for a certain amount of time, they are best suited for long-lasting products rather than those consumed immediately. As costs for downtime and maintenance rise, consumers place a higher value on products that are reliable. Additionally, consumers are more aware than ever of the importance of product dependability.

iv. **Conformance:** Conformance is still another quality criterion, and it refers to the degree to which a product's configuration and operational components meet predetermined criteria. This aspect owes a significant debt to the traditional quality methods pioneered by individuals such as Juran. Specifications come in one form or another for each product. These requirements are frequently communicated in the form of a target. Within a certain range, acceptable levels of deviance from the aim can be found. This technique has a number of flaws, one of which is a problem known as "tolerance stack-up." When it comes to fitting two or more parts together, how well they match is frequently determined by the size of the tolerances on each of the parts. It is improbable that there will be a close match if one part fails at the lower boundary of its specification and another part fails at the upper limit of its specification. Even if the components were initially evaluated as adequate, the connection between them would likely deteriorate more quickly than one built from parts whose measurements were centered more exactly.

v. **Durability:** This determines how long a product will remain useful. Both economically and technically, durability must be considered. In a strict sense, durability refers to the number of uses that can be extracted from a product before it begins to deteriorate. In some instances, customers have to weigh the predicted cost of repairs in terms of both monetary and personal discomfort against the initial investment and ongoing running costs of a more recent and reliable product in order to make an informed decision. It is possible to define a product's durability as the number of times it may be utilized before it fails, as well as whether or not its replacement is preferable to its ongoing maintenance and repair. This methodology for assessing durability has two significant implications. To begin, it suggests that durability and dependability are intrinsically tied to one another. A product with a high rate of defects will be taken off the market before one that is more reliable. As a consequence of this, companies will often make an effort

to reassure customers by providing lifetime guarantees on the things they sell. Second, the application of this method indicates that durability statistics need to be evaluated with extreme caution. It is possible that technological breakthroughs or the utilization of materials with longer lifespans will not result in an extension of the product cycle. Instead, it's possible that the fundamental economic environment has undergone a shift.

vi. **Serviceability**: Another aspect of quality is serviceability, which refers to how quickly, effectively,

and competently repairs can be made. When making their purchase decisions, customers who emphasize a product's total cost of ownership should consider this. Not only are customers concerned that a product might malfunction, but they are also concerned about how quickly service might be resumed. Both the promptness with which service arrangements are maintained and the consistency with which service requests are carried out is required. Complaint-handling procedures of a company are likely to impact customers' final assessments of the quality of the goods and services provided by that company in situations where problems are not immediately resolved.

vii. **Aesthetics:** The last two aspects of quality are highly dependent on personal opinion. A product's aesthetics might be characterized by how it appears, how it feels, how it sounds, how it tastes, or how it smells. It is entirely up to each person's own sense of judgment and a manifestation of their own particular preferences. Despite this, it appears that there are certain similarities in the ranks that customers give products depending on how they taste. The aesthetic quality of a product is distinct from the subjective criteria applied to a product's performance in the sense that aesthetic judgments are not even close to being universal. Consequently, businesses must look for their place in a specific market. Regarding this particular aspect of quality, it is difficult to please everyone.

viii. **Perceived Quality:** Consumers do not invariably have comprehensive information about a product's characteristics. The indirect analysis may be their only source of comparing brands. For instance, a tailored garment's durability can hardly be perceived directly. It is necessary to examine it from a variety of tangible and intangible points of view. Rather than the actual fact, what may be more critical in these kinds of situations are things like pictures, brand names, and judgments about the level of quality. Reputation is one of the most critical factors in perceived quality. Its potential derives from an unsaid analogy that the quality of a product or service currently is comparable to the quality that it had in the past, which was expressed earlier.

1.1.3 Consumers and their Assessment of Quality Attributes of Tailored Clothing

The perception of quality held by customers is essential to the competitive advantage and long-term viability of the majority of tailoring firms. Consumers "feel" quality when they have the experience of acquiring things, despite the fact that it is challenging for them to define what quality is. In the marketplace, interactions between products and customers take place. Customers are forced to evaluate their options and make selections since the market has such a diverse selection of apparel. A product's many characteristics are

considered in a customer's evaluation (Moon et al., 2018). Beaudoin et al. (2000) identified twelve (12) attributes that are interrelated with attitudes when consumers purchase clothing. These attributes included an excellent fit, durability, ease of care, favourable price, comfort, quality, colour, attractiveness, fashion- ableness, brand name, appropriateness for the occasion, and choice of styles.

According to the findings of studies, product attributes are the customers' individual conceptions of traits that a product holds (Connor-Crabb and Rigby, 2019; Sun et al., 2019; Vieira, 2009). Instrumental characteristics and expressive attributes were the two categories that Swan and Combs (1976) utilized to classify product qualities. The contentment of customers is dependent on both aspects. However, research on clothes, especially tailored garments, have only made limited attempts to compile a complete list of the quality qualities that customers consider during buying and using processes.

According to Wongsunopparat and Rai (2022), Aakko and Niinimaki (2021), Jerusalem (2019), and Moon et al. (2018), the perception of the intrinsic and extrinsic components of clothing by consumers is an essential factor in the decision-making process of clothing manufacturers regarding what to offer. This is mostly because customers' purchasing behaviours might differ significantly based on how they evaluate the overall quality of an article of apparel. The evaluation of the product's quality considers not only its practical features but also its aesthetic qualities as well. This includes considering how the garment looks (Cassidy, 2017; Swinker & Hines, 2006.

Appreciation of the expressive and symbolic qualities of clothing, as well as its appearance, origin, and performance, are all part of the overall aesthetic experience (Lundie et al., 2022; Castelo and Cabral, 2018; Klerk and Lubbe, 2008). According to Moon et al. (2018), the formal qualities that make up clothing frequently give rise to the sensory, emotional, and cognitive responses elicited from consumers by tailored clothing. Not only does tailored clothing excite consumers' senses, but it also stimulates their emotions and thoughts. As a result of his investigation of denim goods, Rahman and Masud (2011) provides evidence demonstrating that inner influences have a more substantial role than external elements. These characteristics are inherent, most notably in the fashion and materials used to construct the garments.

For consumers, thus, they not only refer to the functional quality of clothing but to all the sensory, emotional as well as cognitive satisfaction that can afford a comprehensive aesthetic experience as part of the quality attribute of clothing (Klerk and Lubbe, 2008; Swinker and Hines, 2006). Nevertheless, consumers vary in their purchasing behaviours when evaluating the overall quality attributes of clothing, occasionally having limited evidence regarding the intrinsic and extrinsic components of clothing.

Nevertheless, Wen et al. (2019) infer that the clothing sector faces challenges in satisfying consumers because consumer priorities have altered suggestively in the past decades. In the past decades, Consumers bought trendy apparel without giving much thought to the qualities or cost of a particular brand's offerings. Despite this, customers in today's market tend to place a greater emphasis on value since they expect more than they

can pay. Gazzola et al. (2020) point out that the demands of clothing customers have increased as a result of the fact that they are less satisfied with what has been supplied to them due to the fact that clothing is an essential component of their life. Clothing is an expression of the way individuals view themselves and how they want to be treated by others.

Coelho (2016) investigated the expectations of customers in relation to many aspects of clothes, including construction, pricing, clothing care, fit, fabric, size, and style. Coelho concluded that women rated all characteristics as essential or extremely important, despite the fact that their performance ratings for each characteristic were low. According to Bezuidenhout et al. (2016), specific clothing characteristics were considered to be noticeable, while others were not. In addition, Gitimu et al. (2013) found that gender suggestiveness, leadership in the fashion industry, and engagement in the fashion industry all affected how customers evaluated the quality of apparel. Several studies have shown that different contexts and industries result in qualitatively distinct quality attribute evaluations within this field of research.

According to Swinker and Hines (2006), consumer perceptions of clothing quality are a multidimensional notion that must be evaluated at various levels because some studies have indicated an effect of concrete attributes on consumer perceptions of clothing. This is because of the fact that consumer perceptions of clothing can be affected by a variety of factors. Consumers of clothing have specific expectations regarding a garment product because of their prior experiences with a product comparable to the one they are purchasing or because of the data that is accessible on the product's quality. The ultimate goal of evaluating the quality of items sold in the garment industry is to ensure that customers are happy with their purchases and continue to make further ones.

1.1.4 *Life Cycles of Quality Attributes*

Previous research has hypothesized that quality characteristics go through alternating life cycles (Kano, 2001). It has been suggested that effective quality traits and flavour-of-the-month quality attribute each has their own distinct life cycles. Kano (2001) developed a distinct cluster of characteristics that appears to lag behind the life cycle for positive quality traits but for which modifications take significantly more time to take effect. According to Kano's (2001) hypothesis, successful quality qualities go through a life cycle in which they begin as unimportant, become attractive, become one-dimensional, and finally reach the point where they are required. In many cases, it takes some time before the customer fully appreciates the value of the characteristics.

After some period of time, an attribute may start making customers feel satisfied, whereas they remain unsatisfied in the absence of that feature. Nevertheless, people who have first-hand experience with the appealing quality and frequently use it will feel a great deal of disappointment if it is eliminated later. After repeated use, the impressions will eventually be turned into one-dimensional quality judgments based on expectations. In addition, a one-dimensional attribute develops with time, and as a result, more than one person becomes aware of its worth. As a result, possessing it becomes obligatory (Kano,

2001).

In their 2009 study, Zhao and Dholkia discovered support for their contention that the categorization of a quality attribute can shift over time. Their empirical research on websites revealed that three of the eight quality criteria had changed their classification over the course of the previous 18 months. However, the study was unable to identify any clear life cycle that predicted the changes in the classification of quality features. One alternate life cycle is for quality attributes that become the flavour-of-the-month previously vanishing from the market (Kano, 2001). These quality traits cycle between being unimportant, having only one dimension and being unimportant. When it comes to quality attributes that follow this life cycle, the transition from neutral to one-dimensional occurs relatively quickly; the quality attribute quickly becomes the product's unique selling proposition not long after it is introduced to the market.

The quality attribute starts to lose its central significance, and after some time, the buyers stop caring about the quality attribute altogether. In some circumstances, the quality characteristic only has one dimension for the duration of one season, and in other cases, it plays an integral part in the product's development throughout the course of several seasons. Kano (2001) illustrates the life cycle of quality qualities that are popular now by using the example of a multiplexer as an illustration. In this instance, the multiplexer was thought of as having only one dimension in 1983, but by 1989, this perception had changed (Kano, 2001). According to Kano (2001), we need more observations of a variety of items before we can determine whether this is a pattern in all products or something unique to the multiplexer. Kano (2001) also defined characteristics, the function of which does not appear to shift significantly over time. According to Kano (2001), such attributes appear to have life cycles that are considerably longer than those of most other attributes. More specifically, they appear to follow the life cycle of successful quality attributes at a significantly slower pace, and they do not appear to begin in the first position in the life cycle.

2. Materials and Methods

The descriptive research design was adopted for the study. Descriptive research specifies studies that have, as their primary objective, the accurate description of the characteristics of persons, situations, or groups (Mishra and Alok, 2022) and offers the possibility to collect accurate data on and provide a clear picture of the phenomenon under study. The study further employed the quantitative (questionnaire) data collection and analysis technique. The questionnaire enabled accurate data to be gathered. Again, using the questionnaire guaranteed consistency, uniformity, and stability in the responses the individuals who participated in the study provided.

This study's population comprised all clothing product consumers in the garment industry in the Wa Metropolis in the Northern Region of Ghana. The study could not put a definite number on the metropolis's total number of clothing consumers, thus, assuming that the entire population of inhabitants of the Wa metropolis are potential consumers of tailored clothing. According to the 2020 Population and Housing Census, there are

102,446 inhabitants in the metropolis; hence, it was assumed that everybody in the metropolis is a potential customer of one or more tailored garment manufacturers.

Thus, the study resorted to the convenience sampling technique in determining the sample size of consumers. Yasmine's sample determination formula was used to determine the number of consumers appropriate for the study.

$$n = \frac{102446}{1+102446(.05)^2} = 398 \approx 400 \text{ garment consumers}$$

Hence, the formula determined that a sample of 400 consumers was deemed appropriate for this study. This sampling procedure was relied on to gain a broader perspective on the topic in focus. The data collected was examined, applying quantitative methodologies to lend a reasonable meaning to the study. Descriptive and inferential analysis and interpretation (mean and standard deviation) was used.

3. Results

3.1 Attributes consumers use in evaluating the quality of tailored

Table 1 Consumers' quality evaluating attributes

Attribute	N	Min.	Max.	Mean	±SD
Reputation (Brand name)	294	1	5	3.98	1.468
Recommendation (By friends and family)	294	1	5	4.54	1.344
Price (Affordability)	294	1	5	4.32	1.544
Previous experience with tailor	294	1	5	3.81	1.240
Difficulty in finding tailored clothes that fit accurately	294	1	5	3.31	1.376
Convenience	294	1	5	2.30	1.595
Clothing that is more structured and precisely fitted	294	1	5	3.96	1.415
A perfectly tailored look	294	1	5	4.01	1.395

In table 1, respondents were asked to indicate the factors of quality they use in evaluating the quality of tailored clothing. The ratings were anchored on a 5-point Likert scale where 1=never to 5=always. The results show that the majority of the respondents always evaluate the quality of tailored clothing using recommendations by friends and family (M=4.54, ±SD=1.344), price (affordability) (M=4.32, ±SD=.1.544) of the tailored clothing, a perfectly tailored look (M=4.01, ±SD=1.395), reputation of the manufacturer

(M=3.98, ±SD=1.415). Moreover, most of the respondents noted that often they use clothing that is more structured and precisely fitting (M=3.96, SD=1.415) and their previous experience with the tailor (M=3.81, SD=1.240), other factors. However, the results indicate that respondents never use convenience (M=2.30, SD=1.595) and the difficulty they find tailored clothes that fit accurately (M=3.31, SD=1.376).

From the responses, it can be concluded that in evaluating quality, consumers of tailored clothing resort to recommendations from friends and family, the price of the clothing, a perfectly tailored look, the reputation or brand of the manufacturers, and clothing that is more structured and precisely fitted and previous experience with the garment manufacturer. However, the results showed that consumers do not evaluate the quality of tailored clothing based on convenience and how difficult it is to come by tailored clothing that fits accurately.

Table 2 Types of tailored clothing

Types	N	Min	Max	Mean	±SD
Dress suits	294	1	5	2.72	1.591
Tailored Shirts/Blouse	294	1	5	3.28	1.552
Trouser suits	294	1	5	2.96	1.563
Tailored Skirts	294	1	5	3.43	1.538
Tailored clothing for special occasions	294	1	5	3.65	1.303
For others, please specify	294	1	5	3.10	1.468
Valid N (listwise)	294				

Table 2 presents the descriptive statistic on the types of tailored clothing mostly patronized. The responses were measured along a 5-point Likert scale where 1=never to 5=always. The results show that most of the respondents always patronize tailored clothing for special occasions (M=4.65, ±SD=1.303) but often patronize tailored skirts (M=3.98, ±SD=1.538) and tailored shirts and blouses (M=3.68, ±SD=1.552). Meanwhile, most of the respondents rarely patronize trouser suits (M=2.96, SD=1.563) and dress suits (M=2.72, SD=1.591). The responses indicate that respondents always patronize tailored clothing for special occasions, skirts, shirts and blouses, and others. Wherefore, they rarely patronize tailored trousers, suits, and dress suits.
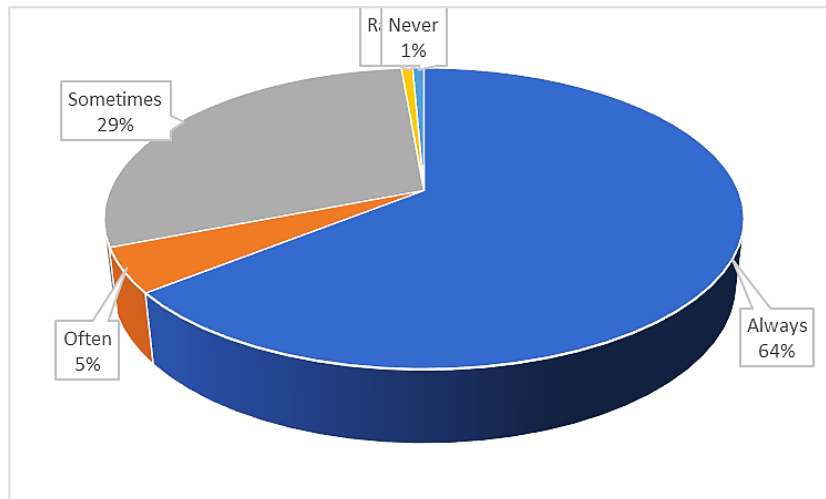
www.carijournals.org

Figure 3: **Choice of tailored clothing**

In figure 3, the respondents were asked to indicate how often they choose tailored clothing. The responses show that the majority (64%) of the respondents stated they always choose tailored clothing, whereas 29% pointed out they sometimes choose tailored clothing. In contrast, 5% of the respondents noted they often choose tailored clothing. The response trend implies that most consumers always choose tailored clothing over ready-to-wear clothing.

Table 3 Reasons for the choice of customized tailored clothing

Reasons	Frequency (n)	Percent (%)
I prefer an explicitly tailored fit for my figure type	161	54.8
I prefer unique and exceptionally tailored designs	59	20.1
I prefer tailored clothing that is personal	74	25.2
Total	294	100

The study sought to find the reasons behind consumers' choice of customized tailored clothing as against choosing ready-to-wear clothing. The responses show that more than half (n=161, 54.8%) of the respondents are influenced by their preference for an explicitly tailored fit for their figure type, whereas 74 (25%) of the respondents prefer tailored clothing that is personal and unique. Nonetheless, 20% of the respondents choose tailored clothing against ready-to-wear clothing because they prefer unique and exceptional tailored designs. From the results, it could be resolved that consumers choose customized tailored clothing primarily because they prefer explicitly tailored garments that fit their figure type, unique and personal.
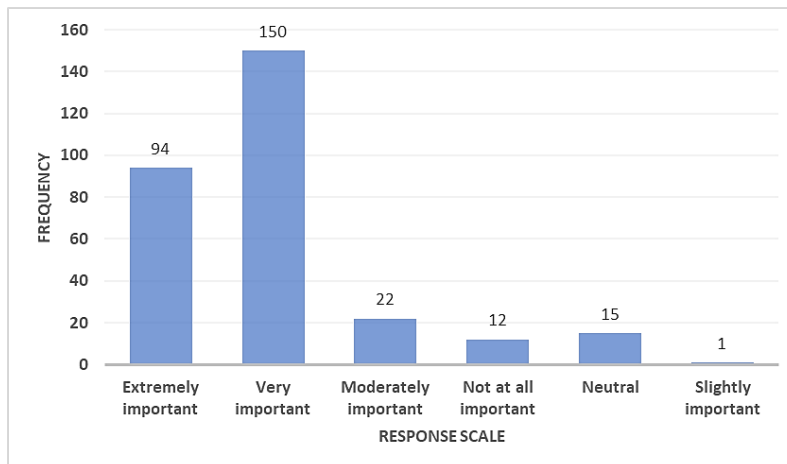
Figure 4: **Importance of quality of tailored clothing**

Consequently, the study intended to assess the extent to which quality is essential to consumers when choosing to sew tailored clothing. The responses suggest that most (n=150) of the respondents consider quality a critical factor in their decision. Meanwhile, 94 of the respondents regard it as extremely important, whereas 22 consider it moderately important. This is suggestive that quality remains a key factor for consumers when choosing to sew customized tailored clothing.

Table 4 Source of materials

Source of materials	Freq. (n)	Percent (%)
I procure the fabric, lining, and all required notions for my tailor	121	41.2
I just place the order and make payment on delivery of the tailored clothing	113	38.4
For others, please specify	60	20.4
Total	294	100.0

Table 4 presents the descriptive statistics on the source of materials used in the production of the tailored garment. A summary of the responses shows that almost half of the respondents (n=121, 41.2%) pointed out they procure the fabric, lining, and all required notions for their tailors, whereas 113, representing 38.4% of the respondents, indicated they just place the order and make payment on delivery of the tailored clothing. Meanwhile, 60 (20%) of the respondents also resort to other ways of sourcing materials for tailored clothing. From the responses, it could be concluded that relative to materials

for sewing the tailored garments, consumers usually procure the fabric, lining, and all required notions for their respective tailors to sew for them, whiles others just place the order, make payment, and wait for the delivery of the clothing.

Table 5 The attributes of evaluating quality in tailored clothing

Statement	N	Min.	Max.	Mean	SD
Must generally fit better, feel better, look better, and last longer	294	1	5	4.37	1.043
Must be fashionable and have an attractive fit/well-fitting	294	1	5	4.09	1.137
Must have the appropriate amount of ease for body movement.	294	1	5	3.69	1.341
Must have darts and design details adequately placed.	294	1	5	3.58	1.500
Must have well-constructed armholes and necklines	294	1	5	4.11	1.332
Must have a well-constructed seam that is smooth and even in appearance on the inside and outside of the garment	294	1	5	3.67	1.613
Must have well-constructed details (buttons and buttonholes, zipper, collar, pockets, hem, lining, interfacing, seam finishes, seam treatments, etc.)	294	1	5	4.02	1.184
Clothing that is functional for its particular use	294	1	5	4.12	1.089
General quality sewing	294	1	5	4.03	1.301
Others, please specify	294	1	5	3.97	1.497
Valid N (listwise)	294				

In Table 5, summary of the responses reveals that most of the respondents agreed strongly that the tailored garment must generally fit better, feel better, look better and last longer (M=4.37, ±SD=1.043), clothing that is functional for its particular use (M=4.12, ±SD=1.089), must have well-constructed armholes and necklines (M=4.11, ±SD=1.332),

must be fashionable and have an attractive fit/well-fitting (M=4.09, ±SD=1.137), general quality sewing (M=4.03, SD=1.301), must have well-constructed details (buttons and buttonholes, zipper, collar, pockets, hem, lining, interfacing, seam finishes, seam treatments, etc.).

Moreover, the majority also agreed that the tailored garment must have the appropriate amount of ease for body movement (M=3.69, SD=1.341) and must have a well-constructed seam that is smooth and even in an appearance on the inside and outside of the garment (M=3.67, SD=1.613) and must have darts and design details adequately placed. From the responses, it can be concluded that in the mind of the consumers, a quality tailored garment must have a better fit, feel better, look better, and last longer; it must be functional for its intended purpose; it must have well-constructed armholes and necklines; must be fashionable and have an attractive fit; must have well-constructed details (buttons and buttonholes, zipper, collar, pockets, hem, lining, interfacing, seam finishes, seam treatments, etc.); must have the appropriate amount of ease for body movement; must have a good fit.

Table 6 Aesthetics as a quality attribute

Statement	N	Min.	Max	Mean	SD
My tailored clothing must boost my confidence and attract complementary comments	294	1	5	4.33	1.182
My tailored clothing must allow for easy body movement	294	1	5	4.38	.983
My tailored clothing must be easily donned and taken off	294	1	5	4.10	1.346
My tailored clothing must be suitable for the occasion for which it was made	294	1	5	4.17	1.228
My tailored clothing must retain its shape after several wears	294	1	5	3.90	1.435
My tailored clothing must have an excellent fit and hide my figure faults	294	1	5	4.32	1.120
The style/design must enhance my figure	294	1	5	4.15	1.213
The style/design must be suitable to the fabric	294	1	5	4.06	1.294
Valid N (listwise)	294				

Table 6 presents the descriptive statistics on their aesthetic evaluation of tailored

garments. From the results, it could be observed that most of the consumers strongly agreed with the assertions that the quality of tailored clothing aesthetically must allow for easy body movement (M=4.38, ±SD=.983), my tailored clothing must boost my confidence and attract complementary comments (M=4.33, ±SD=1.182) my tailored clothing must have an excellent fit and hide my figure faults (M=4.32, ±SD=1.120), my tailored clothing must be suitable for the occasion for which it was made (M=4.17, SD=1.228), the style/design must enhance my figure (M=4.15, SD=1.213), my tailored clothing must be easily donned and taken off (M=4.10, SD=1.346) and the style/design must be suitable to the fabric (M=4.06, SD=1.294). Also, most agreed that their tailored clothing must retain its shape after several wears (M=3.90, SD=1.435). The responses clearly indicate that aesthetically respondents believe that the clothing must allow for easy body movement, boost their confidence and inure complementary comments, be an excellent fit as well as hide their figure faults, and be suitable for the occasion for which it was constructed, enhance their figure, allow for easy wearing and taking off, the design be ideal to the fabric and then be able to maintain its shape even after several wears.

4. Discussion of Results

Attributes consumers use in evaluating the quality of tailored clothing

The study found primarily that consumers accept a garment produced as quality when friends and family recommend the manufacturer. More so, they based on the price of the clothing and whether the clothing has a perfectly tailored look. Consumers also focus on the reputation or brand of the manufacturers and when the clothing is more structured and precisely fitted, and they have had a previous experience with the garment manufacturer. On the contrary, the consumers do not evaluate the quality of tailored clothing based on convenience and how difficult it is to come by tailored clothing that fits accurately (See table 1). The findings are consistent with those put out by Beaudoin et al. (2000), who, in their study, identified twelve

(12) attributes that interrelated with attitudes when consumers purchase clothing, and these include good fit, durability, ease of care, favourable price, comfort, quality, colour, attractiveness, fashion- ableness, brand name, appropriateness for the occasion, and choice of styles.

That notwithstanding, the study discovered that relative to the patronage of tailored clothing, consumers always patronize tailored clothing for special occasions, tailored skirts, shirts and blouses, and others. They rarely patronize tailored trousers and dress suits (See Table 2). This outcome follows the findings of Wongsunopparat and Rai (2022), Aakko and Niinimäki (2021), Jerusalem (2019), and Moon et al. (2018), who observed that the consumption of clothing patronage was based on clothing meant for special occasions. Moreover, consumers, under most circumstances, will choose tailored clothing over ready-to-wear outfits. Again, the study found that consumers choose tailored clothing primarily because they prefer explicitly tailored garments that fit their figure type, unique and personal. This is suggestive that quality remains a key factor for consumers when choosing to sew customized tailored clothing. However, the researchers

believe the reasons relate to the functional attributes of the garment rather than purely emotive ones. The findings corroborate those reached by Klerk and Lubbe (2008), who observed that the functional qualities of the garment mainly influence consumers as against the sensory, emotional, and cognitive satisfaction they could derive from consuming a particular garment.

Like Coelho (2016), who explored consumers' expectations regarding clothing attributes such as construction, price, clothing care, fit, fabric, sizing, and colour, found that women considered all attributes as being important or very important. Furthermore, it was discovered that concerning the materials for sewing the tailored garments, consumers usually procure the fabric, lining, and all required notions for their respective tailors to sew for them, whiles others place the order, make payment, and wait for the delivery of the clothing. The study also noted that in the mind of the consumers, the quality tailored garment must have a better fit, feel better, look better, and last longer; must be functional for its intended purpose; must have well-constructed armholes and necklines; must be fashionable and have an attractive fit; must have well-constructed details (buttons and buttonholes, zipper, collar, pockets, hem, lining, interfacing, seam finishes, seam treatments, etc.); must have the appropriate amount of ease for body movement; must have a good fit. These quality evaluation attributes of consumers appear to be limited to the functional performance of the garment.

However, aesthetically the study found that consumers believe that the clothing must allow for easy body movement, boost their confidence and inure complementary comments, be an excellent fit as well as hide their figure faults, and be suitable for the occasion for which it was constructed, enhance their figure, allow for easy wearing and taking off, the design be suitable to the fabric and then be able to maintain its shape even after several wears.

5. Conclusion, Implications and Limitations

The study confirmed that consumers are more likely to accept a manufacturer's reputation or brand, the clothing's price, and whether it seems perfectly tailored as indicators of the garment's quality; Consumers do not evaluate the quality of tailored clothing based on convenience and how difficult it is to come by tailored clothing that fit accurately; consumers consistently purchase tailored clothing for special occasions, but rarely purchase tailored trousers and dress suits. Furthermore, that shoppers will select bespoke clothing over ready-to-wear clothing; Customers typically buy the fabric, lining, and any necessary notions for a tailor to sew a customized garment for them since they like specifically tailored items that match their figure type and are unique and personal; to consumers, quality tailored garment must have a better fit, feel better, look better, and last longer; must be functional for its intended purpose; must have well-constructed armholes and necklines; must be fashionable and have an attractive fit; must have well-constructed details must have the appropriate amount of ease for body movement; must have a good fit; and consumers believe that tailored clothing must allow for easy body movement, boost their confidence, and inure complementary comments, be an excellent fit as well as hide their figure faults, be suitable for the occasion for which it was constructed, enhance their

figure, allow for easy wearing and taking off, the design be ideal to the fabric and then be able to maintain its shape even after several wears.

Although the current study provides vital conclusions on the topic, it has a few limitations that offer

an avenue for future studies. First, some general inferences were made based on the selected consumers selected conveniently in the Wa municipality. However, it will be better to create a cross-country study regarding manufactured clothing quality in future research. Second, the study was conducted in Ghana, specifically in the Wa municipality; thus, the findings are based on the selected small-scale garment consumers' responses to the issues under study. The results may differ in other jurisdictions depending on the level of technology available, the quality of the regulatory environment, or where participants have different understandings regarding the concept, dimensions, and components of quality attributes of tailored clothing based on their economic background, beliefs, values, and lifestyles. Third, because of the cross-sectional nature of the primary data collected, the interpretation of results may be limited to the groups assessed at the time of this study.

References

Aakko, M. & Niinimäki, K. (2021). Quality matters: reviewing the connections between perceived quality and clothing use time. *Journal of Fashion Marketing and Management* **26**(1), 107–125.

Abdulhameed, O., Al-Ahmari, A., Ameen, W., & Mian, S. H. (2019). Additive manufacturing: Challenges, trends, and applications. *Advances in Mechanical Engineering* **11**(2), 1687814018822880– 1687814018822880.

Albari, A. & Kartikasari, A. (2019). The influence of product quality, service quality and price on customer satisfaction and loyalty. *Asian Journal of Entrepreneurship and Family Business* **3**(1), 49–64.

Anam, J., Sanuri, B. M. M. S., & Ismail, B. L. O. (2018). Conceptualizing the relation between halal logo, perceived product quality and the role of consumer knowledge. *Journal of Islamic Marketing* **9**(4), 727–746.

Ashima, R., Haleem, A., Bahl, S., Javaid, M., Mahla, S. K., & Singh, S. (2021). Automation and manufacturing of smart materials in Additive Manufacturing technologies using Internet of Things towards the adoption of Industry 4.0. *Materials Today: Proceedings*, *45*, 5081-5088.

Bashar, A. & Hasin, A. A. (2019). Impact of JIT production on organizational performance in the apparel industry in Bangladesh. *Proceedings of the 2019 International Conference on Management Science and Industrial Engineering*, 184– 189.

Beaudoin, P., Moore, M. A., & Goldsmith, R. E. (2000). Fashion leaders' and followers' attitudes toward buying domestic and imported apparel. *Clothing and Textiles Research*

Journal **18**(1), 56–64.

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.

Cassidy, T. D. (2017). Conceptualizing sustained high quality fashion products in a devalue dominated marketplace. *Fashion Practice*, *9*(2), 235-253.

Castelo, J. S. F. & Cabral, J. E. D. O. (2018). Consumers in a social network: the perception of clothing quality per gender. *Revista Brasileira de Gestão de Negócios* **20**, 22–36.

Chiarini, A. (2020). Industry 4.0, quality management and TQM world. A systematic literature review and a proposed agenda for further research. *The TQM Journal* **32**(4), 603–616.

Coelho, D. C. (2016). *Older female consumers' quality perception of clothing during pre- and post-purchase decision-making (Doctoral dissertation*. Potchefstroom Campus.

Connor-Crabb, A., & Rigby, E. D. (2019). Garment quality and sustainability: a user-based approach. *Fashion Practice*, *11*(3), 346-374.

Dobrosavljevic´, A. & Uroševic´, S. (2019). Analysis of business process management defining and structuring activities in micro, small and medium-sized enterprises. Operational Research in Engineering Sciences: Theory and Applications 2(3), 40–54.

Durana, P., Kral, P., Stehel, V., Lazaroiu, G., & Sroka, W. (2019). Quality Culture of Manufacturing Enterprises: A possible way to adaptation to Industry 4.0. *Social Sciences* **8**(4), 124–124.

Garvin, D. (1987). Competing on the eight dimensions of quality. *Harv. Bus. Rev*, 101–109.

Gazzola, P., Pavione, E., Pezzetti, R., & Grechi, D. (2020). Trends in the fashion industry. The perception of sustainability and circular economy: A gender/generation quantitative approach. *Sustainability* **12**(7), 2809–2809.

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* **6**(3), 173–180.

Gurarda, A. (2019). Seam performance of garments. *Textile Manufacturing Processes. IntechOpen*.

Hines, J. D. & Swinker, M. E. (2001). Knowledge: A variable in evaluating clothing quality. *International Journal of Consumer Studies* **25**(1), 72–76.

Iqbal, T., Huq, F., & Bhutta, M. K. S. (2018). Agile manufacturing relationship building with TQM, JIT, and firm performance: An exploratory study in apparel export industry of Pakistan. *International Journal of Production Economics* **203**, 24–37.

Jerusalem, M. A. (2019). Model development for garment design assessing using DEMATEL. *IOP Conference Series: Materials Science and Engineering* **535**, 12020–12020.

Jucevicˇius, R. & Rybakovas, E. (2010). Competitiveness of Lithuanian textile and clothing industry. *The 6th International Scientific Conference* "Business and Management, 390–398.

Juran, J. M. (1951). *Quality Control Handbook*, McGraw-Hill, New York, NY.

Kano, N. (2001). *Life cycle and creation of attractive quality 4th International QMOD Conference Quality Management and Organizational Development Proceedings*. Sweden.

Klerk, H. M. D. & Lubbe, S. (2008). Female consumers' evaluation of apparel quality: exploring the importance of aesthetics. *Journal of Fashion Marketing and Management* **12**(1), 36–36.

Klerk, H. M. D. & Tselepis, T. (2007). The early-adolescent female clothing consumer. *Journal of Fashion Marketing and Management* **11**(3), 413–413.

Klerk, H. M. D. (2003). Development of a guide for the visual assessment of the quality of clothing textile products. *Journal of Family Ecology and Consumer Sciences* **31**(1), 21–29.

Lee, S. H. & Workman, J. E. (2021). Trendsetting and gender matter: Brand loyalty, perceived quality, and word-of-mouth. *Journal of Global Fashion Marketing* **12**(1), 16–31.

Lekamge, R. & Ekanayake, N. (2021). Internal Quality Failures of Apparel Industry: A Case from Sri Lanka. *Open Journal of Business and Management* **9**(5), 2389–2406.

Maganga, D. P. & Taifa, I. W. (2022). Quality 4.0 conceptualization: an emerging quality management concept for manufacturing industries. *The TQM Journal. DOI*.

Mehta, P. V. & Bhardwaj, S. K. (1998). Managing quality in the apparel industry. *New Age International*.

Moon, M. A., Javaid, B., Kiran, M., Awan, H. M., & Farooq, A. (2018). Consumer perceptions of counterfeit clothing and apparel products attributes. *Marketing Intelligence & Planning* **36**(7), 794–808.

Nawaz, N. & Nayak, R. (2015). Seamless garments. *Garment manufacturing technology*, 373–383.

Pavlinic, D. Z. & Gersak, J. (2009). Predicting garment appearance quality. *The Open Textile Journal* **2**(1), 29–38.

Pereira, T., Kennedy, J. V., & Potgieter, J. (2019). A comparison of traditional manufacturing vs additive manufacturing, the best method for the job. *Procedia Manufacturing* **30**, 11–18.

Rahman, M. M. & Masud, A. K. M. (2011). Quality improvement in garments industry through TQM approach. *Proceedings of the International Conference on Mechanical Engineering* **44**, 11–11.

Rahman, O. (2011). Understanding consumers' perceptions and buying behaviours: Implications for Denim Jeans Design. *Journal of Textile and Apparel* **7**(1).

Rajput, D., Kakde, M., Chandurkar, P., & Raichurkar, P. P. (2018). Enhancing efficiency and productivity of garment industry by using different techniques. *International Journal on Textile Engineering and Processes* **4**(1), 5–8.

Sader, S., Husti, I., & Daroczi, M. (2021). A review of quality 4.0: Definitions, features, technologies, applications, and challenges. *Total Quality Management & Business Excellence*, 1–19.

Srinivasan, A. & Kurey, B. (2014). Creating a culture of quality. *Harvard business review* **92**(4), 23–25.

Stylidis, K., Wickman, C., & Söderberg, R. (2020). Perceived quality of products: a framework and attributes ranking method. *Journal of Engineering Design* **31**(1), 37–67.

Sun, X., Han, M., & Feng, J. (2019). Helpfulness of online reviews: Examining review informativeness and classification thresholds by search products and experience products. *Decision Support Systems*, *124*, 113099.

Swan, J. E. & Combs, L. J. (1976). Product performance and consumer satisfaction: a new concept: an empirical study examines the influence of physical and psychological dimensions of product performance on consumer satisfaction. *Journal of marketing* **40**(2), 25–33.

Swinker, M. E. & Hines, J. D. (2006). Understanding consumers' perception of clothing quality: A multi- dimensional approach. *International journal of consumer studies* **30**(2), 218–223.

Syduzzaman, M., Islam, M. M., Habib, M. A., & Yeasmin, D. (2016). Effects of implementing TQM principles in the apparel manufacturing industry: case study on a Bangladeshi clothing factory. *Science and Technology* **6**(3), 68–75.

Syduzzaman, S., Rahman, M., Islam, M., Habib, A., & Sharif, A. (2014). Implementing total quality management approach in garments industry. *European Scientific Journal* **10**(34), 341–358.

Uhl-Bien, M., & Arena, M. (2018). Leadership for organizational adaptability: A theoretical synthesis and integrative framework. *The leadership quarterly*, *29*(1), 89-104.

Vieira, V. A. (2009). An extended theoretical model of fashion clothing involvement. *Journal of Fashion Marketing and Management* **13**(2), 179–179.

Wen, X., Choi, T. M., & Chung, S. H. (2019). Fashion retail supply chain management:

A review of operational models. *International Journal of Production Economics* **207**, 34–55.

Wongsunopparat, S. & Rai, O. H. (2022). Factors Influencing Consumer Brand Choice Service Tailoring Shop in Thailand, Focusing on Ermenegildo Zegna, Brioni and Local Brand. *Finance and Management Studies* **5**(1), 26–38.

Workman, J. E. & Cho, S. (2012). Gender, fashion consumer groups, and shopping orientation. *Family and Consumer Sciences Research Journal* **40**(3), 267–283.

Zhao, M. & Dholakia, R. R. (2009). A multi-attribute model of web site interactivity and customer satisfaction. *Journal of Service Theory and Practice* **19**(3), 286–286.

Zonnenshain, A. & Kenett, R. S. (2020). Quality 4.0-the challenging future of quality engineering. *Quality Engineering* **32**(4), 614–626.