

## Effects of Colour Attributes on Textile Products' Perceived Value

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### Abstract

This study investigates the significance of textiles and clothing products' perceived value for consumers. Colour attributes, i.e., Hue, saturation, and value of a group of primary colours, i.e. blue, purple, green, yellow and red, are investigated in this context. This investigation is based on collecting primary data from one hundred and seventeen participants using an online self-administered questionnaire. First, a participant selects the most expensive coloured textile sample, and the presented samples are of similar colour value and have the highest chroma at that level. Then, the selected sample's emotional impact was examined. Research indicates that purple and red are the most costly colours in the lightest and darkest shades., with blue, green, and yellow perceived as having the least value. The lightest level was the most obvious way to discriminate between colours, and the participants selected purple as the most expensive. Red was significantly selected as the most expensive at the medium-value level. The darker the colours, the more expensive recognised coloured textiles are. Purple, red, and blue are more expensive at most value levels than yellow and green. The most significant and guiding emotions for textile designers are the emotional responses that colours evoke in consumers, particularly those associated with liking, cleanliness, and freshness. Purple, the most frequently selected and expensive colour, was considered a cool, light, classical, clean, passive, fresh, soft, relaxed, feminine, and liked. On the emotional scale, "yellow" was warm, heavy, classical, dirty, active, stale, hard, tensed, masculine, and liked. Regarding the emotional impacts of purple and yellow, which were found to be high and low expensive, respectively, both are recognised as classical and liked colours. Furthermore, the more expensive the colour, the more negative, lighter, and less positive emotions are evoked. By exploring the emotional impact of colours' value levels, it was found that there are positive relations between being Heavy, classical, hard, tense, and masculine and their dark levels, providing valuable insights for textile designers and marketers. It is conclusively established that the lightest and darkest colours are the most expensive, a finding that can guide textile designers and marketers in their colour selection. The dominant Emotions for selecting the most expensive colours were found to be liked, clean, and fresh. The results of this research establish supportive colour knowledge for textile and clothing designers' decisions regarding colour selections. Our findings provide new empirical evidence that certain hues and values of colour should be used when selecting an expensive colour for textiles. Furthermore, they offer insight into the study of colour emotion and preference and its relation to marketing principles.

### Keywords

Colour, emotion,  
Consumer, hue,  
saturation, chroma.

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### 1. Introduction

Textile and clothing products are essential products used by humans of various genders, ages, and cultures to fulfil their needs on diverse occasions and times. These products are made by preidentified intrinsic and extrinsic attributes created and developed by designers before

manufacturing. The intrinsic attributes are products' specifications relevant to their chemical, physical, and mechanical properties. On the other hand, the extrinsic properties belong to but are not part of the product. All attributes psychologically affect consumers, evoking emotional influences. These specifications would be perceived differently

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based on the consumer rather than the product's actual state. Therefore, any product would have realistic physical attributes and relevant perceived specifications.

One of the specifications affecting the consumer's attitude towards a product and consequently having a pivot role in their marketing is the "perceived value". The perceived value refers to the consumer's viewpoint towards a product in terms of fulfilling their needs and prospects. The "perceived value" or "perceived utility value" could lie in different aspects, including Form, Task, Time, Place, and Possession utilities. These are the potential and prospective benefits a consumer or customer looks forward to or expects when intending to obtain a product. The form utility or value is relevant to the aesthetical aspects of a product, i.e., design, which is considered in this research study in the context of textile colour design (Gordon, 2023; KOPP, 2020).

Textile design is based on two-dimensional design elements, i.e., dot, line, shape, value, texture, and colour, which designers use to apply design principles, making creative designs with aesthetic and functional values. However, colour is considered by designers to be the most critical design element that should be used competently by designers because of its significant impact on consumers' choices and purchase decisions. Research studies have found that up to 90 per cent of consumer decisions account for colour alone. Therefore, colour is one of the design elements that have proved to have a significant impact on product marketing. Besides, the perceived value of the design products' qualities would be one of the aspects that are essentially considered by consumers, manufacturers, and retailer shops. Therefore, it was found that studying the impact of "colour attributes" on the "perceived quality" of textile products is essential (Babin et al., 1994; Kiehelä, 2014; Milman & Tasci, 2022; Singh, 2006).

### 1.1. Study Objectives

This study aims to investigate the influence of the colour attributes used in textile design on the perceived quality and value, assess the impact of recognised and viewed colour on utilitarian and hedonic values, and evaluate the role of colour in influencing these relationships. In this study, colour attributes, namely Hue, saturation/chroma and brightness/lightness/value, are investigated in terms of their impact on perceived value. Besides, the perceived value of textile products is studied as a function of emotional effects. Therefore, consumers' responses to coloured textile samples of various attributes are investigated, highlighting the perceived values of colours and their correlated

emotional impacts.

### 1.2. Problem Statement and Research Question:

This study is based on the textile designers' need for clear design information and guidance relevant to consumers' colour preferences, perceived value and evoked emotions. The study empirically tests how colour influences the perceived value of textile and clothing products and reflects a consumer's attitude and intended behaviour. Hence, this study is concerned with answering the following questions: Is the perceived value of textile and clothing products critical for consumers? How does the perceived value impact the consumer attitude, i.e., an individual's preference towards an object? What is the relationship between textile and clothing products' colour attributes and their perceived value? What is the consumer preference associated with the studied relationships? What is the colour attribute that most affects the research relationships? In other words, what colour attribute drives textile and clothing products' preference and valuing?

### 1.3. Originality and value:

The study empirically tests colour influences on textile and clothing products' perceived value and reflects on a consumer's attitude and intended behaviour. The findings of this research will support textile and clothing designers in better understanding consumers in terms of their colour values, preferences, perceptions, and the impact of these on the recognised value of the products.

## 2. Literature Review

Consumers' colour tendencies and preferences have been studied by researchers investigating the impacts of various factors, including culture, gender, and age. In this section, research studies conducted relevant to the recognised value of products, as well as the emotional impacts of colour and its attributes, were reviewed.

### 2.1 The perceived value of design products

Researchers investigated the perceived value of design products' colours, studying a range of issues, although sustainability and product taste were the main concerns for most of them. Creusen, M.E.H. et al. investigated the relationship between product perceived complexity, symmetry, and value. They found that they correlate based on the consumer focus during perception, i.e., function, quality, and ease of use (Creusen et al., 2010). Chi, T. and Kilduff, P. 2011 studied US consumers' perceived value of casual sportswear based on price, quality, social, and emotional values. Price and quality were the most significant values affecting their perception of the examined products (Chi & Kilduff, 2011). In 2015, Ting Chi investigated Chinese consumers' perceived value of

environmentally friendly apparel. A model was used to identify the most significant factors affecting consumer perceived value CPV. Social values were higher than price, followed by emotions and quality values (Chi, 2015).

Zauner, A. et al. investigated the perceived value aspects as a competitive advantage that contributes to products' significance. These aspects include the functional, epistemic, conditional, social, and emotional values of products or services that affect consumer perception of products. The priority of each of these value's roles would depend on the product or service. Besides, they suggested areas of research concerning consumer perceived value CPV. One of these areas is the importance of product characteristics and aesthetics in developing customer value (Zauner et al., 2015). Later, Fateminia M. et al. 2020 studied the correlation between taste and colour, utilising the most popular colours in food packaging design. Similar indicators of perception were found for both adults and children. Besides, there were taste similarities between secondary and primary colours (Fateminia et al., 2020). Lihong Chen et al. (2020) developed a consumer perception measurement scale for children's safety based on clothing safety regarding mechanical, chemical, and label aspects (Chen et al., 2020).

Li Suo et al. (2020) analysed the correlations between perceived benefit, perceived sacrifice, and perceived value and their impact on purchase intention in the context of the pre-sale model in e-commerce. Perceived value was correlated positively with purchase intention. Therefore, upgrading apparel products' quality and service would affect purchase behaviour (Suo et al., 2020). Chi, T. et al. 2021 investigated US Millennials perceived green value PGV and purchase intention towards apparel products. Interviews were conducted with 16 participants, and the output of the qualitative information and data obtained were analysed considering the PGV framework, namely based on function, society, emotions, conditions, and epistemic. The main driving force was the product price and performance of fashionable, comfortable, and multipurpose specifications (Chi et al., 2021).

Jeong, D. and Ko, E. 2021 investigated the inconsistency between consumers' attitudes and behaviours towards fast fashion products and their environmental impact. However, their awareness of its environmental impact found that their self-concept significantly affects their purchase intention (Jeong & Ko, 2021). Kim, N. and Bye, E. 2022 indicated in their research that social and environmental apparel practices positively

influence the valuing of US-made clothing (Kim & Bye, 2022). Salem, S. F., & Alanadoly, A. B. 2022 investigated the relationship between online fashion shoppers' experiences and practices with perceived values, namely quality and price, to develop consumers' online buying behaviour (Salem & Alanadoly, 2022).

## **2.2. The emotional impact of colour design**

Design and colour researchers have long been interested in colour preference and its emotional impact on consumers. They have studied colour-emotion associations in this context, investigating the effects of age, gender, personality, educational background, and culture on purchasers. Li-Chen Ou et al. conducted a series of studies on colour emotion and its preference. This series concerned single and dual colours and developing these colour-preference models (Ou et al., 2004a, 2004b; Ou et al., 2004c). KAYA, N., and Epps, H. studied college students' emotional responses to various colours. The principle hues, intermediate hues, and achromatic colours (Kaya & Epps, 2004) produced the highest positive responses. In 2006, Satyendra Singh reviewed the impact of colour on marketing and noted that consumers' attitudes towards used or experienced products are shaped and formed within 90 seconds of their interaction. Colour alone is responsible for 62-90 per cent of this attitude (Singh, 2006).

## **2.3. Influence of Colour attributes on design perception.**

Colour is attributed to variables: Hue, saturation/chroma and value/lightness. Based on these variables, several colour models have been developed. Hue is the specification that identifies the origin nature of colour, namely, its position on the colour wheel ranging from 0° to 360°. In other words, it classifies the sensed colour because it shows purity with no change. Both Saturation and chroma attributes describe the colour purity level. Value and lightness specifications reflect the colour level of lightness or darkness. This section reviews research studies investigating the impact of colour attributes on viewers' perceptions and preferences for design products.

Cubukcu, E., & Kahraman, I. 2008 studied the impact of colour variations -Hue, Saturation, and Lightness—on building exterior preference. They found that yellow and blue were the most preferred colours. Some hues had more emotional impact than others. More preference was counted for colours of low saturation and high brightness for full or moderate brightness and saturation,

respectively (Cubukcu & Kahraman, 2008). Gorn et al. studied the effect of colour's three dimensions, Hue, chroma, and value, on receivers' perception of printed adverts. High levels of value and chroma affected perceivers positively because of their relaxing impact (Gorn et al., 1997).

The impact of colour in office interior design on workers' moods was studied using nine monochromatic colour schemes based on various saturation and value levels. Workers' anger, depression and confusion levels were found to be affected by the colour used in this study. These emotions were associated with low saturated colours in females, although males' emotions showed affection to high saturated colours. Blue and red offices were better than white ones in avoiding confusion (Kwallek et al., 1996). Radeloff, D. examined the relationship between textile and apparel consumer personality and preferences and colour attributes. Consumers were found to prefer seasonal colours from the highest to the least: Summer and winter, spring followed by autumn. However, colours of medium value were chosen most, followed by dark and light colours, which were the least preferred. In terms of chroma, preferences were as follows: dull colours, then medium, then intense. This study indicated that colour attributes affect receivers' responses (Radeloff, 1991).

Colour preference was investigated based on hues and chromas; hue had a minimal impact on colour preference, and colour value affected its preference. These relationships were found to be affected by the mode of colour appearance (Tangkijviwat et al., 2010). The impact of colour lightness and saturation on children's preference for interior rooms was explored by Park, J. 2013. Preferred hues were identified, and the saturation was found to positively affect preferences of certain hues, namely red, green, blue, and purple, although yellow was influenced by its lightness (Gyu "Phillip" Park, 2014). A study that explored hue, saturation, and lightness's impact on Chinese consumer preference for colour found that low levels of lightness were preferred, then saturated, muted, and dark colours were the least preferred in preference (Zhang et al., 2019).

### 3. Methods and Materials

This research study investigates consumers' responses to and perception of textile products' colour, its impact on the perceived value and the associated emotional implications and preference. This section illustrates the methodology used in the investigation, i.e. stimuli, participants and procedures conducted.

#### 3.1. Research limitations

In this study, the investigated products are limited to one colour-making plain product. Therefore, no colour combinations will be used. Moreover, the study will use one form for a piece of cloth to be recoloured to focus on the colour attributes rather than product specifications and investigate consumers' responses to various colours used.

#### 3.2. Stimuli

##### 3.2.1. Colour range identification

This study's hypotheses are based on the fact that colour attributes impact consumers' perceived value of textile products. Therefore, the range of colours employed in this study varied based on Munsell's colour system attributes: hue, chroma (strength or intensity of a colour), and value/brightness (lightness or darkness of a colour). The selection process employed a colour tool and system developed by Centore, P. in 2010 and updated in 2024. Besides, this system was used to conduct precise and explicit colour data conversion from the Munsell system to the RGB colour system/space (Centore, 2024). These RGB values were used to recolour the textile piece used in the study employing Photoshop software.

Five primary hues were used in this study, namely red, yellow, green, blue, and purple, employing the centre of each hue, i.e. 5R, 5Y, 5G, 5B, and 5P, respectively. Then, five different value levels were assigned at regular intervals per hue, namely at 1, 3, 5, 7 and 9 values. Afterwards, the highest chroma of each hue's value level was assigned and selected. This selection process produced five variations of each hue, which were used in this study. Figure 1 shows an example of identifying the range of hue variations, i.e. Green; these are the colours bordered with red. The exact process was conducted to select the range of colours for all other hues: 5R, 5Y, 5B, and 5P. Finally, the total number of all colour variations produced is 25 for all hues, values and chromas, illustrated in Table 1.

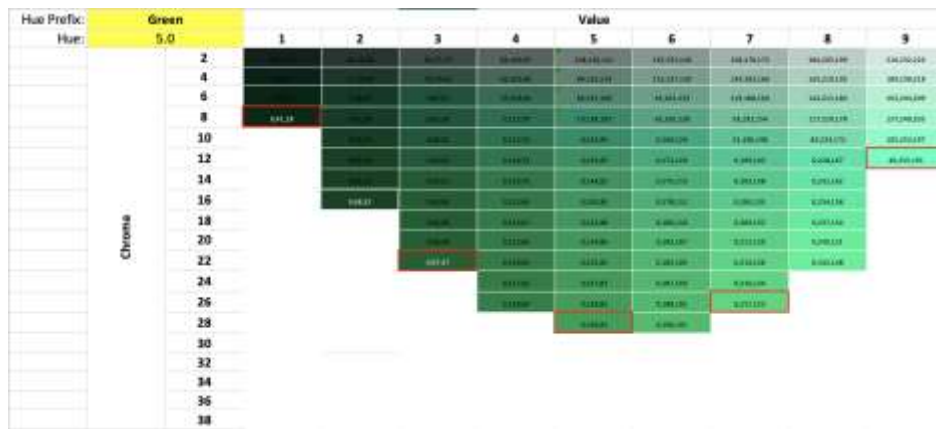


Figure 1 Selection of Green colour variations (Hue: 5G, Value Levels: 1,3,5,7,9 and Chroma: highest) (colours with red borders)

Table 1 The group of colours used in the survey for stimuli preparation.

Hues	Values				
	V1	V3	V5	V7	V9
RED	79,0,30	170,0,15	252,0,60	255,121,127	255,206,210
YELLOW	37,28,0	91,69,0	153,118,0	214,169,0	255,223,0
GREEN	0,41,18	0,97,47	0,160,82	0,217,123	46,255,191
BLUE	0,35,63	0,86,145	0,144,223	0,196,255	185,235,255
PURPLE	80,0,35	170,0,23	206,0,75	213,63,75	241,20,75

**3.2.2. Preparation of the textile samples**

This study investigates the impact of colour preference, perceived value, and emotional effects on textile product consumers. The researched textile samples are limited to one colour-making plain product. Therefore, no colour combinations will be used in this study. One textile product was used in the designed questionnaire: a piece of fabric showing some folds to show realistic fabric. Therefore, a textile product with no pattern or decorations was used in this study (shown in Figure 2). This textile sample was re-coloured using the colours listed in Table 1. Photoshop software was used to conduct the re-colouring process; the picture of the textile sample was converted to grayscale and then adjusted to appropriate brightness levels. Subsequently, each colour was placed in a layer above the textile sample picture, and then the blending mode of the colour layer was changed from “Normal” to “Soft light” to obtain a coloured textile product using that colour placed on top of it. This process is conducted for all colours identified in Table 1 to get 25 variant-coloured textile samples. These are the samples used to

measure consumer attitudes towards colour attributes.



Figure 2 Textile Fabric used in the survey.

**3.3. Questionnaire design**

This study used an online self-administered questionnaire to collect primary data. The questionnaire consists of three parts. Part 1 states questions relevant to the participant's demographic information, including gender type and age group. In Part 2, the range of coloured textile samples described in the previous Section, 0, was sub-grouped into five groups based on five different Munsell system values (see Figure 3) and was used in the designed question asking about the perceived highest value. In each question, each group of

coloured textile samples of similar value were presented to explore the participant's perceived highest value. So, each group in a row consists of samples of different hues with similar value levels. The participant was asked to select the most expensive sample among the presented group of samples. The same question is designed to investigate each level of the five values. Therefore, there are five questions exploring the most expensive per hue. However, the presented samples are randomised in order through designed questions.

After selecting the most expensive textile sample in each question in Part 2, the respondent is directed to a subsequent group of questions (Part 3), exploring the selected sample's emotional responses. In this part, a group of bipolar emotions were used to rate each sample selected previously in part 2. The rating ranges from -3 to +3. So, +3 indicates the positive/intensive emotion; conversely, -3 represents the negative or mild/light emotional impact. Bipolar emotions explored are as follows: Clean–Dirty, Fresh–stale, Like–dislike, Heavy–light, Hard–soft, Masculine–feminine, Warm–calm, Modern–classical, Active–passive, and Tense–relaxed. These emotional impacts were inspired by (Ou et al., 2004a).



Figure 3 Recoloured samples used to explore the most expensive coloured sample; each row presents a group of samples compared to each other (randomised in the presented question)

### 3.4. Participants

The questionnaire designed for this study was distributed electronically. It targeted adult participants aged 18 to 60 of different genders and cultures. A random sample was considered to involve consumers of various ages and genders.

## 4. Results and discussion

4.1. This section analyses the data collected from

the survey studies. First, it focuses on the colour attributes of samples tested for perceived value. Then, it analyses the factors affecting selecting specific samples/colours, including the emotions evoked by the selected samples, to explain the perceived product value.

### 4.2. Respondents' information

The results obtained from 117 respondents were analysed. One hundred seventeen participants participated in the survey, 66% male and 34% female. Most were in the 18-30 age range, with 91% of the total respondents in this age range (see Figure 4 to Figure 6).

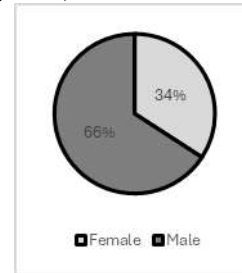


Figure 4 Gender details of survey participants

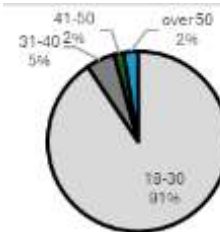


Figure 5 Age stages of survey respondents

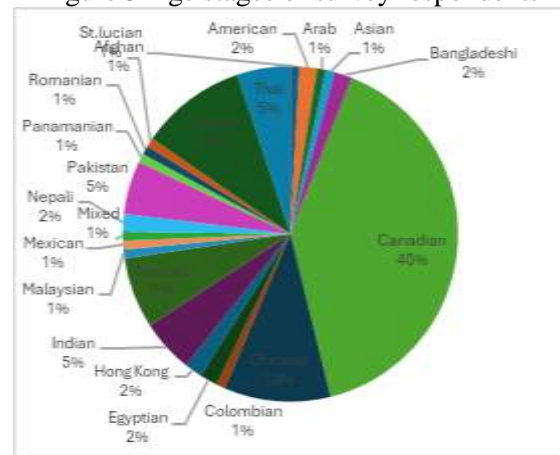


Figure 6 Cultural backgrounds of survey participants

### 4.3. Colours' perceived values

This section investigates various aspects of perceiving textiles' colour, including colour attributes and emotional reactions to the perceived colours.

#### 4.3.1. The relationship between hue and perceived values

This study used five questions to examine five hues at five different lightness levels of value. So, the five hues at the same lightness value are compared

in each question since the respondent should select the most perceived expensive coloured sample. The total number of responses from 117 participants to five questions evaluating the samples' expense level is 585 (117 participants  $\times$  5 questions). Figure 7 shows the number of respondents' responses to each hue of the five hues tested as the

most expensive ones. The Hues selected as the most expensive were purples (27%), followed by Reds (25%), blues (19%), and greens (15%). Green was the least hue recognised as highly expensive (14%). This means that the hues consumers consider the most expensive are purple > red > blue > yellow > green hues (see Figure 7).

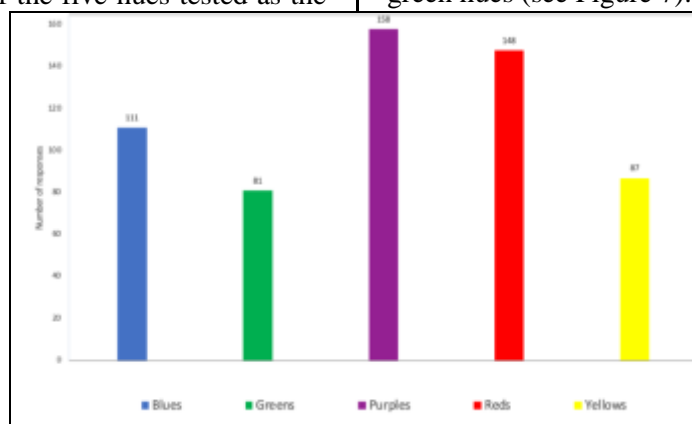


Figure 7 Frequency of Hues selected as the most expensive

#### 4.3.2. The relationship between colour value and perceived values

This section explores the impact of colours' values on the recognised sample worth. Therefore, in the questionnaire used in collecting primary data for the current study, five questions were designed to examine and compare samples of five hues; each question employed these hues at a similar value. Each question examined participants' recognition of the evaluated samples as the most expensive, including a group of samples coloured with a similar value and highest chroma for the five hues used in this study. Figure 8 shows the participants' selections at the five different value levels; these results are re-ordered in the graph presenting each hue result (see Figure 9). Colours' values are graded from level "9", the lightest value, to level "1", the darkest value.

The analysis of five questions value level-wise results (Figure 8). For the value 9 level, purple is significantly the most expensive colour, followed by red, blue, yellow, and green. However, at Level 7, yellow was considerably the most expensive colour, followed by purple, red, blue, and green. At Level 5 value, red was the most expensive colour, followed by blue, green, purple, and yellow. The most recognised expensive colour at level 3 value was blue, followed by purple, red, green and yellow. However, a low percentage of respondents considered the yellow textile sample expensive. At the darkest value, level 1, Most participants chose the purple sample as the highest-cost option, followed by Red, Green, blue, and yellow. Therefore, purple is perceived as the most expensive at two levels of value, i.e., the lightest and darkest, and it is ranked as the second most

expensive in values 7 and 3. Therefore, it is the most frequently used colour and is highly expensive at several levels of colour value. Red was significantly selected as the most expensive at the medium-value level. Moreover, it was chosen as highly expensive at most value levels.

Colour-wise analysis indicates the values selected as the most expensive (see Figure 9). Value 3 was perceived as the most expensive for the blue hue. Besides, there is a positive relationship between the blue value reaching its maximum at level 3 and then dropping. Level 1 is the most expensive value for the green hue. Greens at all value levels are recognised as expensive at low rates. Similarly to blue colour, there is a positive relationship between value level and worth perception. Level 9 of Purple was significantly the most recognised expensive colour among all colours and purples examined. The valuation decreased with increased value, reaching its minimum at level 5, then increased with increased value. Reds' values increased to reach their maximum at level 5, then decreased with the colour value. Therefore, for red and purple hues, which were found to be the most expensive recognised hues, level 3 is a turnover point regarding cost recognition. In the purple case, it was the least recognised. On the other hand, the level 3 value was the highest in the red. Yellow hue was recognised as the most expensive at level 7, and levels 5, 9, 1, and 3 were the least perceived. It is concluded that the darker the colours, the more expensive recognised coloured textiles are. The yellow hue is an exception for this recognition. Purple, red, and blue are more expensive at most levels than yellow and green.

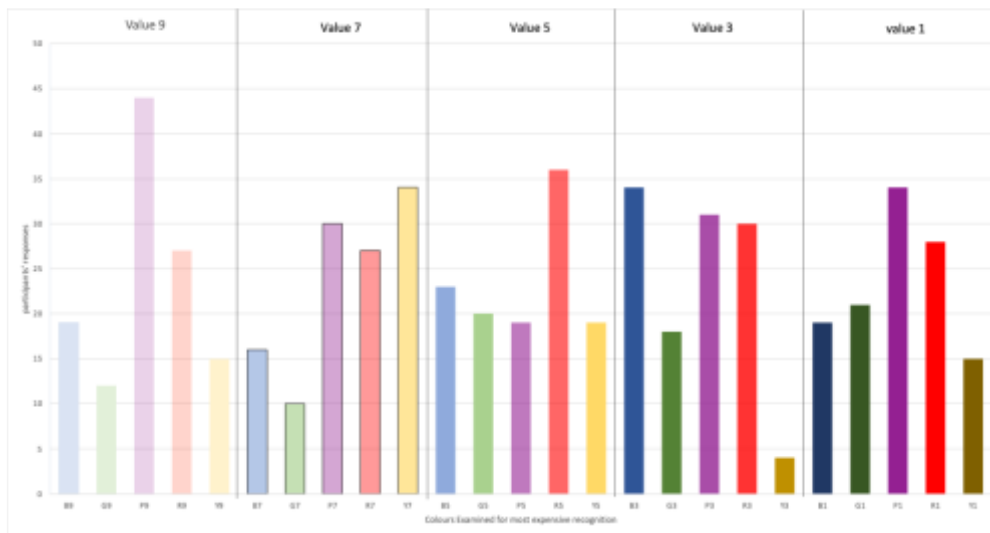


Figure 8 Selections of the most recognised expensive coloured sample (colours ordered value-wise)

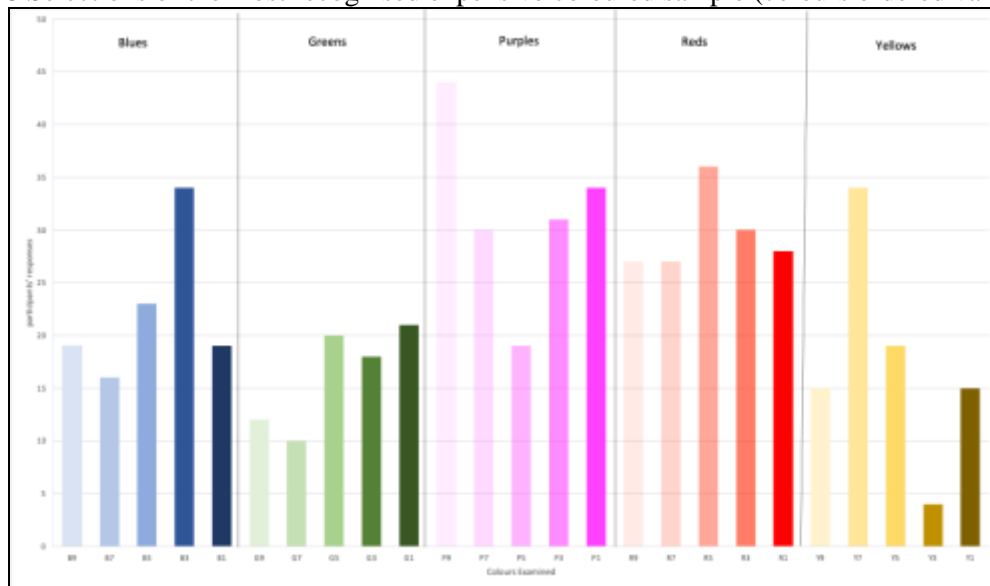


Figure 9 Selections of the most recognised expensive coloured sample (ordered colour-wise)

#### 4.4. Emotional impacts of colours

This section investigates and analyses the reasons why coloured textiles are considered highly expensive. It then discusses the emotional impact of the selected colours.

##### 4.4.1 Impacts of most expensive perceived colours

This study investigated ten bipolar emotions, examining the most expensive hues and value levels (see Figure 10). The most effective and controlling emotion was consumers' preferences, as participants who selected the most expensive colours liked them (with an average rate of 0.93). The second dominant emotion is being "clean" (with an average rate of 0.8).

Other positive emotions are from the highest to the least as follows: "Fresh" (with an average rate of 0.63) > "Heavy" (with an average rate of 0.32) > "Active" (with an average rate of 0.3) > "Classical" (with an average rate of 0.22). However, the negative emotions associated with perceiving a textile sample as a costly one were found: "Feminine" (with an average rate of -0.35) > "Soft" (with an average rate of -0.26) > "Cool" (with an average rate of -0.16) > "Relaxed" (with an average rate of -0.02). Therefore, these results illustrate that the most significant and guiding emotions for textile designers are consumers liking colours and evoking emotions of cleanness and freshness.



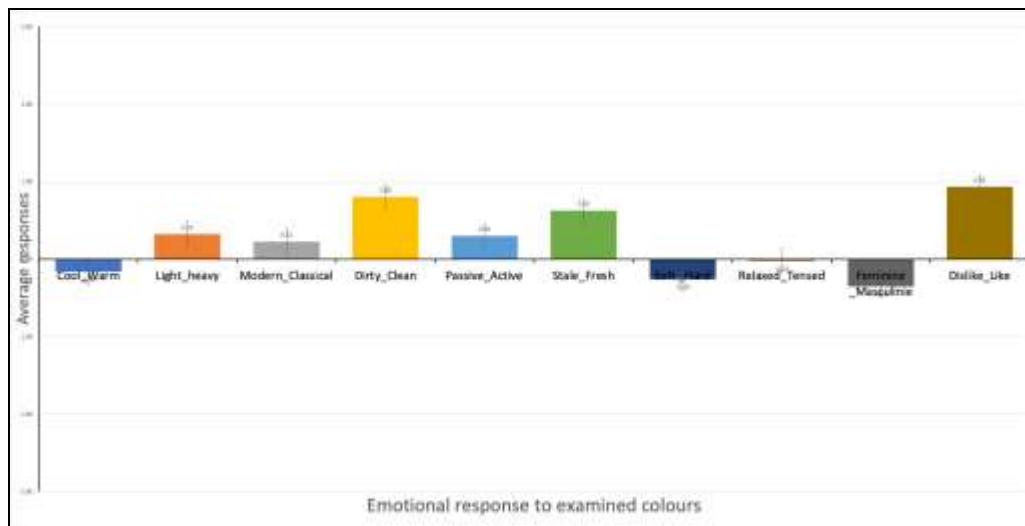


Figure 10 Average emotional rates of colours perceived as highly expensive

#### 4.2.2. Emotions associated with hues are perceived as the most expensive.

Figure 11 illustrates the overall emotional responses obtained from all colours examined. Blue, Purple, and green are considered the “coolest” colours ranked among the examined colours, although red and yellow are warm colours. These results agree with previous research studies. Five hues are perceived as heavy colours, except for purple. Again, all hues are perceived as classical, ordered from the highest to the least: yellow, red, purple, green, and then blue. Blue is the cleanest colour, followed by red, purple, and green; however, yellow was perceived most as dirty. The most active colours were red, green, yellow, and blue; however, purple was considered passive. Regarding soft and relaxed colours, purple, blue, and green, yellow was perceived as hard and tense. The red colour was highly tensed as well and insignificantly soft. Feminine colours are Purple

and red, although Blue, green and yellow were perceived as masculine. Regarding consumer preference, all colours were liked but rank-ordered from the highest to the least: blue> red> green> purple, then yellow.

Purple, the most frequently selected colour as most expensive, was associated with being considered a cool, light, classical, clean, passive, fresh, soft, relaxed, feminine, and liked colour. On the other hand, the least expensive colour, “Yellow” on the emotional scale, was found to be warm, heavy, classical, dirty, active, stale, hard, tensed, masculine, and liked. In comparing the emotional impacts of contradictory colours regarding perception as high value, it was found that purple and yellow have contradictory emotional impacts on participants. However, both are recognised as classical and liked colours. The higher the expensive colour, the more negative, lighter, and less positive emotions are evoked.

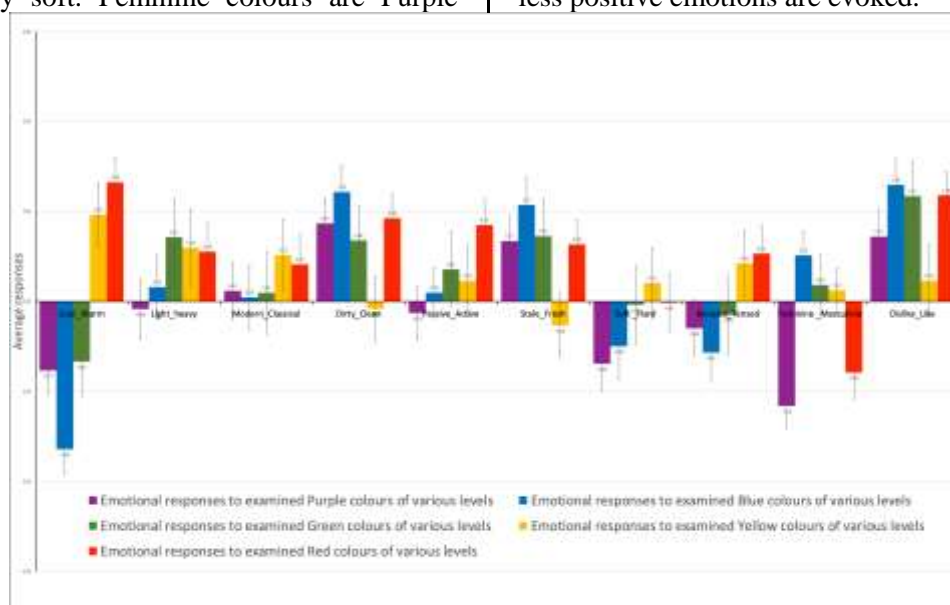


Figure 11 Average emotional rates of Hues investigated and perceived as highly expensive.

#### 4.4.3. Impacts of most expensive perceived colours and their relationship with value levels explored.

Figure 12 illustrates the emotional impacts of all hues examined in this study at the five value levels. The lightest and darkest colours were considered cool, while medium-value colours were perceived as warm.

It was found that light hues are preferred over dark ones. The lightest colours are perceived as significantly lighter than darker levels. The darker the colours, the heavier and more classical they are perceived by participants. The impression of

cleanliness was negatively related to the colour darkness. On the Dirt-Clean scale, all value levels were clean and fresh except the darkest level, "1," which was perceived as dirty and stale.

Moreover, the lightest colours are softer, more relaxed, and feminine. By exploring the emotional impact of colours' value levels, it was found that there are positive relations between being Heavy, classical, hard, tense, and masculine and their darkness levels. On the contrary, the sense of cleanness, freshness and activity is correlated negatively with their darkness.

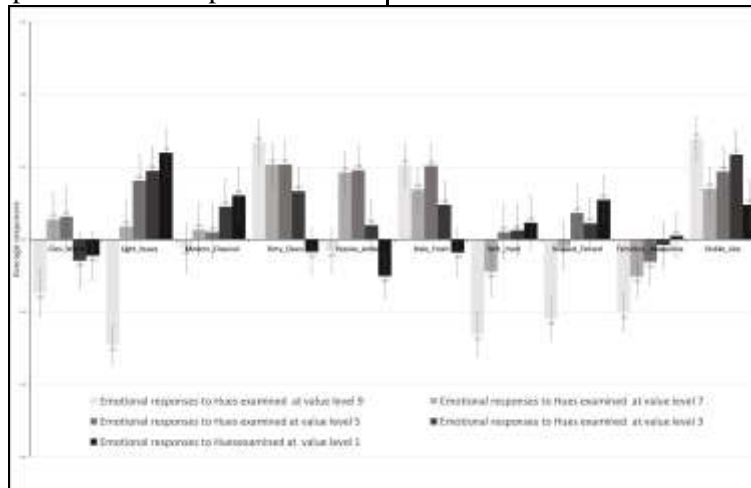


Figure 12 Average emotional rates of value levels investigated and perceived as a high expense.

## 5. Conclusion

In this study, the impact of coloured textiles on perceived value and their associated emotional impacts was investigated. Research indicates that purple and red are the most costly colours, with blue, green, and yellow perceived as having the least value. Purple was regarded as the most costly colour in the lightest and darkest shades. The yellow sample was chosen during the second value level of examination. The lightest level was the most obvious way to discriminate between colours, and the participants selected purple as the most expensive.

Most participants preferred the purple sample as the highest-cost option, followed by red, green, blue, and yellow. Red was significantly selected as the most expensive at the medium-value level. This conclusion was drawn from a comprehensive analysis of consumer preferences and market prices for textiles in various shades of red. The darker the colours, the more expensive recognised coloured textiles are. Purple, red, and blue are more expensive at most value levels than yellow and green.

The most significant and guiding emotions for textile designers are the emotional responses that colours evoke in consumers, particularly those associated with liking, cleanliness, and freshness.

Purple, the most frequently selected and expensive colour, was considered a cool, light, classical, clean, passive, fresh, soft, relaxed, feminine, and liked colour.

On the emotional scale, "yellow" was warm, heavy, classical, dirty, active, stale, hard, tensed, masculine, and liked. Regarding the emotional impacts of what we term "contradictory colours"—those that evoke different emotions despite being perceived as high value—purple and yellow are prime examples of this phenomenon.

However, both are recognised as classical and liked colours. The more expensive the colour, the more negative, lighter, and less positive emotions are evoked. By exploring the emotional impact of colours' value levels, it was found that there are positive relations between being Heavy, classical, hard, tense, and masculine and their dark levels, providing valuable insights for textile designers and marketers. On the contrary, the sense of cleanness, freshness and activity is correlated negatively with their darkness. Therefore, it is conclusively established that the lightest and darkest colours are the most expensive, a finding that can guide textile designers and marketers in their colour selection.

Regarding various value colour levels, Purple, blue, and red were the most frequently selected colours because they are expensive. However, yellow and

green were the least frequently selected colours. The dominant Emotions for selecting the most expensive colours were found to be liked, clean, and fresh.

## 6. Limitations and Future Studies

This study recoloured the textile sample, examining various hues and value levels according to the Munsell colour system's perceived value. Future research studies are suggested to investigate these colours on different textile products to study the relationship between colour attributes and product type and structure.

## References

- 1- Babin, B. J., Darden, W. R., & Griffin, M. (1994). Work and/or Fun: Measuring Hedonic and Utilitarian Shopping Value. *Journal of Consumer Research*, 20(4), 644-656.
- 2- Centore, P. (2024). Colour Tools for Painters. Retrieved 10/10/2024 from <https://www.munsellcolourscienceforpainters.com/>
- 3- Chen, L., Ding, X., & Yu, H. (2020). A measure of consumer perception on children's apparel safety following the customer perceived value paradigm. *The Journal of The Textile Institute*, 111(8), 1106-1115.
- 4- Chi, T. (2015). Consumer perceived value of environmentally friendly apparel: An empirical study of Chinese consumers. *The Journal of The Textile Institute*, 106(10), 1038-1050.
- 5- Chi, T., Ganak, J., Summers, L., Adesanya, O., McCoy, L., Liu, H., & Tai, Y. (2021). Understanding perceived value and purchase intention toward eco-friendly athleisure apparel: Insights from US millennials. *Sustainability*, 13(14), 7946.
- 6- Chi, T., & Kilduff, P. P. (2011). Understanding consumer perceived value of casual sportswear: An empirical study. *Journal of Retailing and Consumer Services*, 18(5), 422-429.
- 7- Creusen, M. E. H., Veryzer, R. W., & Schoormans, J. P. L. (2010). Product value importance and consumer preference for visual complexity and symmetry. *European Journal of Marketing*, 44(9/10), 1437-1452. <https://doi.org/10.1108/03090561011062916>
- 8- Cubukcu, E., & Kahraman, I. (2008). Hue, saturation, lightness, and building exterior preference: An empirical study in Turkey comparing architects' and nonarchitects' evaluative and cognitive judgments. *Color Research & Application*, 33(5), 395-405. <https://doi.org/https://doi.org/10.1002/col.20436>
- 9- Fateminia, M., Ghotbabadi, T. D., & Azad, K. M. (2020). Perceptions of the taste of colors in children and adults. *Color Research & Application*, 45(4), 743-753.
- 10-Gordon, J. (2023). Perceived Value - Explained. The Business Professor. [https://thebusinessprofessor.com/en\\_US/principles-of-marketing/perceived-value-definition](https://thebusinessprofessor.com/en_US/principles-of-marketing/perceived-value-definition)
- 11-Gorn, G. J., Chattopadhyay, A., Yi, T., & Dahl, D. W. (1997). Effects of Color as an Executional Cue in Advertising: They're in the Shade. *Management Science*, 43(10), 1387-1400. <https://doi.org/10.1287/mnsc.43.10.1387>
- 12-Gyu "Phillip" Park, J. (2014). Correlations between color attributes and children's color preferences. *Color Research & Application*, 39(5), 452-462. <https://doi.org/https://doi.org/10.1002/col.21801>
- 13-Jeong, D., & Ko, E. (2021). The influence of consumers' self-concept and perceived value on sustainable fashion. *Journal of Global Scholars of Marketing Science*, 31(4), 511-525. <https://doi.org/10.1080/21639159.2021.1885303>
- 14-Kaya, N., & Epps, H. H. (2004). Relationship between color and emotion: A study of college students. *College Student Journal*, 38(3), 396-405.
- 15-Kiehela, H. (2014). Dimensionality of the consumer perceived value of product colour.
- 16-Kim, N., & Bye, E. (2022). Social and environmental apparel practices and perceived value of "Made in the USA". *Research Journal of Textile and Apparel*.
- 17-KOPP, C. M. (2020). Perceived Value Explained: What It Is, Why It's Important. Investopedia. Retrieved 04/01/24, from <https://www.investopedia.com/terms/p/perceived-value.asp>
- 18-Kwallek, N., Lewis, C. M., Lin-Hsiao, J. W. D., & Woodson, H. (1996). Effects of nine monochromatic office interior colors on clerical tasks and worker mood. *Color Research & Application*, 21(6), 448-458. [https://doi.org/https://doi.org/10.1002/\(SICI\)1520-6378\(199612\)21:6<448::AID-COL7>3.0.CO;2-W](https://doi.org/https://doi.org/10.1002/(SICI)1520-6378(199612)21:6<448::AID-COL7>3.0.CO;2-W)
- 19-Milman, A., & Tasci, A. D. A. (2022). Modeling brand color emotions, perceived brand creativity, perceived value, and brand loyalty in the context of theme parks. *Consumer Behavior in Tourism and Hospitality*, ahead-of-print(ahead-of-print). <https://doi.org/10.1108/CBTH-01-2022-0006>
- 20-Ou, L. C., Luo, M. R., Woodcock, A., & Wright, A. (2004a). A study of colour emotion and colour preference. Part I: Colour emotions for single colours. *Color Research & Application*, 29(3), 232-240.
- 21-Ou, L. C., Luo, M. R., Woodcock, A., & Wright, A. (2004b). A study of colour emotion and

- colour preference. Part III: Colour preference modeling. *Color Research & Application*, 29(5), 381-389.
- 22-Ou, L. C., Luo, M. R., Woodcock, A., & Wright, A. (2004c). A study of colour emotion and colour preference. Part II: colour emotions for two-colour combinations. *Color Research & Application*, 29(4), 292-298.
- 23-Radeloff, D. J. (1991). Psychological Types, Color Attributes, and Color Preferences of Clothing, Textiles, and Design Students. *Clothing and Textiles Research Journal*, 9, 59 - 67.
- 24-Salem, S. F., & Alanadoly, A. B. (2022). What drives Malaysian online fashion shopping? The mediating role of perceived value. *Journal of Global Fashion Marketing*, 13(1), 75-89.
- 25-Singh, S. (2006). Impact of color on marketing. Management decision.
- 26-Suo, L., Lu, R., & Lin, G. D. (2020). Analysis of factors influencing consumers' purchase intention based on perceived value in e-commerce clothing pre-sale model. *Journal of Fiber Bioengineering and Informatics*, 13(1), 23-36.
- 27-Tangkijviwat, U., Rattanakasamsuk, K., & Shinoda, H. (2010). Color preference affected by mode of color appearance. *Color Research & Application*, 35(1), 50-61. <https://doi.org/https://doi.org/10.1002/col.20536>
- 28-Zauner, A., Koller, M., & Hatak, I. (2015). Customer perceived value—Conceptualization and avenues for future research. *Cogent psychology*, 2(1), 1061782.
- 29-Zhang, Y., Liu, P., Han, B., Xiang, Y., & Li, L. (2019). Hue, chroma, and lightness preference in Chinese adults: Age and gender differences. *Color Research & Application*, 44(6), 967-980. <https://doi.org/https://doi.org/10.1002/col.22426>