

## RESEARCH ARTICLE



# The Impact of Color, Content, and Feeling of Empathy on Website Visitors' Intentions to Support an NPO: The Moderated Mediation Role of Need for Social Status

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**Abstract:** Nonprofit organizations (NPOs) are undergoing a gradual transformation to adapt to the demands of the modern era. One of the key challenges they face is harnessing the power of social media and online donations effectively, a task made even more daunting for smaller- and medium-sized NPOs operating on limited budgets. In response to this challenge, an experimental study was conducted, focusing on the intersection of website and advertisement design with principles of consumer psychology. This study involved a scenario-based experiment that engaged 452 participants from the United States. The results of the experiment unveiled a significant and intriguing interplay between the use of color and content in shaping online donation intentions and the inclination to share website links. Crucially, this dynamic was found to be mediated by the perceived level of empathy experienced by visitors to NPO websites, which in turn was influenced by their individual desires for social status. The findings offer actionable insights for NPO managers and designers alike. By aligning their website design with customer preferences, NPOs can cost-effectively enhance their online presence. This, in turn, fosters increased engagement on social media platforms and encourages a surge in online donations, facilitating a smooth transition for NPOs into the digital age. In a world where online visibility and fundraising capabilities are vital for NPOs' sustainability, this research provides a valuable roadmap for their continued success and impact.

**Keywords:** nonprofit organizations (NPOs), color, content, message framing, donation intention, weblink-sharing intention, need for social status

## 1. Introduction

Nonprofit organizations (NPOs) play a crucial role in addressing societal issues and achieving social objectives, often filling gaps that public administrations may not efficiently cover [1]. Over the past decade, a significant shift has occurred toward online donation channels, with a 23.5% increase in overall online donations among NPOs in developed countries in 2021. An NPO's website has emerged as the primary means to convey information, values, image, and reputation to potential donors [2].

While many NPOs manage to present fundamental information through their websites, the primary challenge lies in limited financial and professional resources, particularly for small- and medium-sized organizations. This constraint makes it arduous for them to develop appealing, impactful, and social media-engaging websites [3]. Recent studies indicate that a significant 49% of NPOs lack the necessary digital skills and knowledge, resulting in websites that

struggle to thrive in the modern digital landscape [4]. Therefore, the primary objective of this study is to bolster donation intentions, weblink sharing, or potentially both, while exploring how the interplay of color, content, and social status cues is anticipated to facilitate these goals.

Some relatively low-cost and simple web-design suggestions have been proposed by information systems and marketing researchers. For instance, Dunn and Harness [5] indicate that differing content can influence the legitimacy of a brand's credibility. Iyendo et al. [6] propose that the emotional state of a human being changes according to environmental stimulation, such as the selected pictures of a website impacting feelings, behavior, and mood, while assisting in aggravating or alleviating stress and anxiety levels. Unfortunately, although these existing studies have identified the importance of the type of content people are viewing, as well as the impact of visual aids on consumer behaviors, there is limited research particularly on how the esthetic appeal of website design and content style can be effective (as the simplest but cost friendly approaches) and,

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moreover, there is limited empirical evidence that supports the effectiveness of these tactics for NPOs [7].

This study takes the literature forward by showing that color, content, and need for social status can interactively arouse feelings of empathy and thus influence the donation intentions and weblink sharing of any given individual. To trial this, a scenario-based experiment conducted, applying animal-welfare charities as the chosen context. The findings provide digital marketers and website-design professionals with suggestions on how to optimize a website to a standard that is not only aesthetically appealing but also psychologically targeting – one that enhances positive perceptions while stimulating the individual's desire for status through supporting the NPO. The results can also assist NPO practitioners with brand-building purposes, assisting with designing the NPO's website to specifically meet its unique needs and gain exposure among the public in a form that meets its strategic objectives.

## 2. Theoretical Framework

### 2.1. Donation intention and webpage-sharing intention

Existing NPO studies [7] propose that an effectively designed website should influence the attitudes toward an organization and aim to increase donation opportunities. Additionally, social media is considered as a powerful platform for enhancing NPOs' organic awareness and engagement, while also gaining recognition as an effective tool in community building [7]. Similarly, with many individuals often struggling to meet the monetary demands of giving, Lacetera et al. [8] indicated that people often seek an alternative by sharing website links in order to communicate and show their support, while establishing that people will often find an alternative to giving that generates the greatest visibility. Therefore, social media is a powerful motivator for sharing as it subsequently bolsters an individual's own self-image. Accordingly, an effectively designed NPO website should also encourage the intention to share website links on social media, which, in turn, will maximize the presence and awareness of NPOs [9].

### 2.2. Use of theme color in website design

Early studies show that color can influence behavior, in particular, performance of activities [10]. Meanwhile, Clarke and Costal [11] mused over the connotations of color and the emotional significance and effects of colors on individuals. In the modern day, this relationship between humans and color has shaped the way people perceive the world around us, with Labrecque and Milne [12] positing that within a professional environment, color helps to shape consumers determination of the type of personality that the brand embodies, while also having an influence on the likability and familiarity of the company.

One reason for the cruciality of color in website design is due to consumers making an almost immediate judgment based solely on the brand's (and the organization's) visual cues [13]. Color plays a dominating role in the recognizability and memorability of the brand, determining whether it will have an effect on the viewer.

The most widely adopted classification of color is the warm color tone, particularly yellow, and the cold color tone, particularly blue. Warmer tones produce more active responses

and are significant in fueling satisfaction, whereas colder tones relax individuals with a feeling of calm and can aid learning and reading information [14]. Valdez and Mehrabian [15] studied the pleasure-arousal-dominance (PAD) emotion model and proposed that cooler tones are predominantly perceived as pleasant, while warmer tones will often induce greater activity, as brightness and saturation can have an influence on dominance. Color plays a monumental part, not only in our cognitive functioning but also in how people feel and react when presented with different colors and environments. When considering the influence of color in singularity, both warm and cold tones were found to be the prominent colors in raising purchase intentions via different psychological perceptions (of color) and color associations [16]. Overall, it is evident that color is a key influencer in controlling behavior, attention, and mood, as significantly, in influencing a consumer's willingness to make a purchase.

### 2.3. Rational-focused and emotional-focused content

On the other hand, website content can be classified as emotional focused and rational focused [17]. Rational designs stimulate a logical thinking process among receivers, putting them in a position to measure the benefits (and sometimes clarify limitations) of the product/service in question. The emphasis here is placed on the facts or the reasons for purchasing, adopting, or using the product/service, with attention placed on certain features, such as value and functioning. On the contrary, the stimulating mechanism of emotional design induces a state of sensitive psychological arousal, whereby the consumer becomes encouraged and prepared to take action [18]. An emotional design seeks to influence consumers by evoking positive (e.g., happy and pride) or in some situations negative (e.g., pity and sympathy) emotional responses that are duly associated with the product or service. The aroused emotions and feelings then lead the individual to thoroughly process and evaluate the advertising message. In practice, emotional designs are directed to the psychological aspects of consumer needs, whereas rational designs contain detail pertaining to consumers' functional needs with respect to the information and factual components of the product or service being promoted [19].

The associative learning theory indicates that people are likely to associate the environment (external factors such as color and music) with certain emotions. This emotional response affects an individual's expectations of the information that they receive. Existing studies reveal that people generally perceive warm colors with feelings of passion and enthusiasm [14]. That is to say, when an environment has a warm theme color, individuals are more likely to associate the color with the emotional and story-telling perspectives of an object; accordingly, messages that contain emotional content fit better with the emotions aroused by virtue of the warm theme color. On the contrary, people perceive and associate cold colors with calm feelings; accordingly, people become more focused in an environment that has a cold theme color. Thus, when a website is designed with a cold color, it is expected that the emotions and behavioral intentions of the website visitors will be influenced if the provided messages contain factual and statistical information. In addition, Kumi et al. [20] found that color can play a vital role in learning and recalling information, with the cold color blue being the strongest color linked to enhancing one's learning potential and psychological

stimulation. Conversely, the color yellow (a warm color) is found to significantly stimulate emotionally driven feelings and responses, sparking feelings of happiness and cheerfulness. This suggests that, when people view colors within the context of online communication, rational thinking is more likely to be aroused and associated with cold colors, while emotional feelings are stimulated from viewing warm colors.

The two types of content encapsulate the different elements that can be used as links to convey the benefits and advantages of the activities that NPOs are responsible for. In addition, the communication theory also proposes that, in certain contexts, individual traits play a vital role in determining how an individual's behavior will be influenced or affected by a piece of text or by color. Individuals who differ in traits may evaluate and seek different elements in a website environment, becoming motivated by the elements that they look for. This suggests that, in order to improve the persuasiveness of website design, marketers need to consider the differences between individuals when determining the use of rational- and emotional-focused content, combined with a theme color webpage design.

#### 2.4. The moderation role of an individual's need for social status

Park et al. [21] proposed that people often make decisions based on the perception of how they will be rewarded. CST explains that people have different degrees of need for status which will determine their intentions to choose certain actions and decisions in order to receive the perceived rewards, regardless of whether the rewards are materialistic or have social value, such as prestige or reputation. This is a motivational trait called the "principal drivers of human behavior". Norman [22] indicates that people are naturally reflective of their own self-image, and that they will make decisions based on whether their own self-image will be enhanced as a return/reward. When applying this to the context of supporting NPOs online, self-image and the reflected social status are considered as the main rewards (i.e., "how will other people see me as a donator", or "I am donating to the NPO because I am a sympathetic person"), as making donations and sharing webpages on social media will not give people materialistic rewards.

Drawing on the elaboration likelihood model (ELM) of persuasion, Petty et al. [23] determined that individuals who are especially concerned about projecting a desirable self-image and social status are high in self-monitoring; therefore, after reading information, they pay greater attention to evaluating how the responses (the actions) will help achieve a desirable self-image than they do the validity of the information. Accordingly, reading text with a corresponding theme color – that is, the warm color with emotional-focused content and the cold color with the rational-focused content – is expected to stimulate emotional change and motivation among status-concerned individuals, if they believe their actions will positively impact their self-image and social status. Conversely, those who are less concerned about social status will seek expert and factual sources of information, rather than worry about their self-image; accordingly, they require little emotionally descriptive or excitable content to fuel their intentions and behaviors. This group of people prefer to experience a sense of trust and ease when online, craving authenticity to experience empathy, choosing to share with other people if they believe the content to truly be effective in its work; therefore, they take comfort in sites that offer cold colors, which generate a sense of calmness, pleasantness, and trust with factual

content [24]. That is to say, when the webpage is rational-content focused and designed with a cold color, it is likely to arouse their willingness to donate and share the website on social media; when the content is emotionally driven, this effect is less significant. Therefore, although it is evident that people have an innate response to stimuli (color and content), how people rationalize this response is determined and moderated by their need for social status. Thus, a three-way interaction between color, content, and need for social status is expected:

**H1:** For website visitors who have a relatively high need for social status, when a cold color theme is used with rational-focused content, (H1a) they are more willing to donate to the NPO and (H1b) share the website link on their social-media platforms, compared to using emotional-focused content, whereas when a warm color theme is used with emotional-focused content, (H1c) they are more willing to donate to the NPO and (H1d) share the website link on their social-media platforms, compared to using rational-focused content.

**H2:** For website visitors who have a relatively low need for social status, when a cold color theme is used with rational-focused content, (H2a) they are more likely to donate to the NPO and (H2b) share the website link on their social media platforms, compared to using emotional-focused content, whereas (H2c) when a warm color theme is used, they will not be particularly motivated to donate to the NPO and (H2d) share the website link on their social-media platforms, regardless of whether rational-focused content or emotional-focused content is used.

#### 2.5. The mediation effect of empathy

One important area of NPO literature and the ability of the content-design tactics to change attitudes and behaviors is concerned with how extensively a reader can feel empathy toward a narrative, as well as how content can influence the level of empathy in a reader. Empathy is recognized as "feeling with", which means that it is strongly associated with ethical thought and action [25]. The level of empathy felt by a reader is dependent on the content offered within the text and the way in which it is displayed; information providers have the ability to create, provoke, or prevent empathetic experiences through the way they contextualize their characters. The transportation theory indicates that, if a narrative is able to establish authenticity that enables a reader to feel a realistic attraction and immersion, it will elicit feelings in them and transport them into the narrative. Kemp et al. [26] indicated that, when reading online, people will respond positively when a company creates a web environment that engages the reader. Therefore, likewise to specific colors inspiring different behaviors among individuals, the type of content that is adopted should prompt the reader to feel either a heightened or reduced sense of empathy.

The ability for people to experience empathy when reading is closely associated with altruistic behavior, such as making donations [15]. Hammond and Kim [25] found evidence suggesting that reading literature related to altruism can significantly elicit pro-social behavior. More specifically, it can help individuals identify with their own feelings while honing in on those within the text, therefore encouraging the individual to adopt kinder altruistic attitudes and behaviors toward others. Klimecki et al. [27] indicated that altruistic behavior is enhanced when an individual experiences strong feeling of empathy. Therefore, empathy is expected to play a mediation role between

the stimuli (in this study, web color and content) and the altruistic behavioral intentions (donating money to an NPO and/or sharing weblink).

## 2.6. The moderated mediation effect of the need for social status

As highlighted earlier, individuals with a high need for social status will exhibit enhanced altruistic behavior, if they believe it will earn them preferential treatment within the community. After all, people change their behavior in order to project a desirable self-image [21]. Norman [22] suggested that people will endorse or refrain from supporting a cause solely from the altruistic image that is reflected outward, seeking a conspicuous method to advertise and signal their wealth and status [28]. Supporting this line of argument, Harbaugh [29] found that people have a “taste for prestige”, seeking public recognition in turn for their good behavior, and that NPOs can capitalize on this behavior by rewarding donors with the desired prestige. Furthermore, Castillo et al. [30] indicated that people who enjoy gaining public recognition will be more likely to share their charitable activities on social-media platforms, such as Facebook. This shows that some people do not only take part in voluntary works for the “warm-glow” and sense of satisfaction, as put forward by; rather, they are seeking additional status or recognition for their actions [21].

People with a high need for social status, as highlighted earlier, typically seek awards such as gaining public recognition for their actions. Sharing a weblink on one’s social-media platform is deemed to be an action that reflects one’s “taste for prestige” [31] and having a high degree of empathetic concern is generally seen as a positive attribute of an individual. Therefore, those with a strong need for social status are likely to carefully evaluate whether the received stimuli (the website) will arouse not only their own feelings of empathy but also whether this feeling of empathy can make other people (e.g., friends on their social media) see them as being empathetic toward those in distress. Thus, they are more/less likely to share the weblink of an NPO site on social media when they believe the content and display of the website are able/unable to trigger a higher feeling and empathy. In other words, the degree of need for social status is expected to moderate the mediation effect of feeling empathy between the stimuli and weblink-sharing intentions. More specifically, a stronger need for status results in stronger feelings of empathy.

However, monetary donation is not like sharing content on social media; rather, the award mainly comes from self-satisfaction and the feeling of empathy toward the NPO and its objective [21]. Without tangible and intangible gifts and benefits, NPOs rely on the natural altruism of individuals taking the initiative to voluntarily donate. Rose-Ackerman [32] explained that this is a psychological phenomenon with voluntary monetary donations occurring from “pure altruism”, where the act of donating activates feelings of satisfaction, while people have a “buying-in mentality” where they believe they can only feel good about the cause if they have contributed to it. Therefore, the degree of need for social status is not expected to moderate the mediation effect of empathy between stimuli and donation intentions. In other words, as long as the joint effect of webpage content and theme color has generated the feeling of empathy and increased the individual’s intention to donate, this mediation effect

is not expected to be moderated by the degree of need for social status.

**H3:** The interaction effect of webpage content and theme color on an NPO-website visitor’s willingness to share the weblink (H3a) is mediated by the degree of their perceived feelings of empathy and (H3b) this mediation effect is moderated by an individual’s need for social status: the higher the need for social status, the stronger the mediation effect of empathy stimulated by the combined effect of color and content with respect to weblink sharing.

**H4:** The interaction effect of webpage content and theme color on an NPO-website visitor’s donation intention is (H4a) mediated by the degree of their perceived feelings of empathy, (H4b) but this mediation effect is not moderated by an individual’s need for social status.

## 3. Methods

### 3.1. Experiment design

An online scenario-based experiment was conducted to address the proposed hypotheses. US adult respondents ( $n = 452$ ) were recruited from Amazon Mechanical Turk in a 2 (webpage color: cold versus warm)  $\times$  2 (webpage content: emotional versus rational) between-subject experiment with need for social status being measured across the four scenarios.

A pretest ( $n = 30$ ) was conducted to select the specific colors to represent cold and warm colors, respectively. The choice of colors was based on an analysis of existing nonprofit organization websites in the United States. The pretest included two colors (yellow and blue) with five shades ranging from light to dark. The result of the pretest indicated shade 3 of blue is the most appropriate cold color ( $M = 2.23$ ,  $SD = 1.23$ ), whereas shade 1 of yellow as the most preferable warm color ( $M = 8.02$ ,  $SD = 1.41$ ). In a similar fashion, the pretest was also used to select the specific content to represent the rational and emotional led website content style. Once more, we utilized webpages from nonprofit organizations based in the United States as references. Taking inspiration from real-life animal charities including ASPCA, The Conservation Fund and The Nature Conservancy (TNS), a range of rational led and emotional led website content and case studies were chosen. Respondents were subsequently asked to rank on a 7-point Likert scale (1: fact and statistics oriented; 7: emotion and story oriented) whether they believed the statements to be fact and statistics oriented, neutral, or emotion and story oriented, and why. The results depicted that individuals identified the rational content as more fact and statistics oriented ( $M = 1.79$ ,  $SD = 1.21$ ), while the emotional led content was recognized as being emotion and story led oriented ( $M = 5.92$ ,  $SD = 1.08$ ).

### 3.2. Measures

Need for social status was adapted from Flynn et al. [33] with eight items ( $\alpha = 0.87$ ) on 7-point Likert scales. Feeling of empathy was adapted from Batson [34] and Batson et al. [35] with six items ( $\alpha = 0.88$ ) on 7-point Likert scales. Donation intention was adapted from Ye et al. [36] with four items ( $\alpha = 0.85$ ) on 7-point Likert scales. Weblink-sharing intention was adapted from Zhang et al. [17] with three items ( $\alpha = 0.89$ ) on 10-point Likert scales (see Table 1).

**Table 1**  
**Measurements**

Variables	Source	Items
Feelings of Empathy	Batson [34] and Batson et al. [35]	– After you have seen and explored the webpage, to what extent do the following words describe your feelings? 1. Sympathetic. 2. Compassionate. 3. Soft-hearted. 4. Warm. 5. Tender. 6. Moved.
Need for Social Status	Batson [34] and Batson et al. [35]	1. I want my peers to respect me and hold me in high esteem. 2. I am not concerned with my status among my peers (reversed scored). 3. Being a highly valued member of my social group is important to me. 4. I would like to cultivate the admiration of my peers. 5. I enjoy having influence over people’s decision-making. 6. It would please me to have a position of prestige and high social-standing. 7. I do not care whether others view me with respect or hold me in high esteem (reverse scored). 8. I care about whether others view me positively.
Donation Intention	Ye et al. [36]	1. I am willing to make a donation to this NPO organization. 2. I intend on making a donation to this NPO organization. 3. It is very likely that I will make a donation to this NPO organization. 4. I will make a donation to this NPO organization soon.
Weblink-Sharing Intention	Zhang et al. [17]	– To what extent do you think that you will share this website with others on social media? 1. I am certain that I will not share it/I am certain that I will share it. 2. It is unlikely that I will share it/it is likely that I will share it. 3. I will probably not share it/I will probably share it.

**3.3. Procedure**

Participants initially provided their demographic information and were subsequently randomly assigned to one of four experimental scenario links. They were then asked to rate their feelings of empathy, their willingness to share the weblink, and their intentions to donate. The experimental link, generated using Qualtrics, automatically assigned participants to one of these scenarios by randomizing demographic variables including gender, age, income, and education. The questionnaire was completed with inquiries about participants’ Need for Social Status, followed by a debriefing session. After the experiment concluded, participants were informed about its true purpose. It is noteworthy that the study only allowed participants who had previously achieved a 100% satisfactory completion rate in prior Amazon Mechanical Turk studies to participate, thereby addressing concerns related to potential deception.

**3.4. Demographics of participants**

According to Valdez and Mehrabian [15], the optimal sample size for an experimental study falls within the range of 40 to 70 participants for each scenario group, with a maximum of 70 to prevent excessive inflation of statistical significance. The current study employed a design involving three factors: color, content, and need for social status, resulting in an approximate total of 8 × 57 participants being recruited (the final N = 452). Participants were mandated to lack prior experience in donating to a NPO to mitigate potential biases stemming from branding or personal preferences. Additionally, they were required to possess a minimum of three years of experience using the Internet, with a

**Table 2**  
**Participant demographics (n = 452)**

Gender		Income (USD)			
Male	46%	208	Under \$1000	15%	68
Female	54%	244	\$1001–\$3000	40%	181
<b>Age</b>			\$3001–\$5000	31%	140
19–25	24%	108	\$5001 and above	14%	63
26–32	30%	136	<b>Education</b>		
33–39	25%	113	High school	34%	154
40–46	10%	45	College/University	52%	235
Over 46	11%	50	Postgraduate	14%	63

specific emphasis on social media platforms, to ensure their familiarity with the “sharing the link” option.

In total, 208 participants were male (46%), while 244 were female (54%). Measures were taken to ensure participants had varied educational backgrounds ranging from High School educated to College or University and Postgraduate, while ensuring a broad reach of monthly salary, and incorporating a variety of age groups of 19 and over (see Table 2). There were no significant differences among the randomly assigned groups in terms of demographic variables, indicating successful sample random assignment.

**4. Data Analysis and Findings**

The eight items of need for social status were combined to make a single composite score and the median (Mdn = 4.43) was used to

split high and low levels of need for social status. For the donation intention, a two (color: blue (cold) color/yellow (warm) color) by two (webpage content design: rational-focused content/emotional-focused content) by two (need for social status: high need for social status/low need for social status) ANCOVA showed a significant three-way interaction ( $F(1, 444) = 6.674, p < 0.01$ ). It is important to highlight that participants' gender, age, income, and education, which were considered as covariates, were not found to have a significant direct impact on the dependent variables ( $p > 0.05$ ). A significant three-way interaction means that there is a two-way interaction that varies across levels of a third variable. To test H1a, H1c, H2a, and H2c, the dataset was split by the variable "need for social status" to test its simple main effects. A pair of two-way ANOVA then tested the two-way interaction between the use of color and content design at the high and low need for social status conditions.

The first ANOVA tested the two-way interaction effect between color and content on the intention to donate online when an individual has a high need for social status. Supporting H1a, the results showed that the two-way interaction effect was significant ( $F(1, 224) = 42.25, p < 0.01$ ). Bonferroni's post hoc test showed that when a website that uses a cold theme color, a rational-focused content design can more effectively encourage website visitors to donate online, compared to having an emotional-focused content design ( $M_{\text{blue(cold), rational}} = 4.76, SD = 0.72$  vs.  $M_{\text{blue(cold), emotional}} = 4.04, SD = 0.71, p < 0.01$ ). When the website uses a warm theme color, emotional-focused content encouraged a higher donation intention, compared with a rational-focused content design ( $M_{\text{yellow(warm), rational}} = 4.23, SD = 0.61$  vs.  $M_{\text{yellow(warm), emotional}} = 5.58, SD = 0.80, p < 0.01$ ). Thus, H1c was supported.

The second two-way ANOVA tested the interaction when an individual has a low need for social status ( $F(1, 226) = 24.26, p < 0.01$ ). Bonferroni's post hoc test revealed that when a website that is cold theme color designed, a rational-focused content design can encourage more online donations compared with using an emotional-focused content ( $M_{\text{blue(cold), rational}} = 5.31, SD = 0.71$  vs.  $M_{\text{blue(cold), emotional}} = 4.21, SD = 0.64, p < 0.01$ ). Hence, H2a was supported. When the website uses a warm theme color, however, emotional-focused content and rational content have similar effect on website visitor's donation intention ( $M_{\text{yellow(warm), rational}} = 4.12, SD = 0.73$  vs.  $M_{\text{yellow(warm), emotional}} = 4.28, SD = 0.82, p = 0.52$  n.s.). Therefore, H2c was also supported.

For website visitors' willingness to share the website link, a two (blue color/yellow color) by two (rational-focused content/emotional-focused content) by two (high need for social status/low need for social status) ANCOVA revealed a significant three-way interaction ( $F(1, 444) = 22.32, p < 0.01$ ). Again, participants' gender, age, income, and education, which were considered as covariates, were not found to have a significant direct impact on the dependent variables ( $p > 0.05$ ). To test H1b, H1d, H2b, and H2d, the dataset was again split by the variable "need for social status". Two ANOVA tests were further conducted for examining the simple main effects. Supporting H1b and H1d, the first two-way ANOVA tested the interaction effect between color and content on the intention to share the website link when an individual has a high need for social status ( $F(1, 224) = 63.45, p < 0.01$ ). Bonferroni's post hoc test supported that when a website that uses a cold color, a rational-focused content design can more effectively encourage website visitors to share the website link compared with having an emotional-focused content design ( $M_{\text{blue(cold), rational}} = 7.62, SD = 1.21$  vs.  $M_{\text{blue(cold), emotional}} = 6.12, SD = .95, p < 0.01$ ). When the website adopts a warm theme

color, using an emotional-focused content significantly motivated a higher willingness to share the website link, compared with having a rational-focused content design ( $M_{\text{yellow(warm), rational}} = 6.63, SD = 1.19$  vs.  $M_{\text{yellow(warm), emotional}} = 8.11, SD = 1.03, p < 0.01$ ).

The second two-way ANOVA tested the two-way interaction effect between color and content on the intention to share the website link when an individual has a low need for social status ( $F(1, 226) = 29.52, p < 0.01$ ). Bonferroni's post hoc test showed a similar pattern – a cold color design with a rational-focused content can more effectively encourage website visitors to share the website compared with cold color combined with emotional-focused content ( $M_{\text{blue(cold), rational}} = 4.62, SD = 1.03$  vs.  $M_{\text{blue(cold), emotional}} = 3.61, SD = 0.89, p < 0.01$ ). No significant difference was found between the two different content designs ( $M_{\text{yellow(warm), rational}} = 3.78, SD = 0.91$  vs.  $M_{\text{yellow(warm), emotional}} = 3.84, SD = 1.12, p = 0.66$  n.s.). H2b and H2d were both supported.

After confirming that the webpage color and content designs are conditional to the webpage visitor's need for social status, webpage visitor's feeling of empathy is being considered as a mediator to see whether it explains the three-way interaction effect on weblink-sharing and donation intentions. Model 12 of PROCESS (SPSS 29) was used for subsequent analyses. The three-way interaction effect on webpage visitor's feeling of empathy is significant ( $\beta = 0.34, SE = 0.11, p < 0.01$ ). The direct effect of webpage visitor's feeling of empathy significantly predicts donation intention ( $\beta = -0.21, SE = 0.12, p < 0.01$ ) and weblink-sharing intention ( $\beta = 0.63, SE = 0.13, p < 0.01$ ) and which confirm path b of the mediation analysis. Therefore, H3a and H4a were supported.

Supporting H3b and H4b, the moderated mediation only happens on weblink-sharing intention ( $\beta = 0.42, SE = 0.10, 95\% CI = [0.00, 0.51]$ ) but not donation intention ( $\beta = -0.09, SE = 0.07, 95\% CI = [-0.20, 0.00]$ ), as statistics showed the indirect effect is not different from zero [37]. A simple slope analysis for the three-way interactive effect on webpage visitor's feeling of empathy shows that when webpage is blue (cold) color themed and webpage need for social status is low, the webpage visitor's feeling of empathy is significantly higher for rational-focused than emotional-focused webpage content ( $\beta = 0.37, SE = 0.09, p < 0.01$ ); the moderated mediation analysis indicates that such effect is partially mediated by webpage visitor's feeling of empathy on weblink-sharing intention ( $\beta = 0.21, SE = 0.12, 95\% CI = [0.00, 0.31]$ ) as the three-way interaction on weblink-sharing intention remain significant ( $\beta = 0.76, SE = 0.10, p < 0.01$ ). Furthermore, when the webpage is yellow (warm) color themed and webpage visitor's need for social status is high, the webpage visitor's feeling of empathy is significantly higher for rational-focused than the emotional-focused webpage content ( $\beta = 0.24, SE = 0.09, p < 0.01$ ). Such effect is also partially mediated by webpage visitor's feeling of empathy ( $\beta = 0.16, SE = 0.07, 95\% CI = [0.06, 0.31]$ ) because the three-way interaction on weblink-sharing intention remain significant ( $\beta = -0.33, SE = 0.07, p < 0.01$ ).

## 5. Conclusion and Suggestions

Contributing to digital marketing literature, and consistent with Sekhon and Armstrong Soule [28], this study shows that the combinations of color and content influence a myriad of human behavior in subconscious and conscious manners. This has branched from behavior and attitude, either through eliciting a calming or excited effect through color or evoking the desire to

immerse oneself and adopt implied beliefs within the text, while feeling empathetic and altruistic concerns [21]. In establishing this relationship between the variables, this research suggests that individuals seeking status can be incentivized to share their donation online outside of prompts, rather website design alone has the ability to raise levels of empathy among high and low status-seeking individuals, leading to a rise in sharing intent without having to invest in monetary rewards or additional website features, rather simply shifting the color and updating the content style. This indirectly support Valdez and Mehrabian's [15] study.

Furthermore, this study builds on existing research by connecting the associative learning theory with website design to better understand the factors influencing empathy and donation choices. While some studies [14] acknowledge the potential of websites and social media for dialogue, there is a lack of research exploring how communication impacts individuals' psychological motivation to donate or share content. This gap is particularly noticeable in the context of website design and consumer psychology. While Castillo et al. [30] and Klimecki et al. [27] suggest using websites to encourage social media sharing of donations, and Wallace et al. [38] delve into conspicuous donation behavior (CDB), finding that self-oriented individuals are more likely to donate, there is a dearth of information on leveraging content style and color schemes to stimulate donations, increase donation amounts, or encourage social media sharing.

Practically, the present study provides insight into digital marketing strategy and web-design tactics for managers and designers by offering NPOs a cost-effective (compared with the implementations of complex information systems) method to update their website design in a fashion that is geared toward customer preferences, all the while helping the organizations grow into the digital age by fueling greater social media presence and online donations. The findings signified the potential of website design in controlling visitor's willingness to contribute to the company's goals, with people fluctuating heavily in empathy and donation intent depending on the type of color and content incorporated within the site. This therefore offers managers and designers an opportunity to create a website that fuels positive intentions and perceptions toward the charity in the long term, ensuring that new visitors and returning visitors experience an enhanced level of empathy, and in turn willingness to support the organization. In particular, NPOs are suggested to efficiently update their website toward incorporating color and content. For sites that already adopt cold colors like blue, more informative information on their success, achievements, plans, and actions should be provided and highlighted; for those having built their sites using warm colors like yellow as the primary theme, should complement with and emphasize more stories such as case studies and personalized insight into individual stories and experiences.

The results also identify how significantly perceptions can change according to individual traits, showing that managers and designers need to pay careful attention to whom they are looking to attract and for what purpose. One recommendation is for those NPO websites that are already designed with warm colors to build a home page (the index page) incorporating a cold tone color (which relatively fits the original main warm color, such as using light blue if the main pages are designed in light yellow) and rational-focused content designs. In doing so, before entering the site, the user could answer a few simple questions determining their likely need for status. For the visitors who are identified as

low need for social status, it is suggested to direct these visitors to a cold color version homepage with more highlighted expert and factual information, therefore customizing the journey while maximizing results.

## 6. Limitations and Suggestions

While the scenario-based experimental method is recognized as a valuable approach to mitigate biases and establish relationships between variables, it is important to acknowledge that the controlled setting might yield outcomes that do not entirely mirror real-world situations. Subsequent studies are encouraged to not only replicate and further examine these relationships in diverse charitable contexts but also explore alternative research methods. Furthermore, the utilization of a fictional brand on the webpage eliminates potential bias toward well-known charities, yet visitor behavior might vary when interacting with actual NPO websites of varying awareness levels. This aligns with the study's aim to devise design solutions for organizations of all sizes. This study exclusively investigates color and content to unveil design insights, deliberately controlling secondary variables like usability and accessibility across experimental websites. Future research could introduce fully functional website variations to gauge the impact of secondary factors on user behavior. In a similar vein, while this experiment employed widely recognized color tones coupled with written content to yield comprehensive insights, forthcoming studies could explore a broader spectrum of colors for testing purposes.

The design of this study solely examined the use of color and content on webpages and did not compare across various channels. It is important to acknowledge that different platforms may exhibit significant variations, including factors such as smaller display screen sizes on mobile apps and the presence of distinct functionalities and content formats, such as more concise content on social media. Hence, it is advisable for future studies to explore potential differences in color and content design across different platforms.

Finally, we would like to express our appreciation to one of the reviewers for recommending the evaluation of participants' memory and recall of the websites' design elements after their initial interaction. Although this aspect was not the primary focus of our study, future research could benefit from exploring how design elements may influence participants' subsequent recollection of the NPO, their inclination to engage in future interactions, and how these examined design elements could potentially impact sustained engagement and donation behavior over an extended period.

## Conflicts of Interest

The authors declare that they have no conflicts of interest to this work.

## Data Availability Statement

Data available on request from the corresponding author upon reasonable request.

## References

- [1] UK Parliament. (2024). *The work of the National Parliament Office*. Retrieved from: <https://www.parliament.uk/mps-lords-and-offices/offices/bicameral/npo/npo-role/>

- [2] Lee, Y. K., & Chang, C. T. (2007). Who gives what to charity? Characteristics affecting donation behavior. *Social Behavior and Personality: An International Journal*, 35(9), 1173–1180. <https://doi.org/10.2224/sbp.2007.35.9.1173>
- [3] Albanna, H., Alalwan, A. A., & Al-Emran, M. (2022). An integrated model for using social media applications in non-profit organizations. *International Journal of Information Management*, 63, 102452. <https://doi.org/10.1016/j.ijinfomgt.2021.102452>
- [4] Charity Digital. (2022). *How to reach more supporters online*. Retrieved from: <https://charitydigital.org.uk/topics/topics/how-to-grow-your-online-presence-10069>
- [5] Dunn, K., & Harness, D. (2019). Whose voice is heard? The influence of user-generated versus company-generated content on consumer scepticism towards CSR. *Journal of Marketing Management*, 35(9–10), 886–915. <https://doi.org/10.1080/0267257x.2019.1605401>
- [6] Iyendo, T. O., Uwajeh, P. C., & Ikenna, E. S. (2016). The therapeutic impacts of environmental design interventions on wellness in clinical settings: A narrative review. *Complementary Therapies in Clinical Practice*, 24, 174–188. <https://doi.org/10.1016/j.ctcp.2016.06.008>
- [7] Garrett, R., Chiu, J., Zhang, L., & Young, S. D. (2016). A literature review: Website design and user engagement. *Online Journal of Communication and Media Technologies*, 6(3), 1–14. <https://doi.org/10.29333/ojcm/2556>
- [8] Lacetera, N., Macis, M., & Mele, A. (2016). Viral altruism? Charitable giving and social contagion in online networks. *Sociological Science*, 3(11), 202–238. <https://doi.org/10.15195/v3.a11>
- [9] Harris, E. E., Neely, D. G., & Saxton, G. D. (2023). Social media, signaling, and donations: Testing the financial returns on nonprofits' social media investment. *Review of Accounting Studies*, 28(2), 658–688. <https://doi.org/10.1007/s11142-021-09651-3>
- [10] Nakshian, J. S. (1964). The effects of red and green surroundings on behavior. *The Journal of General Psychology*, 70(1), 143–161. <https://doi.org/10.1080/00221309.1964.9920584>
- [11] Clarke, T., & Costall, A. (2008). The emotional connotations of color: A qualitative investigation. *Color Research and Application*, 33(5), 406–410. <https://doi.org/10.1002/col.20435>
- [12] Labrecque, L. I., & Milne, G. R. (2012). Exciting red and competent blue: The importance of color in marketing. *Journal of the Academy of Marketing Science*, 40(5), 711–727. <https://doi.org/10.1007/s11747-010-0245-y>
- [13] Yang, Y., & Song, X. (2022). Research on face intelligent perception technology integrating deep learning under different illumination intensities. *Journal of Computational and Cognitive Engineering*, 1(1), 32–36. <https://doi.org/10.47852/bonviewJCCE19919>
- [14] Broeder, P., & Scherp, E. (2018). Color preference of online consumers: A cross-cultural perspective. *Marketing-From Information to Decision Journal*, 1(1), 53–62. <https://doi.org/10.2478/midj-2018-0001>
- [15] Valdez, P., & Mehrabian, A. (1994). Effects of color on emotions. *Journal of Experimental Psychology: General*, 123(4), 394–409. <https://doi.org/10.1037/0096-3445.123.4.394>
- [16] Barnes, S. J. (2022). In living color? Understanding the importance of color complexity in listing images for accommodation sharing. *Tourism Management*, 90, 104487. <https://doi.org/10.1016/j.tourman.2021.104487>
- [17] Zhang, H., Sun, J., Liu, F., & Knight, J. G. (2014). Be rational or be emotional: Advertising appeals, service types and consumer responses. *European Journal of Marketing*, 48(11/12), 2105–2126. <https://doi.org/10.1108/ejm-10-2012-0613>
- [18] Gupta, A. S., & Mukherjee, J. (2022). Long-term changes in consumers' shopping behavior post-pandemic: An exploratory study. *International Journal of Retail & Distribution Management*, 50(12), 1518–1534. <https://doi.org/10.1108/ijrdm-04-2022-0111>
- [19] Gilal, F. G., Gilal, N. G., Shahid, S., Gilal, R. G., & Shah, S. M. M. (2022). The role of product design in shaping masstige brand passion: A masstige theory perspective. *Journal of Business Research*, 152, 487–504. <https://doi.org/10.1016/j.jbusres.2022.08.008>
- [20] Kumi, R., Conway, C. M., Limayem, M., & Goyal, S. K. (2013). Research article learning in color: How color and affect influence learning outcomes. *IEEE Transactions on Professional Communication*, 56(1), 2–15. <https://doi.org/10.1109/tpc.2012.2208390>
- [21] Park, E., Lee, S. J., & Peters, D. J. (2017). Iowa wetlands outdoor recreation visitors' decision-making process: An extended model of goal-directed behavior. *Journal of Outdoor Recreation and Tourism*, 17, 64–76. <https://doi.org/10.1016/j.jort.2017.01.001>
- [22] Norman, D. A. (2004). *Emotional design: Why we love (or hate) everyday things*. USA: Basic Books.
- [23] Petty, R. E., Haugtvedt, C. P., & Smith, S. M. (1995). Elaboration as a determinant of attitude strength: Creating attitudes that are persistent, resistant, and predictive of behavior. In R. E. Petty & J. A. Krosnick (Eds.), *Attitude strength: Antecedents and consequences* (pp. 93–130). Psychology Press.
- [24] Gunawan, C. N., Chen, Y., & Hsu, L. (2023). How online travel agencies' logo design promotes purchase intention: A behavioral and neuroscientific interpretation of consumers' construal level. *Asia Pacific Journal of Tourism Research*, 28(1), 19–35. <https://doi.org/10.1080/10941665.2023.2187701>
- [25] Hammond, M. M., & Kim, S. J. (2014). *Rethinking empathy through literature*. USA: Routledge.
- [26] Kemp, E., Porter, M., Anaza, N. A., & Min, D. (2021). The impact of storytelling in creating firm and customer connections in online environments. *Journal of Research in Interactive Marketing*, 15(1), 104–124. <https://doi.org/10.1108/jrim-06-2020-0136>
- [27] Klimecki, O. M., Mayer, S. V., Jusyte, A., Scheeff, J., & Schönberg, M. (2016). Empathy promotes altruistic behavior in economic interactions. *Scientific Reports*, 6(1), 31961. <https://doi.org/10.1038/srep31961>
- [28] Sekhon, T. S., & Armstrong Soule, C. A. (2020). Conspicuous anticonsumption: When green demarketing brands restore symbolic benefits to anticonsumers. *Psychology & Marketing*, 37(2), 278–290. <https://doi.org/10.1002/mar.21299>
- [29] Harbaugh, W. T. (1998). What do donations buy? A model of philanthropy based on prestige and warm glow. *Journal of Public Economics*, 67(2), 269–284. [https://doi.org/10.1016/s0047-2727\(97\)00062-5](https://doi.org/10.1016/s0047-2727(97)00062-5)
- [30] Castillo, M., Petrie, R., & Wardell, C. (2014). Fundraising through online social networks: A field experiment on peer-to-peer solicitation. *Journal of Public Economics*, 114, 29–35. <https://doi.org/10.1016/j.jpubeco.2014.01.002>
- [31] Ki, C., & Kim, Y. (2019). The mechanism by which social media influencers persuade consumers: The role of consumers' desire to mimic. *Psychology & Marketing*, 36(10), 905–922. <https://doi.org/10.1002/mar.21244>
- [32] Rose-Ackerman, S. (1997). Altruism, ideological entrepreneurs and the non-profit firm. *VOLUNTAS: International Journal of*

- Voluntary and Nonprofit Organizations*, 8(2), 120–134. <https://doi.org/10.1007/bf02354190>
- [33] Flynn, F. W., Reagans, R., Amanatullah, E. T., & Ames, D. P. (2006). Helping one's way to the top: Self-monitors achieve status by helping others and knowing who helps whom. *Journal of Personality and Social Psychology*, 91(6), 1123–1137. <https://doi.org/10.1037/0022-3514.91.6.1123>
- [34] Batson, C. D. (2014). *The altruism question: Toward a social-psychological answer*. UK: Psychology Press. <https://doi.org/10.4324/9781315808048>
- [35] Batson, C. D., Polycarpou, M. P., Harmon-Jones, E., Imhoff, H. J., Mitchener, E. C., Bednar, L. L., . . . , & Highberger, L. (1997). Empathy and attitudes: Can feeling for a member of a stigmatized group improve feelings toward the group? *Journal of Personality and Social Psychology*, 72(1), 105–118. <https://doi.org/10.1037/0022-3514.72.1.105>
- [36] Ye, N., Teng, L., Yu, Y., & Wang, Y. (2015). "What's in it for me?": The effect of donation outcomes on donation behavior. *Journal of Business Research*, 68(3), 480–486. <https://doi.org/10.1016/j.jbusres.2014.09.015>
- [37] Kim, K., & Park, J. (2019). Cultural influences on brand extension judgments: Opposing effects of thinking style and regulatory focus. *International Journal of Research in Marketing*, 36(1), 137–150. <https://doi.org/10.1016/j.ijresmar.2018.09.006>
- [38] Wallace, E., Buil, I., & de Chernatony, L. (2017). When does "liking" a charity lead to donation behaviour? Exploring conspicuous donation behaviour on social media platforms. *European Journal of Marketing*, 51(11/12), 2002–2029. <https://doi.org/10.1108/ejm-03-2017-0210>

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