The Influence of Charitable Food Organization Branding on College Students' Behavioral Intent

Thesis

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Abstract

Food security, also known as having proper access to food to live a healthy life, affects more than 10% of individuals in the United States (United States Department of Agriculture [USDA], 2021b). Other than government aid, to combat food insecurity, various food banks and charitable food organizations such as Feeding America, Why Hunger, and Share Our Strength, provide food and other resources (USDA, n.d.-b). Marketing and communications, as well as brand identity, plays a role in how these organizations operate and raise awareness (Carboni & Maxwell, 2015; Chapleo, 2015; Phethean et al., 2013). However, these organizations' communications are typically not as successful as for-profit corporations, and there is a gap in literature about the effectiveness of these charitable food organizations' marketing efforts (Quinton & Fennemore, 2013). There is a need to better understand these organizations' communications to inspire work with their organizations, which could also lead to a broader response to food insecurity in the U.S.

The current study aims to better understand how to improve charitable food branding and communications, as well as how it can influence support for their work. For this study, Gen Z was chosen as the population since these individuals are known as being "digital natives," leaning more progressive, and preferring online learning (Fontein, 2019; Parker & Igielnik, 2020, para. 4). The purpose of this study is to determine the effect of charitable food organization

branding on college students' support of charitable food organizations—specifically through volunteering, donating behavior, and advocacy efforts.

This study used the Theory of Planned Behavior (TPB), color theory, and semiotics to craft treatments similar to social media images from charitable food organizations (CFOs). There were four treatment groups, all with the same verbiage, but all using either color or no color or with an icon versus an image. Findings suggested Treatment 3, the colorful treatment with a picture of two children, played a role in the relationship between attitudes, social norms, and perceived behavioral control and intent to support CFOs. It was also selected by participants to both catch their attention the most and to make them want to support CFOs. While some of the other treatment models were significant, none included all significant TPB predictors as with treatment 3. These results suggest charitable food organizations should use colorful imagery in their social media posts. Descriptive results also show Gen Z, when comparing past experience and future intent, have interest in advocating for these organizations. Communications should also focus on how Gen Z can better advocate for this reason as well. Future research should future explore this gap in literature, as well as perhaps study additional messaging.

Dedication

To my family, friends, professors, and others who have supported me throughout my graduate degree.

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Chapter 1. Introduction

1.1 Food insecurity

Food insecurity is a growing worldwide problem. This term is defined by the U.S Department of Agriculture (USDA) (2021b) as "a household-level economic and social condition of limited or uncertain access to adequate food" (para. 6). Furthermore, food security is broken down by the USDA (2021b) into four levels: high food security, marginal food security, low food security, and very low food security. Those in the highest category report no anxiety or issues with accessing food, while those in the lowest category report one or more of their household members to having to reduce food intake due to money or other resource problems (USDA, 2021b). However, food insecurity can be hard to identify in some individuals, as the term does not always mean starving, but it can also relate to families or individuals struggling to maintain their budget to cover meals (Feeding America, n.d.-e). Feeding America (n.d.-e) notes "not all people living below the poverty line experience food insecurity, and people living above the poverty line can experience food insecurity" (para. 3).

Food security is not only a challenge in the U.S. but is also a problem around the world (Food and Agricultural Organization [FAO], 2019). The FAO of the United Nations found 9.2% of the world population experienced a severe level of food insecurity in 2018 (FAO, 2019). Furthermore, from 2019 to 2020, undernourished individuals

worldwide increased by 161 million, which was due to the pandemic, conflict, climate large, and other conflicts. (Action Against Hunger, 2022). Lack of food access is evident in the U.S. as well, with 10.5% of U.S. households being food insecure at some time in 2019 (USDA, 2021a). These numbers suggest food insecurity is a serious problem both globally and nationally—and it is increasing. Before addressing actions to solve this problem, its root causes and severity must be understood.

Food insecurity is a multifaceted problem that not only relates to hunger but also to health. This especially has been seen in children's health research, as there have been links discovered between food insecurity and negative health outcomes (Gundersen, & Ziliak, 2015). Gundersen and Ziliak (2015) note that food insecurity in children is linked with birth defects, anemia, lower nutrient intakes, cognitive problems, aggression, and anxiety. Furthermore, children who are food insecure are also more likely to have poorer health, asthma, behavioral problems, depression, and inferior oral health (Gundersen, & Ziliak, 2015). Less research has been conducted on nonsenior adults, but food insecurity has been linked with decreased nutrient intakes, mental health issues, hypertension, hyperlipidemia, poor health exams, and poor sleep (Gundersen, & Ziliak, 2015). Less research has been completed with seniors compared to children, but the findings were similar to nonsenior adults (Gundersen, & Ziliak, 2015). Additionally, food insecure seniors were found to have more problems with performing daily activities and to be in worse health than their food secure peers (Gundersen, & Ziliak, 2015). According to Feeding America (n.d.-f), food insecurity and chronic disease are closely related—as food insecure households often have less money for nutritious food and healthcare, as

well as face higher levels of stress. Food insecurity is an issue that can severely affect health at all age levels, which only further shows the need to address it in a sustainable manner.

Food insecurity is a nationwide problem that affects some populations more than others. Rural populations are known to be severely affected by this problem. Rural areas are less likely to have large, centralized grocery stores that have become increasingly popular across the U.S. (Whitley, 2013). Additionally, the social aspect of rural areas affects this type of areas' hunger. In fact, Whitley (2013) and Sherman (2009) noted that due to the culture of rural areas, households are less likely to get help at times. Most rural residents are acquainted with their neighbors, since their towns are smaller in size, which can lead to some individuals closely observing others in a way that would not happen in urban areas (Sherman, 2009). Therefore, this feeling of being watched may cause individuals to not want to participate in these programs. Whitley (2013) also notes that social integration and social capital can help to fight food insecurity in rural areas, although this idea does not apply to urban settings. The food banks belonging to these areas also frequently gave out less food compared to urban areas, which could also contribute to further food insecurity (Whitley, 2013).

Another population adversely affected is non-Latinx Black people and Latinx individuals (Myers & Painter, 2017). Myers and Painter (2017) found that, when socioeconomic status is constant, there is evidence for “a nonwhite/white divide in food insecurity for both immigrants and the native-born” (p. 1419). In 2019, it was found that 19% of Black households experienced food insecurity, which was double the amount as

white households (Potochnick et al., 2019). And, in 2013, Hispanic and Latinx families also experienced almost twice the amount of food insecurity as white households (Potochnick et al., 2019). When considering the root causes of food insecurity, population and demographic differences must be examined.

1.2 Food Insecurity Government Programming

As part of the USDA, the Food and Nutrition Service (FNS) administers 15 federal nutrition assistance programs to combat food insecurity. A well-known program is the Supplemental Nutrition Assistance Program (SNAP), which provides benefits to supplement low-income individuals' and families' food budgets (USDA, n.d.-a). Furthermore, the School Breakfast Program (SBP) is another widely known food insecurity program in the U.S. (USDA, 2017). This program gives eligible children free or reduced-price breakfasts, and the USDA gives the schools cash subsidies in exchange (USDA, 2017). These children must be eligible through SNAP or "on their status as a homeless, migrant, runaway, or foster child" (USDA, 2017, p. 1). However, different perceptions of hunger have led to this type of programming being questioned in the U.S., which has prompted initiatives to cut these programs (Moran, 2018).

This challenge to provide these programs has been occurring for years, as legislators and others across the U.S. have argued over government hunger relief programming and its monetary allowance (Moran, 2018). One *Washington Post* reporter notes, "Healthful, nutritional eating can be expensive, but many politicians ignore this reality and instead blame welfare recipients for 'choosing' an unhealthy lifestyle over a

healthy one" (Moran, 2018, para. 14). Although there are government programs to support food insecurity in the U.S., there are still debates on both sides on funding for the programs, as well as misconceptions about food insecurity in the U.S. in general.

1.3 Charitable Food Organization Programming

Although food insecurity is still a significant challenge in the U.S., charitable food organizations can decrease these numbers in combination with government programming. Key non-government organizations that take measures against food insecurity are the various food banks and related nonprofit organizations such as Feeding America, Why Hunger, and Share Our Strength (USDA, n.d.-b). These charitable food organizations, as well as local entities, work on hunger relief efforts across the U.S.

Of these organizations, the largest charitable food organization in the U.S. is Feeding America (Feeding America, n.d.-a). Feeding America partners with several entities, including the government, to feed those around the U.S. (Feeding America, n.d.-d). According to Feeding America (n.d.-a), "For 35 years, we have responded to the crisis of food insecurity in the United States by providing food to people in need through a nationwide network of 200 food banks and 60,000 food pantries and meal programs," (para. 1). Organizations like Feeding America work across the U.S. with food banks and similar organizations to feed those in need through various efforts.

In this study, charitable food organizations are being examined. Although many organizations in this sector are nonprofit organizations, there are other groups in the U.S. who work to alleviate food insecurity as well. According to Waxman et al. (2019),

"Charitable food is services offering free groceries for off-site consumption or free meals prepared for consumption on site at various community-based locations [Coleman-Jensen et al. 2019b]" (p. 2). Additionally, faith-based organizations are included in this definition. According to Why Hunger (2014), many religions focus on service and food. These organizations are often considered nonprofits, but some individuals may not categorize them as so. Some of these groups include Catholic Relief Services, American Jewish World Service, Aga Khan Foundation, Ahmadiyya Muslim Youth Association, BAPS Charities, and others (Costa, 2019; Why Hunger, 2014). Finally, groups that work to relieve food insecurity can also be affiliated with the government. According to Waxman et. al (2019), food banks from the private sector can get funds from the USDA Emergency Food Assistance Program. Although these groups are sometimes referred to as hunger relief organizations, this term is now being avoided. Since hunger is not the same thing as food insecurity, the term "charitable food organization" is often used in its place, and it will be used in the current study (Sethi, 2020).

1.4 The COVID-19 Pandemic's Impact on Food Insecurity

The COVID-19 pandemic, which started in March 2020, impacted food insecurity in the U.S. by altering the food supply, job security, and the economy (Kinsey et al., 2020; Feeding America, 2021a). Even before the pandemic hit, individuals and families were struggling with the amount given by SNAP to put food on the table (DeParle, 2021a). Feeding America (2021a) approximated 1 in 7 people, including 1 in 5 children, were considered food insecure in 2020. The final food insecurity numbers for 2020 was

reported as 10.5%, which was unchanged from 2019 (USDA, 2021a). These numbers likely remained the same due to the additional government aid (DeParle, 2021b). Moreover, research findings suggest 2021 stimulus checks provided immediate food assistance, as well as households receiving child tax credits (DeParle, 2021b). Although aid increased, the economic fallout and loss of jobs should still be considered—it was the government programs that allowed food insecurity to stay at the same rates—as many individual and families suffered at the onset of the pandemic (DeParle, 202b1).

Additionally, in 2021, Feeding America projected that 1 in 8 people, and 1 in 6 children, will still be food insecure (Feeding America, 2021a). Furthermore, the previously identified underserved populations were impacted twice by COVID-19 and food insecurity. Morales et al. (2020) found that during the COVID-19 pandemic Black households were more likely to be unable to afford food. Additionally, "Asian and Hispanic households were more likely to be afraid to go out to buy food, and Asian households were more likely to face transportation issues when purchasing food," (Morales et al., 2020, para. 1). Racial/ethnic minorities were found to not be as confident as White individuals regarding their food security over four weeks.

The COVID-19 pandemic provided an opportunity for the government to play a larger role in hunger relief and food security efforts. In August 2021, President Biden announced an increase in SNAP benefits across the U.S. (Tobin, 2021). According to the USDA, the average benefit per month is likely to increase by more than $36 per person (Tobin, 2021). Furthermore, this relates back to the USDA's Thrifty Food plan, which determines SNAP benefit amounts each year "based on the cost of the Thrifty Food Plan

in June and take effect on October 1" (USDA, 2022, para. 1). The Thrifty Food Plan is one of four USDA plans that estimate eating costs—the others are Thrifty, Low-Cost, Moderate-Cost, and Liberal Food Plans (USDA, 2022). According to the USDA (2022), "It represents the cost of a nutritious, practical, cost-effective diet prepared at home for a family of four," (para. 2). Since SNAP benefits are determined by the Thrifty Food Plan, the USDA updated this plan with more "purchasing power," (Tobin, 2021, para. 3). This revision was called historic, and went into effect on October 1, 2021 (Tobin, 2021).

Additionally, the pandemic has led to programming that "will give poor people more power to fill their grocery carts but add billions of dollars to the cost of a program that feeds one in eight Americans" (DeParle, 2021a, para. 1). The COVID-19 pandemic has led to the U.S. government expanding food insecurity programming in the U.S. However, throughout the COVID-19 pandemic, and before, charitable food organizations have helped to fight food insecurity. The government and these organizations do intersect, and today are known to work together on some food security efforts (Greenberg et al., 2010; Waxman et al., 2019). For example, with the Emergency Food Assistance Program, which is a "federal program administered by the US Department of Agriculture," these food banks work directly with federal funds (Waxman et al., 2019, p. 2). Additionally, these charitable food organizations "try to fill part of the gap that some government and for-profit donors have left" (Greenberg et al., 2010, para. 12).

These organizations played an even larger role in the midst of the pandemic. Some programs were started by the government to address the issues of hunger (McCausland, 2021). However, in combination with some governmental efforts

organizations like Feeding America, were able to make an impact (Feeding America, 2021a). From March 2020 to January 2021, Feeding America's food banks administered 6 billion meals, despite a 55% increase in hungry individuals (Feeding America, 2021a). Before the pandemic, Feeding America had seen a lower rate of food insecure individuals, although there was still more than 35 million people food-insecure in America (Feeding America, 2021a). Furthermore, the organization only served 4.2 billion meals to people in 2019—in comparison to the 6.1 billion meals from March 2020 to January 2021 (Feeding America, 2019; Feeding America, 2021a). In Ohio, in 2020, "65.7 million pounds of food were distributed from last March 1 through Dec. 31, a 23% increase from the 53.4 million pounds distributed during the same months in 2019" through the Mid-Ohio Food Collective (Ferenchik & Hendrix, 2021, para. 9). Since before the start of the pandemic, and during current times, charitable food organizations have had an impact on food insecurity in America.

1.5 Perspectives on Food Insecurity in the U.S.

Although food insecurity is a serious problem, there are varying perspectives on the issue throughout the nation. According to a 2014 national survey, 45% of adults in the U.S. said that hunger is a serious problem (Hart Research Associates & Chesapeake Beach Consulting, 2014). Of the surveyed population, non-college graduates and lower socioeconomic status individuals were more likely to "cite it as a serious problem" (Hart Research Associates & Chesapeake Beach Consulting, 2014, p. 1). In addition, the survey

also found Americans to believe more responsibility should be placed on the government to solve the issue and not necessarily nonprofits or similar groups.

Another study found individuals thought local agencies and the government should work to reduce food insecurity (Ward et al., 2018). Additionally, these participants "did not necessarily agree or disagree that they have a personal responsibility" in terms of this issue (Ward et al., 2018, p. 413). Those who donate time, money, food, and other resources were found to be more likely to donate in the future. Similarly, those who volunteer or donate money were more likely to feel personally responsible for addressing food insecurity (Ward et al., 2018). In addition, though there were not major relationships between food insecurity and political ideology, it was found that conservatives were "more likely to blame food insecure individuals for their struggle and view food insecurity as inevitable," and they did not think society should work to solve it (Ward et al., 2018, p. 413). Cozzarelli et al. (2001) surveyed college students and found these participants to have moderately positive attitudes toward the poor—though they did have more negative opinions when compared to attitudes toward the middle class. This research suggests there are underlying attitudes toward those who are food insecure, which could in turn affect actions toward the problem.

1.6 Charitable Food Organizations' Advocacy

Charitable food organizations' advocacy is more important than ever because of the increase in disagreements about U.S. government dollars (DeParle, 2020). Opposing groups or individuals should be shown the need for actions addressing food insecurity

through advocating and lobbying efforts. This is being done today to sway opinons. For example, Feeding America focuses a great deal of advocacy effort on legislation and encouraging others to speak up about hunger in the nation (Feeding America, n.d.-g). This organization has advocated for funding regarding the SBP, SNAP, and more (Feeding America, n.d.-g). According to the National Council of Nonprofits (n.d.), advocacy is essential to any nonprofit organization. By advocating to legislators and other similar parties, nonprofits can ensure fair practices in their communities, gain media attention, mobilize their audience, rally communities, and share needed thoughts with legislators (National Council of Nonprofits, n.d.). Examples of specific legislative advocacy can be seen through several organizations, one being the Coalition Against Hunger (Coalition Against Hunger, n.d.). This organization educates officials, their staff, and the public to support legislation or programming that supports hunger relief efforts.

Several other nonprofits target the same audiences, although sometimes by different means. The Coalition Against Hunger keeps the public engaged through "Advocacy Alert" emails, which notify those who are subscribed when an important piece of legislation comes up that they should contact their public officials (Coalition Against Hunger, n.d.). Other organizations even notify their audiences through their social media or other communications methods. An example of this is Feeding America, who shares stories on their Instagram page and encourages their followers to take action with their cause, as well as had advocacy alert texts individuals can subscribe to (Feeding America, n.d.-b; Feeding America, n.d.-c). A vital part of charitable food organizations is

ensuring the public and legislators are up to date on policies regarding food security and their impact through advocacy efforts.

1.7 Charitable Food Organizations: Volunteers and Donations

Beyond advocacy efforts, volunteering is also a vital action to charitable food organizations' existence. With growing population needs and declining nonprofit staff, these volunteers can help to balance the workload at charitable food organizations (Bulman, 2018). Since volunteers are so important, it needs to be better understood why people volunteer. According to Mousa and Freeland-Graves (2017), individuals volunteered to meet some sort of requirement, for career improvement, to improve their social life, and to be altruistic in terms of charitable food organizations. Volunteering was higher among "those who were older, women, Hispanic, and had a university degree or higher income," as well as if the organization was some sort of food pantry, a faith-based organization, or a soup kitchen (Mousa & Freeland-Graves, 2017, p. 118). Volunteers are a key driver of charitable food organization work, as many cannot afford to hire multiple employees on small budgets. Due to the importance of these individuals, volunteering is considered a key action of charitable food organizations for this study.

Donations are also an important element of nonprofit organizations. Nonprofits are often seen as the middle ground between the government and for-profit entities (Weisbrod, 2009). These organizations are not funded like the for-profit sector, so they have to fundraise money through several revenues (Go Fund Me, 2021). According to Van Slyke and Brookes (2005), "Charitable dollars constitute an important element of

nonprofit finance and serve to subsidize the cost of providing government programs" (p. 212). Nonprofits have several associated costs to provide their services, so fundraising can help to determine yearly budgets for these organizations (Go Fund Me, 2021). However, although donations are important, it should be noted that this is often not their sole source of funding, as their money can come from other avenues (Weisbrod, 2009). Understanding why people donate is still vital, as fundraising is still central to these organizations. According to Ein-Gar and Levontin (2012), individuals are more likely to donate when they are more socially distant from the population in need. Ein-Gar and Levontin (2012) also found that "(a) empathy mediates donations to a single victim yet does not mediate donations to charitable organizations; (b) that donation giving to charitable organizations is unique and is not similar to donations to a group of victims" (para. 1). Donating is also considered a key action the public can perform to assist charitable food organizations, as this money is needed for the organizations to survive.

1.8 Branding and Semiotics

A key component of raising awareness of an issue includes communications efforts, such as social media, email, and texts, which all center around branding. An organization's brand is seen as associations one makes with a product and a name, and it can be used to understand a product's "perceived value" (Farquhar, 1989, p. 24). The brand also involves its symbolic representation, which includes associated personality traits or personality dimensions (Aaker, 1997). Additionally, these brand personality dimensions can lead consumers to be driven toward a product or organization, depending

on the traits expressed by the brand (Aaker, 1997). Furthermore, it has been found that compelling for-profit brands are "viewed as more credible," which can also be applied to nonprofit branding (Becker-Olsen & Hill, 2006, p. 74). Branding for any organization is essential to establishing how consumers and target audiences interpret their organization.

An organization's brand is used in all communications materials, including social media. Regarding nonprofit organizations, social media is typically used to share information about volunteering and donating (Ciszek, 2013). Furthermore, Ciszek (2013) noted organizations who correctly use social media can draw people to their organization. A strong social media presence is important to both connect with stakeholders and to improve a nonprofits' public image (Lovejoy & Saxton, 2012). However, without an effective communication strategy, including branding, these organizations cannot use their social media presence in the intended way (Carboni & Maxwell, 2015). Therefore, using the same branding across all platforms to establish a brand is vital with nonprofit social media (Carboni & Maxwell, 2015). For example, including the same colors, fonts, logos, and additional communication elements throughout all marketing materials will create and maintain a strong brand (Mergel & Greeves, 2013). Brand identity plays a key role in creating and writing social media posts, as well as across all areas of nonprofit marketing.

With branding, elements can be broken down to consider images, text, or other factors' influence on the consumer of this communications content. For example, the study of semiotics can help to explain some of these effects (Moriarty, 2002). Semiotics can be defined as not only the science of signs, and as "the study not only of what we

refer to as ‘signs’ in everyday speech, but of anything which ‘stands for’ something else” (Cobley, 2005, p. 2). These words, images, sounds, gestures, and objects can be studied in terms of their meaning, as well as how they came to acquire this meaning through culture (Cobley, 2005). In communications, symbols can create different associations for different people (Moriarty, 2002). Representation is seen as

> A process in which the makers of signs…seek to make a representation of some object or entity, whether material or non-material, in which their interest in the object, at the point of making the representation, is a complex one, arising out of the cultural, social and psychological history of the sign-maker, and framed and focused by the specific environment in which the sign-maker produces the sign. (Kress & van Leeuwen, 2020, p. 9)

These sign-makers that are referenced can be seen as graphic designers or communicators. This is because these individuals aim to show something through their work through semiotics—they are creating the symbols through their work. Furthermore, Kress and van Leeuwen (2020) note that “Representation requires that sign-makers choose forms for the expression of what they have in mind, forms which they see as most apt and plausible in the given context” (p. 15). Therefore, those making communication materials can communicate meaning through signs or imagery.

Colors should also be considered in branding (Labrecque & Milne, 2012). Singh and Srivastava (2011) note that colors “have always played a significant role in impacting one’s moods, emotions, feelings, sensations and perception and seem to offer possibilities for multifaceted interpretation rather than leaving room for only one way of looking at it”

(p.199). Colors and marketing efforts go hand in hand, and they can be chosen in communications to evoke responses (Singh & Srivastava, 2011). For example, red has been known to be a more intense color, while green is more of a balanced color (Singh & Srivastava, 2011). Colors can impact the way individuals see certain images and content, which is important to consider from a branding and marketing perspective.

1.9 Branding and Charitable Food Organizations

A strong brand and social media presence can improve consumer interaction with nonprofit and charitable food organizations. Consumer engagement on social media, or through other marketing efforts, aims to generate attention, participation, and social connection toward the brand (Vivek et al., 2014). Studies have found that consumer engagement, and their eventual behavior, is positively influenced by the richness of the social media content (Cao et al., 2021). In this instance, media richness relates to the media richness theory, and the idea that factors create this richness level, such as "The feedback capability of the medium; the number of channels used such as email and face-to-face communication; the source of information - personal (e.g., relatives and friends) or impersonal (e.g., retailers); and finally, language variety such as verbal or non-verbal (e.g., body language and photos)" (Cao et al., 2021, p. 837).

Therefore, these factors can equate to richness and ultimately consumer behavior or engagement. Cao et al. (2021) also noted that the context of social media can also influence "consumption, contribution, and creation behaviors" (Cao et al., 2021, p. 843).

Strong branding can increase consumer engagement on social media, which can later drive action related to organizations, including nonprofits.

1.10 Social Media and Charitable Food Organizations

Not only is strong branding needed to draw consumers to a cause, but it can also help to influence behaviors and actions with the organizations. Branding can be found throughout an organization's social media presence and beyond. According to Yan (2001), branding is important not only in print materials, but also through online avenues such as websites. As time has passed, the focus has also shifted to not only the web—but also to social media platforms (Maryville University, n.d.). This shift is also impacting the way businesses communicate with consumers. Both Facebook and Instagram are widely used by nonprofit and charitable food organizations.

Facebook is a tool that is used for many businesses and organizations to spread awareness. According to Meta (2021), Facebook daily active users included "1.84 billion on average for December 2020, an increase of 11% year-over-year" (para. 3). Furthermore, monthly active users included an average of 2.8 billion, which was also an increase (Meta, 2021). Since so many individuals are spending their time on Facebook, business and organizations should dedicate time to creating profiles and posting. Nonprofit and charitable food organizations use Facebook to create brand awareness, as well as to share information with donors or the individuals they serve. Nonprofits can also use Facebook for fundraising, although accounts must be verified and go through a certain process to do so, which can be harder for smaller nonprofits (Meta, 2020). And,

during the COVID-19 pandemic, many organizations used this Facebook fundraising tool to raise virtual funds and still are as of 2021 (The NonProfit Times, 2021). Furthermore, this platform can help these organizations with their marketing goals—as their reach to consumers increases through using Facebook (Tabas, 2021). Tabas (2021) also notes other benefits can include growing volunteer networks, posting to create awareness about a cause, and engaging audiences through interactive content. Facebook has been an asset to the nonprofit and charitable community—when used effectively.

Instagram is a key platform these organizations can also use. According to Hubspot (n.d.), about 90% of Instagram users follow at least one business as of 2021. Instagram has more than 1 billion active monthly users (Hubspot, n.d.). Instagram also has an average engagement rate of 0.98% per post (Chen, 2022). Since Instagram has grown to popularity in recent years, it is favored by younger users—with over 50% of Instagram users under 30 years old (Jepsen, n.d.). In fact, 31% of users worldwide are between the ages of 18 through 24, and the only age group higher than this number was 25 through 34 at 31.2% (Statistica Research Department, 2021). This platform is only growing, which further shows the need for companies or organizations of any kind to have an account to engage with the public.

Furthermore, Instagram, like Facebook, makes it easy for individuals to donate, which is a great tool for nonprofits and similar organizations (CBS News, 2022). Through an organization's Instagram account, donations can be easily made—and recently these organizations are able to add a donate button to an Instagram Reel (CBS News, 2022). The platform also allows nonprofits to show their work through photos,

which can help tell a story about an organization's work. Instagram is an evolving platform that is used by nonprofits and charitable food organizations to influence their audiences to aid in their cause.

The content of charitable food organizations' social media does not only include their work and donating efforts but also advocacy efforts. Charitable food organization social media accounts often include some element of politics, as many, if not all, are influenced by policy. Food banks and hunger relief nonprofit organizations rely on federal and state governmental policies to determine the yearly budget for certain programming (Feeding America, n.d.-d). For example, the Emergency Food Assistance Program (TEFAP), a federal nutrition program that uses government funds, is managed by Feeding America (Feeding America, n.d.-d). Therefore, this program needs federal dollars to determine the amount of aid these food banks receive to provide their services. This example, and several others, indicate that those who would like to improve hunger relief efforts must often take part in some sort of political participation to aid these organizations. Political participation can be defined as "voting, donating behavior, campaigning, cooperative–passive participation, political discussion, particularistic contacting, and communal activity" (Taylor & Clerkin, 2011, p. 721). Of all of these actions associated with charitable food organizations, key actions that support these organizations are volunteering, donating, and advocating legislatively. All of these actions can be influenced by social media as well, therefore, it is vital for charitable food organizations to focus on these platforms.

1.11 Charitable Food Organizations and College Students

College students are a key demographic that can be studied to understand the role of charitable food organizations' branding. A Pew Research report noted "84% of adults ages 18 to 29 say they ever use any social media sites, which is similar to the share of those ages 30 to 49 who say this (81%)" (Auxier & Anderson, 2021, para.10). And this demographic has been known to use these new outlets for political engagement and discussion (Kushin & Yamamoto, 2010). Albrecht et al. (2018) found Gen Z to prefer nonprofit organizations (NPO) to tackle social justice issues, as compared to for-profit organizations. Gen Z was also found to believe these NPOs "maintain a unique niche in serving in their traditional affiliative and expressive roles" (Albrecht et al., 2018, p. 271). These perceptions can continue to be influenced through social media. College students are likely to form strong opinions through viewing materials on the Internet and social media, but this does depend on the students' amount of commitment to the issue or idea (Pritzker et al., 2015).

To make this initial impact on these students, a strong brand is needed, as brands have been known to "play a critical role" with younger individuals (Hoeffler & Keller, 2003, p. 439). Therefore, to engage these students in actions relating to these food nonprofit organizations, there has to be a compelling brand from the start. Febriani and Selamet (2019) found that college students were more likely to volunteer for nonprofits with strong brand personalities and those that had an element of sincerity (Febriani & Selamet, 2019). The reaction to these nonprofits' branding shows the influence branding can have on individuals' attitudes and future behaviors.

1.12 Significance of the Study

Many organizations in the charitable food sector are nonprofits or serve the public in a similar way. For nonprofit organizations, there are some issues with establishing a brand compared to other more commercial businesses (Chapleo, 2015). Chapleo (2015) found that nonprofits struggle with managing their brand, encouraging employees to follow the brand standards, and improving their brand. Additionally, there is also limited research regarding how nonprofit organization branding is seen and the impact it can have on its audience, as well as how these organizations are using these social media accounts (Febriani & Selamet, 2019). Chapman et al. (2015) also emphasized the limited research on nonprofits' "mission as the driver to employ social media strategies and tactics" (p. 2). Furthermore, these charitable organizations or nonprofits can use social media to acquire "unique opportunities of low-cost, easily targeted and viral marketing that have never been seen before to this scale" (Phethean et al., 2013, p. 296). Phethean et al. (2013) found most charities are not truly using their social media accounts for fundraising—they are rather using them more for building relationships (Phethean et al., 2013). More research needs to be conducted to understand how nonprofit organizations, and similar entities, can use their branding and social media better to promote their work and increase engagement. This study specifically focused on the branding of charitable food organizations, which include organizations like food banks, hunger relief organizations, and food education organizations.

Additionally, there is a gap in the research literature regarding these charitable organizations' brands specifically. In this study, these organizations were chosen due to

the need they fulfill—without these organizations children and adults would have a lack of access to food. Furthermore, the COVID-19 pandemic also made this topic substantially more relevant. These events in 2020 influenced not only the economy and food availability, but they also showed how important it is for nonprofit organizations to have an online presence through social media and websites (Kinsey et al., 2020; Feeding America, 2022; Tabas, 2021). With improved branding and social media practices, nonprofit organizations, as well as those in the charitable food sector, can also better inspire action and share their message (Ciszek, 2013). More research needs to be done to understand how these charitable food organizations can use their brands to get the help they need—especially in terms of donating, volunteering, and advocacy.

Since college students are forming a political identity, this demographic can be seen as a key target audience of charitable food organizations (Niemi & Hanmer, 2010). The age group of these college students can be identified as Generation Z, which includes individuals born after 1996 (Parker & Igielnik, 2020). This generation is known to be "digital natives," to value progressive ideas, and to prefer learning online rather than other learning methods (Fontein, 2019; Parker & Igielnik, 2020, para. 4). This study is specifically looking at college-aged Gen Z students, which can be an important facet of the group as they will soon be young, working professionals. This audience is also vital as they will likely soon be entering the workforce, which further increases their likelihood of donating or interacting with nonprofit organizations. The study examined how branding can influence this already socially minded demographic to interact with the charitable food sector.

The greater societal importance of food security and nonprofit efforts also lends to this study's significance. According to Camper (2016), nonprofit organizations can create economic stability and mobility within communities across the U.S. Moreover, charitable food organizations specifically do this work through food banks, soup kitchens, food pantries, and other facilities which allows individuals to have access to the food they need. However, it should also be noted that food insecurity links to several other related systematic issues (Feeding America, n.d.-e). In fact, "lack of affordable housing, social isolation, economic/social disadvantage resulting from structural racism, chronic or acute health problems, high medical costs, and low wages" all go hand-and-hand with food insecurity (Feeding America, n.d.-e, para. 4). Several of these, among other issues, are noted as social determinates of health (SDOH) by the U.S. Department of Health and Human Services (n.d.). These issues can be better addressed through targeted, community, grassroots efforts. Charitable food organizations can better address these actions since many have an active role in their specific communities. Hunger links to other problems, which only increases the need for charitable food organizations in the U.S., which serve the gaps the government cannot address. This study is important because it can help charitable food organizations to better acquire the resources needed to maintain operations—volunteers, donations, and legislative advocacy—through marketing efforts.

The purpose of this study was to determine the effect of charitable food organization branding on college students' support of charitable food organizations—specifically through volunteering, donating behavior, and legislative advocacy efforts.

Furthermore, this study used similar branding to charitable food organizations to understand if imagery drives behavioral intent, which will help food charitable organizations better understand how to create social media and communications materials to relate to this vital age group. Additionally, it aimed to understand the Theory of Planned Behavior's (TPB) role in this process, as well as how TPB can be applied to understand college students' future actions. This information can be used by charitable food organizations to shape their branded social media posts, as a vital part of these organizations is advocacy work.

1.13 Research Objectives and Hypothesis

This study will address the following objectives:

1. Describe respondents' attitudes, perceived behavioral control (PBC), social norms, and behavioral intent regarding charitable food branding
2. Describe respondents' attitudes, perceived behavioral control (PBC), social norms, and behavioral intent by treatment group
3. Determine the difference in behavioral intent by charitable food branding treatment group
4. Determine how attitudes, perceived behavioral control (PBC), and social norms influence respondents' behavioral intent for each treatment group

1.14 Assumptions

The results from this study cannot be generalized to other populations outside of the sample used in this research at The Ohio State University. And, it should be noticed this study cannot be generalized to all of The Ohio State University, as it did not interview every student there. Additionally, the demographic findings indicate this sample was not equivalent of the Ohio State undergraudate population as a whole.This study includes the following assumptions:

1. Findings will add to theory relating to charitable food organization communications and branding.
2. Responses from the online survey are answered honestly by participants.
3. Respondents thoroughly observed the branded post if they received that treatment.
4. Respondents thoroughly read and understood the definitions surrounding charitable food organizations.

1.15 Limitations

1. The results were gathered from self-reported survey answers, which could indicate bias. These results may not be indicative of actual behavior.
2. Since this survey was distributed online, it was only accessible to students who either had access to a computer or mobile device or used an Ohio State library computer or device.
3. This study's results was only valid to the sample surveyed at Ohio State.

4. Elements of the branding shown to these students were created by researchers, not real charitable food organizations, therefore, there was a limitation in applicability of these branding elements. Although elements similar to existing branding was considered when creating these treatments, marketing or branding of existing charitable food organizations were not used.
5. Only elements of symbols and colors was explored in the creation of these two branding treatments.
6. A further limitation was the convenience sampling method.
7. The verbiage on the treatments used 2021 instead of 2022, which could have created some confusion with participants.

1.16 Definition of Terms

1.16a Attitude, Theory of Planned Behavior

This is an individual's degree of "a favorable or unfavorable evaluation or appraisal of the behavior in question" (Azjen, 1991, p. 188). In this study, attitudes toward the behavior of supporting charitable food organizations were explored in the context of how they influence behavioral intent with charitable food organizations—volunteering, donating, and advocating.

1.16b Brand

The associations individuals make with a product and a name. A brand's value can improve a product's "perceived value through such associations" (Farquhar, 1989, p. 24).

In this study, aspects of digital branding, such as social media posts, were evaluated. Furthermore, elements of semiotics and color theory were referenced to understand the elements of these branded social media posts.

1.16c Charitable food organization

In this study, charitable food organizations are defined as organizations relating to food banks, access and advocacy organizations, and educational organizations. The following organizations, noted by the USDA for their work in hunger relief, are considered charitable food organizations helping with food insecurity in the U.S.: Feeding America, Why Hunger, and Share Our Strength (USDA, n.d.-b). The participants were provided with the following definition: "Charitable food organizations are food banks, nonprofits working in food education, and/or any organization that provides food for those in need. National organizations like these are Feeding America, No Kid Hungry, Meals on Wheels, etc. These groups work in hunger relief and food security efforts across the U.S."

1.16d Food insecurity

This term is defined by the USDA (2021a) as "access by all members at all times to enough food for an active, healthy life" (para. 3). Furthermore, USDA has also defined the idea as "a household-level economic and social condition of limited or uncertain access to adequate food," (USDA, 2021b, para. 6). The definition in the survey was created by the USDA definition, as well as Feeding America's (n.d.-e). It is, "Food insecurity is a term that means individuals cannot get consistent access to food to live an

active and healthy life. It commonly can cause serious health problems with both children and adults."

1.16e Perceived behavioral control (PBC), Theory of Planned Behavior

"The perceived ease or difficulty of performing the behavior and it is assumed to reflect past experience as well as anticipated impediments and obstacles" (Azjen, 1991, p. 188). This study explored the influence college's student perceived control over one of the following behaviors associated with charitable food programming: volunteering, donating, and advocating.

1.16f Key Actions with Charitable Food Organizations

In this study, these key actions are volunteering, donating, and advocating. These actions are key parts of these charitable organizations, as many are nonprofits or similar organizations, that need help from outside individuals and resources. Participants were provided with the following definition: "Supporting charitable food organizations can include key actions such as donating money to, volunteering for, or advocating legislatively for these groups."

1.16g Social Media

"Social media may be defined in three parts, consisting of (a) the information infrastructure and tools used to produce and distribute content; (b) the content that takes the digital form of personal messages, news, ideas, and cultural products; and (c) the

people, organizations, and industries that produce and consume digital content" (Howard & Parks, 2012, p. 362). In this study, researchers created social media posts that include elements of current charitable food branding.

1.16h Social norm, Theory of Planned Behavior

This term includes perceived social pressure to perform a behavior (Azjen, 1991, p. 188). It is also known as a subjective norm. This study aimed to determine if college student's perceived social pressures dictate their engagement in a behavior related to volunteering, donating, and advocating for a charitable food organization.

1.16i Theory of Planned Behavior (TPB)

This theory was born from the Theory of Reasoned Action. (Azjen, 1991). It focuses on understanding an individual's intent to perform a behavior (Azjen, 1991). This study used the Theory of Planned Behavior to understand how the attitudes, social norms, and perceived behavioral control impact the behavioral intent associated with charitable food organization branding.

1.17 Summary

Food insecurity has grown in the U.S. Prior to the COVID-19 pandemic, this issue was being addressed by government entities and nonprofit organizations. However, the issue has grown, which further dictates the need for action. To raise awareness about this problem, having a strong brand—and using it on social media and other marketing

mediums—is vital to inspire efforts. However, nonprofit brands and communications have been lacking. To better understand the selected demographic, college students, this study provided definitions about how this group sees both food nonprofit branding attributes and participates politically. Furthermore, the Theory of Planned Behavior was used to interpret what intended behaviors arise based on these college students being shown food nonprofit branding. This study provided insight to nonprofit organizations on how to create a strong brand that leads to action with their organization and their cause

Chapter 2: Review of Literature

This study aimed to explore charitable food organizations' brands' influence on college students—specifically by understanding their donating, volunteering, or advocating intent after viewing an organization's branding. Furthermore, this study used color and semiotic theory, along with the Theory of Planned Behavior, to understand the impact of charitable food organization communications. This chapter will focus on the theoretical framework relating to the study.

2.1 Theory of Planned Behavior

The Theory of Planned Behavior (TPB) is the main theoretical framework for this study. Ajzen (1991) found attitudes, perceived behavioral control, and social norms to all influence the intention to carry out a certain behavior. TPB focuses on an individual's intentions in combination with behaviors. Ajzen (1991) noted that intentions influence motivation factors, which can ultimately lead to a behavior bring performed. The aspects of the theory that will be used for this study can be seen in Figure 1. Attitudes, perceived behavioral control, and subjective norms can all influence the intention to carry out a certain behavior. These determinants of intention can relate back to the current study—they can be influenced through communications efforts of charitable food organizations.

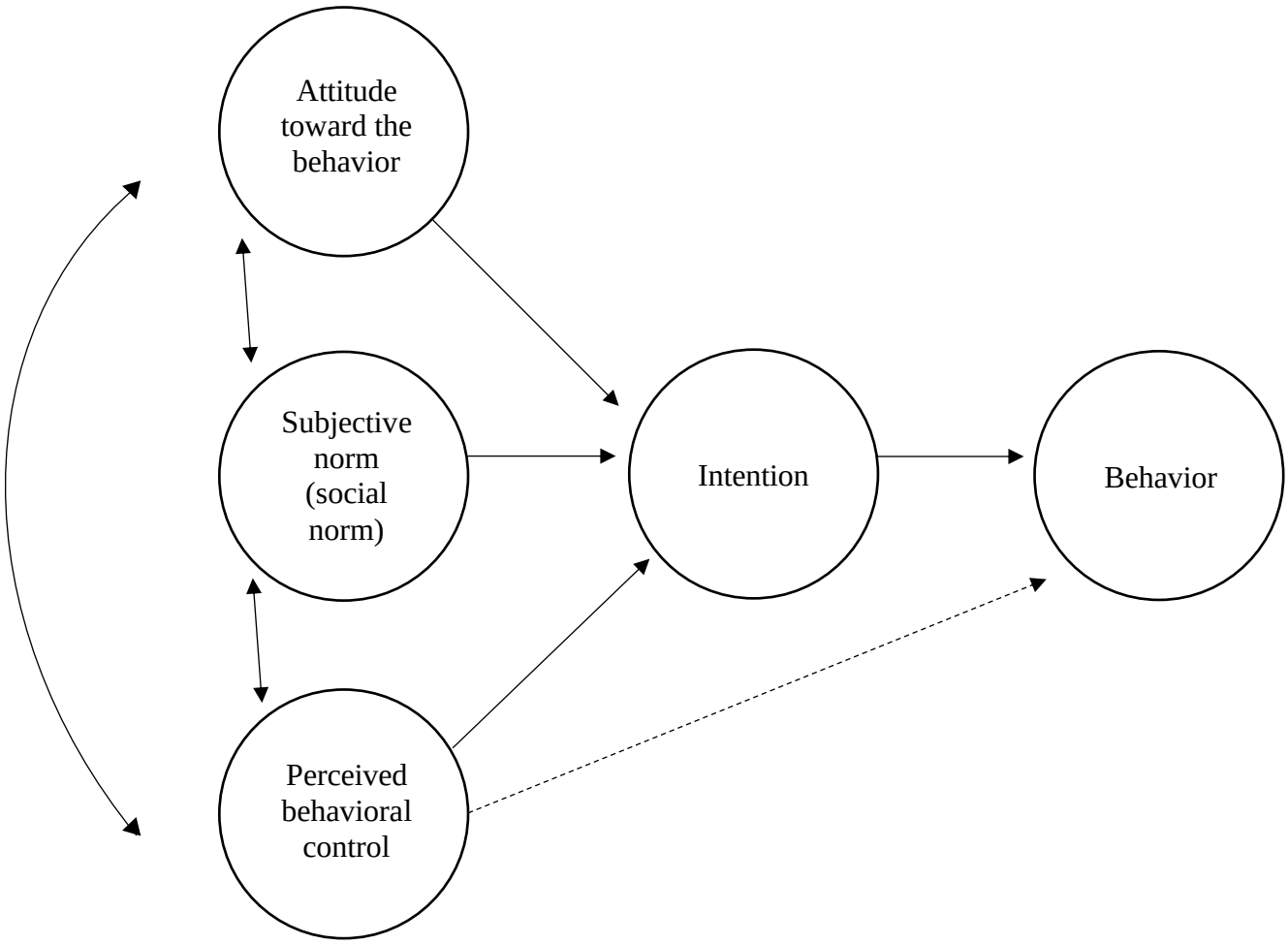

Figure 1 Theory of Planned Behavior (Ajzen, 1991).

Attitudes in this theory are opinions or feelings individuals may have toward the behavior being studied (Ajzen, 1991). Attitudes can be formed from individual beliefs, which are typically developed by associating objects with "other objects, characteristics, or events" (Ajzen, 1991, p. 191). According to Ajzen (2019), only a person's accessible behavioral beliefs play a role in attitude. Figure 2 demonstrates that behavioral beliefs

affect how these attitudes are formed (Ajzen, 2019). In terms of behavior, people often develop unfavorable attitudes toward behaviors that create undesirable consequences and more favorable attitudes toward behaviors that create desirable consequences (Ajzen, 1991). This study aimed to interpret how these attitudes affect behavioral intent after viewing charitable food organization branding.

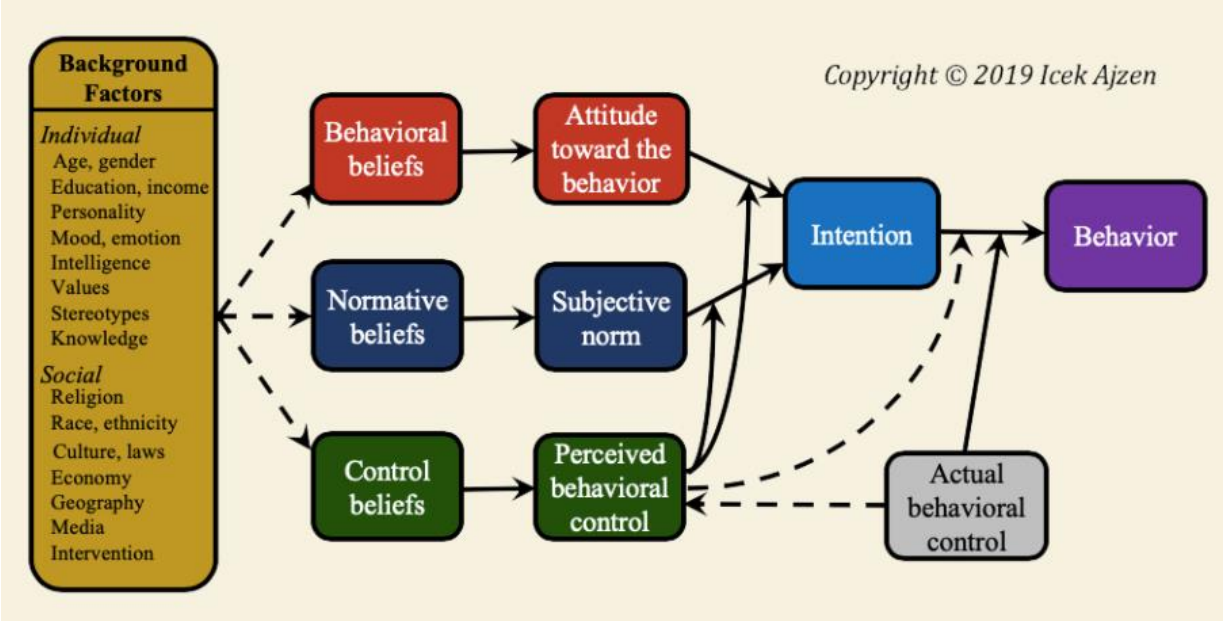

Figure 2 Theory of Planned Behavior with Background Factors (Ajzen, 2019)

Furthermore, the social norms in this study involve the social pressure individuals may feel regarding a behavior (Ajzen, 1991). It should be noted that social norms are also referred to as subjective norms, but both concepts are the same within the TPB. The core

of this definition comes from the idea of normative beliefs, which "are concerned with the likelihood that important referent individuals or groups approve or disapprove of performing a given behavior" (Ajzen, 1991, p. 195). Normative beliefs are how individuals perceive others' behavioral expectations about them (Ajzen, 2019a). Moreover, one's believed expectations can lead to social pressure, which is the defining nature of social norms (Ajzen, 2019a). Ajzen (1991) suggested that social norms can be defined through studies by asking questions of individuals that evaluate how they feel others would approve or disapprove of a certain behavior. In this study, social norms are explored by seeing how individuals believe their friends would feel about them volunteering for, donating to, or advocating for charitable food organizations.

Finally, perceived behavioral control (PBC) can impact behavioral intention, as it is the extent to which an individual has power over their behaviors (Ajzen, 1991). According to Ajzen (1991), this control can relate to past experiences. However, it can also typically be impacted by "second-hand information about the behavior, by the experiences of acquaintances and friends, and by other factors that increase or reduce the perceived difficulty of performing the behavior in question" (p. 196). If people have more resources, or think they have more resources, they are more likely to think they have more control over their behavior (Ajzen, 1991). Ultimately, what influences this perceived control are individuals' control beliefs, which are the discerned factors that can eventually lead to behavior, as they influence PBC (Ajzen, 2019a). Referring to Figure 2, perceived behavioral control can have a major impact on behavior (Ajzen, 1991). This

idea was used in the current study to examine participants' perceived control over volunteering, donating to, or advocating for food nonprofits throughout their daily lives.

Antecedents of behavioral intent are also important in the TPB. According to Azjen (1991), intention is a main factor in this theory. Behavioral intentions can be used to understand motivations that impact a behavior and individuals' efforts regarding behaviors (Azjen, 1991). Furthermore, this intention in combination with ability is what can lead to behavioral achievement (Azjen, 1991). This theory provides a structure to better understand participants intent to perform the key actions such as donating, volunteering, or advocating to support charitable food organizations. There are several factors that lead to behavioral intent—such as the ones noted in Figure 2. This study aimed to address attitudes, social norms, and perceived behavioral control in the TPB to understand that intent in charitable food organizations.

2.2 Brand Personality

Branding theory will also be used in this study. Branding is defined as associations people make with products or names, as well as how they perceive value through those associations (Farquhar, 1989). Brands, especially nonprofit brands, can add value to an organization or product. One aspect that adds value is a strong brand personality, which has been known to define brand identity (Aaker, 1997; Azoulay & Kapferer, 2003). Branding theory defines brand personality as human characteristics related to a brand, which can in turn allow consumers to express themselves or their ideal

selves (Aaker, 1997; Belk, 1988). Branding research has also noted that brands can reflect consumer identiies (Stokburger-Sauer et al., 2012).

Moreover, Aaker (1997) found different elements of brand personality create a framework for a successful brand personality. The traits noted to create this framework were sincerity, excitement, competence, sophistication, and ruggedness (Aaker, 1997). Other studies have identified the importance of measuring these brand personality elements. Geuens et al. (2009) found five factors—activity, responsibility, aggressiveness, simplicity, and emotionality—to be vital dimensions of branding. Farquhar (1989) also noted the importance of strong, accessible brand attributes and brand image. The elements of a brand personality help to shape communications materials, which can in turn influence consumer action. In this study, researchers used colors, images, and icons to create these brand personality elements.

2.3 Theory of Planned Behavior, Charitable Food and Nonprofit Organizations, and Branding

Studies support the idea of using the Theory of Planned Behavior to evaluate nonprofit branding's impact. Several studies have used this theory to better understand donating or volunteering intent with nonprofit or charitable organizations after viewing or interacting in some form with branding (da Silva et al., 2020; Febriani & Selamet, 2019; Teah et al., 2014). For this study, the TPB was used to measure behavioral intent with the key charitable food organization actions of volunteering, donating, and advocating.

Febriani and Selamet (2019) aimed to understand brand attitude's effect on college students' volunteering behavior with nonprofit organizations. Although the study

did not specifically use the Theory of Planned behavior, behavioral intent, in regard to branding, was measured. The researchers found that instrumental and symbolic elements in advertisements to impact if college students intended to volunteer (Febriani & Selamet, 2019). One key aspect that was studied was brand personality, and it was found that college students were more likely to volunteer for nonprofits that included brand logos and slogans than those organizations that did not (Febriani & Selamet, 2019). This study has led to empirical evidence regarding brand image's impact on volunteer recruitment (Febriani & Selamet, 2019). Furthermore, the findings suggest the importance of branding to nonprofit organizations. They also suggest communicators or administrators for these organizations should consider brand personality when crafting communication materials related to volunteering. This study can relate to the current research as it also served to relate branding to volunteering, which is one of the key food charitable organization actions.

Another relevant study by da Silva et al. (2020) used the Theory of Planned Behavior and other frameworks to understand a charitable brand's effect on donation. Participants, selected through a non-probabilistic sample, were surveyed and included Brazilians who know nonprofit organizations (da Silva et al., 2020). This study found brand orientation does influence attitude in terms of charity and donation intention (da Silva et al., 2020). Furthermore, researchers noted "donation intention of these individuals tends to be positively influenced by the attitude toward charity" (da Silva et al., 2020, p. 369).

Teah et al. (2014) used aspects of the Theory of Planned Behavior to understand how favorable attitudes will lead to favorable intentions in relation to charitable organizations. Additionally, the study also explored individuals' religious beliefs' influence on charity attitudes and donating motivation (Teah et al., 2014). Teah et al. (2014) found that religious beliefs "moderates the relationship between attitudes towards charities and motivation to donate," and that perceived image of charitable organizations to positively influence attitudes toward charities (p. 738). Ultimately, the image of these organizations and attitudes were found to impact whether individuals will donate to these organizations. Therefore, these attitudes toward brands can ultimately impact behavior with charitable food organizations. Teah et al's. (2014) research led to a better understanding of the effect of TPB attitudes and their influence intent to donate to charitable organizations.

2.4 Semiotics and Visual Communications Theory

Semiotics and visual communications theory also relate strongly to the branding of charitable food organizations. According to Moriarty (2002), semiotics is known as the "study of signs and signals, sign systems, and sign processes" (p. 20). Visual semiotics are seen as "a philosophical approach" to interpreting these signs in relation to symbolism (Moriarty, 2002, p. 301). Charles Sanders Peirce, an American philosopher and mathematician, contributed majorly to the semiotic field (Gorlée, 1994). Moriarty (2002) noted Peircian semiotics in relation to visual communications semiotics as "a theory of knowing, rather than a theory of languaging. This philosophical grounding

leads to a theory of visual communication based on how we come to know things, rather than how we transmit knowledge" (p. 25). Moriarty (2002) also mentioned Peirce's concepts of semiotics observe the vital reason we interpret the visual meaning is due to the more open aspect of visual versus verbal communication. Although research in this area is broad, this study will focus on understanding semiotics' relationship with branding and communications.

Peirce defined a true sign as "something that stands to somebody for something in some respect or capacity" (Moriarty, 2002, p. 22). His theory is used to guide visual communications, as he related symbols to cognition and beyond. Moriarty (2002) notes that semiotics inform the process of interpretation that finds that signs can be a "signal, or an iconic, indexical, or symbolic sign" simultaneously (p. 24). Peirce also noted the difference between signs classified as icons, indexes, or symbols (Hoopes, 2014). According to Peirce, an icon has "the character which renders it significant, even though its object had no existence; such as a lead-pencil streak as representing a geometrical line" (Hoopes, 2014, p. 239). Moreover, an index is a sign that classifies what is being shown (Hoopes, 2014). Finally, a symbol is identified as "a sign which would lose the character which renders it a sign if there were no interpretant" (Hoopes, 2014, p. 240). Peirce breaks down signs into three areas (Buchler, 1955). He states that,

> Signs are divisible by three trichotomies; first, according as the sign in itself is a mere quality, is an actual existent, or is a general law; secondly, according as the relation of the sign to its object consists in the sign's having some character in itself, or in some existential relation to that object, or in its relation to an

interpretant; thirdly, according as its Interpretant represents it as a sign of possibility or as a sign of fact or a sign of reason. (Buchler, 1955, p. 101)

This idea of Peirce's can be seen through Figure 3 below. How individuals understand signs, and how they use them to form perceptions, relates to this study—which will be focusing on branding's impact on thoughts, attitudes, and eventually, behavioral intent.

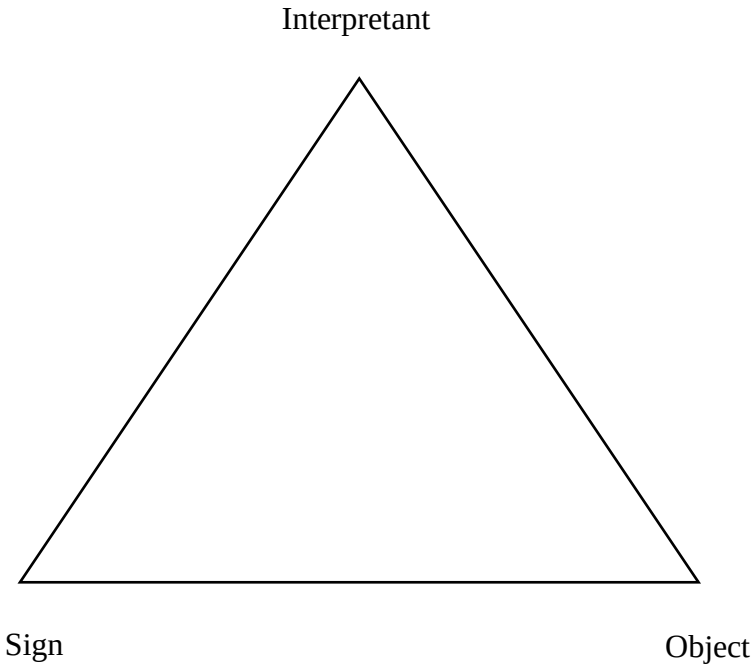

Figure 3 Peirce's Semiotic Triangle

Kress and van Leeuwen (1996) note that visual structures and verbal structures can show certain cultural or social meanings, which can also influence how individuals

perceive imagery or branding. To better understand visual communication and its symbols, van Leeuwen (2005) noted that researchers must identify these two modes in advertising, as the verbal and visual pieces' interaction influences how the reader perceive advertisements. This study used past theory to understand how the symbols and colors are used in advertisements, or other visual communication avenues, and how they can influence elements of TPB. This theory related to the current study because it helped to inform the branding, as well as a better understanding of branding's impact on consumers.

Moreover, visual semiotics can play a role in communications materials. Semiotics is incorporated in branding and design in several ways and directly relates to print and graphic design. In fact, semiotic analysis, "has the advantage of enabling a richer analysis of texts by focusing on the visual communication objective formal relationships, which to some degree account for differences in what, and how, images mean" (Bell & Milic, 2002). In a study focusing on advertisements in popular magazines, Bell and Milic (2002) evaluated male and female models for semiotic attributes such as gaze, framed distance, and other visual measures (Bell & Milic, 2002). This used a method called the systemic functional semiotics of the visual image, which "relates texts to their particular cultural and situational contexts" (Bell & Milic, 2002 p. 218). Moreover, this study found gendered differences through many examples (Bell & Milic, 2002). However, it was found that the "hyper–ritualized subordination of women in advertising" has been less pronounced in magazines than it was in the past. (Bell & Milic,

2002 p. 219). This study shows how differing images, and even model poses, in advertisements can create meaning through semiotics.

Additionally, another study by Brookes and Harvey (2015), in a health promotional campaign, evaluated six campaign images and their effectiveness. The researchers used semiotic methods to evaluate these six images. The largest difference with these pictures were the "use of studio-staged photography – and the particular configuration of social actors and scenes so photographed" (Brookes & Harvey, 2015, p. 63). Differences were used to show negative situations/risks with type 2 diabetes (Brookes & Harvey, 2015). All images were intended to be seen as more narrative and up to interpretation (Brookes & Harvey, 2015). For example, one image emphasized the risk of stroke, while showing an older woman hugging another woman—as opposed to an image of a man and woman weeping with messaging about checking diabetes risk for the sake of your family (Brookes & Harvey, 2015). From the semiotic evaluation, researchers questioned the morality behind campaigns such as these—that serve to induce anxiety behind a public health issue (Brookes & Harvey, 2015). This study was used by the current researchers to understand the visual complexities behind campaign images, as well as the morality behind them.

A more recent study by Sulatra and Pratiwi (2020) analyzed COVID-19 public service advertisements. This study found that by using both visual and verbal signs in digital advertisements to create different ideologies—such as prevention, cooperation, responsibility, and productivity (Sulatra & Pratiwi, 2020). For example, the first advertisement's ideology was "Prevention is better than cure. It means that it is better and

easier to stop a problem or illness from happening, by doing the preventive actions, than to stop it after it has happened" (Sulatra & Pratiwi, 2020, p. 361). The imagery in this digital advertisement included bright colors, cartoon-like images of the virus and steps to prevent COVID-19, as well as text (Sulatra & Pratiwi, 2020). This advertisement used visual signs to support the wording by including icons next to the words (Sulatra & Pratiwi, 2020). Colors were also chosen carefully; for example, the first ideology used pink and purple. These authors noted the color pink to be related to the traits of romance, love, and friendship (Sulatra & Pratiwi, 2020). However, purple was said to relate to wisdom, dignity, peace, and other traits (Sulatra & Pratiwi, 2020). Additionally, the researchers noted "these colors generally represent a message that Covid-19 prevention can be done with spirit of love, friendship, and personal wisdom" (Sulatra & Pratiwi, 2020, p. 356). These examples noted above utilize a variety of advertising methods, but the visual elements and semiotic theories still relate to virtual marketing and communications. A similar analysis and thought process was used when creating the Facebook social media images of this study.

2.5 Colors and Color Theory

Another part of visual communications that will be used in this study is color theory. Rhyne (2017) defines color as "a visual perceptual propriety of the environment and objects that surround us" (p. xxi). According to Adam (1995), color can evoke an emotional response, which has been demonstrated by artists' work in history. For example, Van Gogh's *The Night Cafe* used yellow to make the café seem like it was "a

place where one can run oneself, go mad, or commit a crime," according to Van Gogh (Adam, 1995, p. 17).

In order to understand more about how individuals perceive colors, more must be explored about the colors themselves. Primary colors include red, blue, and yellow (Rhyne, 2017). Complementary colors are created by mixing primary colors, examples include orange, green, purple, etc. (Rhyne, 2017). However, colors can change in some situations. According to Adam (1995), colors can change according to their environment of other colors. When colors around surrounded by additional ones, they can appear differently, depending on the context (Adam, 1995). Therefore, visual communicators must keep in mind the effect that certain colors can have on one another when used simultaneously in a communications piece (Adam, 1995).

Color theory involves utilizing colors as signals to communicate abstract information (Bertin, 1983; Ware, 2012). It should be noted that this idea can be complicated as different colors can mean different things to different individuals (Elliot & Maier, 2012; Humphrey, 1976; Lin et al., 2013; Setlur & Stone, 2016). Schloss et al. (2018a) noted that some colors can be associated with many ideas, such as "red associated with ripe apples, strawberries, fire, the U.S. Republican Party, and the University of Wisconsin–Madison" (p. 2). Another study found that "it should be possible to use assignment methods to define multiple candidate color palettes that are semantically interpretable for a given visualization" (Rathore et al., 2020). Additionally, the findings noted that flexibility within this realm can help to balance semantics in this work (Rathore et al., 2020).

Different cultural and background elements can also play a role in color theory. One example could be the specific place where colors are being used. For example, fast food restaurants typically use red, orange, and black to create immediacy (Kumar, 2017). Additionally, different genders can also prefer different colors.

> Men also prefer orange to yellow, while women prefer yellow to orange. Men's favorite colors include blue, black, brown, green, and red, while women like blue, orange, yellow, purple, green, and red the best. Color preferences and emotional connections to color also change with age. (Kumar, 2017, p. 10)

Furthermore, different countries and ethnicities can also percieve color differently depending on the context. For example, it has been found that Indians associate red with fear and fire, while Chinese individuals associate it with good luck and celebrations (Kumar, 2017). Moreover, while some colors can be different in terms of associations, others can be similar across cultures. For example, Tham et al. (2020) found white, blue, green, purple, and pink to be interpreted similarly. In this research, white was found to be associated with purity; blue was found to be related to water and sky; green was associated with health; purple was thought to represent regality; and pink was said to be feminine (Tham et al., 2020).

Similar to Tham et al.'s (2020) findings, people generally have been found to categorize colors with basic terms, although the object may have several shades of that color (Rathore et al., 2020). Other research noted that color mapping can help understand how individuals interpret color (Schloss, 2018b). This study found

> A design goal is to produce colormaps that match people's inferred mappings and are robust to changes in background color, it is beneficial to use colormaps that will not appear to vary in opacity on any background color, and to encode larger quantities in darker colors. (Schloss, 2018b, p. 810)

Color associations can be utilized for design purpose to evoke a desired response.

Furthermore, color can not only evoke an emotional response, but it can also cause association of certain elements of brand personality with organizations. For example, Labrecque and Milne (2012) found that colors can impact brand personality—from the colors' hue to saturation to value. This study notes the key connections between colors and traits, and it connects excitement with red, competence with blue, and sophistication with black (Labrecque & Milne, 2012). The shapes of colors can also impact these associations. The study found that, with the tested colors, "likability ratings increase with the combination of color and shape, but only marginally for red logos" (p. 724). This study outlines the importance of colors in combination with brand elements. Packaging in general is also important in terms of design and color (Kumar, 2017). This research points out that color can create different perceptions based on the consumer. "White and black color is used for creating an image of power, red for energy, blue is used for trust, green for balance" (Kumar, 2017, p. 5). Branding and colors are essential to the marketing process, and companies and organizations incorporate this knowledge into their branding and communications. This study similarly referenced color theory to understand how colors and branding affect consumer associations when creating the branded imagery.

2.6 Social Media Branding and Use

Research can help charitable food organizations understand elements of social media that can engage individuals with their organization. Elements of brand identity such as brand personality, symbols used, and more can impact social media as well (Latiff, & Safiee, 2015). Furthermore, Muniz and O'Guinn (2001) defined brand community as "a specialized, non-geographically bound community, based on a structured set of social relations among admirers of a brand" (para. 1). This idea relates back to social media as social media can create this type of a community (Latiff, & Safiee, 2015). Brand communities create subculture that can further increase engagement with a brand, and it can make individuals feel part of a community (Latiff, & Safiee, 2015).

Social media has been found to not only be affiliated with social capital but also with civic engagement and political participation (Skoric et. al, 2015). Several nonprofit and charitable organizations' goals involve these ideas, which only further show the importance (Milde & Yawson, 2017). Milde and Yawson (2017) also emphasize the importance of using social media for fundraising. This idea is noted as crowdfunding—which is more grassroots fundraising—that can better allow stewards to engage, as well as making donating easy (Milde & Yawson, 2017). By using online efforts to show the mission of nonprofits, these organizations can improve their communications strategies.

Nonprofit organizations and charitable organizations have used Instagram and Facebook for branding. One study focused on a case study involving a nonprofit's use of Instagram—through churches in the U.K. (Sircar & Rowley, 2020). This study found that

both churches used their Instagram to build a brand, both used it for promotion, one used it for giving and sales, and one used it to build community through advertising events (Sircar & Rowley, 2020). In terms of Facebook, this study found that it was used by both churches in terms of building a brand. Both used it for building community through events and recognition; one used it to build community through acknowledgement and recruitment; one used it for outreach; and one used it for developing a spiritual mission. Since churches are included in charitable food organizations, this study is pertinent to the current study to understand charitable and nonprofit branding.

Other nonprofit organizations have adopted this social media for other methods. Nah and Saxton (2013) focused on nonprofits' adoption of Facebook and Twitter. This study found "reliance on public donations" to greatly influence how these organizations are using Facebook, which makes since due to Facebook's feature to donate (Nah & Saxton, 2013). Moreover, external factors played significant role in these organizations' social media (Nah & Saxton, 2013). Instagram and Facebook are used to enhance a brand's mission and can have positive effects.

2.7 Charitable Food and Nonprofit Organizations' Communications and Behaviors

Although limited, there have been some studies regarding how nonprofit brand attributes can impact behavior with the organization. For instance, Michel and Rieunier (2011) found that nonprofits "need to be perceived as typical of their cause in order to attract donations of time and money" (p. 706). Michel and Rieunier (2011) cited an example of a nonprofit using too much color in their advertisements, leading to less

generous donations due to these mailings being seen as "too commercial and not typical of the charitable organizations" (p. 706). This idea is interesting as sometimes nonprofits are criticized for not utilizing communications as effectively as corporations do (Quinton & Fennemore, 2013). However, this study, and similar studies were used to understand what kind of communications consumers want to see from nonprofits, as there is currently limited data on the topic.

Other studies have noted the importance of specific nonprofit branding elements. Wymer et al. (2016) used past research to define brand image as "necessary but insufficient condition for increasing brand strength" (p. 1451) and noted the importance of its brand attributes. In the specific area of nonprofit branding, Wymer, et al. (2016) noted consumers often compare nonprofit brands to assess the strength of the organization. In addition, these researchers found nonprofit brand strength is based on the three-dimensional construct of familiarity, attitude, and remarkability, in addition to other attributes (Wymer et al., 2016). Furthermore, Michaelidou et al. (2015) found six dimensions—usefulness, efficiency, affect, dynamism, reliability, and ethicality—best at describing nonprofit branding, and these were applied to this study.

Branding has also been found to directly impact nonprofit and charitable organizations' livelihoods. Michel and Rieunier (2012) found donor behavior to be influenced by nonprofit communications. Specifically, it was found that brand image can explain 31% of intentions to donate money and 24% of the intentions to donate time (Michel & Rieunier, 2012). Febriani and Selamet (2020) found those surveyed "were more willing to volunteer for organizations that presented the brand personalities through

the brand logo and slogans, compared to the organizations without any presented brand personalities," and these individuals were also more likely to volunteer if the brand personality had an element of sincerity (p. 211). Additionally, these college students identified by Febriani and Selamet (2020) were impacted by the nonprofit's logo and slogan, which shows the influence branding can have on individuals' attitudes and ultimately behaviors. A charitable organization's brand can influence behavior with that organization.

Nonprofit branding is at a tipping point, as research suggests there is little knowledge about effective social media in charitable management (Phethean et al., 2013). According to Phethean et al. (2013), social media can "provide unique opportunities of low-cost, easily targeted and viral marketing" with charitable organizations that were uncommon before today's time (p. 296). Quinton and Fennemore (2013) note that the upcoming use of fundraising and donating online on social media is not brand new, however, many charitable organizations have not taken advantage of these technologies. Furthermore, Quinton and Fennemore (2013) compiled research and information that points to a misuse of not only technologies, but brand strategy within social networking in nonprofit organizations. There is a need for a better understanding of nonprofit organization branding in social media, as well as the general effective use of social media in charitable organizations.

2.8 Conceptual model

To better show the elements of this study, researchers constructed a conceptual model, which can be viewed in Figure 4. From color theory, branding theory, and semiotics, the key elements in branding to be studied were identified as color and symbols. In terms of symbols, the researcher chose to create posts that included both icon and imagery elements. This study aims to measure the influence of charitable food branding on behavioral intent. The model shows the impact charitable food organization branding will have on behavioral intent, serving as almost a background factor in the extended Theory of Planned Behavior. After seeing the branding, it is expected that participants will be more likely to want to perform one of the behaviors of volunteering, donating, or advocating. This will be compared to if the participants saw nothing, the control. Furthermore, the key charitable organization actions of volunteering, donating, and advocating are also shown to directly impact behavioral intent in this model. After seeing the charitable food branding it is predicted that these attributes will impact intent. Furthermore, an indirect impact—between charitable food organization branding and the Theory of Planned Behavior Attributes—is also predicted based on past research. This model served to show how the elements can possibly lead to behavioral intent with the key actions.

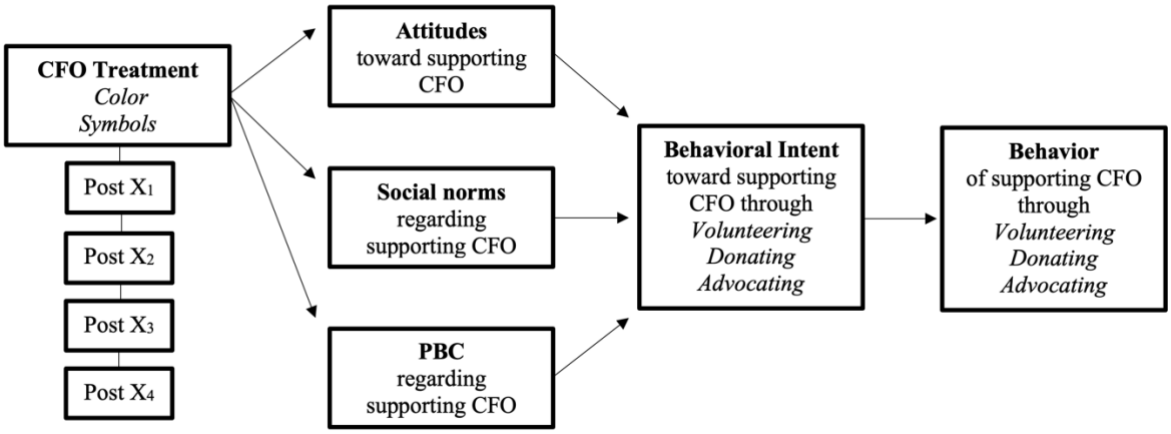

Figure 4 Conceptual Model

2.9 Summary

Chapter 2 discussed the theoretical framework for this study. The main supporting theory is Ajzen's Theory of Planned Behavior (1991). After highlighting the Theory of Planned Behavior, the chapter touched on past theoretical contributions with the Theory of Planned Behavior in the nonprofit and charitable organization realm as related to the current study. Next, branding, semiotics, and color theory are explained. These theories will serve as the basis for the branding elements in this study. Furthermore, the chapter concluded with an examination of nonprofit branding, as well as where the field needs to be. The conceptual model at the end of the study uses the Theory of Planned Behavior, in combination with supporting evidence and theories, to explain the current study. The model shows the direct impact charitable food organization branding will have on

behavioral intent. This chapter shows how past evidence supports the tested variables for this study.

Chapter 3: Methodology

The purpose of this study was to better understand how charitable food organization branding can affect behavioral intent in college-aged students. Additionally, researchers chose to focus on understanding the intent to partake in the following behaviors: donating, volunteering, and advocating with charitable food organizations. These key charitable food actions will be better understood through the TPB elements of attitudes, social norms, PBC, and behavioral intent. Chapter one of this thesis explained the background of food security, charitable food organizations, and branding. Chapter two explained the guiding theoretical framework, such as the Theory of Planned Behavior, color theory, visual communications semiotics theory, and branding theory. The independent variables for the study include branding imagery, attitudes, social norms, and perceived behavioral control. The dependent variable includes behavioral intent to support charitable food organizations. This chapter will address the experimental and quantitative methods that guided this study.

3.1 Research Objectives

This study will address the following objectives:

1. Describe respondents' attitudes, perceived behavioral control (PBC), social norms, and behavioral intent regarding charitable food branding
2. Describe respondents' attitudes, perceived behavioral control (PBC), social norms, and behavioral intent by treatment group

3. Determine the difference in behavioral intent by charitable food branding treatment group
4. Determine how attitudes, perceived behavioral control (PBC), and social norms influence respondents' behavioral intent for each treatment group

3.2 Experimental Design

Since this study aimed to test charitable food organization branding's impact on behavioral intent, a quantitative approach was used—as this type of research can help to use a theory to understand a social problem (Creswell & Creswell, 2018). An online, single-mode survey in Qualtrics was used. According to Creswell and Creswell (2018), experimental research "seeks to determine if a specific treatment influences an outcome," (p. 12). As this study aimed to determine the impact of this branding, the design was experimental. It also used a control and four treatments. In terms of the control, this group did not see any treatment, therefore, the survey began with the definitions. The treatment images (Figure 8) were low color with an icon, high color with an icon, low color with imagery, and high color with imagery. The treatments with high-color and imagery were considered to be stronger branding components, while those treatment with low-color and graphics were considered to be weaker branding components. The low color images were grayscale, also referred to as black and white or monochrome.

A posttest-only control-group design was used—where four groups received the treatment first and a control did not receive a treatment at all (Figure 5). In this design, survey respondents "are randomly assigned to groups, a treatment is given only to the

experimental group, and both groups are measured on the posttest," (Creswell & Creswell, 2018, p. 169). *R* indicates random assignment, *X* show an exposure of a group to an experimental variable, and *O* represents observation (Creswell & Creswell, 2018). In the case of this study, treatments were the experimental variables, with X_1 being Treatment 1, X_2 being Treatment 2, X_3 being Treatment 3, and X_4 being treatment 4. The sample size was a $\omega^2 = .08$ effect size. As seen in Figure 5, the control did not receive an experimental variable. Qualtrics was used to randomly assign treatment groups. Treatments were distributed as follows: 35 (17.9%) participants received treatment 1, 46 (23.5%) received treatment 2, 33 (16.8%) received treatment 3, 45(23.0%) received treatment 4, and 37 (18.9%) received the control. Although groups were originally intended to be similar in size, deleting incomplete responses and outliers changed the more even distribution of this data. Once participants viewed the presented branding of charitable food organizations, they were asked a manipulation check, then questions regarding attitudes, perceived behavioral control, social norms, and intent.

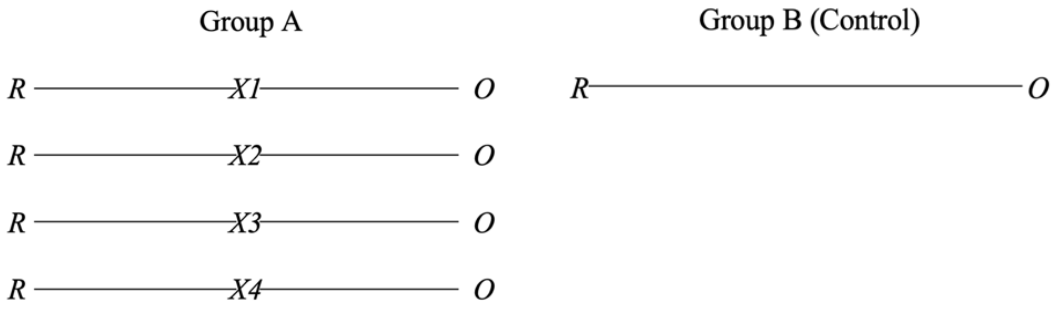

Figure 5 Posttest-Only Control-Group Design

To assess branding's impact, researchers created four branded social media-type posts and participants were randomly assigned one of these treatments. These images (Figure 8) incorporated charitable food organization type branding, which was created using color theory and semiotics theories in mind, as those areas informed the differences between images with colors and symbolism. Colors and imagery were also chosen with the elements of branding and design similar to Feeding America (n.d.-c) and No Kid Hungry (n.d.) social media accounts. The treatments included elements of layout, image, and linguistic text. However, the same text was used so that was not an element that was a purposeful difference. The main difference between the treatments were the icon of the grocery bag in treatment X_1 and X_2 and the image of two children eating in treatment X_3 and X_4. Additionally, post X_1 and X_3 had colors, green and orange, as used in past charitable food branding, while post X_2 and X_4 used black, white, and gray (Feeding America, n.d.-c; No Kid Hungry, n.d.). Color theory was also considered when choosing these elements. Treatments were informed by semiotic literature as well—similar to Brookes and Harvey (2015), who used semiotics to better understand past messaging around diabetes. Other research regarding social media exposure and branding were also considered (Humphrey et al., 2017). This study assessed nonprofit branding's effect on TPB through understanding the impact these treatments may have. This study provides more information for the charitable sector regarding effective branding—and a better understanding of college students' intended behavior with their organizations can change as a result. The main idea of this study was to use TPB to understand how CFO branding influences behavioral intent to support these organizations.

3.3 Population and Sampling

The population for this study was college-aged students at The Ohio State University. This population was selected due their known traits of being "digital natives," valuing progressive ideas, and preferring online learning (Fontein, 2019; Parker & Igielnik, 2020, para. 4). Gen Z was chosen due to their experience with technology, as this view of digital platforms and experiences may have differed with another population. Additionally, the population will also be entering the workforce within 1-3 years most likely, if they have not already, increasing their yearly earnings, which may increase or influence donating behavior. Additionally, Gen Z was one of the generations to give the most during the COVID-19 pandemic in 2020, and this group is predicted to likely engage more with charitable programming due to this past behavior (Fischer, 2021). Therefore, the survey only targeted this specific age group, born after 1996, in the survey (Parker & Igielnik, 2020). If participants answered they were an age other than 18-24 years, their survey immediately skipped to the end.

For this study, the target population was undergraduate Ohio State Gen Z students on the Columbus, Ohio, campus (N = 45, 308). However, it should be acknowledged that researchers did not aim to survey every student but a portion of these individuals through sampling. From the survey results, there were 306 total survey responses. However, the final sample size of the survey was n = 196 due to the deletion of incomplete responses and outliers. Therefore, the response rate was 12.2%. Nonresponse error was targeted through Dillman's et al. (2014) recommendations, which is defined as "the difference between the estimate produced when only some of the sampled units responds compared

to when all of them respond" (p. 4). A few examples of how this was carried out, according to Dillman et al. (2014), includes the following: easy to follow survey design, limited required answers to reduce frustration, use of the Ohio State logo to increase trust and credibility, and other additional precautions. Several of Dillman's et al. (2014) recommendations focus on social exchange theory and how survey respondents are processing survey elements. Therefore, individual preferences of each survey item were considered. An example of this specifically the idea of acquiescence, which is the inclination for participants to agree with questions rather than to disagree (Dillman et al., 2014). This was targeted through using negative values for scales first, as well as creating two items that were reverse of the typical order—and were recoded later. Researchers can consider the design and flow of the survey to encourage attentive participation, and therefore, quality responses (Dillman et al., 2014). The incentive of a gift card or SWAG bag was provided to prompt the participants to fill out the survey correctly to also address nonresponse error. Survey participants had to complete the entire survey before adding their information for the incentive at the end. They were then able to enter their dot number, which indicated their OSU email. This email was asked so participants would be put in a raffle to receive a "SWAG" bag with promo items from Columbus-based charitable food nonprofits or a $15 Amazon gift card. Two participants were randomly selected to receive prizes.

3.4 Survey Instrument

The instrument was created in Qualtrics, which is an online survey tool. The survey was first created using a panel of experts who worked in agricultural communication and nonprofit communications. However, over time, it was edited to the current version. The survey instrument started with confirming participants were 18 years or older, as well as if their age matched the Generation Z target audience. After these questions, participants were randomly shown either one of four posts for 15 seconds or were not shown anything. To ensure participants paid proper attention to the branded images, a manipulation check was a part of the survey. After viewing the image for 15 seconds at least, the question was asked, "What was in the image you just saw?" The answers included the following: "a. Two kids eating and a hunger fact b. A graphic about a hunger fact c. A graphic about healthy eating in the U.S. d. Two kids fighting." The question was check all that apply formatting. Survey answers were deleted if they did not respond to the manipulation check correctly. The correct answers were both "a. Two kids eating b. A graphic about hunger" since they received a random image that showed either based on if the image that had an icon or had a photo. If participants selected "A graphic about hunger" with the image with the two children, their responses were kept, though, as some students may have not realized it was a select all question.

Next, participants were shown definitions, which can be found below. A timer was set for 30 seconds so participants read these definitions. Throughout the survey, they were repeatedly given definitions at the start of questions for clarification.

1. “Food insecurity is a term that means individuals cannot get consistent access to food to live an active and healthy life. It commonly can cause serious health problems with both children and adults.”
2. “Charitable food organizations are food banks, nonprofits working in food education, and/or any organization that provides food for those in need. National organizations like these are Feeding America, No Kid Hungry, Meals on Wheels, etc. These groups work in hunger relief and food security efforts across the U.S.”
3. “Supporting charitable food organizations can include key actions such as donating money to, volunteering for, or advocating legislatively for these groups.”

After viewing the definition, questions were asked about the Theory of Planned Behavior elements of attitudes, perceived behavioral control, and social norms. A 6-item, 5-point semantic scale will be used to measure attitudes. The bipolar adjectives in the scale included the following: good/bad, positive/negative, beneficial/harmful, favorable/unfavorable, interesting/not interesting, and important/not important. To measure PBC, a 6-item, 5-point semantic scale was used. It included the following items: not practicable for me/practicable for me, not complicated for me/complicated for me, not up to me/up to me, not in my control/in my control, not easy for me to do/easy for me to do, and not possible for me/possible for me. Social norms were measured through an 6-item, 5-point Likert scale. Questions were posed about social pressures regarding each aspect of key charitable food organization action. These included the following: “The

people in my life would approve of me volunteering for charitable food organizations," "The people in my life would approve of me donating money to charitable food organizations," "The people in my life would approve of me contacting my local and national government officials in support of hunger relief," "The people in my life would approve of me donating food charitable food organizations," "The people in my life would approve of me advocating for charitable food organizations on social media," and "The people in my life would approve of me advocating for charitable food organizations by attending a rally or protest." Reminders were also given throughout the survey reviewing the definition of CFOs and how this study was defining support for these organizations.

Moreover, the survey concluded with future intent to support charitable food organizations, as well as past experience. Additionally, two other questions about the treatments were asked: "Which one of these images catches your attention the most?" and "Which one of these images would make you more likely to support charitable food organizations?" In these questions, the participants were shown each treatment, in a smaller version, in a multiple choice format. Demographic questions were asked at the end of the survey pertaining to gender, year in college, race and ethnicity, political beliefs, and political affiliation. Students were also able to provide their last name and dot numbers to be entered in the drawing for the gift card or SWAG bag.

3.5 Pilot testing

Before taking steps to start the main study, an IRB protocol was submitted and approved in October 2021 for the pilot testing. In order to test the survey, a pilot was done with undergraduate students who were reached through professors at the Ohio State satellite campus in Wooster, also known as the Agricultural Technical Institute (ATI). The sample size (n = 72) included students only on this campus. Reliability was measured using Cronbach's Alpha for both the pilot, and all scales were found to be reliable—social norms was .900, attitudes was .879, and PBC was .845. As the students were at the ATI campus, it reduced the likelihood of participants taking the final survey. Moreover, a Qualtrics setting was used to ensure students could not re-take the survey when it was distributed for the main part of the study.

After pilot testing, two questions were added to the survey, "Which one of these images catches your attention the most?" and "Which one of these images would make you more likely to support charitable food organizations?" Both of these were added so that the impact of the treatments could be better measured. Additionally, the wording was changed in the "Please answer a few questions about your future intent to support charitable food organizations," question. Instead of "I will," the researchers used "I plan to," to better measure participants intent.

3.6 Validity

Validity is generally defined as how well-founded an argument or claim is, and it is typically a fundamental concern when "developing and evaluating tests" (Frey, 2018,

para. 1). Internal and external threats should be addressed by researchers (Creswell & Creswell, 2018). Internal validity includes "experimental procedures, treatment, or experiences of the participants that threaten the researcher's ability to draw correct inferences from the data about the population in the environment" (Creswell & Creswell, 2018, p. 170). Furthermore, external validity is defined as when research draws incorrect inferences from data and other sources, which can include incorrectly generalizing the study (Creswell & Creswell, 2018). Throughout any study, it is important to identify these elements to ensure no threats occur. This study addressed different types of validity to ensure proper research methods were adhered to. To ensure validity in this study, the online survey was informed by previous research, as well as committee and expert panel approval of 5 individuals.

According to Allen (2017), in order to avoid internal validity problems, researchers should "consider the research design and take steps to avoid or take into consideration threats to internal validity" (p. 2). There are several threats to internal validity: history, maturation, regression to the mean, selection, mortality, diffusion, compensatory, compensatory rivalry, testing, and instrumentation (Creswell & Creswell, 2018). One way that internal validity can be threatened is through history or events happening outside of research that influence results (Allen, 2017). A way to control this threat is through control groups and random assignments, which is done through this study. Another threat in terms of internal validity is maturation, which is explained as "natural changes, psychological or physiological, that occur as participants age or time passes" (p. 3). The design of a control group and random assignment is also useful for

avoiding this threat (Allen, 2017). Another threat to manage is mortality or subject attrition, which is explained as participants dropping out of a study (Allen, 2017). One way this was avoided in the current study is through ensuring timed questions were not so long as to frustrate respondents. Another way is by including the incentive question at the end, to encourage participants to finish to be entered for the incentive. A final threat worth noting is diffusion, which is when participants discuss a research study (Allen, 2017). Since the researcher did not go into extreme detail when explaining this study, this threat is managed. The participants were not aware of the research methods used throughout the study. Additionally, several of the previously noted threats—history, maturation, testing, regression of the mean, and experimental morality were mitigated by the post-test design of the instrument. Internal validity was managed through several strategies by researchers.

External validity was also mitigated through several efforts. These types of threats come about when researchers come to inaccurate conclusions from "the sample data to other persons, other setting, and past or future situations (Creswell & Creswell, 2018, p. 171). Moreover, this can happen and create a threat when there are issues with the characteristics of selected the setting or participants (Creswell & Creswell, 2018). Since this type of validity is mostly focused on incorrect inferences, therefore this was avoided when researchers analyzed the results (Creswell & Creswell, 2018).

3.7 Reliability

Reliability “involves examining the stability or consistency of a measurement of a variable,” (Allen, 2017, p. 1414). Moreover, the repeatability, or consistency, of the instrument is key to establishing reliability (Creswell & Creswell, 2018). For this study, in terms of reliability, the survey length was extensive—and a pilot test was administered before the survey was finalized. Internal consistency was shown by creating constructs, as well as through reliability tests in SPSS. Constructs, also referred to as scales, show internal consistency by Cronbach’s Alpha, which ranges from 0 to 1, and “optimal values” are between .7 and .9 (Creswell & Creswell, 2018, p. 154). From this study, the scales of the TPB constructs of attitudes, subjective norms, and PBC were all tested for reliability. For the attitudes scale, Cronbach's alpha was .851. The PBC scale was also reliable and had a Cronbach's alpha of .821. Social norms had a Cronbach's alpha of .816 for the scale. Cronbach's alpha was .773 for the intent items.

3.8 Branded Imagery

Share Our Strength’s No Kid Hungry and Feeding America’s social media accounts influenced the creation of the branded posts for this study. Below are some examples of social media posts from Instagram (Figures 6 and 7), which use images and icons like the present study. Similar to these organizations, images with children were chosen to evoke emotion and to place an emphasis on food security in terms of children. Furthermore, images, especially high-resolution ones, have also been linked to higher engagement on social media platforms as well (Li & Xie, 2019). In terms of semiotics,

specific icons were also selected, similar to style of the other organizations. In the images below, icons can be seen of fruits and vegetables, which is very common for the No Kid Hungry social media accounts. In a similar sense, this study used the image of a grocery bag to also represent food. Further, the grocery bag relates back to the idea of food supply for a household. Researchers chose this image of a grocery back to reinforce the idea that children will not have enough food or groceries depending on the state of food security in the U.S.

Additionally, the fact was chosen to serve as a similar message to the graphics below by Feeding America and No Kid Hungry. The treatments (Figure 8) all stated, "1 in 6 children may not have enough food to eat in 2021." A less direct call was used to be more general in nature, along with the idea that this was similar to the CFO's social media. The statement served to evoke interest in the organization or cause. For this study, it was not intended to be a direct call for a specific action.

Figure 6 Influential Social Media Posts Feeding America (Feeding America, n.d.-c)

Figure 6 continued

Figure 7 Influential Social Media Posts No Kid Hungry (No Kid Hungry, n.d.)

For this study, the treatment posts were designed in Adobe Spark. The image of the children was used from a Pexels photograph that did not require attribution. From previous literature, the above images, and the researchers' discretion, these posts were created. Not only were the colors chosen to be similar to the organizations' stated above but also due to their representations in color theory. One example of this is the fact that green is associated with health (Tham et al., 2020). A fake logo was also created to also give credibility to the posts, which can be seen at the bottom of top of the treatments.

Survey participants saw one of four randomized researcher-created social media posts relating to charitable food organization branding. Post X_1, or treatment 1, was the high color and icon post. Post X_2, or treatment 2, was the low color and icon post. Post X_3, or treatment 3, was the high color and image, and Post X_4, or treatment 4, pertained to was the low color and image. These can be reviewed in Figure 8 below.

Figure 8 Treatments

Figure 8 continued

3.9 Independent Variables

In this study, the independent variables included the branding imagery, attitudes, social norms, and perceived behavioral control. The four branded posts were the following: low color with an icon, high color with an icon, low color with imagery, and high color with imagery. Attitudes, social norms, and perceived behavioral control were used to understand the behavioral intent regarding the supporting CFOs—the specific actions of volunteering, advocating, and donating.

3.9a Branding

The researcher designed four social media-type images—low color with an icon, high color with an icon, low color with imagery, and high color with imagery. These posts were randomly assigned to survey participants at the beginning of the survey, or

with the control group—not at all. The goal was to see how the branding later affected the TPB attributes of attitudes, social norms, and perceived behavioral control.

3.9b Attitudes

In this study, attitudes about supporting charitable food organizations were measured by a 5-item semantic differential scale with bipolar traits including good/bad, positive/negative, beneficial/harmful, favorable/unfavorable, interesting/not interesting, and important/not important. Before selecting one of these traits, participants were asked to answer based on how they felt about supporting charitable food organizations. The researcher aimed to better understand what specific attitudes, positive or negative, were associated with supporting charitable food organizations either after seeing one of the four branded images or with not seeing any image. The semantic scale is meant to measure a concept with two contracting adjectives (Allen, 2017). This scale is "widely used in projects examining attitude change, attitude formation, and general attitude" (Allen, 2017, para. 2).

3.9c Social norms

This TPB element was measured with a 4-item, 5-point Likert-type scale, which started with "strongly disagree" and ended with "strongly agree." Questions were asked pertaining to if those around them supported food charitable organizations with the key actions. With this variable, the goal was to see if the branded imagery impacted their thoughts about social pressures with the organizations.

3.9d Perceived behavioral control

PBC was also measured through a 6-item, 5-point semantic scale. This scale included the following bipolar items: not practicable for me/practicable for me, not complicated for me/complicated for me, not up to me/up to me, not in my control/in my control, not easy for me to do/easy for me to do, and not possible for me/possible for me. Before selecting one of these traits, participants were asked to answer based on how they felt they could support charitable food organizations. These questions addressed the perceived control these participants had over behaviors with food charitable organizations. This variable aimed to address if the branded images somehow affected their perception of if they can contribute to the key charitable food actions in any way. As used in attitudes, this was measured with a semantic scale format, which served to allow participants to choose a measurement regarding two adjectives.

3.10 Dependent Variable

3.10a Behavioral intent

Behavioral intent was created using summated data from each item of the intent questions. To better understand actual intent to support charitable food organizations, a summated scale was created from dummy-coded intent items. This was used to run ANOVA and multiple linear regression testing as well—with intent being the dependent variable for both. In the recoded variables, only an answer of "yes" was coded as 1 and the answers of "unsure" or "no" were recoded as 0. Ordinally, summated data was not

used. However, this was changed after researchers deduced “yes” answers would best show actual intent.

3.11 Data Collection Procedure

Before taking steps to start the study, an IRB protocol was submitted and approved in October 2021. In order to test the survey, a pilot was done with several Wooster professors at The Ohio State University’s Agricultural Technical Institute (ATI). As several of the students are in Wooster, it reduced the likelihood of participants taking the final survey. Moreover, a Qualtrics setting was used to ensure students could not re-take the survey. Additionally, an IRB amendment was submitted in January with changes made to the exempt study, and it was approved as well.

This study used a convenience sample to acquire the population of college-aged students, specifically Gen Z. An online Qualtrics survey instrument was directly administered. The survey instrument was distributed to undergraduate students through several professors of general education (GE) courses. In total, the survey was shared either online or in-person to students in 29 classes at The Ohio State University Columbus campus. The list of these students can be found in Appendix A. The total students reached is estimated to be 2,513, based on course enrollment numbers. It should be noted, though, that researchers did distribute this survey during the first COVID-19 omicron spike in 2021. Several professors reported having lower attendance due to COVID-19 cases. However, since some professors shared online, or followed-up online, some of this these attendance issues could have been mitigated.

Since Qualtrics through the university was used, the Ohio State logo on each survey ensured a credible association, as it showed this research was through the university. Once it was initially introduced, the researcher asked the instructors to send one to two other reminders, depending of the timing of when each was contacted or when each shared the survey. Dillman's recommended methods guided this process (Dillman et al., 2009; Dillman et al., 2014). The researcher sent a blurb about the survey and the link, as well as a graphic explaining the data with a QR code. For in-person classes, the researcher passed out similar recruitment flyers to students to ensure participation. The recruitment graphic and flyer can be found in Appendix B and C.

3.12 Data Analysis

The data were analyzed with SPSS ® 28.0 software. In terms of procedures for missing data, researchers entered a -99 for missing values. Missing values in SPSS can be recoded with numbers not in the data set and defined for each variable once the new value is assigned (Landau & Everitt, 2004; Kent State University Libraries, 2022). In terms of reliability, Cronbach's Alpha was used in SPSS for the estimates of interrelatedness between items (Ary et al., 2018). Other measures were also taken to ensure accurate data. The researcher ran assumption tests of normality, linearity, outliers, and homogeneity of variance, as well as scatter, stem and leaf, residual plots, depending on testing. All assumptions were upheld, after deleting outliers, for both the ANOVA and multiple linear regression. In terms of significance, alpha was set at 0.05 (Field, 2018).

Descriptive statistics and frequencies were also ran in SPSS with frequencies and percentages. These were completed for demographic questions, objective 1, and objective 2. Objective 3 was addressed by running a one-way ANOVA to determine the difference in behavioral intent by charitable food branding treatment group. Objective 4—determine how attitudes, perceived behavioral control (PBC), and social norms influence respondents' behavioral intent for each treatment group—was addressed through a multiple linear regression. An additional multiple linear regression was completed with dummy-coded variables as a post-hoc test to assess the role of demographics in the TPB process.

3.14 Summary

This research used an experimental design, with a static group comparison. For the treatments, a posttest-only control-group Design was used. Reliability was addressed through several measures, including a pilot test. One way validity was addressed through examining existing studies with the Theory of Planned Behavior and nonprofit or charitable branding. Additionally, internal validity was addressed through random treatment and control group assignment and general survey design, as well as through not discussing research methods with participants. External validity was targeted through using research to back up inferences, as well as general survey design. Independent variables for the study included branding imagery, attitudes, social norms, and perceived behavioral control. The dependent variable was behavioral intent. Variables were measured through semantic scale and Likert scale questions. The study also included

multiple choice questions for demographic related questions and attention and support questions about treatments. Descriptive statistics, an ANOVA, and two multiple linear regressions were completed using SPSS ® 28.0 software. This study aimed to understand behavioral intent by measuring how charitable food organization branding affected college-aged students.

Chapter 4: Results

To review, chapter one served as an introduction to this study, which noted the importance of charitable food organizations' role in food security. Furthermore, it elaborated on a key aspect of charitable food organizations: how they market to penitential sources. Chapter two explained the theory of planned behavior, color theory, semiotics, and branding theory, as well as past studies with similar goals to this one. In chapter three, methods were reviewed. Now, chapter 4 will explain the results of this research.

The following objectives and hypothesis guided this study:

1. Describe respondents' attitudes, perceived behavioral control (PBC), social norms, and behavioral intent regarding charitable food branding
2. Describe respondents' attitudes, perceived behavioral control (PBC), social norms, and behavioral intent by treatment group
3. Determine the difference in behavioral intent by charitable food branding treatment group
4. Determine how attitudes, perceived behavioral control (PBC), and social norms influence respondents' behavioral intent for each treatment group

4.1 Response

The survey instrument was distributed to The Ohio State University undergraduates through university instructors. In total, the survey was shared either online or in-person to students in 29 classes at the university. The total students reached was estimated to be 2,513, based on course enrollment numbers. However, researchers distributed this survey during the first COVID-19 omicron spike in 2021, and several professors reported having lower attendance due to COVID-19 cases. Therefore, this entire number may not have been reached.

Berg (2005) defines nonresponse error as a response that "falls outside the range of responses that survey designers consider to be valid" (p. 865). Furthermore, social scientists cannot generalize a population based on a random sample (Berg, 2005). For this study, nonresponse error was collected by running an independent t-test comparing the overall The Ohio State University population of sex and this study's sex. For the Ohio State group, the population was those in the age range of the study, between 18 and 24, who identified as male or female. This population, as of Autumn 2021, included 45, 308 undergraduate students, aged 18-24 (The Ohio State University, 2021). Assumptions were run in order to complete this t-test. Outliers were tested by observing Z scores, and no outliers were found. Normality was upheld throughs skewness and kurtosis being between 2 and -2. Visual interpretation histograms also upheld normality. On average, participants in the current study had a more drastic difference in female participants at 118 (60.2%) versus male participants at 67 (34.2%). In the OSU population, there were 22,470 (49.6%) males and 22, 838 (50.4%) females. This independent t-test indicated that

this difference was significant ($t = 3.77$, $p < .001$), and it represented a small-sized effect ($d = .27$). The results suggest there was low nonresponse error when comparing this study's population and Ohio State's.

There were 306 total survey responses. Therefore, the response rate was 12.2%. However, several of these responses had to be deleted due to incomplete responses and outliers. The final sample size of the survey was $n = 196$. When reviewing these responses, nonresponse error was considered. Dillman et al. (2014) defines nonresponse error as "the difference between the estimate produced when only some of the sampled units responds compared to when all of them respond" (p. 4). Researchers aimed to reduce nonresponse error by careful consideration when creating the design of the survey. A few examples of how this was carried out, according to Dillman et al. (2014), include the following: easy to follow survey design, limited required answers to reduce frustration, use of the Ohio State logo to increase trust and credibility, and more. Several of Dillman's et al. (2014) recommendations focus on social exchange theory and how survey respondents are processing survey elements. This relates to nonresponse error because by considering how participants will be viewing and completing the survey—researchers can consider how to better create the design and flow of the survey to encourage participation, and therefore, responses (Dillman et al., 2014). Moreover, the incentive of a gift card or SWAG bag was provided to prompt the participants to fill out the survey correctly to also address nonresponse error. Survey participants had to complete the entire survey before adding their information for the incentive at the end. Table 1 indicates the numbers and percentages of respondents in each treatment group.

	n	%
Treatment 1	35	17.9
Treatment 2	46	23.5
Treatment 3	33	16.8
Treatment 4	45	23.0
Control	37	18.9

Note. Treatment 1 = full-color graphic with icon, Treatment 2 = black and white graphic with icon, Treatment 3 = full-color image of children eating, Treatment 4 = black and white image of children eating

Table 1 Treatment groups

4.2 Results

As seen in Table 2 and 5, demographics were collected on gender, age, year in college, and race. In the sample, the most common ages were 18, 19, and 20, with 61 (31.1%) being 18, 65 (33.2%) being 19, and 42 (21.4%) being 20. The most common year of college was first year at 84 (42.9%). The sample included 118 (60.2%) females, 67 (34.2%) males, and 6 (3.1%) non-binary/genderqueer individuals in the sample. Only 2(1%) participants preferred not to note their gender identity.

	n	%
Age		
18	61	31.1
19	65	33.2
20	42	21.4
21	15	7.7
22	8	4.1
23	2	1.0
24	3	1.5

Table 2 Participant demographic information

Table 2 continued

Gender		
Male	67	34.2
Female	118	60.2
Non-binary/Genderqueer	6	3.1
Prefer not to say	2	1.0
Year in College		
First	84	42.9
Second	55	28.1
Third	34	17.3
Fourth	8	4.1
Fifth	3	1.5

The participant demographic of age, split by treatment group, can be seen in Table 3 below. The most commonly selected age for all treatments was between 18 and 19. Treatment 2 had the highest selected of age 18 at 18 (39.1%). The highest selection for 19 was also found in treatment 2 at 16 (34.8%).

	n	%
Treatment 1		
Age		
18	9	25.7
19	10	28.6
20	9	25.7
21	4	11.4
22	0	0
23	0	0
24	3	8.6

Table 3 Participant age by treatment group

Table 3 continued

Treatment 2		
Age		
18	18	39.1
19	16	34.8
20	10	21.7
21	1	2.2
22	1	2.2
23	0	0
24	0	0
Treatment 3		
Age		
18	11	33.1
19	15	45.5
20	5	15.2
21	0	0
22	1	3.0
23	1	3.0
24	0	0
Treatment 4		
Age		
18	13	28.9
19	13	28.9
20	10	22.2
21	5	11.1
22	4	8.9
23	0	3.0
24	0	0
Control		
Age		
18	10	27.0
19	11	29.7
20	8	21.6
21	5	13.5
22	2	5.4
23	1	2.7
24	0	0

The participant demographic of gender, split by treatment group, can be seen in Table 4 below. The most commonly selected gender was female. Treatment 2 had the highest selected of female at 22 (67.4%). Male was most commonly selected for treatment 4 at 17 (37.8%).

	n	%
Treatment 1		
Gender		
Male	13	37.1
Female	19	54.3
Nonbinary	2	5.7
Prefer not to say	1	2.9
Treatment 2		
Gender		
Male	14	30.4
Female	31	67.4
Nonbinary	0	0
Prefer not to say	0	0
Missing	1	2.2
Treatment 3		
Gender		
Male	10	30.3
Female	22	66.7
Nonbinary	1	3.0
Prefer not to say	0	0
Treatment 4		
Gender		
Male	17	37.8
Female	23	51.1
Nonbinary	3	6.7
Prefer not to say	1	2.2
Missing	1	2.2

Table 4 Participant gender by treatment group

Table 4 continued

Control		
Gender		
Male	13	35.1
Female	23	62.2
Nonbinary	0	0
Prefer not to say	0	0
Missing	1	2.7

Participants were also asked demographic questions regarding ethnicity. When asked if they were Hispanic, Latinx/Latine, or Spanish, the highest selected response was "no" at 176 (89.8%). The second highest was Other Hispanic, Latinx/Latine, or Spanish at 3 (1.5%). In terms of race, the highest selected answer was "White" at 157 (80.1%). The second highest selections were "Black or African American" at 8 (4.1%) and "Asian Indian" at 8(4.1%). This is similar to the Ohio State undergraduate Columbus campus population, as over half are white—30, 309 of 53,189 undergraduates as of 2021 (The Ohio State University, 2021). African American and Asian students were higher than the other groups as of Autumn 2021 as well at Ohio State (The Ohio State University, 2021).

	n	*%*
Hispanic, Latinx/Latine or Spanish Origin		
No	176	89.8
Mexican, Mexican American, or Chicano	2	1.0
Puerto Rican	1	0.5
Cuban	1	0.5

Table 5 Participant demographics continued

Table 5 continued

Hispanic, Latinx/Latine or Spanish Origin		
Other Hispanic, Latinx/Latine or Spanish Origin	3	1.5
Race		
White	157	80.1
Black or African America	8	4.1
American Indian or Alaska Native	2	1.0
Asian Indian	8	4.1
Chinese	6	3.1
Filipino	2	1.0
Japanese	2	1.0
Korean	1	0.5
Vietnamese	2	1.0
Other Asian	3	1.5
Other Race	5	2.6

At the end of the survey, other demographic questions were asked about politics. First participants were asked "Which of the following best describes your political beliefs or values?" The highest selected answer was moderate at 63 (32.1%). Participants were then asked "In politics today, what do you see yourself as?" in regard to political party. The most common selection was Democrat at 61 (31.1%). Results can be seen in Table 6.

	n	*%*
Political Party		
Republican	38	19.4
Democrat	61	31.1
Independent	29	14.8
Non-affiliated	24	12.2
Unsure	22	11.2
Other	7	3.6

Table 6 Political party and beliefs

Table 6 continued

Political Beliefs		
Very liberal	24	12.2
Liberal	43	21.9
Moderate	63	32.1
Conservative	36	18.4
Very Conservative	6	3.1
Other	9	4.6

4.3 Objective 1 Results

Objective 1: Describe respondents' attitudes, perceived behavioral control (PBC), social norms, and behavioral intent regarding the charitable food branding

TPB elements of attitudes, PBC, social norms, and intent were analyzed using descriptive statistics. In Table 7 below, results from the attitudes, which were semantic scale questions, can be seen. The majority of respondents had neutral to positive attitudes toward charitable food organizations. The bipolar pairing of important versus not important had the highest positive attitude with 34(17.3%) respondents selecting 4, and 148(95.9%) selecting 5, or Important. The mean for that item was 4.76, and the standard deviation was .50. The mean of the attitude scale was 4.60 (*SD* = .48), which suggests, on average, participants had strong attitudes toward supporting charitable food branding. Cronbach's alpha was .851 for the scale of attitudes. Real limits were set to maintain consistency (Sheskin, 2004). The real limits were 1.00 – 1.49 = weak attitude, 1.50 – 2.49 = somewhat weak attitude, 2.50 – 3.49 = neither positive or negative attitude, 3.50 – 4.49 = somewhat strong attitude, and 4.50 – 5.00 = strong attitude.

	Negative attitude 1 n(%)	*2 n(%)*	*3 n(%)*	*4 n(%)*	*Positive attitude 5 n(%)*	*M*	*SD*
Harmful : Beneficial	0(0)	0(0)	8(4.1)	31(15.8)	148(75.5)	4.75	.53
Not important : Important	0(0)	0(0)	6(3.1)	34(17.3)	148(95.9)	4.76	.50
Good : Bad*	2(1.0)	0(0)	11(5.6)	34(17.3)	140(71.4)	4.66	.69
Negative : Positive	0(0)	0(0)	7(3.6)	39(19.9)	140(71.4)	4.72	.53
Unfavorable : Favorable	0(0)	0(0)	13(6.6)	47(24.0)	127(64.8)	4.61	.62
Not interesting : Interesting	0(0)	3(1.5)	49(25.0)	54(27.6)	81(41.3)	4.14	.86

Note. *Reverse coded items

Table 7 Attitude descriptive statistics

In terms of perceived behavioral control, Table 8 shows participant responses. These questions were also measured using a semantic scale, which allowed participants to pick a position in a two-poled concept. For values, a 1 indicated a low perceived behavioral control ranging to a 5 that represented a high perceived behavioral control. The item with the highest mean score here was possible for me versus not possible for me (M = 4.07; SD = .83). Moreover, 91(46.4%) of participants chose 4, and 61(31.1%) of participants chose 5, or possible for me. The mean of this scale was 3.84 (SD = .68), which indicated somewhat strong PBC. Cronbach's alpha was .821 for the scale of PBC.

The real limits were 1.00 – 1.49 = weak PBC, 1.50 – 2.49 = somewhat weak PBC, 2.50 – 3.49 = neutral PBC, 3.50 – 4.49 = somewhat strong PBC, and 4.50 – 5.00 = strong PBC.

	Low PBC n(%)	*2 n(%)*	*3 n(%)*	*4 n(%)*	*High PBC n(%)*	*M*	*SD*
Not up to me : Up to me	2(1.0)	8(4.1)	41(20.9)	66(33.7)	72(36.7)	4.05	.93
Possible for me : Not possible for me*	2(1.0)	5(2.6)	31(15.8)	91(46.4)	61(31.1)	4.07	.83
Complicated : Not complicated	4(2.0)	29(14.8)	47(24.0)	58(29.6)	51(26.0)	3.65	1.1
Not in my control : In my control	4(2.0)	8(4.1)	46(23.5)	76(38.8)	55(28.1)	3.90	.94
Not practicable for me : Practicable for me	2(1.0)	15(7.7)	42(21.4)	82(41.8)	48(24.5)	3.84	.93
Not easy for me to do : Easy for me to do	3(1.5)	20(10.2)	66(33.7)	75(38.3)	25(12.8)	3.52	.91

Note *Reserve coded items.

Table 8 Perceived behavioral control (PBC) frequencies and descriptive statistics

Social norms were measured through a six-item, five-point Likert scale, where 1 = strongly disagree, 2 = somewhat disagree, 3 = neither agree nor disagree, 4 = somewhat agree, and 5 = strongly agree. These results can be seen in Table 9. These mean scores were relatively higher than the values seen in PBC. The highest mean score was observed for the statement "The people in my life would approve of me volunteering for charitable food organizations" (M = 4.79, SD = .60). The total mean of the social norms scale was 4.45 (SD = .60), which suggests "somewhat agree" associated with supporting charitable food organizations and social norms. Cronbach's alpha was .816 for the scale of social norms. The real limits were defined as the following: 1.00 – 1.49 = strongly disagree, 1.50 – 2.49 = somewhat disagree, 2.50 – 3.49 = neither agree nor disagree, 3.50 – 4.49 = somewhat agree, and 4.50 – 5.00 = strongly agree.

	Strongly Disagree n(%)	*Somewhat Disagree n(%)*	*Neither Agree Nor Disagree n(%)*	*Somewhat Agree n(%)*	*Strongly Agree n(%)*	*M*	*SD*
Volunteering for charitable food organizations	1(.5)	2(1.0)	6(3.1)	19(9.7)	168(85.7)	4.79	.60
Donating food to charitable food organizations	2(1.0)	0(0)	7(3.6)	33(16.8)	154(78.6)	4.72	.63

Table 9 Social norms descriptive statistics

Table 9 continued

Donating money to charitable food organizations	0(0)	4(2.0)	14(7.1)	57(29.1)	121(61.7)	4.51	.72
Advocating for charitable food organizations on social media.	2(1.0)	3(1.5)	19(9.7)	53(27.0)	119(60.7)	4.45	.81
Contacting my local and national government officials in support of hunger relief	3(1.5)	5(2.6)	30(15.3)	50(25.5)	108(55.1)	4.30	.93
Advocating for charitable food organizations by attending a rally or protest	9(4.6)	20(10.2)	28(14.3)	59(30.1)	80(40.8)	3.92	1.2

Behavioral intent regarding supporting charitable food organizations was measured through six items. For reliability, Cronbach's alpha was .773 for intent. The item with the highest intent was donating food items to a CFO at 156 (79.6%). Frequencies and percentages for all intent answers can be seen in Table 10.

To better understand actual intent to support charitable food organizations, a summated scale was created. In these new variables, only an answer of "yes" was coded as 1 and an answer of "unsure" or "no" were recoded as 0. This scale better showed true

intent to support charitable food organizations. The mean of the summated scale was 2.89 (*SD* = 1.82), suggesting that respondents were intending to perform close to three out of six of the behaviors to support CFOs.

	No *n(%)*	*Unsure* *n(%)*	*Yes* *n(%)*
Donate food items to a charitable food organization	6(3.1)	34(17.3)	156(79.6)
Donate money to a charitable food organization	5(2.6)	71(36.2)	120(61.2)
Volunteer for a charitable food organization	7(3.6)	76(38.8)	113(57.7)
Advocate for charitable food organizations on social media	35(17.9)	83(42.3)	78(39.8)
Advocate for charitable food organizations by contacting my local and national government officials in support of hunger relief	52(26.5)	94(48.0)	50(25.5)
Advocate in some way for a charitable food organizations by attending a rally or protest	45(23.0)	102(52.0)	49(25.0)

Table 10 Frequencies and percentages of future intent

	n	%
0 selected	20	10.2
1 selected	30	15.3
2 selected	35	17.9
3 selected	44	22.4
4 selected	25	12.8
5 selected	18	9.2
6 selected	24	12.2

Table 11 Future intent descriptive statistics

In Table 12 and 13, the summated scores for past experience and future intent, split by treatment group, can be found. For future intent, treatment 4 had 7 (15.6%) of participants having all six future intent items as "yes," which was a summated score of 6. The highest selected summated score for future intent was treatment 2, with a summated score of 3 at 12 (26.1%) participants. Additionally, with mean scores for each treatment, treatment 1 was $M = 2.9$; treatment 2 was $M = 2.8$; treatment 3 was $M = 3.0$; treatment 4 was $M = 2.6$; and the control was 3.2. With past experience, treatment 4 also had the highest selection for a summated score of 6 at 3 (6.7%) participants. The highest selected summated score for past experience was the control, with a summated score of 2 at 17 (46.9%) participants. For mean scores for each treatment, treatment 1 was $M = 2.8$; treatment 2 was $M = 2.6$; treatment 3 was $M = 2.8$; treatment 4 was $M = 2.4$; and the control was 2.8.

	n	*%*
Treatment 1		
0	5	14.3
1	4	11.4
2	6	17.1
3	7	20.0
4	5	14.3
5	4	11.4
6	4	11.4
Treatment 2		
0	2	4.3
1	8	17.4
2	11	23.9
3	12	26.1
4	5	10.9
5	3	6.5
6	5	10.9
Treatment 3		
0	2	6.1
1	6	18.2
2	5	15.2
3	8	24.2
4	4	12.1
5	5	15.2
6	3	9.1
Treatment 4		
0	9	20.0
1	7	15.6
2	8	17.8
3	7	15.6
4	5	11.1
5	2	4.4
6	7	15.6
Control		
0	2	5.4
1	5	13.5
2	5	13.5
3	10	27.0
4	6	16.2
5	4	10.8
6	5	13.5

Table 12 Summated future intent split by treatment groups

	n	*%*
Treatment 1		
0	2	5.7
1	4	11.4
2	6	17.1
3	13	37.7
4	8	22.9
5	1	2.9
6	1	2.9
Treatment 2		
0	2	4.3
1	6	13.0
2	14	30.4
3	15	32.6
4	5	10.9
5	3	6.5
6	1	2.2
Treatment 3		
0	0	0
1	3	9.1
2	11	33.3
3	12	36.4
4	5	15.2
5	1	3.0
6	1	3.0
Treatment 4		
0	5	11.1
1	5	11.1
2	15	33.3
3	12	26.7
4	2	4.4
5	2	4.4
6	3	6.7
Control		
0	0	0
1	1	2.7
2	17	45.9
3	9	24.3
4	7	18.9
5	2	5.4
6	0	0

Table 13 Summated past experience split by treatment groups

4.4 Objective 2 Results

Objective 2: Describe respondents' attitudes, perceived behavioral control (PBC), social norms, and behavioral intent by treatment group.

Descriptive statistics were used to understand mean values of each treatment group. Mean values were the highest for all scales with treatment 1, except intent. The highest mean value for intent was the control group (M = 3.22, SD = 1.73), which suggests receiving no treatment also influenced intent. Next highest mean for intent included treatment 3 (M = 3.00, SD = 1.75). This indicates treatment 3 was also influencing intent to be higher. As a reminder, this scale was summated and calculated based on "yes" answers. Participants could receive a 0-6 score. Additionally, looking at Table 14, it can be seen that intent does have a high standard deviation for each mean value. This suggests there was higher variance from the mean, which indicates the intent data was relatively spread out.

	M	*SD*
Treatment 1		
Attitudes	4.71	.43
Perceived Behavioral Control	4.01	.66
Social Norms	4.71	.43
Intent*	2.89	1.91
Treatment 2		
Attitudes	4.60	.50
Perceived Behavioral Control	3.80	.68
Social Norms	4.35	.61
Intent*	2.85	1.65

Table 14 Scaled mean and standard deviation by treatment groups for future intent

Table 14 continued

Treatment 3		
Attitudes	4.60	.55
Perceived Behavioral Control	4.0	.70
Social Norms	4.45	.70
Intent*	3.00	1.75
Treatment 4		
Attitudes	4.51	.52
Perceived Behavioral Control	3.56	.74
Social Norms	4.30	.67
Intent*	2.58	2.05
Control		
Attitudes	4.63	.35
Perceived Behavioral Control	3.93	.52
Social Norms	4.50	.46
Intent*	3.22	1.73

Note. *Summated intent scores ranged from 0-6, depending on how many items they selected "yes" for.

4.5 Additional Results

Past Experience

Table 15 includes responses to the question of past experiences supporting charitable food organizations. The most common past behavior was donating food items to a charitable food organization at 176 (89.8%), which is consistent with the highest number for future intent.

	No *n(%)*	*Unsure* *n(%)*	*Yes* *n(%)*
Donate food items to a charitable food organization	10(5.1%)	8(4.1)	176(89.8)
Volunteer for a charitable food organization	31(15.8)	21(10.7)	142(72.4)
Donate money to a charitable food organization	64(32.7)	23(11.7)	107(54.6)
Advocate in some way for a charitable food organizations by attending a rally or protest	151(77.0)	16(8.2)	27(13.8)
Advocate for charitable food organizations on social media	128(65.3)	20(10.2)	46(23.5)
Advocate for charitable food organizations by contacting my local and national government officials in support of hunger relief	163(83.2)	12(6.1)	19(9.7)

Table 15 Past behavior with charitable food organizations

Multiple Choice Treatment Questions

Two questions were posed, with images of the treatments, “Which one of these images catches your attention the most?” and “Which one of these images would make

you more likely to support charitable food organizations?" Treatment 3 received the most answers for the one that catches attention at 87 (44.4%). For the treatment that made individuals most want to support CFOs, treatment 3 was also the highest selected at 103 (52.6%). View table 16 and 17 for complete results.

	n	*%*
Treatment 3	87	44.4
Treatment 1	53	27
Treatment 4	37	18.9
Treatment 2	3	1.5

Note. Treatment 1 = full-color graphic with icon, Treatment 2 = black and white graphic with icon, Treatment 3 = full-color image of children eating, Treatment 4 = black and white image of children eating

Table 16 Selection of post that catches attention the most

	n	*%*
Treatment 3	103	52.6
Treatment 4	52	26.5
Treatment 1	29	14.8
Treatment 2	5	2.6

Note. Treatment 1 = full-color graphic with icon, Treatment 2 = black and white graphic with icon, Treatment 3 = full-color image of children eating, Treatment 4 = black and white image of children eating

Table 17 Selection of post that increases support of CFOs

4.6 Objective 3 Results

Objective 3: Determine the difference in behavioral intent by charitable food branding treatment group.

A one-way ANOVA was completed to better determine how intent differed from treatment group. Assumptions for a one-way ANOVA were upheld. Outliers were assessed through reviewing Z scores, and this assumption was upheld. Based on the results of the Levene's test, equal variances across groups are assumed and homogeneity of variance is upheld (F = .935, p = .445). Through a visual assessment of the box plot, this assumption was also upheld. Visual and statistical analyses indicate the normality assumption was also upheld. This was assessed by analyzing skewness and kurtosis, Q-Q and P-P plots, and histograms. The dependent variable was intent, and the independent variable was treatment group in testing. This one-way ANOVA with intent and treatment groups was found to not be significant (F = .660, p = .620). This means there were no significant differences in intent to support charitable food organizations among the treatment groups.

	SS	*df*	*MS*	*F*	*p*	ω2
Between groups	8.805	4	2.20	.660	.620	-.007
Within groups	636.73	191	3.33			
Total	645.53	195				

Table 18 One-way ANOVA comparison of intent based on treatment groups

4.7 Objective 4

Objective 4: Determine how attitudes, perceived behavioral control (PBC), and social norms influence respondents' behavioral intent for each treatment group

Multiple Linear Regression with Split Treatment Outputs

A multiple linear regression was used to determine the influence attitudes, social norms, and perceived behavioral control had on behavioral intent for each treatment group. Before running the regression, the file was split into treatment groups, so the multiple linear regression would separate each treatment group's information regarding the theory of planned behavior variables.

In terms of assumptions, linearity was upheld by assessing scatterplot matrixes. A non-horizontal relationship was assessed for treatment 1's TPB attributes and behavioral intent, as well as treatment 2, 3, 4, and the control through these scatterplots. After running the regression, the scatterplots with the regression standardized residual and predicted value were assessed. After adding a line of best fit for all treatments and the control, the straight, horizontal line indicated independent residual terms from the residual predictors, which led to the assumption of homogeneity of variance being upheld. Additionally, the even spread of data for these scatterplots also upheld homogeneity of variance. Partial regression plots were also visually evaluated and upheld homogeneity of variance.

Residual normality was upheld through visual interpretation of the histogram, PP-Plot, and QQ-Plot. With normality, Cook's Distance was also used to assess case wise issues and outliers. According to Field (2018), if Cook's distance is more than 1 it is

considered an outlier, and cases that are below one could also be an outlier if deemed having an undue influence on the regression model. Cook's values were observed as well as visually assessed through a scatterplot containing the Cook's values and intent. Therefore, outliers with a Cook's value above 1 were removed and values having an undue influence were removed. Cook's distance was also evaluated again using case summaries. Through the beginning of the research process, a total of six outliers were removed using Cook's values. The regression was re-run after removing outliers. This was also checked by reviewing the Z residual scores for the regression. Since less than 5% of the data was above an absolute value of 2 for the Z residual scores, this assumption was further upheld. In terms of collinearity, VIF values were evaluated. Since no values were found to be above a 5, the assumption of collinearity is upheld.

Table 19 and 20 below explain the multiple linear regression results, as the individual TPB elements, split by treatment group. Three of the five multiple linear regression models were significant, indicating that TPB was operating as intended in three of the treatments. The predictors were social norms, attitudes, and perceived behavioral control, while the dependent variable was intent. The model of treatment 1 was not significant (R^2adj = .092, F = 2.08, p = .124). However, treatment 2 (R^2adj = .39, F = 9.65, p < .001), treatment 3 (R^2adj = .53, F = 12.79, p < .001), and treatment 4 (R^2adj = .48, F = 12.12, p < .001) were significant. Moreover, the control was found to not be significant (R^2adj = .11, F = 2.33, p = .095). The strongest model was the model treatment 3, which explained 53.5% of the variance in intent. For individual variables, attitudes were significant (β = -1.58, p = .013), PBC (β = 1.67, p = < .001). The beta

coefficient was negative, which suggests for every one unit increase in attitudes, intent will decrease by the beta. Social norms (β = 1.26, p = .007) were also significant for treatment 3. As attitude increase by one unit, for treatment 3, intent to support charitable food organizations decreased by 1.58. For each unit increase of social norms, intent increased by 1.67 for treatment 3. The significant model for treatment 4 explained 43.7% of the variance in intent and contained two significant variables—PBC (β = 1.14, p = .005) and social norms (β = .92, p = .049). In treatment 4, for each increase in intent, PBC increased by 1.14. For every increase in social norms, intent increased by .92 for treatment 4. The model for treatment 2 had one significant variable, attitudes (β = 1.57, p <.001). This means for each increase in attitudes, intent increased by 1.57 for treatment 2.

	Adj R^2	*F*	*p*
Treatment 1	.092	2.084	.124
Treatment 2	.388	9.652	<.001*
Treatment 3	.535	12.785	<.001*
Treatment 4	.437	12.139	<.001*
Control	.108	2.327	.095

Note. *Indicates significance

Table 19 Multiple linear regression model results split by treatment group

	ß	*t*	*p*
Treatment 1			
Attitudes	.290	.286	.777
PBC	.836	1.342	.190

Table 20 Multiple linear regression for TPB variables split by treatment group

Table 20 continued

SN	.624	1.342	.557
Treatment 2			
Attitudes	1.570	3.747	<.001*
PBC	.271	.834	.409
SN	.493	1.325	.193
Treatment 3			
Attitudes	-1.581	-2.662	.013*
PBC	1.667	3.862	<.001*
SN	1.263	2.929	.007*
Treatment 4			
Attitudes	.487	.920	.363
PBC	1.135	3.000	.005*
SN	.917	2.034	.049*
Control			
Attitudes	-.913	-1.089	.285
PBC	.431	.748	.460
SN	1.374	2.143	.040*

Note. *Indicates significance

4.8 Post Hoc Test

Although the regression models for three of the treatments were significant, the ANOVA was not significant. Therefore, an additional post hoc test was completed to assess if any other variables were impacting intent. The researchers ran an additional multiple linear regression. This included dummy coded demographics such as political beliefs, gender, age, and year in college in addition to the TPB variables. Summated past experience was also a variable used as an independent variable.

With assumptions, linearity was upheld by visually assessing scatterplot matrixes. A non-horizontal relationship existed for intent versus all variables. The scatterplot with

the regression standardized residual and predicted value was assessed and found to be straight. This led to the assumption of homogeneity of variance being upheld.

The even spread of data for the partial regression scatterplots also upheld homogeneity of variance. These partial regression plots were also visually evaluated and upheld homogeneity of variance. Residual normality was upheld through visual interpretation of the histogram and PP-Plot. Cook's Distance was used to assess case wise issues and outliers, and outliers were removed according to Field (2018) recommendations. Cook's distance was also evaluated again using case summaries. Normality was also checked by reviewing the Z residual scores for the regression and less than 5% of the data was above an absolute value of 2. In terms of collinearity, VIF values were evaluated. Since no values were found to be above a 5, the assumption of collinearity was upheld.

In terms of results, all models were significant with the addition of the dummy-coded variables: treatment 1 (R^2adj = .47, F = 3.72, p = .008), treatment 2 (R^2adj = .58, F = 6.57, p < .001), and treatment 3 (R^2adj = .74, F = 9.96, p < .001), treatment 4 (R^2adj = .55, F = 5.81, p = < .001), were significant again. Furthermore, the control model (R^2adj = .34, F = 2.82, p = .022) was also significant after adding these additional demographic variables. The strongest model was treatment 3, which was the same as the first linear regression. Treatment three explained 73.6% of the variance. It is important to note that the model of treatment three did increase from the first model with only the TPB elements (R^2adj = .535) to this model with the added demographic variables and past experience (R^2adj = .736). The model of treatment two, which included the TPB elements

(R^2adj = .388), also increased with the added demographic variables (R^2adj = .582). In fact, the all models better explained variance with the added demographic variables, as all of the adjusted R^2 values increased. The models with the TPB elements can be found in Table 19, and the models with the addition demographic variables and past experience can be found in Table 21.

In terms of model variables for treatment 3, PBC (β = 1.50, p = <.001) and summated past experience (β = .774, p = <.001) were significant. Social norms (β = .439, p = .321) and attitudes were not significant (β = -.886, p = .093). For the significant predictors, more can be understood through their beta coefficient values. In treatment 3, as PBC increases by one unit, intent increases by 1.50. As summated intent increases by one unit, intent increases by .774. In terms of age 21 through 24 (β = -.280, p = .787), male (β = .034, p = .944), moderate (β = .018, p = .970), and conservative (β = -.843, p = .156), none of these added variables were significant. Although treatment 3 was the strongest model, the control variable did become significant with the added demographics. Looking at the variables in the control, conservative (β = -1.56, p = .034) was significant. The model of Treatment 1 also became significant as compared to the previous regression. Summated past experience was the only significant predictor in this model (β = .642, p = .006).

	Adj R^2	*F*	*p*
Treatment 1	.466	3.715	.008*
Treatment 2	.582	6.567	<.001*
Treatment 3	.736	9.961	<.001*
Treatment 4	.546	5.808	<.001*
Control	.338	2.818	.022*

Note. *Indicates significance

Table 21 Multiple linear regression post hoc results

	ß	*t*	*p*
Treatment 1			
Past Experience	.642	3.105	.006*
Age 21-24	-1.132	-1.021	.320
Male	-.207	-.323	.750
Year 3-5	1.162	1.461	.160
Moderate	-1.380	-2.005	.059
Conservative	-.487	-.586	.565
Attitudes	-.266	-.307	.762
PBC	.965	1.784	.090
SN	.324	.361	.722
Treatment 2			
Past Experience	.358	2.098	.045*
Age 21-24	-2.759	-2.347	.027*
Male	-.970	-2.535	.017*
Year 3-5	.528	.580	.567
Moderate	-.291	-.694	.494
Conservative	-.442	-.981	.335
Attitudes	1.368	2.729	.011*
PBC	.084	.262	.795
SN	.670	1.909	.067
Treatment 3			
Past Experience	.774	4.029	<.001*
Age 21-24	-.280	-.274	.787
Male	.034	.071	.944
Year 3-5	-.572	-.785	.442
Moderate	.018	.038	.970
Conservative	-.843	-1.474	.156

Table 22 Multiple linear regression post hoc results split by treatment group

Table 22 continued

Attitudes	-.886	-1.761	.093
PBC	1.495	4.128	< .001*
SN	.439	1.019	.321
Treatment 4			
Past Experience	.329	1.632	.114
Age 21-24	.044	.038	.970
Male	.667	1.159	.256
Year 3-5	.791	.734	.469
Moderate	-.196	-.334	.741
Conservative	-.887	-1.232	.228
Attitudes	.541	.892	.380
PBC	1.584	3.055	.005*
SN	.107	.216	.831
Control			
Past Experience	.497	1.570	.130
Age 21-24	.327	.275	.786
Male	-.947	-1.373	.183
Year 3-5	-.870	-.904	.376
Moderate	-1.123	-1.707	.101
Conservative	-1.557	-2.250	.034*
Attitudes	-1.414	-1.776	.089
PBC	.623	1.123	.273
SN	1.208	1.902	.070

Note. *Indicates significance

4.9 Summary

Chapter four reviewed data analysis from each objective, as well as an additional regression test. Findings suggested that perceived behavioral control and social norms are playing a larger role in intent than attitudes. Additionally, the political belief of conservatism was found to influence PBC and social norms in regard to intent as well, relating to past literature. From this data, chapter 5 will review conclusions, possible implications, and recommendations for future research.

Chapter 5: Discussion and Conclusions

This study aimed to understand if communication treatments regarding charitable food organization branding influenced college students' intent to support the organizations through donating, volunteering, or advocating. Descriptive statistics, frequencies, a one-way ANOVA, and two multiple linear regressions were used to analyze the data collected from participants. This chapter will review conclusions from the results, possible implications from the results, recommendations for future research, and recommendations for how charitable food organizations can use this research. Additionally, study limitations will also be addressed.

5.1 Conclusions

The first objective indicates relatively strong perceived behavioral control, social norms, and future intent regarding supporting charitable food organizations. For attitudes, high mean values indicated a strong positive or negative attitude range as set by real limits. Attitude is one of the elements that leads to behavior in the TPB (Ajzen, 2020). Ajzen (2020) notes that behavioral beliefs influence this attitude, and in turn, attitude can impact behavioral intent and eventually behavior. For the next scale, perceived behavioral control, the mean values were somewhat strong, as set by real limits. Based on control beliefs, perceived control also impacts behavioral intent (Ajzen, 2020). The next scale included questions regarding social norms. These mean values were between somewhat strong, as set by real limits. Relevant literature suggests this social pressure to

engage can also affect behavioral intent Ajzen (2020). Each scale's mean values for attitudes, PBC, and social norms were between somewhat and strong according to real limits, with mean values ranging from 3.84 to 4.60. According to the scale values set by researchers, as well as real limits, all TPB elements leading to intent were relatively strong, suggesting, overall, strong attitudes, control, and social norms regarding the behavior of supporting CFOs.

Intent was measured differently than the other TPB scales. The mean value for the summated intent scale was 2.89 (*SD* = 1.82). This indicates that participants, on average, selected almost three "yes" answers of the 6-question future intent scale. The most often selected intent item for supporting charitable food organizations was regarding donating food items to a charitable food organization at 156 (79.6%), donating money to a charitable food organization at 120 (61.2%), and volunteering for a charitable food organization at 113 (57.7%). These numbers suggest there is interest to support charitable food organizations with this group, which aligns with the literature that noted this group is known to value progressive ideals and be more socially-minded (Deichler, 2021; Pew Research Center, 2020). Relevant research also suggests Gen Z engaged more with donating during the pandemic, which could mean these individuals are still looking to help charitable organizations when they are able to (Leonhardt, 2020).

Although not an objective, descriptive results from comparing past behavior and future intent conveys relevant differences. These results can be seen in Table 15 and 10. For donating food to a charitable food organization, intent decreased from past at 176 (89.8%) to 156 (79.6%) for the future, and volunteering for a CFO also decreased from

the past at 142 (72.4%) to the future at 113 (57.7%). These could have decreased since maybe participants performed these behaviors more during the pandemic but may not plan on doing so in the future. Other than those two behaviors, "yes" numbers increased from past behavior to future behavior regarding supporting charitable food organizations. Donating money to a charitable food organizations intent increased from past at 107 (54.6%) to 120 (61.2%) for the future. All aspects of advocating increased: attending rally or protest increased from 27 (13.8%) to 49 (25.0%); advocating on social media increased from 46 (23.5%) to 78 (39.8); and contacting government officials increased from 19 (9.7%) to 50 (25.5%). By comparing these past behaviors and future intent, more can be understood about how this specific demographic would like to support CFOs.

It is interesting that the aspects of advocating through a protest/rally, advocating on social media, and advocating through government officials all increased from past to future. This could mean that this survey, or the treatments, influenced participants to be more likely to plan to advocate in some way in the future. Also, it could be that many of these individuals were not aware of these organizations or how advocating could support their efforts. With donating food and volunteering, the "yes" numbers for future intent versus past behavior decreased. This could be for various reasons. One reason that seems likely is the pandemic. Perhaps many Gen Z individuals did one of these actions during the pandemic, therefore these individuals are less likely to feel the need to continue to do so. Gen Z was found to give money during the start of the pandemic, as well to generally give to charitable organizations as of 2020 (Enthuse, 2020; Leonhardt, 2020). Additionally, these behaviors could also indicate these individuals performed these

behaviors in the past when they had more time to do so, perhaps in high school, but do not have the time or resources to do so now. For example, perhaps volunteering is more difficult if students do not have a car to get off campus, as more volunteer opportunities can be found off Ohio State's campus.

When comparing past behavior and future intent toward the behavior, it is interesting that advocating increased. This could be because many of these advocating efforts may be more accessible for college students. For example, calling a congressperson or posting on social media would take less financial or time-oriented resources than donating food or volunteering. In the past, this generation has been known to support causes on social media—such as supporting the ALS Ice Bucket Challenge or raising awareness for the Standing Rock Indian Reservation (Fromm, 2018). Additionally, perhaps these individuals were unaware of how they could advocate for charitable food organizations. It could be that this survey made these individuals more likely to consider advocating due to the treatments, definitions, or overall topics within the survey.

As a reminder, treatment 1 was the post with an icon of a grocery bag and full color. Treatment 2 also included an icon, as well as black, white, and gray. Treatment 3 was the high color post with the image of the children. Treatment 4 was the black, white, and gray post with the image of the children. All contained the same text "1 in 6 children may not have enough food to eat in 2021." All were treatments formatted as a square, similar to templates for Instagram posts.

The second objective focused on dividing these TPB elements by treatment group. In terms of descriptive statistics, the mean values were the highest for all scales with treatment 1, except intent. Treatment 1 was not found to be a significant model in later regression testing, however. However, the intent average for this treatment was 2.89, which could've been affected by a couple of factors. With treatment 1, perhaps this did not follow TPB due to unforeseen variables. Though these TPB elements' means were strong and somewhat strong according to real limits, perhaps certain background factors of the TPB influenced future intent. It could be that these participants would like to support TPB, but they cannot commit the time or resources to do so. This could be due to treatment 1's design, which was similar to images shared by Feeding America and No Kid Hungry—and was text and graphically oriented. It could be that this influenced attitudes, social norms, and PBC, but it did not influence overall intent due to the fact that this type of design is commonly seen. In the same vein, perhaps the image was influential enough to influence some TPB elements but not influential enough to impact intent. Although participants in treatment 1 have strong attitudes, feel they have control, and feel others around them would support them interacting with charitable food organizations—it could be they still do not believe they would perform any intent items. This could be due to the fact of how PBC was measured also, as most of the bipolar elements did not specifically focus on time or resources regarding CFOs. These bipolar terms were more vague in nature, such as "possible" versus "not possible" or "complicated" versus "not complicated." It could be that the survey design did not account for PBC elements that are more complex in nature.

The third objective used a one-way ANOVA to determine if there was a difference in intent to support charitable food organizations between treatment groups. It was not found to be significant. The ANOVA specifically looked at the difference in intent to support charitable food organization between groups. Therefore, this nonsignificant test indicated there was not an overall effect of the treatments. This is interesting as later regression testing, split by treatment group, found significant models with specific treatments. An ANOVA test is defined as "the partitioning of the total variation in the outcome variable into parts explained by the factor(s)—related to differences between groups, so-called explained or between variation—and a part that remains after taking the factor(s) into account, the so-called unexplained, residual, or within variation" (Lavraka, 2008, para. 1). It is logical that the ANOVA would not be significant versus the regression models, as they looked at two different aspects of the data. The regression models that looked more so at how the independent variables of the TPB elements predicted the dependent variable of intent (Lavrakas, 2008; Salkind, 2010). Additionally, the split variables used in regression testing allowed researchers to take a closer look at each treatment. Moreover, the design of the survey could also have impeded this ANOVA test. Perhaps the timing of 30 seconds was not long enough for participants to accurately be influenced by the treatment. Participants were simply told to review the treatment, and at the end, they were asked questions about all images. This survey cannot truly simulate social media, as an individual could see a post multiple times for varying amounts of time—like in a non-research setting. Additionally, the messaging did not call for specific action, which could have impacted intent. The

treatments only shared information regarding food security—possible actions could be inferred but were not specifically stated. If a call to action was used, it is possible intent could have been different for each. There are several reasons that possibly factored into the nonsignificant ANOVA testing.

The fourth objective sought to understand if the TPB elements influenced intent for each treatment group. This was analyzed through a multiple linear regression. The regression models for treatment 2, 3, and 4 were all found to be significant—the black and white icon post, the color image with children eating, and the black and white image with children eating. Past literature suggests color and symbols play a role in how individuals perceive communications (Labrecque & Milne, 2012; Moriarty, 2016; Rhyne, 2017). This appears to be somewhat supported here—as one high color treatment was significant, treatment 3. Treatment 3 also contained an image of two children. Including images has been found to increase engagement on social media platforms like Facebook and Instagram, as well as have been discussed as an effective marketing strategy (Li & Xie, 2020; Sehl, 2019; Sibley, 2017). However, two black and white treatments were also found to be significant. For treatment 4, this could be because black and white photography can be considered more dramatic (Taylor, 2021). Black and white photography has also been known to show a different perspective, and to "draw you in" (Kravitz & Morgan, n.d., para. 3). Additionally, it has been found that black and white marketing can be effective because it allows for focus to be placed on the basics of the products, as well as if the product has superior features (Lee et al., 2014). Moreover, this allows individuals to focus less on the colors and more to the subject (Kravitz & Morgan,

n.d.). Treatment 2's model, the graphic black and white design with no image, also was significant. At times, making icons or images black and white can make designs simpler and easier to understand (Taylor, 2021). This type of design has also been known to stand out on social media, which could explain the effect of treatment 2 and 4 (Taylor, 2021). Out of the three significant models in regression testing, two had no color, which is important to consider for future research.

It is vital to not only take into account the design of treatment 2 and 4 but also which TPB elements were significant in each model. For treatment 2, attitudes were significant. And with treatment 4, PBC and social norms were significant. This could suggest that each treatment could be playing a different role with certain TPB elements. Perhaps treatment 4 affected more of PBC and social norms due to the more dramatic elements of the black and white photo. It is likely this treatment was not influential enough to impact attitudes, though—especially if individuals were not inclined to prefer the black and white design. Moreover, this could also relate back to the root of how attitudes are formed according to the TPB. Attitudes are influenced by behavioral beliefs, which Ajzen (2019) defined as relating to the behavior of interest to expected outcomes and experiences. These individuals' behavioral beliefs, which are not all accessible, lead to the attitude toward the behavior. Perhaps these individuals had negative or more neutral experiences in the past which influenced their attitudes regarding the topic, which may have been unchanged even with an addition of a treatment. Treatment 2 could have had the opposite effect. It is likely that participants in treatment 2 were influenced only by their behavioral beliefs or attitudes, which could have stayed the same with or without

the treatment. Additionally, perhaps these already formed attitudes were positive, but the participants knew they did not have the control or the support around them to interact with CFOs. Or, if influenced by the treatment, these participants could have valued to the easy-to-understand, icon-oriented graphic black and white design on the individual level. Several reasons could possibly explain why treatment 2 and 4 were significant but not all elements of the TPB were significant predictors. These could also be influenced by their background knowledge or experiences. It was assumed these differences in support between treatment groups indicated the influence of the treatments, based on statistical testing.

This multiple linear regression also included the significant model of treatment 3, which was the high color and image treatment. Within this treatment, all independent TPB variables were found to be significant. Treatment 3's model, as seen in Table 19, explained 53.5% of the variance in intent. These findings are supported by color theory, as a colorful treatment is known to catch the attention of an audience. Moreover, colors have also been known to support a strong brand personality, which can in turn influence perceptions of an organization (Akkagui & Breslow, 2016; Fontein, 2019; Labrecque & Milne, 2012). Using colors strategically can catch audiences' attention, as well as influence their purchasing, brand recognition, and brand loyalty (Smith, 2012; Kumar, 2017). The aspect of the image of the two children in treatment 3 likely added to its influence as well, since photos in marketing has been found to also be effective (Li & Xie, 2020; Sehl, 2019; Sibley, 2017). However, it is interesting that attitudes negatively influenced intent regarding treatment 3, while PBC and social norms positively

influenced intent. This could be due to preexisting attitudes held by participants or the measurement of attitudes. Or, perhaps the research design did not allow participants to share their in-depth attitudes. If these choices were too broad in nature, the participants could have been unsure and answered negatively or neutrally. It should be noted that later questions did reveal participant preference for treatment 3. Treatment 3 seems to be supported by the multiple choice questions at the end of the survey. In terms of answers, 87 (44.4%), participants selected treatment 3 as catching their attention most, and 103 (52.6%) selected it would make them more likely to support CFOs. All TPB elements of treatment 3 were significant, and comparison questions with the other treatments indicate it is the preferred treatment. Figure 9 shows the updated conceptual model with arrows indicating which TPB predictors were significant for each treatment.

Although not an objective, an additional multiple linear regression model was completed as a post hoc test with additional dummy-coded demographic predictors, as well as past experience. With these added variables, the control group and treatment 1 were found to be significant, which suggests the added demographic variables, and past experience, played a role in this. For the control model, the predictor of conservative was significant. However, conservative's beta was negative, suggesting as the conservative predictor increased one unit, intent was decreasing by the beta value. This was compared to the liberal grouping, which was left out of the post hoc test. Literature mentions conservatives tending to have a more negative view of food insecurity (Ward et al., 2018). It is also likely that without the added treatment to influence intent, conservatives were less likely to intend to support charitable food organizations. Conservative's

significance for this model is important to consider since it was not significant for any other treatment model.

It is also important to note that the variable of past experience was significant for treatment 1, 2, and 3. Furthermore, it suggests that past experience is playing an influential role in future intent to support CFOs in these models. This relates to Ajzen's model (2019) that notes background factors that play an influential role in the Theory of Planned Behavior process. Although this part of the model does not specifically note past experience, its mention of knowledge could perhaps be considered an element of the past experience. Moreover, past experience's influential role in this case makes sense, as if students were familiar with an organization or what goes into volunteering at a CFO they may be more likely to do it again. This relates back to the idea of perceived behavioral control, as if participants did the past behavior and understand the resources required, they may be more likely to do so again.

Looking at the other predictors, the post hoc test had some additional interesting findings. For example, treatment 2 had significant predictors of age 21-24, male, and attitudes other than past experience. Age and male were negatively associated, so perhaps treatment 2's design was influencing this, although it could also be related to other preexisting variables. Treatment 3 was only significant for past experience and PBC in this model. However, treatment's variance increased to 73.6%, which indicates PBC and past experience are having an influential relationship with future intent to support CFOs. Treatment 4's only significant predictor was PBC.

5.2 Theoretical implications

Theory of Planned Behavior

Some aspects of this study verified the Theory of Planned behavior. Past research has found intention to determine 51% to 52% of people's behavior, as well as attitude, social norms, and PBC to explain 81% of intention's variance (Kaiser & Gutscher, 2006). The regression in this study found the model of treatment 3 to predict over half (53.5%) of intention, as well as found all of the TPB elements to be significant in this process. Moreover, with past experience and other demographic variables added in the post-hoc regression, treatment 3 explained 73.6% of intention. This impact of the treatment makes sense, due to color theory and semiotics, as it has a picture of two children and is colorful. This aspect of the TPB is supported through treatment 3. Two other treatments were significant but did not explain all of the TPB elements in the regression. However, treatment 4 was significant for PBC. PBC has recently been proposed as a direct determinant of intention by Ajzen (2020).

It is important to note that the TPB elements are all significant predictors in treatment 3 but not through the other treatments. It is likely that mediation and moderation could have played a role in this process. As a reminder, mediation is when there is an indirect effect from one variable to another, as explained by X influences M that influences Y (Holland et al., 2017). It should be noted that partial mediation is also possible (Holland et al., 2017). Moderation is “when the slope of the relationship between predictor variable (X) and a dependent variable (Y) varies across levels of a third variable (W) (Holland et al., 2017 p. 687, as cited in Baron & Kenny, 1986; James & Brett, 1984).

Treatment 3 may have had a stronger moderating role, playing a more direct role in the process, while maybe the other treatments had more of an indirect effect.

However, this difference in treatment 3 versus the other treatments could also be because of the sample in general. Since Gen Z is typically on social media or online, they could have been impacted differently by the digital treatments. Treatment 3 resembles a traditional social media image, with effective design elements, that would be used in tandem with a caption. Gen Z especially focuses on the image-aspect of social media, as they are known to communicate with images rather than text (Hughes, 2018). Perhaps these individuals were more influenced by this aspect, wanting to see what they are accustomed to, and this affected how they interpreted the other treatments. Other age groups could have viewed treatments differently.

A final implication to consider is the other treatments' models of the TPB elements. The elements only worked with treatment 3, which could mean, in this type of communication setting, TPB can act differently. Additionally, perhaps with communications, this theory does not always account for all variables present in a study. For example, the original model does not include the idea of a treatment or message playing a role in this process. Perhaps TPB or future studies should include a specific element of communication to see where that would fit in individuals' behavioral intent processing. These implications should be explored further in similar studies. Another change that could be made, due to the post hoc test results, is adding past experience as a TPB predictor. Ajzen's study could be altered to include an adapted model specifically for communications research and to add the idea of background experience as a key role

in this process—similar to attitudes, social norms, and PBC. To better understand the implications of this theory, review figure 9 below.

Additionally, the post hoc test results should also be considered in the future. In this test, additional demographic variables and past experience were added as independent variables. With the addition of past experience, all regression models became significant. This suggests past experience is playing an influential role in the TPB process. It has been suggested by other researchers to adapt the theory of planned behavior to add experience and past behavior to the background factors found at the start of the TPB model (Sommer, 2011). Sommer (2011) argues that these past experiences affect reasoning in TPB. This should be explored in future studies regarding CFOs and the TPB. Studies should consider using an adapted model that includes past experience. Additionally, the general results that adding these demographic variables, and their influence on future intent, was also interesting. This suggests, in some ways, the demographic factors can be playing a more influential role in this case than the TPB elements.

5.3 Revised Conceptual Model

The revised conceptual model can be seen in Figure 9 below. Researchers altered this model based on the first multiple linear regression results in objective 3 and the post hoc test. It was altered to show which treatment's TPB predictors were found significant in influencing intent. Treatment 1 is the yellow arrow. Treatment 2 is the blue arrow with attitude impacting intent. Treatment 3 includes the green arrows. Treatment 4 is

represented by the red arrow, which shows the post only had significant predictors of PBC and social norms. Treatment 1 had no significant predictors, and the model was not significant for the first regression. From the post-hoc results, past behavior was added to regression models. It was found significant in three models. Due to past behavior's role in this process, it was added alongside the TPB elements in this conceptual model. However, past experience was the only information added form the post hoc test, as the rest is from the first regression with only the TPB elements. Treatment 1, in the post hoc test, only had the significant predictor of past experience. Treatment 2 and 3 also had significant predictors of past experience in the post hoc test.

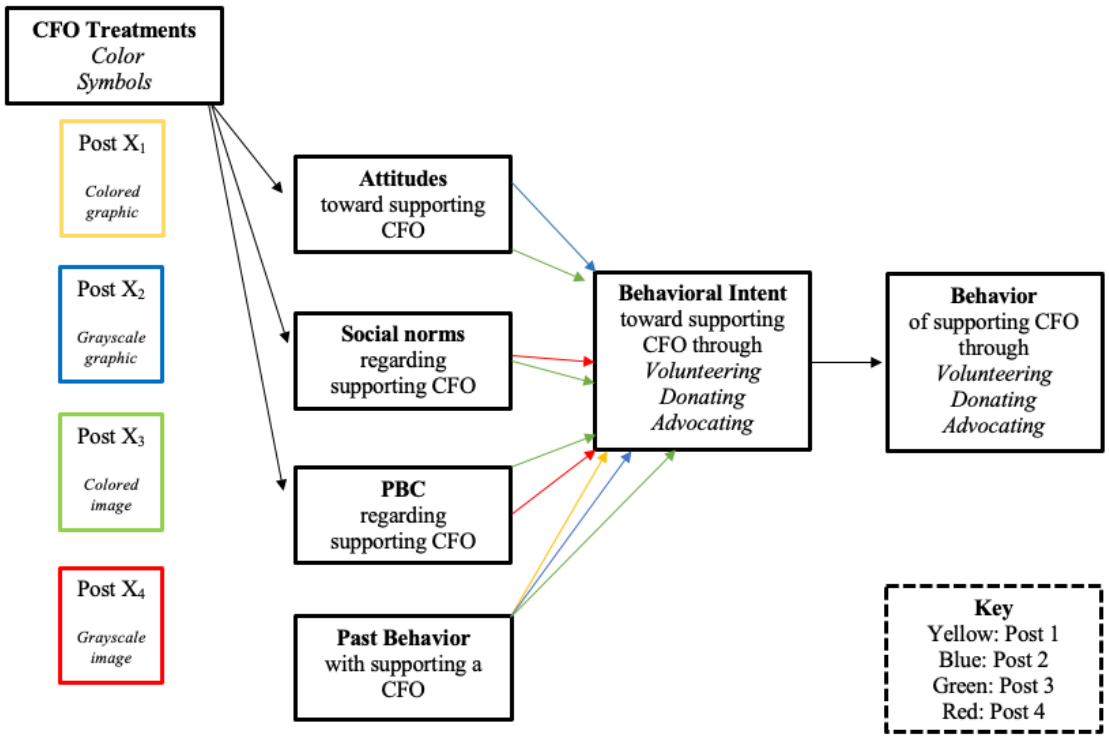

Figure 9 Revised Conceptual Model

This conceptual model takes into the account this study's results, as well as past arguments supporting an extended TPB model (Conner & Armitage, 1998). Past scholars have argued that past behavior, or sometimes referred to as a habit, could be more influential than some of the TPB elements proposed by Ajzen (Conner & Armitage, 1998). Therefore, in the future, similar studies to this one could attempt using the adapted model outlined above. Although past behavior is not a specific TPB element, future studies could explore its relationship in the behavior to support charitable food organizations.

Color Theory and Semiotics

Treatment 1 was the only treatment to not have significant predictors of intent. This is interesting as it did contain colors, but it did not have imagery. While color and semiotics theories suggest colors impact the effectiveness of communications, there can be other influential factors. For example, black and white design is said to have a more dramatic impact, due to the missing color (Taylor, 2021). Furthermore, this type of graphic design is also said to stand out more on social media such as Instagram, as it differs from other content (Taylor, 2021). Therefore, although treatment 1 does have color and icons, perhaps its lack of uniqueness and imagery played a role in its influence as a treatment. Treatment 2, 3, and 4 all contained either black and white imagery/graphics or full-color imagery.

Though treatments 2, 3, and 4 seemed to be effective with influencing intent, it must be acknowledged that this study could have better demonstrated more extreme

differences of color and semiotics theories to better interpret actual intent. The images were all the same in terms of text. And, the two icon treatments and two image treatments were the same other than color. However, this study's conclusions do suggest social media images can play some role in intent toward supporting charitable food organizations. Moreover, this influence could likely improve with increased exposure, like in a social media setting. Treatment 3 does reinforce these theories, however, as it contains imagery and colors, as well as had all significant predictors of TPB elements. In terms of past literature with color theory and semiotics, Treatment 3 supports the idea that use imagery and colors create more influential branding materials.

5.4 Implications for Charitable Food Organizations

A gap in literature exists in terms of how communications can influence all aspects of supporting charitable food organizations. This study's implications can lead to more research on communications effect on supporting charitable food organizations. Although many studies focus on the impact of branding on donating or volunteering, no studies were found by researchers that included the aspect of advocating (da Silva et al., 2020; Febriani & Selamet, 2019; Teah et al., 2014). This study serves as a start to include those important advocating aspects. Not only does advocating help these CFOs with their mission, but also can serve to influence legislation regarding food insecurity as well (Coalition Against Hunger, n.d; Feeding America, n.d.-d). In this study, from past experience to future intent, all items regarding advocating increased in the "yes"

category. This suggests that Gen Z may be more interested in advocating, and this type of support should be addressed when targeting this demographic.

This study indicates that using a post with an imagery and color can influence intent to support a charitable food organizations. Similar to the da Silva et al. (2020) study, the branding of treatment 3 caused TPB variables to operate more effectively with intent. Also like the Febriani and Selamet (2019) article, treatment 3 did suggest branding can impact volunteer behavior. Treatment 3's model had a significant influence with intent, and volunteering was included as an item in intent. In the Teah al. (2014) study, charitable organizations' attitudes were studied in tandem with intention to donate. This study found attitudes to impact intention to donate, which is interesting, as the current study found attitudes to be negatively influencing treatment 3. However, treatment 2 had a significant model and significant variable of attitudes. Attitudes had a positive direction in this case. Perhaps both treatment's attitudes were influenced by how they were measured. It could be that the two-poled concepts, in this case, did not accurately measure the full attitudes toward supporting the organization. The measurement maybe could have been more in-depth with this variable, due to the inconsistent findings with it. Additionally, this element of attitude should be further explored. This implication should be considered and further explored in the future.

It is important to note the treatments' influence on the TPB-specific elements. While the strongest branded post, treatment 3, had an influence on all TPB elements, treatment 2 impacted attitudes. And, treatment 4 influenced PBC and social norms. This supports color and semiotics theories that using different colors and imagery can change

the context of the way individuals are perceiving communications (Cao et al., 2021; Kress & van Leeuwen, 2020; Schloss et al., 2018a). By focusing on specific branding elements of posts, intention can be impacted—and likely future behavior.

This study is also relevant in terms of CFO research, as it sheds light on the how branding can play a vital role. This aspect needs to be highlighted as Chapleo (2015) and other research has noted nonprofits' issues with managing their brand, encouraging employees to follow the brand standards, and improving their brand. This study can serve as the beginning to more research that can focus on how individuals from all demographics can be more likely to support or interact with a CFO based on their branding or communications.

5.5 Recommendations

Future Research

Although the treatments were seen to have some impact, in the future, more of an emphasis could be placed on perhaps showing treatments for more time. Since this was a research study, the true effect of social media cannot be exactly measured. The images did not provide an indication that they were on social media, just showed similar individual images that could be found on Instagram or Facebook. Therefore, it cannot be assumed these participants interpreted the images as being on social media. Future studies could repeat the image throughout the study, to see if intent increases when shown the post similar to a social media setting. This is often referred to as repeated measures, a type of experimental design, where an individual is assigned to all treatments

so many observations can be recorded (Allen, 2017). Or, a time series deisgn with multiple interventions could be used to also simulate social media. Additionally, social media could also be simulated by adding a caption or formatting similar to a real post.

The treatments could also include more of a direct call to action in the language. The current treatments all stated, "1 in 6 children may not have enough food to eat in 2021." In this study, a less direct call was used to be more general in nature. Instead of choosing a specific call out to support volunteering, advocacy, or donating—a more general statement was used so as not to influence one element more than the other. The statement served to evoke interest in the organization, but it was not a direct call for a specific action. Future studies could frame these messages differently. Moreover, only focusing on testing difference messages in this context could be a point of interest for research in this field. Future studies could measure a specific aspect of supporting a charitable food organization, such as volunteering, donating food, and use the post to call that out specifically. Then, the study would be able to better understand if the post impacts intent in a specific way.

Future research could also better explore the TPB elements with charitable food organization branding. For example, although all TPB elements were significant in treatment 3, attitudes were negatively associated. It is not clear if this could be due to preexisting notions participants may have had or the treatment's influence. Perhaps future studies could frame the attitude questions differently to better evaluate if this is the case for similar studies with CFO branding. It should also be considered that the attitudes also

only applied to the participants if this study and would not display similar results in future studied.

In future studies, a different audience could be targeted to better understand multiple perspectives. If there is still interest in understanding the Gen Z group, future research could compare two demographics to understand the differences in how treatments may affect each group. An interesting application of this idea could be Gen Z versus millennial, as millennials grew up as the internet was increasing in popularity, while Gen Z has had the internet and accessible technology, such as iPhones and social media, for their entire lives (Dimock, 2019). Additionally, perhaps future studies could focus on older generations as well. Moreover, other populations such as rural and urban could also be explored. Relevant literature suggests negative associations with getting assistance with CFOs, so these populations could also be interesting to focus on (Sherman, 2009; Whitley, 2013). Perceptions of food insecurity of black and Hispanic/Latinx/Latine families could also be explored for similar reasoning (Myers & Painter, 2017; Potochnick et al., 2019).

Moreover, a qualitative study should be done to better analyze this study's results. Since this quantitative approach does not allow for depth, a qualitative approach could answer lingering questions. For example, why were attitudes negative associated? Did seeing the definitions first impact the study differently than only seeing a treatment? Or, do any of these treatments truly drive support for CFOs and their work? This could be done with focus groups or interviews. Conversations could also be had about how these

individuals plan to support CFOs throughout their lifetime, especially since this demographic has been noted to care more about social issues.

Additionally, perhaps future research could conduct a type of longitudinal study to understand actual behavior of participants. A pre-test could be used, similar to this study, to understand beginning perceptions. Then, other tests could be completed later to see if participants performed their intended behavior of supporting charitable food organizations. There are several formats that could be explored to understand behavior and its connection to charitable food organization branding and social media, which should be considered by future researchers.

Charitable Food Organization Practitioners

This study can also be used directly by those who market charitable food organizations or other nonprofits. Specifically, seeing the influence of a high-color, image treatment could aid in future marketing. Although icon-oriented posts have become more common, in this setting, it seems posts with photographic images better aid in the support of charitable food organizations. In this study, the icon treatments were considered to be more graphically-intensive, as they used only text and one icon. However, in the image, there was a photo of children and text. In terms of national organizations, Share Our Strength's No Kid Hungry campaign does include a great deal of more icon-intensive posts, meanwhile Feeding America seems to include more imagery (Feeding America, n.d.-c; No Kid Hungry, n.d.). Organizations like these, and

even smaller CFOs, should test to see how using more photos, and color, may impact their like count or engagement.

Charitable food organizations research should also consider the past experience and intent this study has found. By better understanding how this age group feels they can support CFOs, messaging can be more effective and targeted. For example, these organizations should also consider the role of advocating behaviors in this study. All numbers increased, compared to past behavior, for the advocating items. Since there seems to be interest there, a targeted approach could be taken by these organizations to better allow Gen Z to support CFOs. Social media could focus specifically on these behaviors and Gen Z students. Perhaps the design of treatment 3 can be used for these efforts to best capture intention and to influence support.

The final post hoc test and demographic factors should also be considered by CFO practitioners. This regression suggests past experience and demographic variables to play a role in intent to support. Therefore, it is important for CFOs to consider the audience make-up of this study, as well as to adequately analyze the audience for future studies. In this research, the majority of participants were 19, as well as female, white, moderate, and democrats. 65 (33.2%) of participants were 19; 118 were female (60.2%); and 84 (42.9%) were in their first year in college. In terms of race, 157 (80.1%) were white; 8 (4.1%) were Black or African American; and 8 (4.1%) were Asian Indian. All other selections for race were below eight-selected. When CFOs are considering implementing the results, it should be understood this was the make-up of the OSU

students surveyed in this sample. Further research should aim to survey a more diverse sample.

Additionally, this study also helps CFO practitioners to better evaluate Gen Z's feelings toward their organization. By seeing the TPB elements, along with the numbers of how these individuals would like to work with their organization, marketing efforts can be better targeted toward this demographic. Individual item results can also be evaluated. For example, a surprisingly high number (120, 61.2%) of participants said they plan to donate money to CFOs in the future. To make this process easier and to target Gen Z, these CFOs could incorporate more digital fundraising into their social media accounts. This idea is also supported by the giving rate of Gen Z individuals during the start of the pandemic. This demographic the second highest giving rate to various pandemic-related causes, after millennials, at 66% (Leonhardt, 2020). CFO practitioners should review this data to see how to better target this demographic.

Moreover, advocating behaviors can be considered to be more important than donating. All aspects of advocating increased in this study, showing interest in this type of work. By increasing advocacy with this group, other efforts can also be increased. For example, if Gen Z is sharing posts on social media about fundraising, their friends are more likely to see this information and to consider donating. This relates back to the idea of the importance of nonprofit branding and communications. Their social media, which can be considered advocacy in some ways, directly creates calls to actions regarding donating, volunteering, and legislative advocacy. CFO practitioners should consider how

to better shape advocacy behaviors in order to influence support of their organizations in the future.

5.6 Limitations

This study was limited to only the sample surveyed at The Ohio State. University. Although this study has relevant findings, it cannot be generalized beyond this sample. As noted previously, the demographics did not align with Ohio State's undergraduate population. An example of this is the selection of female as gender, as 118 of the 196 surveyed identified as female. Within the sample, a limitation could also be the convenience sample. It should also be considered that these results are gathered from self-reported responses, and that there could be possible selection bias due to the voluntary nature. Moreover, other limitations to this survey could be the branding shown to participants. This type of branding was created by researchers, so it could be argued it would not be perceived in the same way as true charitable food organizations.

The incentive of a gift card and charitable food organization SWAG should be noted. Participants could have falsely answered questions based on the incentives. However, participants were forced to view the image for 30 seconds. Additionally, survey participants were also given manipulation checks and automatically kicked out if they answered incorrectly.

Another limitation could have been due to the COVID-19 pandemic. Although several students were contacted via email or through in-class presentations, not all were likely reached by the communications. Several of the contacted professors mentioned that

students were out due to the increase in COVID-19 cases in January and February of 2022. This fact could have also impacted students' willingness to respond to surveys. At this point in the pandemic, some students may have still felt overwhelmed, therefore less likely to participate in an optional survey. In general, the fact that this study occurred during a major spike in the pandemic could have also impacted the recruitment process as well and the professors who decided whether they should share with their classes. This is supported by the fact that the response rate was 12.2%.

A final limitation that could have affected this study is the text on the image. This study was intended to take place in 2021, which is which the text of "1 in 6 children may not have enough food to eat in 2021" was used. However, data was collected in January and February of 2022. This statistic may have been perceived as outdated by some students. Therefore, the researchers acknowledge this could have impacted the way some students viewed the treatments. It may have caused some dissonance among participants.

5.7 Sharing of Final Research

This research was also shared with Columbus-based charitable food organizations. At the end of the study, the researcher emailed several organizations offering to share the results via email or to come in and present. The key takeaways of the study in terms of treatments, past behavior, future intent, and descriptive information was shared via a PowerPoint in person or via email. Additionally, a link of the final thesis will also be shared for these organization's review.

5.8 Summary

This study aimed to understand the influence of CFO-branded treatments on intent to support CFOs. Results suggest that posts with imagery and color are the most influential regarding intent to support a CFO. Conclusions from this study can better inform future research with CFOs, where a gap exists in the literature. These results could not only be used to create future studies but to help various charitable food organizations and nonprofits to better target Gen Z. Researchers anticipate these findings to be used by local Columbus charitable food organizations to better craft marketing toward Ohio State University students.

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Appendix A. List of Courses that Shared Survey

1. AEDECON 2001 Principles of Food and Resource Economics – 154
2. AGRCOMM 2367 Agricultural Issues in Contemporary Society – 60
3. AGRCOMM Oral Expression in Agriculture – 78
4. ANIMSCI 2200.01 Introductory Animal Sciences – 138
5. ART 2555 Introduction to Digital Photography and Contemporary Issues – 60
6. COMM 2221 Media Writing and Editing – 26
7. COMM 3404 Media Law and Ethics – 43
8. COMM 3414 Sports Media Relations – 30
9. COMPSTD 2367.04 Science and Technology in American Culture – 23
10. EARTHSC 1121 The Dynamic Earth – 303
11. ECON 2001.01 Principles of Microeconomics – 543
12. ECON 2002.01 Principles of Macroeconomics – 160
13. ECON 3820 The Economics of Gender in Labor Markets – 49
14. ENGLISH 4150 Cultures of Professional Writing - 19
15. ENGISH 1110.03 First-Year English Composition – 28
16. ENGLISH 2220 Introduction to Shakespeare – 24
17. ENGLISH 2261 Introduction to Fiction – 88

18. ENGLISH 2263 Introduction to Film – 105

19. ENGLISH 2264 Introduction to Popular Culture Studies – 42

20. ENGLISH 2367.02 Literature in the U.S. Experience – 21

21. HISTORY 1211 – European History I – 61

22. HISTORY 3570 World War II – 115

23. SOCIOL 1101 Introductory Sociology – 49

24. PUBAFRS 2110 Introduction to Public Affairs – 72

25. PUBAFRS 2150 Introduction to Nonprofit Organizations – 14

26. SPANISH 1101 Spanish I – 27

27. WGSST 1110 Gender, Sex and Power – 107

28. WGSST 2215 Reading Women Writers – 37

29. WGSST 2230 Gender, Sexuality and Race in Popular Culture – 37

Appendix B. Recruitment Graphic

Appendix C. Recruitment Flyer

Appendix D. Buck IRB Approvals

THE OHIO STATE UNIVERSITY

Office of Responsible Research Practices

300 Research Administration building
1960 Kenny Road
Columbus, OH 43210-1063

orrp.osu.edu

01/10/2022

Study Number: 2022E0028
Study Title: The Influence of Charitable Food Organization Branding on College Students' Behavioral Intent

Principal investigator: Joy Rumble
Date of determination: 01/10/2022

Qualifying exempt category: #2a

Dear Joy Rumble,

The Office of Responsible Research Practices has determined the above referenced project exempt from IRB review.

Please note the following about this determination:

- Retain a copy of this correspondence for your records.
- Only the Ohio State staff and students named on the application are approved as Ohio State investigators and/or key personnel for this study.
- Simple changes to personnel that do not require changes to materials can be submitted for review and approval through Buck-IRB.
- No other changes may be made to exempt research (e.g., to recruitment procedures, advertisements, instruments, protocol, etc.). If changes are needed, a new application for exemption must be submitted for review and approval prior to implementing the changes.
- Records relating to the research (including signed consent forms) must be retained and available for audit for at least 5 years after the study is closed. For more information, see university policies, Institutional Data and Research Data.
- It is the responsibility of the investigators to promptly report events that may represent unanticipated problems involving risks to subjects or others.

This determination is issued under The Ohio State University's OHRP Federalwide Assurance #00006378. Human research protection program policies, procedures, and guidance can be found on the ORRP website.

Please feel free to contact the Office of Responsible Research Practices with any questions or concerns.

Jacob Stoddard
stoddard.13@osu.edu
(614) 292-0526

Association for the Accreditation of Human Research Protection Programs, Inc. — Full Accreditation

THE OHIO STATE UNIVERSITY

Office of Responsible Research Practices
300 Research Administration building
1960 Kenny Road
Columbus, OH 43210-1063

orrp.osu.edu

10/22/2021

Study Number: 2021E1081
Study Title: The Influence of Charitable Food Organization Branding on College Students' Behavioral Intent

Principal investigator: Joy Rumble
Date of determination: 10/22/2021

Qualifying exempt category: #2a

Dear Joy Rumble,

The Office of Responsible Research Practices has determined the above referenced project exempt from IRB review.

Administrative Note:

- As the university moves to a staged approach to restarting research activities, refer to Human Subjects Guidance and FAQs. If after reviewing this information and working through your college you have additional questions, please direct emails to research@osu.edu.

Please note the following about this determination:

- Retain a copy of this correspondence for your records.
- Only the Ohio State staff and students named on the application are approved as Ohio State investigators and/or key personnel for this study.
- Simple changes to personnel that do not require changes to materials can be submitted for review and approval through Buck-IRB.
- No other changes may be made to exempt research (e.g., to recruitment procedures, advertisements, instruments, protocol, etc.). If changes are needed, a new application for exemption must be submitted for review and approval prior to implementing the changes.
- Records relating to the research (including signed consent forms) must be retained and available for audit for at least 5 years after the study is closed. For more information, see university policies, Institutional Data and Research Data.
- It is the responsibility of the investigators to promptly report events that may represent unanticipated problems involving risks to subjects or others.

This determination is issued under The Ohio State University's OHRP Federalwide Assurance #00006378. Human research protection program policies, procedures, and guidance can be found on the ORRP website.

Please feel free to contact the Office of Responsible Research Practices with any questions or concerns.

Anthony Dent
dent.56@osu.edu
(614) 292-4502

First email to professors:
Subject line: Assist with Charitable Food Research

Hello,
My name is [name], and I am a current graduate student at [university].
I am contacting you to share information about participating in my study, “The Influence of Charitable Food Organization Branding on College Students’ Behavioral Intent” with your course, (insert course name). This survey is for my thesis project and focuses on how charitable food organization branding communication impacts college students’ interaction with these entities. I would be willing to come in and present my recruitment flyer/survey in person, or you could share the link with your students via email.

The survey is voluntary and will only take 10 minutes for students to complete. Results are confidential as well. Furthermore, students who participate will be entered to win an Amazon gift card or a SWAG bag of promo items.

If you are able, I am asking if you would share the link and/or this flyer with your class via email or allow me to quickly present my survey to your students before a class period.

I look forward to your possible participation with my study. If you have any questions at all, please email me back at [email].

Sincerely,

Marlee Stollar

THE OHIO STATE UNIVERSITY

Marlee Stollar
Graduate Research and Teaching Associate
College of Food, Agricultural, and Environmental Sciences
Department of Agricultural Communication, Education, and Leadership
103 Agricultural Administration Building
2120 Fyffe Road, Columbus, OH 43202
7403360995
stollar.15@osu.edu

Second email, follow-up:
Subject line: Assist with Charitable Food Research Reminder

Hello (insert name),
I am following-up with you again about sharing my study, “The Influence of Charitable Food Organization Branding on College Students’ Behavioral Intent” with your (insert course name). This survey is for my thesis project and focuses on how charitable food organization branding communication impacts college students’ interaction with these entities. I would be willing to come in and present my recruitment flyer/survey in person, or you could share the link with your students via email.

The survey is voluntary and will only take 10 minutes for students to complete. Results are confidential as well. Furthermore, students who participate will be entered to win an amazon gift card or a SWAG bag of promo items.

If you are able, I am asking if you would share the link and/or this flyer with your class via email or allow me to quickly present my survey to your students before a class period.

Thank you for your time and consideration. If you have any questions at all, please email me back at [email].

Sincerely,

Marlee Stollar

THE OHIO STATE UNIVERSITY

Marlee Stollar
Graduate Research and Teaching Associate
College of Food, Agricultural, and Environmental Sciences
Department of Agricultural Communication, Education, and Leadership
103 Agricultural Administration Building
2120 Fyffe Road, Columbus, OH 43202
7403360995
stollar.15@osu.edu

Second email, if they agree to send it out through email:
Subject line: Assist with Charitable Food Research Follow-up

Hello (insert name),

I am following-up about participating in my study, “The Influence of Charitable Food Organization Branding on College Students’ Behavioral Intent.”

The following blurb can be sent via your email to students:

Please consider taking the following survey by February 5 for a study that focuses on understanding charitable food organization branding. The survey (link below) should take you less than 10 minutes to complete. Participation is voluntary, and there is little risk in participating. Results will be confidential. Participants will be entered to win an Amazon gift card or a SWAG bag with promo items.

[Link]

Thank you for your time and consideration. If you have any questions at all, please email me back at [email].

Sincerely,

Marlee Stollar

Marlee Stollar
Graduate Research and Teaching Associate
College of Food, Agricultural, and Environmental Sciences
Department of Agricultural Communication, Education, and Leadership
103 Agricultural Administration Building
2120 Fyffe Road, Columbus, OH 43202
7403360995
stollar.15@osu.edu

Second email, if they agree to in-person presentation of survey:
Subject line: Assist with Charitable Food Research Follow-up

Hello (insert name),

I am following-up about participating in my study, “The Influence of Charitable Food Organization Branding on College Students’ Behavioral Intent.”

Thank you for allowing me to share my survey with your (insert course name) students. If you would like, afterwards, you could also email them the following blurb:

Please consider taking the following survey by February 5 for a study that focuses on understanding charitable food organization branding. The survey (link below) should take you less than 10 minutes to complete. Participation is voluntary, and there is little risk in participating. Results will be confidential. Participants will be entered to win an Amazon gift card or a SWAG bag with promo items.

[Link]

Thank you for your time and consideration. If you have any questions at all, please email me back at [email].

Sincerely,

Marlee Stollar

Marlee Stollar
Graduate Research and Teaching Associate
College of Food, Agricultural, and Environmental Sciences
Department of Agricultural Communication, Education, and Leadership
103 Agricultural Administration Building
2120 Fyffe Road, Columbus, OH 43202
7403360995
stollar.15@osu.edu

Pronouns: she/her/hers

Buckeyes consider the environment before printing.

Appendix F. Survey

The Influence of Charitable Food Organization Branding on College Students' Behavioral Intent

Start of Block: Default Question Block

Q1 **The Ohio State University Consent to Participate in Research**

This is a consent form for research participation. It contains important information about this study and what to expect if you decide to participate. Participation in this research is voluntary. You may withdraw at any time without penalty or loss of benefits. The study should take no more than 10 minutes to complete.

Purpose of the study: This is a study to determine how charitable food branding influences college students' political participation.

Study tasks or procedures: Participants will be asked several questions regarding their views of food nonprofit branding and political participation.

Confidentiality: We will maintain the confidentiality of your information. Your de-identified information will not be used or shared with other researchers.

Benefits/Risks: The benefits to the participants are minimal. This study has been determined exempt from IRB review. The primary risk is breach of confidentiality, but there are procedures in place to prevent it and the information being provided is in no way sensitive. We will work to make sure that no one sees your survey responses without approval. But, because we are using the Internet, there is a chance that someone could access your online responses without permission. In some cases, this information could be used to identify you.

Contacts and Questions: For questions, concerns, or complaints about the study, contact the study's co-investigator, Marlee Stollar (stollar.15@osu.edu). For questions about your

rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Ms. Sandra Meadows in the Office of Responsible Research Practices at 1-800-678-6251.

Q2 I am 18 years or older and consent to participate in this study.

- ○ Yes (1)
- ○ No (2)

Q16 What is your age in years?

- ○ 18 (1)
- ○ 19 (2)
- ○ 20 (3)
- ○ 21 (4)
- ○ 22 (5)
- ○ 23 (6)
- ○ 24 (7)
- ○ Other (8)

Q43 Are you a current student at The Ohio State University?

- ○ Yes (1)
- ○ No (2)

End of Block: Default Question Block

Start of Block: Post 1

Q45 To start the survey, you will be asked to review an image.

Page Break

Q31 Please take a moment to review the the graphic and text elements in image below. You will not be able to advance until 15 seconds has passed. After reviewing the image, you will be asked about its contents.

Q35 Timing
First Click (1)
Last Click (2)
Page Submit (3)
Click Count (4)

Page Break

Q4 What was in the image you just saw? Check all that apply.

- ☐ Two kids eating and a hunger fact (1)
- ☐ A graphic about a hunger fact (2)
- ☐ A graphic about healthy eating in the U.S. (3)
- ☐ Two kids fighting (4)

End of Block: Post 1

Start of Block: Post 2

Q47 To start the survey, you will be asked to review an image.

Page Break

Q32 Please take a moment to review the the graphic and text elements in image below. You will not be able to advance until 15 seconds has passed. After reviewing the image, you will be asked about its contents.

Q39 Timing
First Click (1)
Last Click (2)
Page Submit (3)
Click Count (4)

Page Break

Q36 What was in the image you just saw? Check all that apply.

- [ ] Two kids eating and a hunger fact (1)
- [ ] A graphic about a hunger fact (2)
- [ ] A graphic about healthy eating in the U.S. (3)
- [ ] Two kids fighting (4)

End of Block: Post 2

Start of Block: Post 3

Q48 To start the survey, you will be asked to review an image.

Page Break

Q33 Please take a moment to review the the graphic and text elements in image below. You will not be able to advance until 15 seconds has passed. After reviewing the image, you will be asked about its contents.

Q40 Timing
First Click (1)
Last Click (2)
Page Submit (3)
Click Count (4)

Page Break

Q37 What was in the image you just saw? Check all that apply.

- [ ] Two kids eating and a hunger fact (1)
- [ ] A graphic about a hunger fact (2)
- [ ] A graphic about healthy eating in the U.S. (3)
- [ ] Two kids fighting (4)

End of Block: Post 3

Start of Block: Post 4

Q49 To start the survey, you will be asked to review an image.

Page Break

Q34 Please take a moment to review the the graphic and text elements in image below. You will not be able to advance until 15 seconds has passed. After reviewing the image, you will be asked about its contents.

Q41 Timing
First Click (1)
Last Click (2)
Page Submit (3)
Click Count (4)

Page Break

Q38 What was in the image you just saw? Check all that apply.

- [ ] Two kids eating and a hunger fact (1)
- [ ] A graphic about a hunger fact (2)
- [ ] A graphic about healthy eating in the U.S. (3)
- [ ] Two kids fighting (4)

End of Block: Post 4

Start of Block: Control

Start of Block: Definition

Q50 You will now be given time to review definitions about food insecurity terms. For the rest of the survey, please keep the following definitions in mind. You will have 30 seconds to view them before you will be able to advance.

Page Break

Q11
1. Food insecurity is a term that means individuals cannot get consistent access to food to live an **active and healthy life**. It commonly can lead to **serious health problems** with both children and adults.

2. Charitable food organizations are food banks, nonprofits working in food education, and/or any organization that provides food for those in need. National organizations like these are **Feeding America, No Kid Hungry, Meals on Wheels,** etc. These groups work in hunger relief and food security efforts across the U.S.

3. Supporting charitable food organizations can include key actions such as **donating money to, volunteering for, or advocating legislatively** for these groups.

Q22 Timing
First Click (1)
Last Click (2)
Page Submit (3)
Click Count (4)

Q51 You will now be asked questions about supporting charitable food organizations.

End of Block: Definition

Start of Block: Attitudes

Q10 Directions: These adjectives are paired with their opposites on the other side of the scale. Select the circle in the position you most closely align with, which will show how you feel about the two-poled concept.

The question below pertains to how you feel about supporting charitable food

organizations. For reference, support can include key actions such as donating money to, volunteering for, or advocating legislatively for these groups.

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	
Good	○	○	○	○	○	Bad
Negative	○	○	○	○	○	Positive
Harmful	○	○	○	○	○	Beneficial
Unfavorable	○	○	○	○	○	Favorable
Not Interesting	○	○	○	○	○	Interesting
Not important	○	○	○	○	○	Important

End of Block: Attitudes

Start of Block: PBC

Q12
Directions: These adjectives are paired with their opposites on the other side of the scale. Select the circle in the position you most closely align with, which will show how you feel about the two-poled concept.

The question below pertains to how you could possibly support charitable food

organizations. For reference, support can include key actions such as donating money to, volunteering for, or advocating legislatively for these groups.

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	
Possible for me	○	○	○	○	○	Not possible for me
Not easy for me to do	○	○	○	○	○	Easy for me to do
Not in my control	○	○	○	○	○	In my control
Not up to me	○	○	○	○	○	Up to me
Not practicable for me	○	○	○	○	○	Practicable for me
Complicated	○	○	○	○	○	Not complicated

End of Block: PBC

Start of Block: Social Norms

Q13 Directions: Please indicate your level of agreement or disagreement with the following statements related to supporting charitable food organizations.

The question below pertains to how those around you support charitable food

organizations. For reference, support can include key actions such as donating money to, volunteering for, or advocating legislatively for these groups.

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
The people in my life would approve of me volunteering for charitable food organizations. (1)	○	○	○	○	○
The people in my life would approve of me donating money to charitable food organizations. (2)	○	○	○	○	○
The people in my life would approve of me contacting my local and national government officials in support of hunger relief. (3)	○	○	○	○	○
The people in my life would approve of me donating food charitable food organizations. (4)	○	○	○	○	○

The people in my life would approve of me advocating for charitable food organizations on social media. (5)	○	○	○	○	○
The people in my life would approve of me advocating for charitable food organizations by attending a rally or protest. (6)	○	○	○	○	○

End of Block: Social Norms

Start of Block: Block 9

Q52 As a reminder, charitable food organizations are food banks, nonprofits working in food education, and/or any organization that provides food for those in need. National organizations like these are Feeding America, No Kid Hungry, Meals on Wheels, etc. These groups work in hunger relief and food security efforts across the U.S.

Please consider this definition as you answer the following questions.

Page Break

Q15

Please answer a few questions about your <u>future intent</u> to support charitable food organizations.

	No (1)	Unsure (2)	Yes (3)
In the future, I plan to donate food items to a charitable food organization. (1)	○	○	○
In the future, I plan to advocate in some way for a charitable food organizations by attending a rally or protest. (2)	○	○	○
In the future, I plan to volunteer for a charitable food organization. (3)	○	○	○
In the future, I plan to donate money to a charitable food organization. (4)	○	○	○
In the future, I plan to advocate for charitable food organizations on social media. (5)	○	○	○
In the future, I plan to advocate for charitable food organizations by contacting my local and national government officials in support of hunger relief. (6)	○	○	○

End of Block: Block 9

Start of Block: Block 7

Q29

Please answer a few questions about your <u>past experience</u> to support charitable food organizations.

	No (1)	Unsure (2)	Yes (3)
In the past, I donated food items to a charitable food organization. (1)	○	○	○
In the past, I advocated in some way for a charitable food organizations by attending a rally or protest. (2)	○	○	○
In the past, I volunteered for a charitable food organization. (3)	○	○	○
In the past, I donated money to a charitable food organization. (4)	○	○	○
In the past, I advocated for a charitable food organizations by posting on social media. (5)	○	○	○
In the past, I advocated for charitable food organizations by contacting my local and national government officials in support of hunger relief. (6)	○	○	○

End of Block: Block 7

Start of Block: Block 15

Q55 Which one of these images **catches your attention the most**?

- (1)
- (2)
- (3)
- (4)

End of Block: Block 15

Start of Block: Block 14

Q54 Which one of these images would make you **more likely to support charitable food organizations**?

- (1)
- (2)
- (3)
- (4)

End of Block: Block 14

Start of Block: Block 13

Q53 Thank you for answering questions. You are almost finished with the survey. You will now be asked few demographic questions before finishing.

End of Block: Block 13

Start of Block: Demographics

Q17 What is your gender?

- ○ Male (1)
- ○ Female (2)
- ○ Non-binary/Genderqueer (3)
- ○ Prefer not to say (4)
- ○ Other (5) _____

Q18 What is your current year in college?

- ○ First-year college student (1)
- ○ Second-year college student (2)
- ○ Third-year college student (3)
- ○ Fourth-year college student (4)
- ○ Fifth-year college student (5)
- ○ Other (6) _____

Q42 Are you of Hispanic, Latinx/Latine, or Spanish origin? Check all that apply.

- ☐ No, not of Hispanic, Latinx/Latine, or Spanish origin (1)
- ☐ Yes, Mexican, Mexican Am., Chicano (2)
- ☐ Yes, Puerto Rican (3)
- ☐ Yes, Cuban (4)
- ☐ Yes, another Hispanic, Latinx/Latine, or Spanish origin (indicate below) (5) _____

Q19 What is your race? Check all that apply.

- [ ] White (1)
- [ ] Black or African American (2)
- [ ] American Indian or Alaska Native (3)
- [ ] Asian Indian (4)
- [ ] Chinese (5)
- [ ] Filipino (6)
- [ ] Japenese (7)
- [ ] Korean (8)
- [ ] Vietnamese (9)
- [ ] Native Hawaiian (10)
- [ ] Guamanian or Chamorro (11)
- [ ] Samoan (12)
- [ ] Other Asian (indicate below) (13)

_____

- [ ] Other Pacific Islander (indicate below) (14)

_____

- [ ] Other race (indicate below) (15)

_____

Q20 Which of the following best describes your political beliefs or values?

- ○ Very liberal (1)
- ○ Liberal (2)
- ○ Moderate (3)
- ○ Conservative (4)
- ○ Very conservative (5)
- ○ Other (6) _____

Q21 In politics today, what do you see yourself as?

- ○ Republican (1)
- ○ Democrat (2)
- ○ Independent (3)
- ○ Non-affiliated (4)
- ○ Unsure (5)
- ○ Other (6) _____

Q56 If you would like to be entered in a drawing for an Amazon gift card or SWAG bag, please include your OSU dot number below (i.e. buckeye.15)

_____

Page Break