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RESEARCH ARTICLE

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Beautiful is Good and Good is Reputable: Multiple-Attribute Charity Website Evaluation and Initial Perceptions of Reputation Under the Halo Effect

Dong-Heon Kwak[1], K. (Ram) Ramamurthy[2], Derek L. Nazareth[3]

[1]Kent State University, USA, dkwak@kent.edu
[2]University of Wisconsin, Milwaukee, USA, ramurthy@uwm.edu
[3]University of Wisconsin, Milwaukee, USA, derek@uwm.edu

Abstract

The halo effect has been extensively used to understand how people make judgments about the quality of an object. Also, the halo effect has been known to occur when people evaluate multi-attribute objects. Although websites consist of multiple attributes and dimensions, prior research in information systems has paid little attention to how people evaluate multi-attribute websites and associated halos. Furthermore, research investigating how initial evaluations of reputation are formed toward unknown objects under the halo effect is scarce. Based on these two research gaps, the purposes of this study are to identify whether there is evidence of salient halos in the evaluation of multi-attribute websites and to theorize initial perceptions of reputation. To accomplish these objectives, we introduce a framework for classifying halos based on attributes and dimensions. Also, this study employs charity websites as a multi-attribute donation channel consisting of three attributes of information content quality (mission information, financial information, and donation information) and four attributes of system quality (navigability, download speed, visual aesthetics, and security). Based on the proposed framework, this study proposes four types of halos that are relevant to charity website evaluation—collective halo (attribute-to-attribute), aesthetics halo (attribute-to-dimension), reciprocal-quality halo (dimension-to-dimension), and quality halo (dimension-to-dimension). The results of structural equation modeling and other analyses provide evidence of the various proposed halos.

Keywords: Halo Effect, Attribute, Dimension, Website Design, Perceptions of Reputation, Charity Website

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1 Introduction

The rapid diffusion of digital commerce technologies has provided remarkable opportunities for innovation in the charity sector. In particular, charity websites have been utilized as a channel for fundraising, recruiting volunteers, publicizing projects, and reporting financials and performances (Huang & Ku, 2016; Saxton, Neely, & Guo, 2014). Moreover, in recent years, donors have been indicating their increased preference to donate via charity websites (Dunham+Company, 2013). Almost 1.6 million charity organizations exist in the US (Internal Revenue Service, 2016), and an increasing number of charity organizations are expected to create and invest in websites. Prior website research has concluded that

well-designed websites entice visitors to engage in purchasing (Jiang, Chan, Tan, & Chua, 2010) and donations (Huang & Ku, 2016). To design more effective websites, some researchers have attempted to identify multiple, important usability and quality attributes of websites (e.g., Loiacono, Watson, & Goodhue, 2007; Palmer, 2002; Venkatesh & Agarwal, 2006). Others have examined attributes that influence human perceptions and behaviors, including visual design (Jiang, Wang, Tan, & Yu, 2016), waiting time (Lee, Chen, & Hess, 2016), and navigability (Hu, Hu, & Fang, 2017) among others. Nevertheless, as suggested by the title of the article by Valacich, Parboteeah, and Wells (2007), "Not All Interface Characteristics are Created Equal," some attributes are more or less important than others in terms of website design. Based on this, our study begins with two broad questions: How do users evaluate unfamiliar multi-attribute websites? Specifically, why do they fail to distinguish between conceptually independent attributes when evaluating the quality of unfamiliar websites?

New users often use the reputation of a website as a proxy for its quality. While prior research offers a rich body of empirical support for the importance of reputation (Bansal, Zahedi, & Gefen, 2015; Dollinger, Golden, & Saxton, 1997; Merton, 1968; Sine, Shane, & Di Gregorio, 2003), research on reputation building has not received much attention. Bansal, Zahedi, and Gefen (2008) suggest that reputation is "the collective social knowledge about the trustworthiness" of an object (p. 5). The underlying assumption of past research is that building reputation requires value-adding activities involving significant time and effort. As a result, previous studies in information systems (IS) have generally examined the consequences of reputation by examining both well-known and lesser-known merchants (Jarvenpaa, Tractinsky, & Vitale, 2000; Song & Zahedi, 2007). However, our study argues that the halo effect can actually transfer perceptions about reputation to new users. In other words, users make judgments about a website's reputation on the basis of other quality attributes. Since reputation is highly valued and leads to positive user behaviors (Dollinger et al., 1997; Metzger, 2006), it is important to understand how new users evaluate the reputation of unfamiliar websites.

In order to understand how new users evaluate the reputation of an unfamiliar website, we consider the "halo effect" as a key theoretical basis that has been known to prevent individuals from properly discriminating between conceptually different and potentially independent attributes of an object (e.g., beauty, intelligence, and kindness) (Saal, Downey, & Lahey, 1980). In his seminal work, Thorndike (1920) found that when supervisors evaluated their subordinates, correlations between attributes were "all higher than reality" (p. 25) and "too high and too even" (p. 27). Thorndike named this rating phenomenon the halo effect. Prior research has used the halo effect to identify and understand how people make judgments about an object and why they fail to distinguish between conceptually different attributes of the object (Fisicaro & Vance, 1994; Sahoo, Krishnan, Duncan, & Callan, 2012). Scholars have considered the halo effect to be "pervasive, inevitable, constant, and ubiquitous" (Feeley, 2002, p. 578). Consequently, the halo effect has been widely applied as a theoretical foundation for rating and decision-making in various research areas, including psychology (Solomonson & Lance, 1997), marketing (Boatwright, Kaira, Zhang, 2008), management (Brown & Perry, 1994), education (Moritsch & Suter, 1988), and information systems (Sahoo et al., 2012).

Although the halo effect has been extensively examined, there remain opportunities to contribute to existing knowledge of the halo effect when evaluating websites. First of all, our understanding of how people evaluate multi-attribute websites remains scant. Specifically, we are not aware of any IS research that examines how different types of halo effects lead to different judgments when evaluating multi-attribute websites. Prior halo-based IS research (Tractinsky, Katz, & Ikar, 2000) has found that one salient attribute (e.g., aesthetics) can influence other important attributes (e.g., usability). While prior IS research has generally examined the effect of one attribute on another attribute (Hartmann, Sutcliffe, & Angeli, 2008; Tractinsky et al., 2000), it has largely overlooked different types of halo effects in evaluating multi-attribute websites. Past research on the halo effect has argued for the existence of various types of halos and different causal models that contribute to diverse results (e.g., Fisicaro & Lance, 1990). Since websites generally consist of many important dimensions (DeLone & McLean, 2003) and attributes (Loiacono et al., 2007; Palmer, 2002) capable of generating many different halo effects, users may evaluate websites in specific ways based on the associated halos. Thus, IS researchers should consider identifying different types of halos so that they can adequately conceptualize and model the halo effect in the website context.

Based on the aforementioned research gaps, the objectives of this study are twofold: (1) identify if there is evidence of salient halos while evaluating a multi-attribute object, and (2) theorize how these halos influence initial perceptions of reputation. To accomplish these objectives, we introduce a framework for classifying halos based on the cause and effect of attributes and dimensions. In addition, this study employs charity websites as a multi-attribute donation channel comprising two dimensions: *information content quality* (IQ) that consists of three attributes (mission information, financial information,

and donation information) and *system quality* (SQ) that consists of four attributes (navigability, download speed, visual aesthetics, and security). This study also proposes that the initial impressions regarding reputation are formed via an overall assessment of IQ and SQ of the charity websites. Based on the framework, this study proposes four types of halos that are relevant to charity website evaluation—*collective halo* (attribute-to-attribute), *aesthetics halo* (attribute-to-dimension), *reciprocal-quality halo* (dimension-to-dimension), and *quality halo* (dimension-to-dimension). The results of structural equation modeling and other analyses evidence the existence of these halos.

This study makes several theoretical contributions. First, based on the cause and effect of attributes and dimensions, this study introduces a new framework for classifying halos. Second, this study shows how individuals evaluate multi-attribute websites. In particular, we find that attributes may be perceived as being of higher quality when they are aligned with other high-quality attributes. Third, we examine how initial impressions regarding the reputation of an unfamiliar website can be formed through halos. Finally, we show that two dimensions (i.e., IQ and SQ) of websites influence each other.

2 Theoretical Foundations and Related Literature

2.1 The Halo Effect

Halo is a type of cognitive bias in which people use perceived or observed attributes or dimensions to make references or judgments about other attributes or dimensions (Feeley, 2002). Based on various different definitions of halo effects, Fisicaro and Lance (1990) propose three causal models of halo referring to three broad halo effects. In the *general impression model*, halo is defined as "the effect of global evaluation on evaluations of individual attributes of a person" (Nisbett & Wilson, 1977, p. 250). For example, if a subordinate generally had a good impression of his or her boss (for conscious or unconscious reasons), the subordinate would likely have a favorable view of the boss's attributes as well, such as personality and leadership skills. Simply put, general-impression halos are a type of estimation or judgment extended from the whole impression to individual attributes. Halo in the *salient dimension model* refers to "the tendency for an evaluator to let the assessment of an individual on one trait influence his or her evaluation of that person on other traits" (Robbins, 1989, p. 444). Different from general impression halos, silent dimension halos are a type of estimation or judgment carried from the individual attributes to other traits. The *inadequate discrimination model* conceptualizes halo as "a rater's failure to discriminate among conceptually distinct and potentially independent aspects of a ratee's behavior" (Saal et al., 1980, p. 415). Inadequate discrimination halos occur when there is a cross-effect from one attribute to another attribute (Feeley, 2002).

As shown in Figure 1, halo research can be classified in terms of two main approaches: (1) a methods-focused approach and (2) a theory-based approach. The *methods-focused approach* primarily examines methodological issues of halo and identifies methods for halo detection, measurement, and reduction. For example, Leuthesser, Kohli, and Harich (1995) present a methodology for measuring brand equity based on halo; Cooper (1981) offers nine methods to reduce halo (e.g., increasing rater familiarity, rater training, etc); and Brown and Perry (1994) propose a method for removing the financial performance halo in using secondary data.

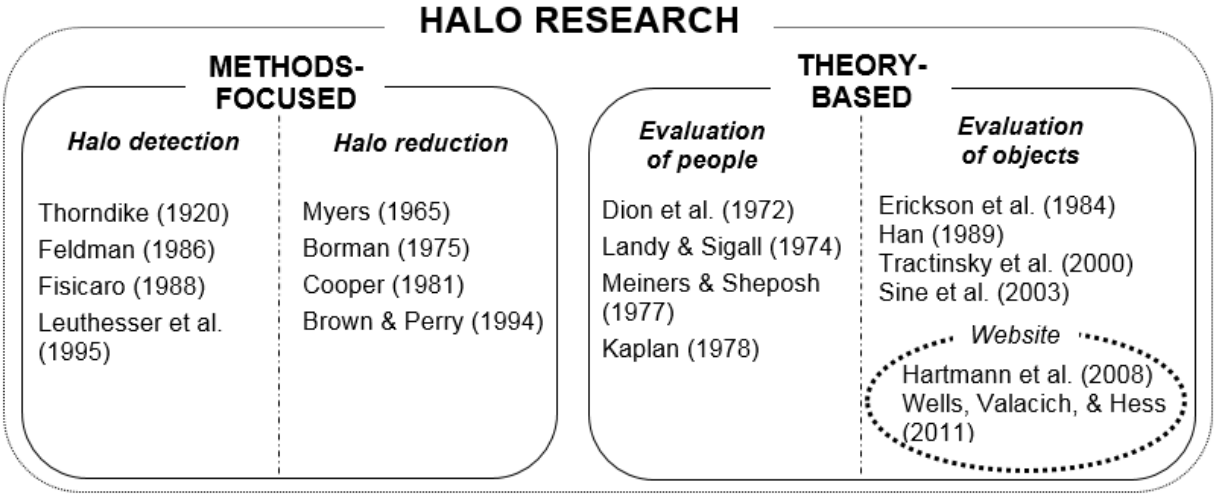

Figure 1. Overview of Halo Research

The *theory-based approach* focuses on the application of halo driven by theory. While social psychologists generally examine halos related to human traits (e.g., Dion, Berscheid, & Walster, 1972; Meiners & Sheposh, 1977), other researchers have applied the concept of halo in nonhuman contexts such as products (e.g., Erickson, Johansson, & Chao, 1984), stores (e.g., Wu & Petroshius, 1987), and organizations (e.g., Sine et al., 2003). In general, past research using this approach has found various halo effects carried over from individual attributes (perceived or observed) to other beliefs and attitudes concerning a human or a nonhuman object of interest. While the halo effect has been observed in various scenarios in different fields, the literature generally labels halo as halo error or halo bias because it is believed that halos are associated with misjudgment (Feeley, 2002; Fisicaro & Lance, 1990). However, some scholars (e.g. Boatwright, et al., 2008) have argued that halos can appropriately contribute to decision-making as well as to belief and attitude formation. In some cases, halos may even help reduce estimation risk.

Information systems research has begun to notice the halo effect through human computer interaction (HCI) studies identifying a high correlation between perceptions of aesthetics and usability even before users actually engage with a system (Tractinsky et al., 2000). Similar to the halo effect found in other fields (e.g. social psychology) in which individual transfer their evaluation of one trait to other traits associated with the subject, halo in the HCI context typically implies that users carry over their impression of the aesthetics of a system to other attributes of the system (Tractinsky et al., 2000). Research has also identified other halo effects, such as relationships between interface-design features and the overall user satisfaction (Lindgaard & Dudek, 2003), as well as relationships between high-quality website attributes (Hartmann et al., 2008). In addition, Hartmann et al. (2008) not only further confirm the halo effect of aesthetics on usability, but also show that the attribute of high usability can positively influence participants' evaluation of content quality.

In spite of the rich tradition of theoretical applications of halo, few IS researchers have examined the role of the halo effect in website design. Furthermore, previous halo-based IS research has mainly focused on the effect of one attribute on another attribute, while largely overlooking the various different types of halos in evaluating multi-attribute websites. Since the halo effect plays an important role on raters' evaluation of multi-attribute objects (Sahoo et al., 2012), it is important to identify various halos so that researchers can adequately conceptualize the halo effect in the context of website evaluation.

2.2 Related Website Research

In addition to halo-related IS research, we further reviewed recent experiment-based website design research (see Table 1). To conduct the review, we narrowed our search to articles published since 2010 in four leading IS journals: *MIS Quarterly*, *Information Systems Research*, *Journal of the Association for Information Systems*, and *Journal of Management Information Systems*. These journals are widely considered to be top publication outlets for IS research.

As noted earlier, three distinct models of explanation for the halo effect have been proposed in the literature (Fisicaro & Lance, 1990). Although these provide a useful basis for studying halo effects, they are not as effective in evaluating websites that comprise multiple attributes and dimensions. While some studies use attributes and dimensions interchangeably, we define dimensions as factors of website success (DeLone & McLean, 2003) and attributes as measurable aspects of quality (Wells, Valacich, & Hess, 2011). In other words, a dimension could consist of multiple attributes. Thus, our study uses dimensions to indicate IQ and SQ and attributes to indicate mission information, financial information, donation (assistant) information, navigability, download speed, and security. Our classification is based on *the cause and effect of attributes and dimensions*, which constitute a relationship between evaluative attributes and dimensions, where one is the result of an evaluation of the other or others. In the context of "what is beautiful is usable" (Tractinsky et al., 2000), for example, aesthetics of IT and judgment of usability represent cause and effect, respectively. In the context of multi-attribute website evaluation, the cause and effect can either be a dimension (e.g., SQ) or an attribute (e.g., visual aesthetics).

As shown in Table 1, prior website research has examined several attributes and dimensions (Campbell, Wells, & Valacich, 2013; Wells, Parboteeah, & Valacich, 2011; Xu, Benbasat, & Cenfetelli, 2013). For example, Wells, Valacich, and Hess (2011) investigate website quality as a signal of perceived product quality, conceptualizing website quality in terms of four attributes: security, download delay, navigability, and visual appeal. One unexpected result of their Study 1, which they attribute to the halo effect, is that participants evaluated quality attributes more positively when all the attributes belonged to the high-quality treatment group, versus when only one of the quality attributes belonged to the high-quality treatment group, even though the high-quality manipulation for an attribute was the same in different treatments.

Xu et al. (2013) propose a 3Q model to examine the role of information quality (IQ), system quality (SQ), and service quality (SerQ) in website adoption.

Table 1. Recent Research on Website Design

Source	Focus	Website domain	Key website features	Main findings (Potential halo related to the current study)
Deng & Poole (2010)	Webpage visual design	Online gift store	▪ Visual complexity and order	▪ The visual-complexity and order-design features of a website influence a user's pleasantness and arousal. (AA, AD)
Jiang et al. (2010)	Website interactivity	e-commerce	▪ Interactivity (active control and reciprocal communication)	▪ Website interactivity positively influences website involvement. (AD, DD)
Wells, Parboteeah, & Valacich (2011)	Online impulsive buying	College merchandise company	▪ Navigability ▪ Visual appeal ▪ Security	▪ Website quality positively influences users' urge to buy impulsively. (AA, AD, DD)
Wells, Valacich, & Hess (2011)	Website quality as a signal of product quality	Bag retailer	▪ Navigability ▪ Download delay ▪ Visual appeal ▪ Security	▪ Website quality positively influences perceived product quality which in turn affects intention to purchase from the website. (AA, AD, DD)
Lee et al. (2012)	Role of filler interface in online wait times	Travel	▪ Filler interface ▪ Image ▪ Text motion	▪ Websites with filler interfaces will create more temporal dissociation than websites without filler interfaces. (AA, DD)
Campbell et al. (2013)	Preadoption e-commerce attraction	T-shirt company	▪ Visual appeal ▪ Competent behavior (e.g., download delay)	▪ Visual appeal, competent behavior, relationship compatibility, and relationship receptiveness influence perceived relationship rewards, which in turn affect attraction to a website. (AA, AD, DD)
Hong, Hess, & Hardin (2013)	Managing perception of online wait times	Travel	▪ Wait time ▪ Amount of information	▪ Providing additional visual content can make shorter waits feel longer and longer waits feel shorter. (AA, AD)
Xu et al. (2013)	Role of service quality in website adoption	eService	▪ Information quality ▪ System quality ▪ Service quality	▪ System quality influences both information quality and service quality. ▪ Information quality influences service quality. (AA, AD, DD)
Ho & Bodoff (2014)	Effect of web personalization on user attitude	Bookstore, Music	▪ Personalization	▪ Cumulative breadth of sampling from the personalization agent positively affect attitude toward a personalization agent. (DD)
Yi, Jiang, & Benbasat (2015)	Effects of online product presentation formats	Cell phone	▪ Online product presentation design	▪ For users with more product-class knowledge, restricted interaction design is more attractive than both the noninteractive and fully interactive design. (AA, AD, DD)
Jiang et al. (2016)	Determinants of website aesthetics	Corporate portal	▪ Aesthetics ▪ Utility	▪ Perceived website aesthetics is influenced by perceived quality of unity, complexity, intensity, novelty, and interactivity design. ▪ Perceived website aesthetics affects perceived website utility, and attitude toward the website. (AA, AD, DD)
Lee et al. (2016)	Role of temporal and distractor cues in online wait times	Travel	▪ Temporal cue ▪ Distractor cue	▪ Temporal and distractor cues can decrease perceived wait times. (AA, AD, DD)
Cheung, Hong, & Thong (2017)	Effects of animation on attentional resources	Online grocery shopping	▪ Animation	▪ An animated product item leads to increased visual attention to all items on a website. (AD)
Hu et al. (2017)	Mediating role of cognitive load and performance	University	▪ Navigability	▪ Website navigability and user familiarity influence cognitive load and performance outcome which in turn affect user satisfaction. (AD, DD)

Yi, Jiang, & Benbasat (2017)	Role of social product search cues	Social commerce	▪ Diagnosticity ▪ Serendipity	▪ Two social product search cues (i.e., product tags and socially endorsed people) positively influence individuals' perceived diagnosticity and serendipity of their product search experience. (AA, AD, DD)
Notes: AA: attribute-to-attribute halo; AD: attribute-to-dimension halo; DD: dimension-to-dimension halo				

They theorize that perceived SQ influences perceived IQ and perceived SerQ, and perceived IQ influences perceived SerQ. Their results reveal a significant relationship between perceived SQ and IQ. Although their theoretical argument for the relationship between perceived SQ and IQ is not based on the halo effect, their findings are consistent the findings of halo-based website research such as that of Hartmann et al. (2008).

Also, prior website research has emphasized the role of visual design (Deng & Poole, 2010; Lee et al., 2012; Jiang et al., 2016). Specifically, Jiang et al (2016) suggest antecedents of website aesthetics: qualities of unity design, complexity design, intensity design, novelty design, and interactivity design. They argue that perceived website aesthetics positively influences perceived website utility and user attitudes toward the website in initial interactions. We believe this represents an aesthetics halo that corresponds to the "what is beautiful is usable" contention (Tractinsky et al., 2000). Social psychology research regarding the role of halo have also linked physical attractiveness to other human traits (Dion et al., 1972). While research on the halo effect for multi-attribute websites has been rare, understanding such effects can (1) offer more insights into users' website assessments, especially when the website lacks direct, physical cues about the products, services, and organizations it represents; and (2) contribute to a theoretical framework that organizations can employ to use halos to guide user assessments of websites and effectively convey quality-related and other information to users.

2.3 Selection of Study Constructs

The purpose of our study, as noted, is to identify the halo effect of human judgments in evaluating multi-attribute charity websites. In particular, we elected to measure website quality according to two separate dimensions: IQ and SQ.[1] We based our measure of IQ on established constructs in nonprofit literature of performance, financial, and donation information (Sargeant, West, & Jay, 2007; Saxton & Guo, 2011; Saxton et al., 2014; Waters, 2007). Following Wells, Valacich, and Hess (2011), we used navigability, download delay, visual aesthetics, and security, as attributes of SQ. Justification for dimension and attribute selection is summarized in Table 2. In addition, Appendix A provides a summary of website quality attributes used in prior research.

It is important to note that our selection of the three attributes of IQ is based on the tangible features that donors can easily observe, comprehend, and assess. Prior nonprofit literature has argued that disclosures of financial and mission information are important for nonprofit credibility (Saxton et al., 2014). To identify a charity's financial accountability, donors use various financial information such as audited financial statements, annual report, and IRS Form 990 (Brinkerhoff, 2001). Also, the Pension Protection Act of 2006 requires 501(c) organizations to file Form 990 to keep their tax-exempt status (Internal Revenue Service, 2011). Thus, disclosing Form 990 implies a charity's compliance with current laws and regulations (Saxton & Guo, 2011). Mission information reveals the charity's mission, vision, goals, and objectives.

Since individuals have different preferences for specific charities (Bennett, 2003), charity organizations need to provide clear and understandable statements detailing their vision, values, and organizational impact for potential donors and volunteers. Donation information is also important for charity website design (Sargeant et al., 2007). One key purpose of charity websites is to facilitate the donation of money, resources, or time to make it easier for individuals to actually contribute to the charity. Thus, our study considers quality of mission information, financial information, and donation information as key attributes to conceptualize our IQ. We further consider usefulness, currency, reliability, and sufficiency to measure quality of mission information, financial information, and donation information. As shown in Table 3, those measures have been frequently used in prior website research.

[1]In the context of e-service, Xu et al. (2013) hypothesized that SQ influences both IQ and service quality. Our reciprocal-quality halo predicts that IQ and SQ influence each other. Thus, it can be expected that service quality influences SQ under the tenets of the reciprocal-quality halo. Consequently, we exclude service quality because it is redundant with IQ in examining the reciprocal relationship between IQ and SQ. However, we acknowledge this shortcoming in our Limitations and Future Research section and propose that service quality could also be included in future research.

Table 2. Justifications for Construct Selection

Website quality dimensions		Justification
Dimensions of website quality	Information content quality (IQ)	• After being introduced in DeLone and McLean's IS success model (1992), information quality and system quality have been extensively examined in IS research (e.g., McKinney, Yoon & Zahedi, 2002; Wixom & Todd, 2005). However, these two constructs have not been studied as determinants of initial perceptions of reputation under the halo effect. • In relation to halo research, IQ and SQ can be treated to be analogous to internal/intrinsic quality (e.g., intelligence, talent) and external/extrinsic quality (e.g., beauty, professional appearance) which have been extensively examined in human evaluation.
	System quality (SQ)	
Attributes of IQ	Mission information	• Nonprofit literature points out that performance information (e.g., mission information, summaries of projects, etc) is an important aspect for nonprofit credibility (Brinkerhoff, 2001; Saxton & Guo, 2011). • Since mission information reveals a charity's current mission, vision, goals, and objectives, it is important for potential donors to know the charity's mission before making a donation decision.
	Financial information	• Nonprofit literature suggests that financial information (e.g., IRS Form 990, audited financial statement, etc.) is a key attribute for nonprofit credibility (Brinkerhoff, 2001; Saxton & Guo, 2011).
	Donation information	• A key function of charity websites is to help/assist people in making donations. • Donation information can facilitate donations by charity website visitors.
Attributes of SQ	Navigability	• These four were used as attributes of website quality by Wells, Valacich, and Hess (2011) and seem to represent a parsimonious set. • Our study directly tests these using the theoretical basis of halo rather than attributing them post hoc like Wells, Valacich, and Hess (2011). We also replicate and extend their findings.
	Download speed	
	Visual aesthetics	
	Security	

Table 3. Summary of Website Information Quality Measures Used in Prior Research

	Usefulness	Currency	Reliability	Sufficiency	Other measures[a]
Liu & Arnett (2000)		✓ Timely information	✓Accurate information	✓ Complete description of products	✓ Relevant information
McKinney et al (2002)	✓Usefulness	✓ Timeliness	✓ Reliability	✓ Scope	✓ Relevance
DeLone & McLean (2004)		✓ Currency	✓ Accuracy	✓ Completeness	✓ Relevance ✓ Understandability ✓ Competitive intelligence
Kim et al. (2004)	✓Usefulness		✓ Reliability	✓ Sufficiency	✓ Relevance ✓ Ease of understanding
Lee & Kozar (2006)		✓ Currency			✓ Understandability ✓ Relevance
Song & Zahedi (2007)	✓Usefulness		✓ Reliability		✓ Relevance ✓ Understandability
Zo & Ramamurthy (2009)	✓ Usefulness	✓ Currency	✓ Accuracy	✓ Amount of comprehensive information	✓ Relevance ✓ Believability ✓ Ease of understanding
Xu et al. (2013)		✓ Currency	✓ Accuracy	✓ Completeness	✓ Format
Bansal et al. (2015)		✓ Currency	✓ Reliability	✓ Completeness	✓ Relevance

[a]It is important to note that other than competitive intelligence, the "other measures" lists primarily five aspects: relevance/relevant information, ease of understanding/understandability, comprehensibility, format and believability. The first four can really be subsumed within usefulness; believability can be subsumed within reliability. Thus, the four aspects we have chosen to measure the three IQ attributes practically cover the all the recommendations of past IS literature.

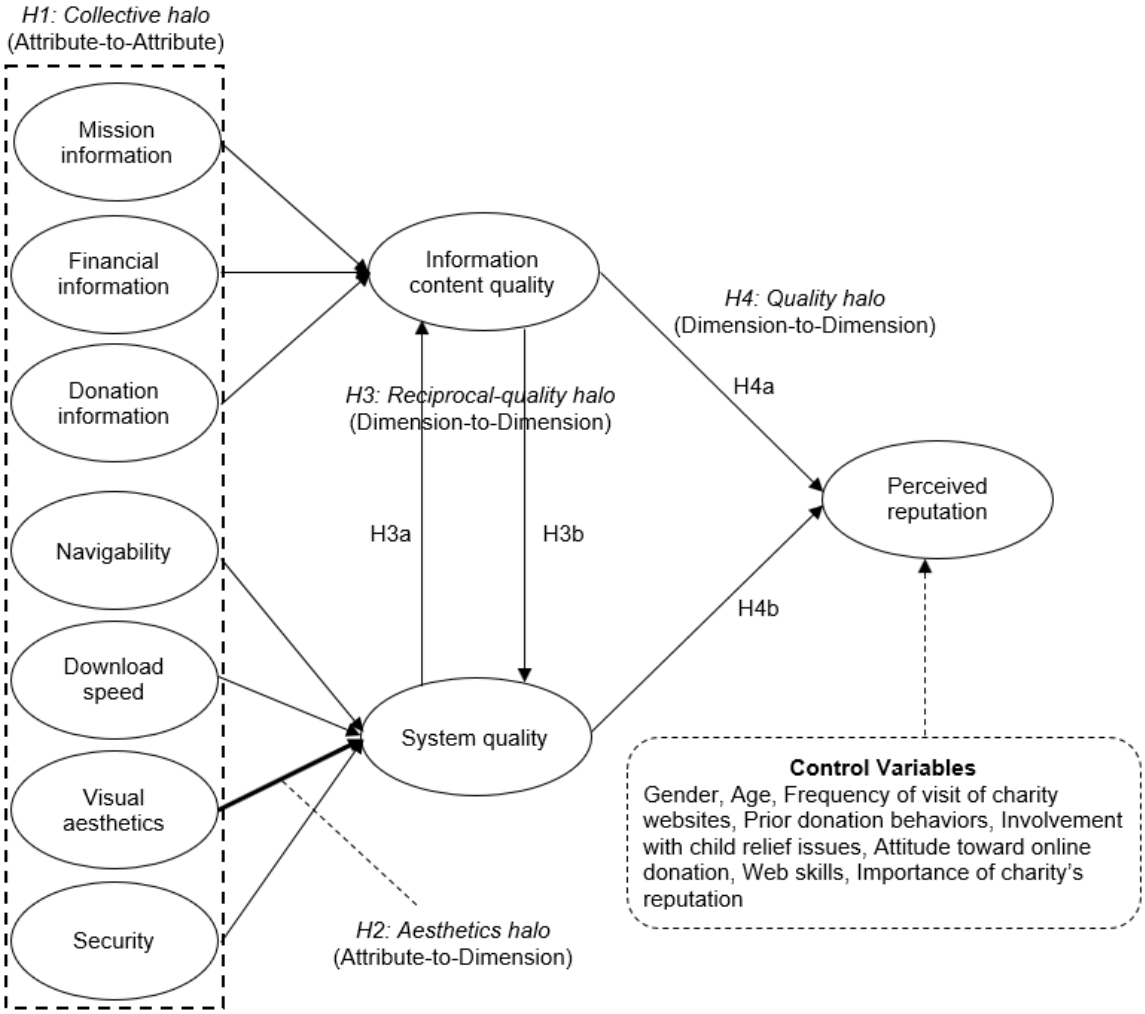

Figure 2. Research Model

3 Research Model and Hypotheses

As noted earlier, we classify halos based on attributes and dimensions, and the causal direction of the halo. It is important to note that no new halos are being created; instead, different models of explanations are being proposed to facilitate explaining halos for multi-attribute websites. Accordingly, we seek to extend them to provide a more complete characterization of the explanation of the halo effect. Based on our classification, the three explanations of the halos we envision in this study are attribute-to-attribute, attribute-to-dimension, and dimension-to-dimension.[2] The classification we propose allows us to examine multiple simultaneous halo effects when evaluating an object consisting of several attributes and dimensions. Based on this classification, this study proposes the research model as shown in Figure 2. Specially, we examine H1: collective halo (attribute-to-attribute), H2: aesthetics halo (attribute-to-dimension), H3: reciprocal-quality halo (dimension-to-dimension), and H4: quality halo carried over from evaluations of IQ and SQ to evaluations of reputation (dimension-to-dimension). We selected the proposed halos based on the following reasons.

First, while Wells, Valacich, and Hess (2011) found the phenomenon of halo in the context of multi-attribute websites, they did not conceptualize and explain it. The collective halo proposed in our study can help us better

[2] This study does not examine dimension-to-attribute halo. We elaborate on this in the Limitation and Future Research section.

understand how website attributes influence each other. Second, prior IS research on aesthetics has found that that the effect of aesthetics carries over to other attributes (Hartmann et al., 2008; Jiang et al., 2016; Tractinsky et al., 2000). However, since prior research has not paid much attention to the role of aesthetics (i.e., attribute) in evaluating overall SQ (i.e., dimension), our aesthetic halo can help advance existing knowledge on the role of aesthetics. Third, our framework allows for the possibility of reciprocal halo effects, something that prior IS research on halos has not examined. Thus, our reciprocal-quality halo (dimension-to-dimension) contributes to existing website research by clarifying how two dimensions of website quality can influence each other. Finally, we examine the effects of perceived IQ and SQ on perceived reputation as the effects of the quality halo. If a user does not perceive a website to be reputable, this will likely result in unfavorable behavior (in terms of intention to donate and/or actual donation). We believe perceived reputation is particularly apt for examining the halo effect in this study because building reputation typically requires value-adding activities that entail time and effort. Using perceived reputation as the outcome variable allows us to observe halos where perceptions of reputation are formed based on existing website cues rather than through value-adding interactions with the website. This is particularly important when people interact with new or unfamiliar websites for the first time, especially in cases in which they may be asked for and willing to part with monetary and other resources.

3.1 Collective Halo

In evaluating a multi-attribute object, when all seven attributes are of high quality, each attribute is judged as being of higher quality than when only one attribute is of high quality. Our study labels this phenomenon as *collective halo* since we believe this is a collective effect of attributes. The collective halo can result from an inability on the part of individuals to properly discriminate attributes from one another from among several attributes. As suggested by the inadequate discrimination model of halo (Fisicaro & Lance, 1990), individuals are often unable to discriminate among conceptually independent attributes (of websites) (Saal et al., 1980). Consequently, cross-effects of evaluations have been observed in many settings (Cooper, 1981). For example, research has shown that when students evaluate a teacher's ability to discipline as being high, they also tend to judge the teacher's intelligence to be high (Moritsch & Suter, 1988). Humans tend to put more weight on similar features than different features and often demonstrate "the differential ease of making 'same' or 'similar' versus 'different' judgments" (Cooper, 1981, p. 218). Thus, in evaluating multiple attributes, people tend to have collective, cross-category same, or similar evaluations of all attributes. In our case, when the quality level of all seven attributes is high, they collectively become outstanding because high quality attributes are presumed to influence each other. These attributes are readily visible and easy to evaluate as being of high quality.

Some evidence for collective halo can be found in prior research. Wells, Valacich, and Hess (2011) conceptualized website quality in terms of four attributes: security (SEC), download delay (DD), navigability (NAV), and visual appeal (VA). In Study 1,[3] they developed six interface treatments ($A_{\text{all high}}$: all four attributes were of high quality; B_{SEC}, C_{DD}, D_{NAV}, and E_{VA}: one attribute was high while the remaining attributes were of low quality; $F_{\text{All Low}}$: all four attributes were of low quality). They found that participants evaluated each of the quality attributes in treatment A as being much higher than each of the high quality attribute in treatments B, C, D, and E although the high quality attributes were exactly the same in all of these four other interface treatments (i.e., security: $6.92_A/5.22_B$, download delay: $7.93_A/6.80_C$, navigability: $8.20_A/7.12_D$, visual appeal: $7.33_A/5.48_E$). However, they did not conceptualize and conduct their study using collective halo. Based on the above arguments and prior findings, we hypothesize that

H1: When the quality of all (seven) attributes is high, each of these attributes will be perceived as being of higher quality than the exact same attribute in other configurations where the high-quality attribute is mixed with a majority of low-quality attributes.

3.2 Aesthetics Halo

Extant literature has noted that the attractiveness induced by the halo effect is a strong and general phenomenon (Eagly, Ashmore, Makhijani, & Longo, 1991). Dion et al. (1972) suggest that the beauty-is-good effect is very strong for measures of social competence. Bassili (1981) concludes that the core of the physical attractiveness halo is an extraversion or a social vitality. Physically attractive individuals are perceived as enjoying more good things (e.g., happier marriage) and having more socially desirable traits (e.g., modesty) (Dion et al., 1972). Moreover, attractiveness has more impact than intelligence in evaluating human attributes such as being friendly, likeable, and talented (Meiners & Sheposh, 1977). The above-mentioned findings indicate the dominant role of a single attribute, namely physical attractiveness, in evaluating multiple attributes of human beings. We extend this to role of website aesthetics in evaluating multi-attribute websites.

[3] See Table C2 of Wells, Valacich, and Hess (2011, p. A7)

This predominant role of one salient dimension (i.e., beauty) has also been successfully applied to IT artifacts. In claiming that "what is beautiful is usable," Tractinsky et al. (2000) found the judgment of interface aesthetics of an IT system to correlate higher with judgment of its usability than the actual, objective usability standard. In particular, they found that the level of the system's aesthetics influenced postusage perceptions of both aesthetics and usability, whereas the level of actual usability had no such effect. Visual aesthetics and appearance are often the first website feature to be evaluated by a user, and it can be judged within a very short time, in as few as 50 milliseconds (Lindgaard, Fernandes, Dudek, & Brown, 2006). In addition, aesthetics (representational delight) has been found to be a dominant element of website quality in experiential contexts (Valacich et al., 2007; Van der Heijden & Verhagen, 2004). Likewise, Jiang et al. (2016) found that the effect of perceived aesthetics on user attitudes is more significant than that of perceived utility during users first interaction with a website, suggesting the predominant role of website aesthetics.

Based on the attractiveness-induced halo and the findings of prior e-commerce research, we expect that when assessing the overall SQ of charity websites, visual aesthetics should have the strongest effect vis-a-vis other system features such as navigability, download speed, and security. Thus, we hypothesize that

H2: Visual aesthetics has the strongest effect (among our system features) on evaluating system quality.

3.3 Reciprocal-Quality Halo

Drawing on DeLone and McLean (2004), this study defines IQ as a charity website visitor's perception that the website discloses useful, reliable/accurate, current/timely, and sufficient (mission, financial, and donation) information, and defines SQ as a website visitor's perception that a website provides what he or she believes to be the desired characteristics of a website system (i.e., visually appealing and easily navigable/accessible information in a secure and fast fashion). IQ and SQ can be viewed as analogous to intrinsic/internal quality and extrinsic/external quality (Wells, Valacich, & Hess, 2011). According to Richardson, Dick, and Jain (1994), intrinsic quality attributes, which can alter the fundamental nature of the product, are features directly related to the product; extrinsic quality attributes, which do not alter the fundamental nature of the product, are not directly related to the product. Extrinsic quality can be judged without any or much prior knowledge of the product and can be more easily recognized and processed than intrinsic quality (Richardson et al., 1994). In the context of a charity website, information content such as mission information and financial information would be intrinsic qualities because they provide information about a charity's identity and accountability. On the other hand, system features/functionalities would be extrinsic qualities because they are not directly linked to the charity organization itself and alteration of extrinsic quality does not change nature of the charity. Thus, IQ and SQ can be treated as analogous to intrinsic/internal quality and extrinsic/external quality that are used to evaluate human beings. While external quality consists of "highly visible, concrete, outward" attributes (e.g., beauty, professional appearance), internal quality is composed of "more elusive, abstract, and internal" attributes (e.g., intelligence, talent) (Meiners & Sheposh, 1977, p. 265).

Reciprocal-quality halo argues that extrinsic and intrinsic qualities influence each other. It is related to halo as explained in the inadequate discrimination model and conceptualized as a rater's failure to discriminate among conceptually distinct and independent dimensions (Saal et al., 1980). In particular, the inadequate discrimination model attributes halo error to "cross-effects" of ratee behaviors; that is, ratee behavior on one dimension affects the evaluations of ratee behaviors on other dimensions (Fisicaro & Lance, 1990). In the same vein, Kelly (1955) argues that individuals who are evaluated positively on one trait are also evaluated positively on other traits.

The causal relationship between extrinsic quality and intrinsic quality has also been examined. Landy and Sigall (1974) found that a writer's (physical) attractiveness positively impacts the evaluation of the writer's work even when the objective quality of the work was relatively poor. In addition, Kaplan (1978) found that male evaluators found attractive female authors to be significantly more talented than unattractive authors. Likewise, IS literature has shown a positive influence of external website quality on internal website quality. As information is stored and delivered by a system, problematic systems can degrade the actual quality of the information content they generate (Xu et al., 2013). Users are expected to know that a good system is essential to attaining good information (e.g., in terms of completeness, accuracy, format, currency, etc.), and thus they assess website IQ based on website SQ (Xu et al., 2013). Drawing on the halo effect, Hartmann et al. (2008) concludes that aesthetic website design can positively affect perceptions of website contents. In the context of e-service, Xu et al. (2013) found that perceived SQ positively influences perceived IQ, a result that is also applicable in the context of the charity website. Therefore, we hypothesize that

H3a: An individual's perceived system quality positively influences perceived information content quality.

Furthermore, we also expect that perception of intrinsic quality (i.e., IQ) can affect perception of extrinsic quality (i.e., SQ). Extrinsic quality dimensions are analogous to a vessel or a carrier of intrinsic quality

dimensions. The most plausible explanation of the relationship is that perceived IQ can activate the related behavioral schema (i.e., SQ) because perceived IQ is formed on the basis of information stored in the system. Also, individuals' deliberate cognitions can influence accessibility of the information and reactivity of system features (Strack, Werth, & Deutsch, 2006). Thus, devoting cognitive efforts on reading and evaluating high-quality (of mission, financial, and donation) information can improve the evaluation on the underlying associative structure system features. In addition, prior research has concluded that thinking can lead other evaluations (Lazarus, 1991), suggesting that cognitive appraisal of the information content of charity websites may influence positive evaluation of system features. Overall, when a system delivers well structured, reliable, and useful information, the evaluation of informational quality can carry over to the evaluation of system quality, even if the actual system quality does not match the evaluation of it. Thus, we predict that an increase in perceived IQ would lead to a more positive estimation of SQ and hypothesize that

H3b: An individual's perceived information content quality positively influences perceived system quality.

3.4 Quality Halo and Initial Perceptions of Reputation

We argue that a crucial piece of missing information for people interacting with websites, evaluation of website reputation, can be triggered by available cues (i.e., IQ and SQ). Drawing on the above discussion, this study defines initial perceptions of reputation as an individual's evaluations of an unknown or unfamiliar charity website's honesty and concern for its (potential) donors (Metzger, 2006). A well-designed, visually appealing website that provides reliable, complete, useful, timely, and easily accessible and assimilated information can go a long way toward assuring potential donors that the site is indeed honest and that it cares about its donors, thereby conferring and confirming a sense of authenticity and positive reputation. In the real world, people may form impressions of even unknown and unfamiliar individuals based on perceptions of their intelligence and appearance. In the same vein, impressions of unfamiliar charity websites can be formed based on perceptions of the intrinsic and extrinsic qualities of the websites.

Furthermore, a number of highly visible scandals have led the public to demand that charities be more honest, accountable, and credible in reporting how charitable donations are being utilized (Waters, 2007). Disclosure of performance information such as mission, vision, values, goals, outputs, and strategic plans are typically used to demonstrate the charity's performance "in light of agreed-upon performance target[s]" (Brinkerhoff, 2001, p. 10). Financial information such as IRS Form 990 and annual reports aim to show "financial accountability," which "concerns tracking and reporting on allocation, disbursement, and utilization of financial resources, using the tools of auditing, budgeting, and accounting" (Brinkerhoff, 2001, p. 10). Thus, providing high-quality information can confer a sense that the charity is forthright, honest, responsible and accountable and, thus, trigger visitors to form positive impressions of charity websites and perceive them as reputable. We therefore hypothesize that

H4a: Perceived information content quality positively influences perceived reputation of a website.

In addition to intrinsic quality, extrinsic quality can also help individuals form impressions. Jiang et al. (2016) notes that users deem an organization's website itself to be a part of the organization. Also, past research has found that attractive communicators are perceived as more honest and more persuasive than unattractive communicators (Pallak, Murroni, & Kock, 1983). As discussed above, when charity websites have good system features/functionalities, visitors can quickly acquire information in an easy, secure, and pleasant manner (Palmer, 2002), leading them to perceive the website as honest, forthcoming, and genuinely concerned about donors' welfare. In addition, Jiang et al. (2016) found that visual aesthetics influences attitudes toward websites, which in turn influences the overall corporate image formed by users during initial interactions with a website. Thus, we hypothesize the following:

H4b: Perceived system quality positively influences perceived reputation of a website.

4 Research Method and Data Analysis

To test the research model, we created a website (for a fictitious charity organization, which, of course, was not communicated to the study participants) in the domain of child relief and development because child development, hunger, and third world charities (e.g., World Vision, UNICEF) constitute the most popular charity segment among individuals between 18 and 24 years old (Reed, 1998). We conducted two studies to test our hypotheses, as summarized in Table 4. The pilot study was designed to assess and establish manipulation checks. After establishing various forms of validity and reliability of measurement, the main study focused on examining the various halos in evaluating charity websites, forming initial perceptions of reputation, and making donation decisions.

Table 4. Summary of Experiments

Title	Pilot study (N=20)	Main study (N=661)	
		Measurement model	Hypothesis testing
Design	2 Treatments high vs. low	24 Treatments Partial factorial design	
Demographic	• Gender: Male (13) • Average age: 22.65	• Gender: Female (270: 40.8%), Male (391: 59.2%) • Average age: 21.59	
Focus	• Manipulation check	• Assignment bias check • Manipulation check • Instrument validation • Common method bias	• H1: Collective halo • H2: Aesthetics halo • H3: Reciprocal-quality halo • H4: Quality halo
Measured variables	MI, FI, DI, NAV, DS, VA, SEC	**IQ:** MI, FI, DI **SQ:** NAV, DS, VA, SEC REP	
Control variables		Gender, age, frequency of visit of charity websites (FRE), prior donation behaviors (PDB), involvement with child relief issues (INV), attitude toward online donation (AOD), web skills (WS), importance of charity's reputation (IMP)	

Notes: IQ: Information content quality; MI: Mission information; FI: Financial information; DI: Donation information; SQ: System quality; NAV: Navigability; DS: Download speed; VA: Visual aesthetics; SEC: Security; REP: Perceived reputation

4.1 Measures

To ensure construct validity, whenever possible, all measures were adapted from previously validated scales. For the measurements of IQ and SQ, we used the multiple indicator, multiple cause (MIMIC) model in which latent constructs are created by second-order latent constructs and also reflected by three first-order items. In line the MIMIC model, the resulting latent constructs served as outcome measures in determining what quality attributes are associated with IQ and SQ. In particular, we conceptualized IQ to be created by three constructs (i.e., mission, financial, and donation information) (Saxton & Guo, 2011; Sargeant et al., 2007) and reflected by three items; and SQ to be created by four constructs (i.e., navigability, download speed, visual aesthetics, and security) (Wells, Valacich, & Hess, 2011) and reflected by three items. We measured each of the three IQ dimensions and four SQ dimensions with reflective items adapted from existing scales. Perceived reputation of the charity website was adapted from e-commerce research (Ray, Ow, & Kim, 2011). All measurement items, scale anchors, and sources are presented in Appendix B.

4.2 Website Stimuli

We developed a total of 24 website configurations to provide variations in mission information, financial information, donation information, navigability, download speed, visual aesthetics, and security. It is important to note that a partial, factorial design (24 treatments) was employed instead of a full, factorial design (2^7 = 128 treatments) because the goal of this study was to examine the halo effect rather than the interaction effects among the seven attributes. However, we note that with this partial design it was not possible to test possible confounding effects of interactions among the seven attributes (see Wells, Valacich, & Hess [2011] for more information). Website configurations employed in this study and justification of these choices are described in Table 5. IQ was manipulated by varying the amount (volume), extent (breadth), and details (depth) associated with the charity's mission information (mission, vision, and values), its financial information (annual report, ISR Form 990, and audited financial statement), and information about donation options (type: money, time, and resources; channel: onsite and online). We manipulated SQ according to variations in website navigability, download speed, visual aesthetics, and security. These manipulations are illustrated in detail in Appendix C. After developing the measurement instrument and website stimuli, several faculty members and doctoral students pretested and provided feedback on the content validity of the measurement scales and the appropriateness of website treatments. Based on their feedback, we made a few changes in item phrasing for the final version of the questionnaire and in the website stimuli.

Table 5. Website Configurations Employed

Stimulus		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
IQ	MI	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	L	L	L	L	L	L	L	L	L	L	L	L
	FI	**H**	**H**	**H**	**H**	**H**	**H**	L	L	L	L	L	L	**H**	**H**	**H**	**H**	**H**	**H**	L	L	L	L	L	L
	DI	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	L	L	L	L	L	L	L	L	L	L	L	L
SQ	NAV	**H**	**H**	L	L	L	L	**H**	**H**	L	L	L	L	**H**	**H**	L	L	L	L	**H**	**H**	L	L	L	L
	DS	**H**	L	**H**	L	L	L	**H**	L	**H**	L	L	L	**H**	L	**H**	L	L	L	**H**	L	**H**	L	L	L
	VA	**H**	L	L	**H**	L	L	**H**	L	L	**H**	L	L	**H**	L	L	**H**	L	L	**H**	L	L	**H**	L	L
	SEC	**H**	L	L	L	**H**	L	**H**	L	L	L	**H**	L	**H**	L	L	L	**H**	L	**H**	L	L	L	**H**	L

Variation	Treatment	Justification
High and/or low IQ and SQ	1, 6, 19, 24	• Variation of IQ and SQ
Manipulating financial information (attribute of IQ)	7-18	• Nonprofit literature suggests that financial information tends to dominate the performance information (Saxton et al., 2014). • Financial information has much more textual information content than mission information and donation information.
Manipulating one attribute of SQ	2-5, 8-11, 14-17, 20-23	• Based on Study 1 of Wells, Valacich, and Hess (2011)

Notes:
H: High; L: Low

Table 6. Results of Pilot Study

Within subject										
	A: High → Low (N=10)					B: Low → High (N=10)				
	I1 (High)	I2 (Low)	I1 – I2	t-value	Sig	J1 (Low)	J2 (High)	J1 – J2	t-value	Sig
MI	5.58	2.80	2.78	4.80	.001	3.23	5.75	-2.53	-6.17	.000
FI	5.80	2.60	3.20	6.14	.000	3.73	5.45	-1.73	-3.00	.015
DI	4.95	2.55	2.40	3.15	.012	3.45	5.80	-2.35	-6.79	.000
NAV	5.87	3.00	2.87	4.46	.002	3.03	5.73	-2.70	-5.37	.000
DS	5.70	2.50	3.20	3.70	.005	3.10	5.13	-2.03	-3.20	.011
VA	4.90	2.10	2.80	3.76	.004	2.10	6.03	-3.93	-8.97	.000
SEC	4.70	2.33	2.37	4.12	.003	2.53	5.40	-2.87	-4.33	.002
Between subject										
	A and B: Viewed first site (N=20)					A and B: Viewed second site (N=20)				
	I1 (High)	J1 (Low)	I1 – J1	F-value	Sig	I2 (Low)	J2 (High)	I2 – J2	F-value	Sig
MI	5.58	3.23	2.35	24.62	.001	2.80	5.75	-2.95	24.03	.000
FI	5.80	3.73	2.07	15.48	.011	2.60	5.45	-2.85	20.89	.000
DI	4.95	3.45	1.50	7.96	.000	2.55	5.80	-3.25	36.46	.000
NAV	5.87	3.03	2.84	29.12	.001	3.00	5.73	-2.73	14.63	.000
DS	5.70	3.10	2.60	15.78	.000	2.50	5.13	-2.63	10.62	.004
VA	4.90	2.10	2.80	27.83	.002	2.10	6.03	-3.93	22.84	.000
SEC	4.70	2.53	2.17	12.71	.002	2.33	5.40	-3.07	33.97	.000

4.3 The Pilot Study

A pilot study was conducted to test for manipulation checks. This experiment employed two levels: high and low website characteristics (treatments 1 and 24). The configuration was based on the following two assumptions regarding the evaluation of multi-attribute objects: (1) Individuals can distinguish between all high- and all low-level attributes, but (2) individuals cannot effectively evaluate and distinguish the actual quality of each attribute if the attribute level varies. For the pilot study, we set up two groups: Group A participants evaluated high-quality (vs. low-quality) websites first and low-quality (vs. high-quality) websites second. In contrast, Group B participants evaluated low-quality websites first and high-quality websites second. This setting allowed us to identify individuals' cognitive distinction according to a within-subject design, conduct traditional

manipulation checks according to a between-subjects design, and address and account for any ordering effect.

The subjects for this experiment were undergraduate and graduate students at a large public university in the US Midwest. Twenty students participated in this first experiment (65% male, average age of 22.65 years). Participants were instructed on how to evaluate the two sequentially presented websites and asked to complete a survey measuring seven dimensions of website quality after evaluating each website. Ten participants were randomly assigned to each group. Using SPSS 21.0, we conducted paired sample t-test and ANOVA for the seven website quality dimensions. As shown in Table 6, they were found to be significantly different, suggesting that our manipulation was successful.

4.4 The Main Study

The purpose of the main study was to assess the measurement model and test the hypotheses. We designed a controlled lab experiment using the 24 website treatments to investigate the effects of various types of halo in charity website evaluation and initial perceptions of reputation.

4.4.1 Sample and Experimental Procedure

A separate sample of subjects who did not participate in the pilot study was recruited for the main study. They voluntarily participated in this experiment in exchange for extra course credit and the opportunity to earn a $30 gift card. A total of 669 students (59.2% male, average age of 21.59) participated in Experiment 2. Eight observations were discarded due to missing data or failure to follow instructions, resulting in 661 usable observations. In terms of prior experience with online charities, 79.0% of the subjects had visited a charity website at least once during the previous year. Our subjects were also relatively active as donors; most reported donating money (82.5%), time (86.5%), and material resources (88.5%) during the previous year. It is important to note that unfamiliar objects and insufficient effort by raters constitute main sources of halo effect when evaluating ratees across multiple attributes (Feeley, 2002). To ensure that the participants engaged themselves effectively in the experiment, we included the following procedures to familiarize the participants with the attributes of the website (i.e., training) and to ensure that they devoted sufficient effort to evaluation (i.e., motivation).

All students were given additional course credit for participating. The participants were asked to fill out a pretest survey that captured various pieces of demographic information before they participated in the experiment. We provided them with clear instructions on how to evaluate the website. They were randomly assigned to one of 24 versions of website stimuli and asked them to investigate the informational content (mission, financial, and donation information) and system features/functionalities (navigability, download speed, visual aesthetics, and security).

To ensure sufficient motivation, we asked all participants to spend the time necessary to evaluate the website in as much detail as possible. To further motivate participants to devote adequate effort, we also emphasized that a $30 gift card would be given to participants who provided careful and honest evaluations. After interacting with the website, the participants were asked to complete a posttest survey. The data were collected via an online survey, and the study subjects were randomly assigned to the 24 website treatments. The descriptive statistics across the various treatments are presented in Table F1 in the Appendix.

4.4.2 Assignment Bias and Manipulation Checks

Using several demographic and charity-specific variables, we checked for assignment bias. There were no significant differences in gender (Pearson chi-square value = 30.01, p = 0.149), age (F = 0.60, p = 0.931), involvement with child relief issues (F = 1.03, p = 0.419) or prior donation behaviors (F = 0.58, p = 0.942) distribution across the 24 treatments, suggesting no assignment bias. We further conducted manipulation checks using ANOVA for each of the seven dimensions of website quality. The results show that manipulation checks were significant in mission information (F = 97.84, p = 0.000), financial information (F = 54.01, p = 0.000), donation information (F = 114.00, p = 0.000), navigability (F = 73.11, p = 0.000), download speed (F = 157.84, p = 0.000), visual aesthetics (F = 150.67, p = 0.000), and security (F = 23.38, p = 0.000).

4.4.3 Measurement Model

A confirmatory factor analysis (CFA) was performed; a 15-factor measurement model was set up to assess the measurement quality of the constructs. As shown in Table 7, the overall fit indices suggest a good fit of the model to the data because most of the indices were at or better than the recommended cutoff values.

Table 7. Goodness of Fit

	Good model fit ranges	Measurement model	Structural model
χ^2 (DF)		1319.80 (826)	1692.63 (1008)
χ^2/DF	< 3.00	1.60	1.68
NFI	> .90	.96	.95
IFI	> .90	.98	.98
TLI	> .90	.98	.98
CFI	> .90	.98	.98
GFI	≈ .90	.92	.91
AGFI	> .80	.90	.89
SRMR	< .10	.025	.034
RMSEA	< .08	.030	.032

The means and standard deviations of the constructs are shown in Table F2 in the Appendix, along with composite reliability (CR), average variance extracted (AVE), range of factor loadings, and correlations between constructs. The measurement model was further examined by assessing several psychometric properties such as reliability and convergent and discriminant validities. First, scale reliability was assessed using CR and AVE. As shown in Table F2, the minimum values of 0.88 of CR (for web skills) and 0.71 of AVE (for web skills and financial information) were greater than the commonly accepted thresholds of 0.70 of CR and 0.50 of AVE, respectively (Hair, Black, Babin, & Anderson, 2009), suggesting satisfactory reliability for constructs. Second, convergent validity was assessed by comparing the standardized factor loadings with the cutoff value of 0.70 (Hair et al., 2009). The lowest factor loading was 0.77 for one indicator of mission information (see Table F2), adequately demonstrating convergent validity.

Finally, discriminant validity was assessed by comparing the square root of AVE for each construct with the correlations between that construct and the other constructs. The square root of the AVE for each construct was found to be larger than its correlations with the other constructs, demonstrating discriminant validity. Discriminant validity was further examined in CFA through chi-square tests between an unconstrained model that frees the correlation (baseline model) and a constrained model that sets the correlation between two constructs at 1 (Segars & Grover, 1998). A significant χ^2 difference indicates that the baseline model is better than the constrained model. We selected seven constrained models because two constructs in the models had relatively high correlations. The results in Table 8 show that all χ^2 differences are significant ($p < 0.001$). These results further confirm discriminant validity.

Table 8. Discriminant Validity

Model	χ^2 (df)	Dχ^2 (df, sig.)
Unconstrained baseline model with freely correlated latent constructs	1319.80 (826)	
Constrained MI and DI = 1	1348.78 (825)	28.98 (1, .001)
Constrained MI and IQ = 1	1362.12 (825)	42.32 (1, .001)
Constrained DI and IQ = 1	1394.16 (825)	74.36 (1, .001)
Constrained NAV and SQ = 1	1342.36 (825)	22.56 (1, .001)
Constrained IQ and SQ = 1	1353.23 (825)	33.43 (1, .001)
Constrained IQ and REP = 1	1335.36 (825)	15.56 (1, .001)
Constrained SQ and REP = 1	1335.43 (825)	15.63 (1, .001)

Because there were a few high correlations among constructs, we examined the variance inflation factors (VIFs) by regressing MI (2.03), FI (1.58), and DI (2.35), NAV (1.74), DS (1.29), VA (1.66), and SEC (1.61) on perceived reputation, and IQ (1.87) and SQ (1.87) on perceived reputation. The VIFs in the two models were well below the threshold of 3.33 (Craney & Surles, 2002), suggesting that multicollinearity is not a serious concern.

4.4.4 Common Method Bias (CMB)

The extent of CMB was assessed with two tests. First, we conducted Harman's single-factor test by including all indicator items in a principal component factor analysis (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). If CMB is problematic, a factor analysis would produce a single factor accounting for most of the variance (Podsakoff et al., 2003). The first extracted factor explained about 39% of variance, demonstrating that the level of CMB is not high. Second, we employed the marker-variable technique (Lindell & Whitney, 2001; Malhotra, Kim, & Patil, 2006). We selected a theoretically unrelated variable, *risk perception*, as a marker variable and tested correlations between the marker variable and study constructs. The results indicated that CMB was not a serious issue because the three lowest correlation coefficients were 0.00 (visual aesthetics), 0.01 (download speed), and 0.04 (donation information); and the average correlation coefficient was close to 0 (r = 0.05, ns). Third, a CFA was performed to assess a single-factor model (Kearns & Sabherwal, 2007). The model showed a poor fit with χ^2 = 18288.35 (df = 902), χ^2/df = 20.28, CFI = 0.44, NFI = 0.43, GFI = 0.44, AGFI = 0.33, and RMSEA = 0.17. Based on these diagnostics, we determined that CMB was not likely to be a concern with our data.

4.4.5 Hypothesis Testing

For hypothesis testing, we used independent sample t-tests for collective halo (H1) and a structural model for aesthetics halo (H2), reciprocal-quality halo (H3), and quality halo (H4). A structural model was developed to test H2, H3, and H4 by specifying the direct and indirect causal relationships among the constructs and by examining the significance and strength of each of our hypothesized effects. As shown in Table 7, all the values are within an acceptable range for good model fit. Results of the analysis, including standardized path coefficients, significance, and the amount of variance explained (R^2 value) for each dependent variable, are presented in Figure 3.

Visual aesthetics did not have the strongest effect (among our system features) on SQ, and thus did not adequately demonstrate evidence of an aesthetic halo (H2). SQ evaluation had a significant effect on IQ evaluation (β = 0.24; p < 0.001), and IQ evaluation had a significant effect on SQ evaluation (β = 0.11; p < 0.001), suggesting support for a reciprocal-quality halo (H3). As expected from quality halo (H4), perceived reputation was significantly influenced by IQ (β = 0.50; p < 0.001) and SQ (β = 0.27; p < 0.001)

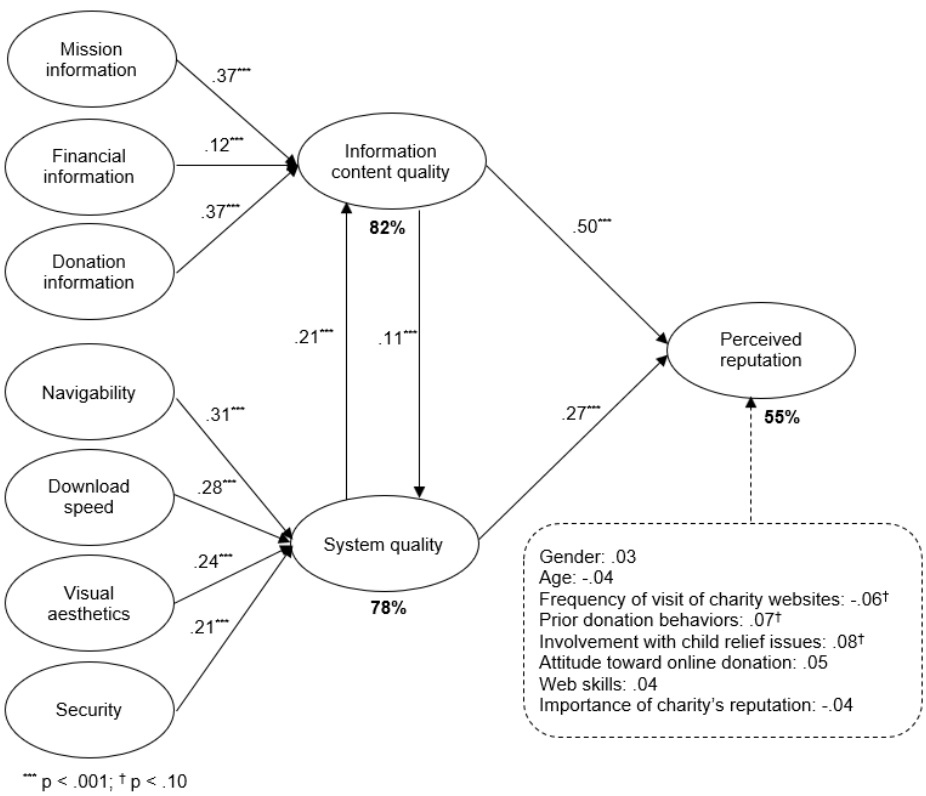

Figure 3. Results of Structural Model

Table 9. Results of Testing Collective Halo (H1)

	Treatments		Attribute	I - J	t-value	Sig.	Results
	I	J					
A	1	18	Financial information	.86	3.05	.004	▪ Financial information, navigability, visual aesthetics, and security are affected by collective halo. ▪ Download speed is not affected by collective halo.
		20	Navigability	1.52	4.91	.000	
		21	Download speed	.37	1.08	.284	
		22	Visual aesthetics	.85	2.55	.014	
		23	Security	1.04	3.19	.002	
B		12	Mission information	.55	1.59	.117	
			Donation information	1.02	2.76	.001	▪ Financial information, donation information, navigability, visual aesthetics, and security are affected by collective halo. ▪ Mission information and download speed are not affected by the collective halo.
		14	Financial information	.76	2.35	.023	
			Navigability	.87	3.24	.002	
		15	Financial information	.93	3.35	.001	
			Download speed	.35	1.06	.296	
		16	Financial information	1.20	3.96	.000	
			Visual aesthetics	1.34	3.87	.000	
		17	Financial information	1.17	3.37	.001	
			Security	.86	3.61	.001	

Notes:
A: Comparison between a treatment with all high-quality attributes and a treatment with one high quality attribute.
B: Comparison between a treatment with all high-quality attributes and a treatment with two high quality attributes.
In comparison A, mission information and donation information were not compared because we used partial factorial design and thus they varied together.

Table 10. Baseline Model

Rank	IV	DV
	SQ attributes	***SQ***
1	Navigability	.347***
2	Download speed	.284***
3	Visual aesthetics	.262***
4	Security	.241***
	R^2	75.9%

Note: *** $p < .001$

Table 11. Results of Relative Importance (H2)

Model	Fixed Path	χ^2 value	Difference test
M_1	Baseline Model	$\chi^2(80) = 95.73$	
M_2	Navigability, download speed → SQ	$\chi^2(81) = 105.88$	M_2 - M_1: $\Delta\chi^2(1) = 10.15$, $p < .01$
M_3	Navigability, visual aesthetics → SQ	$\chi^2(81) = 107.48$	M_3 - M_1: $\Delta\chi^2(1) = 11.75$, $p < .001$
M_4	Navigability, security → SQ	$\chi^2(81) = 111.66$	M_4 - M_1: $\Delta\chi^2(1) = 15.93$, $p < .001$
M_5	Download speed, visual aesthetics → SQ	$\chi^2(81) = 96.37$	M_5 - M_1: $\Delta\chi^2(1) = .64$, $p = .42$
M_6	Download speed, security → SQ	$\chi^2(81) = 96.64$	M_6 - M_1: $\Delta\chi^2(1) = .91$, $p = .34$
M_7	Visual aesthetics, security → SQ	$\chi^2(81) = 95.76$	M_7 - M_1: $\Delta\chi^2(1) = .03$, $p = .86$

Table 12. MANOVA: Effects of IQ and SQ on Perceived IQ and SQ (H3)

Independent variable	Dependent variable					
	Perceived IQ			Perceived SQ		
	F	Sig	Partial eta squared	F	Sig	Partial eta squared
IQ (High/Low)	42.91	.000	.284	13.92	.000	.114
SQ (High/Low)	15.96	.000	.129	61.19	.000	.362
IQ × SQ	1.55	.216	.014	6.04	.016	.053
R^2	35.8%			43.0%		
Adjusted R^2	34.1%			41.4%		

Table 13. Results of Post Hoc Test (H3)

Perceived (self-reported)		1 (N=28)	6 (N=27)	19 (N=29)	24 (N=28)	ANOVA		Games-Howell				
		H:IQ H:SQ	H:IQ L:SQ	L:IQ H:SQ	L:IQ L:SQ	F	Sig	I	J	Mean Difference (I – J)	Sig	Result
IQ	Mean (SD)	5.58 (.77)	4.89 (1.39)	4.24 (1.47)	2.92 (1.57)	20.11	.000	1(H)	6(H)	.70	.120	
									19(L)	1.34	.000	
									24(L)	2.67	.000	
								6(H)	19(L)	.65	.336	A
									24(L)	1.97	.000	
								19(L)	24(L)	1.32	.009	B
SQ	Mean (SD)	5.93 (.60)	4.63 (1.58)	5.62 (1.26)	3.13 (1.47)	27.21	.000	1(H)	6(L)	1.30	.002	
									19(H)	.31	.642	
									24(L)	2.80	.000	
								6(L)	19(H)	-.99	.059	C
									24(L)	1.50	.003	D
								19(H)	24(L)	2.49	.000	

To test H1, we conducted independent sample t-tests by comparing Treatment 1 (high quality of all seven attributes) with treatments 18, 20, 21, 22, or 23 (high quality of only one attribute) (Wells, Valacich, & Hess, 2011). As presented in Table 9, we found that when all seven attributes were of high quality, participants evaluated financial information, navigability, visual aesthetics, and security as being of higher quality than when the same attribute was configured in the context of low-quality versions of the other six attributes. However, evaluation of download speed was not significantly different between Treatment 1 (all high quality) and Treatment 21 (high-quality of download speed only). To examine whether the results would consistently hold, we extended our analyses by comparing Treatment 1 with Treatments 12, 14, 15, 16, or 17 (where two attributes were of high quality). As expected, the collective halo contributed to high-quality evaluations of financial information, donation information, navigability, visual aesthetics, and security in Treatment 1. However, there were no significant differences in terms of evaluations of mission information and download speed

Although we found some evidence of collective halo, collective halo does not appear to occur across all different attributes. In particular, our results show that evaluations of mission information and download speed are not susceptible to collective halo. Prior halo research has noted that rater unfamiliarity with an object is one of the main sources of halo (Feeley, 2002). Thus, a plausible explanation is that participants became sufficiently familiar with mission information and download speed. Also, it is likely that these two attributes are evaluated more intuitively than other attributes such as visual aesthetics and navigability.

To further examine the relative importance of visual aesthetics vis-à-vis others (H2), we set a baseline model by regressing navigability, download speed, visual aesthetics, and security on SQ (See Table 10). Then, we performed chi-square difference tests (Bollen, 1989). In particular, we specified two path coefficients as having the same value and examined whether the constrained coefficients significantly deteriorated fit. If this difference proved significant, we could conclude that the original model without constraints was superior to the model with constraints. As shown in Table 11, chi-square value of Model M_1 is significantly different from those of Models M_2, M_3, and M_4. Our results suggest that navigability is the strongest attribute in evaluating SQ, thus demonstrating no evidence of an aesthetic halo (H2).

To further assess evidence for H3, we conducted two supplementary analyses using Treatments 1, 6, 19, and 24: MANOVA and the Games-Howell test (Games & Howell, 1976). For MANOVA, the two treatments (IQ and SQ) were included as main effects and the dependent variables served as the scales measuring perceptions of IQ and SQ. This approach was used to identify whether both treatment effects remained significant in the presence of the originally expected effect (i.e., the effect of IQ and SQ perceptions on perception of IQ and SQ, respectively). The results in Table 12 show that the IQ and SQ treatments had significant effects on the perceptions of both IQ and SQ, offering further evidence supporting H3.

While the ANOVA test reveals the overall differences among four groups (1, 6, 19, and 24), it does not show which specific groups differed. Thus, we conducted a post hoc test (see Table 13). Because post hoc tests are performed to identify where differences occur between groups, they should be used only when an overall significant difference in group means is confirmed. Specifically, we conducted the Games-Howell post hoc test because it is used when equal group sizes and/or equal variances cannot be assumed (Games & Howell, 1976).

In the IQ evaluation group (Result A in the last column of Table 13), there was no significant difference between high IQ evaluation (mean: 4.89) in Treatment 6 and low IQ evaluation (mean: 4.24) in Treatment 19. In addition, Result B indicates a significant difference between low IQ evaluation (mean: 4.24) in Treatment 19 and low IQ evaluation (mean: 2.92) in Treatment 24. The rationale for Result A is that perception of low SQ somewhat reduced the perception of high IQ; and perception of high SQ increased perception of low IQ, leading to nonsignificant differences. A possible explanation for Result B is that perception of high SQ increased perception of low IQ; and perception of low SQ further reduced perception of low IQ. In the SQ evaluation group (Result C), there was no significant difference between low evaluation of SQ (mean: 4.63) in Treatment 6 and high evaluation of SQ (mean: 5.62) in Treatment 19, suggesting that perception of high IQ increased the perception of low IQ. Also, Result D indicates a significant difference between low evaluation of SQ (mean: 4.63) in Treatment 6 and low evaluation of SQ (mean: 3.13) in Treatment 24. Similar to the explanation for D, because perception of high IQ increased perception of low SQ and perception of low IQ further reduced the perception of low SQ, SQ in Treatment 6 is perceived to be of higher quality than SQ in treatment 24. These results lend further support to H3, indicating that perceptions of IQ and SQ influence each other.

4.4.6 Post Hoc Analyses

As shown in Tables 10 and 11, perceptions of navigability had a dominant effect on SQ evaluation, which thereby contradicts the existence of an aesthetics halo (H2). An alternate, plausible explanation could be our selection of SQ as a target evaluation because visual aesthetics may not have a strong effect across all contexts. Since users evaluate SQ based on "the technical capability of the system and its usability" (Xu et al., 2013, p. 782), usability aspects such as navigability may be more important in evaluating SQ than aesthetics aspects. Moreover, Wells, Valacich, and Hess (2011) used website quality as a dependent variable and found that visual aesthetics had a dominant effect over navigability, download delay, and security.

Following Wells, Valacich, and Hess (2011), we conducted two separate post hoc analyses to probe this further and examine the relative importance of the evaluation of the attributes of IQ and SQ on overall website quality (WQ) and perceived reputation by running structural models using all seven attributes of IQ and SQ. The results show the rank of the seven attributes on WQ and perceived reputation (see Table 14). To examine relative importance, we performed chi-square difference tests (Bollen, 1989). For WQ, chi-square difference tests show that Model M_1 is superior to other models (see Table 15). The results suggest that the effect of visual aesthetics is the strongest attribute within WQ, thereby providing partial support for the aesthetics halo effect (H2). However, when evaluating overall SQ and perceived reputation, the impact of visual aesthetics is less prominent. Specially, security has the strongest effect (among system features) on evaluating reputation (see Table 16). Thus, our results indicate that visual aesthetics may not be entirely dominant across all contexts.

5 Discussion and Conclusion

To study the effects of different types of salient halos in the context of multi-attribute object evaluation, we examined three attributes of IQ and four attributes of SQ. The results identify and establish partial evidence for the existence of a collective halo and aesthetic halo. This study also found that evaluations of intrinsic quality (i.e., IQ) and extrinsic quality (i.e., SQ) influence each other, suggesting the existence of a reciprocal-quality halo. In addition, quality halo addresses how people form initial judgments of reputation based on available cues. Theoretical and practical contributions are discussed in the following subsections.

Table 14. Effects of WQ Attributes on Website Quality and Perceived Reputation

Rank	IV	DV	IV	DV
	WQ attributes	***Website quality***	**WQ attributes**	***Perceived reputation***
1	Visual aesthetics	$.375^{***}$	Security	$.309^{***}$
2	Navigability	$.203^{***}$	Mission information	$.233^{***}$
3	Donation information	$.162^{***}$	Donation information	$.138^{**}$
4	Mission information	$.139^{***}$	Visual aesthetics	$.111^{**}$
5	Security	$.129^{***}$	Financial information	$.108^{**}$
6	Download speed	$.085^{**}$	Navigability	$.095^{*}$
7	Financial information	$.064^{*}$	Download speed	.006
	R^2	**77.4%**	Security	**60.2%**

Note: $^{***}p < .001$; $^{**}p < .01$; $^{*}p < .05$

Table 15. Results of Relative Importance for Website Quality

Model	Fixed Path	χ^2 Value	Difference test
M_1	Baseline model	$\chi^2(296) = 503.12$	
M_2	Visual aesthetics, Navigability → WQ	$\chi^2(297) = 506.64$	M_2 - M_1: $\Delta\chi^2(1) = 3.52$, $p = .061$
M_3	Visual aesthetics, Donation information → WQ	$\chi^2(297) = 514.89$	M_3 - M_1: $\Delta\chi^2(1) = 11.77$, $p < .001$
M_4	Visual aesthetics, Mission information → WQ	$\chi^2(297) = 516.12$	M_4 - M_1: $\Delta\chi^2(1) = 13.00$, $p < .001$
M_5	Visual aesthetics, Security → WQ	$\chi^2(297) = 530.42$	M_5 - M_1: $\Delta\chi^2(1) = 27.30$, $p < .001$
M_6	Visual aesthetics, Download speed → WQ	$\chi^2(297) = 554.54$	M_6 - M_1: $\Delta\chi^2(1) = 51.42$, $p < .001$
M_7	Visual aesthetics, Financial information → WQ	$\chi^2(297) = 547.44$	M_7 - M_1: $\Delta\chi^2(1) = 44.32$, $p < .001$

Table 16. Results of Relative Importance for Perceived Reputation

Model	Fixed path	χ^2 Value	Difference test
M_1	Baseline model	$\chi^2(349) = 691.97$	
M_2	Security, Mission information → Perceived reputation	$\chi^2(350) = 692.07$	M_2 - M_1: $\Delta\chi^2(1) = .10$, $p > .10$
M_3	Security, Donation information → Perceived reputation	$\chi^2(350) = 696.89$	M_3 - M_1: $\Delta\chi^2(1) = 4.92$, $p < .05$
M_4	Mission information, Donation information → Perceived reputation	$\chi^2(350) = 693.90$	M_4 - M_1: $\Delta\chi^2(1) = 1.93$, $p > .10$
M_5	Mission information, Visual aesthetics → Perceived reputation	$\chi^2(297) = 699.35$	M_5 - M_1: $\Delta\chi^2(1) = 7.38$, $p < .01$

5.1 Theoretical Contributions

First, we introduced a novel framework for classifying halos based on dimensions and attributes. Based on popular definitions of halos, prior research has proposed three causal models of the halo effect (Fisicaro & Lance, 1990). Despite their usefulness to understand the halo effect, they have limited capacity to explain the halo effect in the evaluation of multi-attribute websites. Our approach permits greater flexibility in theorizing new halos for future research and provides better structure for assessing contemporary halos. Based on this framework, we theorized and empirically tested the effects of several types of salient halos in the evaluation of multi-attribute websites. In particular, our framework helps identify the relevance to IS research of several salient halos, including attribute-to-attribute (e.g., collective halo), attribute-to-dimension (e.g., aesthetic halo), and dimension to-dimension (e.g., reciprocal-quality halo, quality halo) halos. We anticipate that our framework will yield valuable insights into website evaluation that are critical to understanding how users subconsciously assess multi-attribute websites.[4]

Second, our study contributes to IS research on website design by showing how website visitors evaluate multi-attribute websites. Prior halo-based IS research has mainly focused on the effect of one attribute (e.g., aesthetics) on another attribute (e.g., usability) (Hartmann et al., 2008; Tractinsky et al., 2000). However, little research exists that examines the halo effect in multi-attribute website evaluations. Such an investigation is important because websites consist of many important attributes (DeLone & McLean, 2004; Kwak, Ramamurthy, Nazareth, & Lee, 2018; Loiacono et al., 2007) and halo effects play a role in evaluating multi-attribute objects (Sahoo et al., 2012). Furthermore, our collective halo supports and extends Wells, Valacich, and Hess (2011) by adding three attributes of IQ and examining people's evaluation of multi-attributes from both IQ and SQ. While they justified this phenomenon post hoc as a halo effect in their discussion section, our study theorizes it as collective halo. Drawing on prior halo research, our study demonstrates how an attribute may be perceived as being of higher quality when the attribute is contextualized among other high-quality attributes.

Third, our study deepens IS research by elucidating the effect of halos on initial evaluation of unfamiliar objects. While trust (McKnight, Choudhury, & Kacmar, 2002) is the most popular (intermediary) dependent variable of website quality, recent e-commerce researchers have attempted to incorporate other constructs such as the urge to buy impulsively (Wells, Parboteeah, & Valacich, 2011), perceived relationship rewards (Campbell et al., 2013), company image (Jiang et al., 2016), and decision satisfaction (Yi et al., 2017). Although past research has extensively

[4] We thank an anonymous reviewer for suggesting the theoretical contribution that goes beyond the three causal models of Fisicaro and Lance (1990).

examined the impact of reputation (Bansal et al., 2015), initial perceptions of reputation have not been examined as a consequence of IQ and SQ evaluation. Understanding initial perceptions of reputation is important because building and maintaining reputation has traditionally been viewed as a long- term activity, akin to building an interpersonal relationship, developed through a series of successful interactions that gradually establish, sustain, and enhance reputation. However, drawing upon the halo effect, our study examined initial perceptions of reputation and found that beliefs about reputation can be transmitted to new users of unfamiliar websites via existing cues (i.e., IQ and SQ).

Fourth, the reciprocal-quality halo highlights that IQ and SQ evaluation influence each other in the context of multi-attribute website evaluation, thereby, extending the findings of both traditional halo research and that of Xu et al. (2013). Traditional halo research has found that perceptions of external quality (e.g., beauty) influence perceptions of internal quality (e.g., talent, intelligence) (Landy & Sigall, 1974). In the context of e-service, Xu et al. (2013) emphasize that website-quality dimensions are not independent from one another and found that perceived SQ influences perceived IQ. To the best of our knowledge, however, the effect of perceived IQ on perceived SQ has neither been completely conceptualized nor empirically tested. We drew upon the halo effect to theorize that perceptions of SQ influence perceptions of IQ, and vice versa. Studying their interdependent relationships in the website evaluation context is important because websites have traditionally been the target of IQ and SQ evaluations (Xu et al., 2013). Overall, our study underscores interdependent relationships reflecting the reciprocal halo effect between intrinsic quality (i.e., IQ) and extrinsic quality (i.e., SQ) evaluations.

5.2 Practical Contributions

The results of this study have significant implications for charity managers and website designers. First, a broad recommendation from the findings related to the collective halo effect is that charity organizations need to maintain high-quality websites. However, since websites include several different attributes, making sure all attributes are consistently of high quality is often unrealistic other than for large charity organizations with deep pockets. Therefore, we suggest charity website designers should aim for high quality presentation of key attributes. Based on this, we offer the following suggestions. First, charity websites should determine the key attributes of website design from the donors' perspectives. A simple online survey can facilitate this. Then, these attributes should be incorporated into website design to the extent possible. Further, additional attributes should be addressed so that they meet an acceptable threshold. Given the presence of halo effects, our finding indicates that three attributes (i.e., visual aesthetics, mission information, and security) demand particular attention in developing a charity website. A prototype website should be made available to potential donors to assess its usability and shortcomings. Modifications to the website design should factor the impact of halo effects into other characteristics of the website.

Second, our results emphasize the importance of mission information and donation information over financial information in evaluations of overall IQ of the charity website and for forming initial perceptions of reputation. This is contrary to findings of prior nonprofit literature. Saxton et al. (2014) argued that disclosing financial information on a website has a dominant effect over performance information for charitable contributions. One plausible explanation for the greater importance of the mission information and donation information versus financial information in evaluating charity website that we observed could be that the participants we used in this study (i.e., college students) are, perhaps, not as knowledgeable and motivated in evaluating financial information, as compared to older donors. This finding, if true, would be helpful for charities whose target audience may be young or inexperienced donors or one not extremely knowledgeable about the targeted charity. In such cases, charities may need to provide clear mission information including mission, vision, value, goals, and objectives and donation information (e.g., various donation options) to persuade new donors to act.

Third, it is certainly in the interest of startup charities to build their reputation as early and as quickly as possible. This study found security to have the strongest effect on initial perceptions of reputation. This study manipulated security using not only privacy policy and security alerts but also through third-party assurance seals (e.g., McAfee, BBB), suggesting that being endorsed by credible third parties can help visitors feel that the website is accountable and reputable (e.g., Aaker, Vohs, & Mogilner, 2010). Note that there are different types of third-party assurance seals that charities can utilize. Charities without enough credentials can use seals which they can immediately access. For example, security and privacy seals would be good options for those startups. After building enough credibility in terms of financial stability and performance, they could use the Charity Navigator seal instead, which guarantees general accountability of charities.

5.3 Limitations and Future Research Directions

Although our study provides many important contributions to both research and practice, general interpretations and derived implications should be considered along with several limitations. First, we

collected data from student subjects, possibly restricting generalizability. Although student subjects likely represent the target population of the phenomenon being examined because young people generally use websites as a donation channel and prefer to donate to charities devoted to child relief and development, additional research using actual donors in real online donation environments would strengthen the generalizability of our findings.

Second, we examined various halo effects in the context of charity websites. This may limit the generalizability of our results to other types of websites. Future researchers should examine our model in other website contexts such as e-commerce websites. Also, using a single category of charity organization, child relief and development, may restrict generalizability of the results to other types of charity. Future researchers could examine our research model in other types of charity contexts (e.g., services to the homeless, wildlife conservation, etc.) or even in the context of for-profit websites.

Third, this study considered only two quality dimensions (IQ and SQ) of the three generally accepted website quality dimensions (DeLone & McLean, 2003; Xu et al., 2013). The role of service quality in the initial perceptions of reputation should also be explored in future research. Specifically, future research could set specific boundary limits in terms of the attributes of all three dimensions and run a full-factorial design. For example, one attribute for IQ, one attribute for SQ, and one attribute for service quality could be employed to run a full-factorial design using eight treatments. This full-factorial design would enable the examination of three-way reciprocal halos across three dimensions.

Fourth, we examined one type of attribute-to-attribute halo, i.e., collective halo. Our collective halo suggests that evaluations of high-quality attributes (i.e., cause) influence evaluations of other high-quality attributes (i.e., effect), leading to an inflated evaluation of all attributes. However, other types of attribute-to-attribute halo may exist. For example, one attribute (cause) can influence other attributes (effect). Also, multiple attributes (causes) can influence a single attribute (effect). Future research could examine how an attribute can influence another attribute.

Fifth, this study did not use dimension-to-attribute halos because it examined user evaluations during initial interactions with unknown charity website. Thus, future research could examine dimension-to-attribute halos. For example, future research could identify if user's preevaluation of IQ and SQ based on prior interaction with a website influences subsequent evaluation of website attributes.

Sixth, we did not investigate the cause and effect of halos or other effects (e.g., snowball effect) between or among halos. For example, when a person initially visits a website, the aesthetics halo (i.e., cause) may have a dominant effect over other halos in terms of evaluation of reputation, thus influencing donation decisions (i.e., effect). Future research could investigate other possible causes and effects of halos. Furthermore, when a person visits a website repeatedly, the aesthetics halo may have a snowball effect such that the effect of the aesthetics halo on the evaluation of reputation may become increasingly important over time. Longitudinal research may help identify snowball effect between or among halos.

Finally, although our study has shown that initial perceptions regarding the reputation of an unknown website can be affected by the quality halo, it did not examine how different structures of halos may reinforce perceptions of reputation. For instance, a quality dimension with many attributes can have more influence on perceptions of reputation. Future researchers could examine how reputation may be reinforced via different halo structures (e.g., number of attributes, number of significant attributes, number of dominant attributes).

5.4 Concluding Remarks

In conclusion, by treating charity websites as multi-attribute objects, we were able to use the halo effect as a theoretical foundation to examine different types of halos in evaluating charity websites. This study proposed the collective halo, aesthetics halo, reciprocal-quality halo, and quality halo and provided evidence of these halos. In addition to a number of theoretical implications, this study offers several practical implications that will be useful for charity organizations interested in constructing and managing their websites in a way that improves initial perceptions of reputation and increases online donations.

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Appendix A: Summary of Website Quality Attributes

Table A1. Summary of Website Quality Attributes

Source	Information content quality		System Quality			
	Financial	Mission	Navigability	Download speed	Visual aesthetics	Security
Liu & Arnett (2000)	√ Information quality (relevance, accurate, timely, flexible, etc)		√ System quality (security, rapid accessing, ease of use, etc)			
Tractinsky et al. (2000)	√ Amount of information		√ Usability (ease of use)		√ Aesthetics	
Barnes & Vidgen (2001)	√ Reliability (Reliable information) √ Communication (Correct information)		√ Navigation		√ Aesthetics	√ Credibility √ Security
Rose & Straub (2001)				√ Download time		
Zhang & von Dran (2001)	√ Information content		√ Navigation	√ Technical support	√ Visual appearance	√ Privacy
Agarwal & Venkatesh (2002)	√ Content		√ Ease of use			
McKinney et al. (2002)	√ Information quality (relevance, timeliness, reliability, scope, perceived usefulness)		√ System quality (access, usability, navigation, interactivity)			
McKnight et al. (2002)	√ Perceived site quality					
Palmer (2002)	√ Information content		√ Navigation	√ Download delay		
Ranganathan & Ganapathy (2002)	√ Information content		√ Design (easy to navigate, response time, visual aids)			√ Security √ Privacy
DeLone & McLean (2003)	√ Information quality (completeness, ease of understanding, relevance, personalization, security)		√ System quality (adaptability, availability, reliability, response time, usability)			
Montoya-Weiss, Voss, & Grewal (2003)	√ Information content		√ Navigation structure		√ Graphic style	
Rose, Evaristo, & Straub (2003)				√ Actual delay √ Perceived delay		
Galletta, Henry, McCoy, & Polak (2004)				√ Website delays		
Kim et al. (2004)	√ Information quality		√ System quality			√ Structural assurance
Koufaris & Hampton-Sosa (2004)						√ Perceived security control
Lavie & Tractinsky (2004)			√ Usability (ease to navigate)		√ Classic and expressive aesthetics	
Lee & Kozar (2004)	√ Content Relevance		√ Navigability			√ Credibility
Rosen & Purinton (2004)	√ Web content (text)				√ Web content (picture, graphic)	
Bart, Shankar, Sultan, & Urban (2005)			√ Navigation		√ Graphical Presentation	√ Privacy √ Security
Song & Zahedi (2005)	√ Purchase facilitation (detailed product description)	√ Ease of use and navigation		√ Purchase facilitation (picture)	√ Service (security, privacy)	Song & Zahedi (2005)

Table A1. Summary of Website Quality Attributes

Source	Information content quality		System quality			
	Financial	**Mission**	**Navigability**	**Download speed**	**Visual aesthetics**	**Security**
Galletta, Henry, McCoy, & Polak (2006)				√ Delay		
Kang & Kim (2006)	√ Quantity of content √ Informativeness		√ Navigation Difficulty			
Lee & Kozar (2006)	√ Information quality (relevance, currency, understandability)		√ System quality (navigability, response time, security)			
Mithas, Ramasubbu, Krishnan, & Fornell (2006)	√ Website content		√ Website structure			
Pavlou & Fygenson (2006)	√ Product diagnosticity		√ Website navigability	√ Download delay		√ Information protection
Loiacono et al. (2007)	√ Information fit-to-task √ Tailored information		√ Intuitive operation	√ Response time	√ Visual appeal	
Sargeant et al. (2007)	√ Case for support √ Education		√ Easy to Navigate			√ Accountability
Song & Zahedi (2007)	√ Information quality (understandability, relevance, usefulness, reliability, adequacy)		System quality (ease of use)			√ Structural assurance
Valacich et al. (2007)	√ Functional convenience (e.g., product/service information)		√ Functional convenience (ease of navigation)	√ Structural firmness (response time)	√ Representational delight (a visually appealing design)	√ Structural firmness (privacy/security policies, security seals)
Waters (2007)	√ Communication (annual report, 990 form, mission statement)					
Zhou, Leung, & Winoto (2007)			√ Navigability			
Cyr (2008)	√ Information design		√ Navigation design		√ Visual design	
Hartmann et al. (2008)	√ Information quality				√ Aesthetics	
Lowry, Vance, Moody, Beckman, & Read (2008)			√ Website quality (navigability, aesthetics, and functionality)			
Vance, Elie-Dit-Cosaque, & Straub (2008)			√ Navigational structure		√ Visual appeal	
Cyr, Head, Larios, & Pan (2009)					√ Human image	
Parboteeah et al. (2009)	√ Information fit-to-task		√ Ease of navigation	√ Download delay	√ Visual appeal	√ Security
Zo & Ramamurthy (2009)	√ Information content quality		√ Functional quality (navigability)	√ Functional quality (download delay)	√ Information presentation quality	√ Service quality (security)
Deng & Poole (2010)					√ Visual complexity and order	
Wells, Parboteeah, & Valacich, (2011)			√ Navigability		√ Visual appeal	√ Security

Table A1. Summary of Website Quality Attributes

Source	Information content quality		System quality			
	Financial	**Mission**	**Navigability**	**Download speed**	**Visual aesthetics**	**Security**
Wells, Valacich, & Hess (2011)			√ Navigability	√ Download delay	√ Visual appeal	√ Security
Lee et al. (2012)				√ Perceived waiting time	√ Filler interfaces with visual elements	
Campbell et al. (2013)				√ Download delay	√ Visual appeal	
Xu et al. (2013)	√ Information quality (completeness, accuracy, format, currency)		√ System quality (reliability, flexibility, accessibility, timeliness)			
Hong et al. (2013)	√ Amount of information			√ Wait time		
Saxton et al. (2014)	√ Financial index	√ Performance index				
Jiang et al. (2016)					√ Aesthetics	
Cheung et al. (2017)					√ Animation	
Hu et al. (2017)			√ Navigability			
Note: we do not include donation information section because of lack of research						

Appendix B: Measurement Items

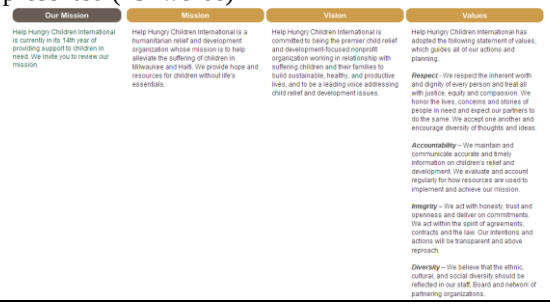
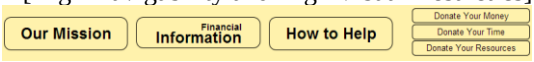
Table B1. Measurement Items

Mission information (McKinney et al., 2002; Zo & Ramamurthy, 2009) Seven-point scales anchored with "strongly disagree" and "strongly agree"	
MI1	This charity's mission statement is useful to understand its mission, vision, and values.
MI2	This charity's mission statement seems to be timely and current.
MI3	This charity website provides reliable mission statement in terms of its mission, vision, and values.
MI4	This website's mission statement information seems sufficient.
Financial information (McKinney et al., 2002; Zo & Ramamurthy, 2009) Seven-point scales anchored with "strongly disagree" and "strongly agree"	
FI1	This charity website provides useful financial information.
FI2	This charity website provides timely/up-to-date financial information.
FI3	This charity website provides reliable financial information.
FI4	This charity website provides sufficient amount of financial information.
Donation information (McKinney et al., 2002; Zo & Ramamurthy, 2009) Seven-point scales anchored with "strongly disagree" and "strongly agree"	
DI1	This charity website provides useful information to assist me in making money, time, and resource donations.
DI2	This charity website provides timely and current information to assist me in making money, time, and resource donations.
DI3	This charity website provides reliable information to assist me in making money, time, and resource donations.
DI4	This charity website provides sufficient information to assist me in making money, time, and resource donations.
Information content quality (Wells, Valacich, & Hess, 2011) Seven-point scales anchored with "very low quality" and "very high quality"	
IQ1	In sum, how would you rate the information content quality of the charity website you just now interacted with?
IQ2	All in all, I would rate the information content quality of the charity website that I just now interacted with as being
IQ3	How would you rate the overall information content quality of the charity website that you just now interacted with?
Navigability (McKnight et al., 2002) Seven-point scales anchored with "strongly disagree" and "strongly agree"	
NAV1	It is easy to find the information I wanted.
NAV2	The structure and contents of this charity website are easy to understand.
NAV3	The organization of the contents of this charity website makes it easy for me to know where I am when navigating it.
Download speed (Loiacono et al., 2007; Wells, Valacich, & Hess, 2011) Seven-point scales anchored with "strongly disagree" and "strongly agree"	
DS1	When I use this charity website, there is very little time between my actions and the website's responses.
DS2	The charity website loads fast.
DS3	This charity website takes very little time to load.
Visual aesthetics (Loiacono et al., 2007; Wells, Valacich, & Hess, 2011) Seven-point scales anchored with "strongly disagree" and "strongly agree"	
VA1	This charity website is visually pleasing.
VA2	This charity website displays visually aesthetic/pleasing design.
VA3	This charity website is visually appealing.

Table B1. Measurement Items

Security (Pavlou, 2001; Wells, Valacich, & Hess, 2011) Seven-point scales anchored with "strongly disagree" and "strongly agree"	
SEC1	I am confident that the information I provide during my online interaction will not reach inappropriate parties during storage in this charity's databases.
SEC2	I believe inappropriate parties cannot deliberately observe the information I provide during my online interaction with this charity.
SEC3	In my opinion, inappropriate parties will not collect and store the information I provide during my interaction with this charity website.
System quality (Everard & Galletta, 2005; Wells, Valacich, & Hess, 2011) Seven-point scales anchored with "very low quality" and "very high quality"	
SQ1	In sum, how would you rate the system quality of the charity website that you just now interacted with?
SQ2	All in all, I would rate the system quality of the charity website that I just now interacted with as being
SQ3	How would you rate the overall system quality of the charity website that you just now interacted with?
Perceived reputation (Ray et al., 2011) Seven-point scales anchored with "strongly disagree" and "strongly agree"	
REP1	This charity website has a reputation for being honest.
REP2	This charity website has a reputation being fair.
REP3	This charity website is known to be dependable.
REP4	This charity website has a reputation for being donor-oriented.
REP5	This charity website has a good reputation.
Website quality (Wells, Valacich, & Hess, 2011) Seven-point scales anchored with "very low quality" and "very high quality"	
WQ1	In sum, how would you rate the quality of the charity website that you just now interacted with?
WQ2	All in all, I would rate the quality of the charity website that I just now interacted with as being
WQ3	How would you rate the overall quality of the charity website that you just now interacted with?
Attitude toward online donation (Ajzen, 1991) Seven-point semantic scales	
For me, donating online to charities is:	
AOD1	(bad - good)
AOD2	(foolish - wise)
AOD3	(undesirable - good)
Web skills (Lee & Chang, 2011) Seven-point scales anchored with "strongly disagree" and "strongly agree"	
WS1	I am very skilled at using the web.
WS2	I know how to find what I want on the web.
WS3	I know more about using the web than most people I know.
Involvement with child relief issues Seven-point scales anchored with "strongly disagree" and "strongly agree"	
INV1	In general, I have strong interest in the issue of child relief and development (e.g., helping children in developing countries)
INV2	The issue of child relief and development is very important to me.
INV3	The issue of child relief and development matters a lot to me.
Frequency of visit of charity websites Have you visited websites of any charity organizations this past year?	
Prior donation behaviors Have you engaged in charitable giving to any charity organization(s) this past year? (Money, Time, Resources)	
Importance of charity's reputation How important to you is the reputation of charity organizations?	
Risk perception (Marker Variable) Seven-point scales anchored with "strongly disagree" and "strongly agree"	
RP1	Compared to other individuals that I know, I am usually more willing to engage in risky situations.
RP2	Compared to other individuals that I know, I am usually more willing to take on uncertain environments.

Appendix C: Website Manipulations and Sample Screenshots

		Low	High
Information content quality	Mission information	• Organization's mission is presented (59 words) 	• Organization's mission, vision, and values are presented (257words) 
	Financial information	• A nonupdated PDF file is presented via the Audited Financial Statement 2011 link. [Content in Audited Financial Statement 2011 is same as that in 2013] 	• Three updated PDF files are presented via the Annual Report 2013, IRS Form 990 2012, and Audited Financial Statement 2013 links.
	Donation information	• Instructions on how to donate money online are presented (45 words) 	• Detailed instructions on how to donate money (online and mail), time (online and onsite volunteering), and resources are presented (270 words)
System quality	Navigability	• Three donation links are placed separately • Mission, financial, and donation assistant information are placed separately 	• Three donation links are clustered together • Mission, financial, and donation assistant information are clustered together [High Navigability and High Visual Aesthetics]  [High Navigability and Low Visual Aesthetics]
	Download speed	• A 4-second waiting page is presented to access any page on the website **Now Loading**	• No download delay is coded N/A

		Low	High
System quality	Visual aesthetics	• Unattractive aesthetics in the website design 	• Attractive aesthetic design in terms of fonts, colors, and pictures
	Security	• Privacy policy is presented through the Privacy Policy link • Very short privacy policy is presented (33 words) • NO seal is present on the website Privacy Policy Privacy policy 	• Security and privacy policies are presented through the Security Alert and Privacy Policy links • Detailed privacy policy is presented (510 words) • FIVE security and privacy seals are present on the website Privacy Policy | Security Alert Privacy Policy Security Alert

Notes:
Image source: SOS Children's Villages UK (www.soschildrensvillages.org.uk)
Images were used with permission. All rights of images are reserved to SOS Children's Villages UK.

Appendix D: Slides for Instructions

Scenario

Thank you for agreeing to participate in this research.
You are presented with the following scenario.

Please assume that you have

Free Money
[$100]

Spare Time
[30 hours per month]

Extra Resources to Spare
(e.g., canned food, used apparel, electronics, etc)

You can choose to **donate** entirely, partially, or not at all to the charity organization you will soon interact with.

General Instructions

You will be presented with a website of a charity organization, *Help Hungry Children International (HHCI)*.

You will be asked to evaluate this site in terms of **information content quality** and **system quality** in as much detail as possible.

For ***information content quality***, please click and read:
(1) **Our Mission** (or mission information)
(2) **Financial Information**
(3) **How to Help** (or donation assistance information)

For ***system quality***, evaluate in terms of:
(1) **Navigability** (or ease of navigation)
(2) **Download speed** (or loading time)
(3) **Visual aesthetics**
(4) **Security**

Appendix E: Relative Importance of IQ Attributes

To examine a possible attribute-to-dimension halo within IQ, we tested their relative importance. First, as shown in Table E1, a baseline model was set by regressing mission information, financial information, and donation information on IQ. Then, we performed chi-square difference tests (Bollen, 1989). As shown in Table E2, chi-square difference test between M_1 and M_2 is not significant, suggesting that the effects of mission information and donation information on IQ are not different. The results also show that the effects of mission information and donation information are stronger than the effect of financial information.

Table E1: Baseline Model

Rank	IQ attributes	IQ
1	Mission information	$.43^{***}$
2	Donation information	$.41^{***}$
3	Financial information	$.14^{***}$
	R^2	77.3%
Note: $^{***}p < .001$		

Table E2: Results of Relative Importance Test

Model	Fixed path	χ^2 value	Difference test
M_1	Baseline model	$\chi^2(84) = 255.63$	
M_2	Mission information, Donation information → IQ	$\chi^2(85) = 255.70$	M_2 - M_1: $\Delta\chi^2(1) = .07$, $p = 1.00$
M_3	Mission information, Financial information → IQ	$\chi^2(85) = 284.23$	M_3 - M_1: $\Delta\chi^2(1) = 28.60$, $p < .001$
M_4	Donation information, Financial information → IQ	$\chi^2(85) = 276.59$	M_4 - M_1: $\Delta\chi^2(1) = 20.96$, $p < .001$

Appendix F

Table F1. Treatment Descriptive Statistics

Interface Treatments (N=661)		1 (N=28)	2 (N=27)	3 (N=28)	4 (N=28)	5 (N=27)	6 (N=27)	7 (N=28)	8 (N=27)	9 (N=27)	10 (N=28)	11 (N=28)	12 (N=29)	13 (N=28)	14 (N=27)	15 (N=27)	16 (N=27)	17 (N=27)	18 (N=27)	19 (N=29)	20 (N=27)	21 (N=28)	22 (N=27)	23 (N=27)	24 (N=28)
IQ	MI	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	L	L	L	L	L	L	L	L	L	L	L	L
	FI	**H**	**H**	**H**	**H**	**H**	**H**	L	L	L	L	L	L	**H**	**H**	**H**	**H**	**H**	**H**	L	L	L	L	L	L
	DI	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	L	L	L	L	L	L	L	L	L	L	L	L
SQ	NAV	**H**	**H**	L	L	L	L	**H**	**H**	L	L	L	L	**H**	**H**	L	L	L	L	**H**	**H**	L	L	L	L
	DS	**H**	L	**H**	L	L	L	**H**	L	**H**	L	L	L	**H**	L	**H**	L	L	L	**H**	L	**H**	L	L	L
	VA	**H**	L	L	**H**	L	L	**H**	L	L	**H**	L	L	**H**	L	L	**H**	L	L	**H**	L	L	**H**	L	L
	SEC	**H**	L	L	L	**H**	L	**H**	L	L	L	**H**	L	**H**	L	L	L	**H**	L	**H**	L	L	L	**H**	L
Mission information		**5.49**	**5.55**	**5.96**	**5.42**	**5.35**	**5.54**	**5.36**	**5.05**	**5.50**	**5.34**	**5.32**	**4.94**	5.21	4.90	4.19	4.98	4.29	4.14	4.51	3.71	4.22	4.37	4.31	3.78
		1.06	***1.11***	***.85***	***.84***	***1.24***	***.99***	***1.11***	***1.09***	***.90***	***1.36***	***1.32***	***1.51***	*1.26*	*1.54*	*1.46*	*1.51*	*1.32*	*1.69*	*1.34*	*1.56*	*1.55*	*1.49*	*1.64*	*1.69*
Financial information		**6.23**	**5.96**	**5.63**	**5.14**	**5.47**	**5.47**	5.09	4.66	5.06	4.92	4.70	4.63	**5.46**	**5.47**	**5.30**	**5.03**	**5.06**	**5.37**	4.73	4.25	4.77	4.17	4.81	4.04
		.90	***.68***	***1.27***	***1.50***	***.98***	***1.17***	*1.29*	*1.50*	*1.17*	*1.62*	*1.78*	*1.70*	***1.40***	***1.45***	***1.16***	***1.32***	***1.60***	***1.18***	*1.43*	*1.90*	*1.31*	*1.73*	*1.26*	*1.74*
Donation information		**5.94**	**5.41**	**5.39**	**5.22**	**4.90**	**5.18**	**5.48**	**4.86**	**5.35**	**5.38**	**4.79**	**4.92**	5.01	4.59	3.57	4.68	4.17	4.03	4.20	3.33	3.79	3.95	4.36	3.38
		.94	***1.08***	***1.28***	***1.21***	***1.08***	***1.40***	***.89***	***1.44***	***1.09***	***1.49***	***1.55***	***1.71***	*1.20*	*1.61*	*1.59*	*1.32*	*1.52*	*1.53*	*1.29*	*1.57*	*1.52*	*1.37*	*1.22*	*1.60*
IQ		**5.58**	**5.10**	**5.43**	**4.93**	**4.84**	**4.89**	5.08	4.54	5.15	4.88	4.43	4.23	4.92	4.56	3.60	4.54	3.84	3.98	4.24	3.28	3.79	3.74	3.96	2.92
		.77	***1.15***	***1.07***	***1.05***	***1.37***	***1.39***	*1.01*	*1.30*	*1.04*	*1.35*	*1.37*	*1.51*	*1.38*	*1.54*	*1.31*	*1.20*	*1.61*	*1.55*	*1.47*	*1.55*	*1.33*	*1.22*	*1.33*	*1.57*
Navigability		**6.52**	**6.00**	5.82	5.24	4.49	5.22	**6.07**	**5.54**	5.12	4.98	4.70	5.01	**6.44**	**5.65**	4.49	4.98	4.96	4.98	**6.38**	**5.00**	4.61	4.93	5.17	4.07
		.53	***1.04***	*1.21*	*1.33*	*1.61*	*1.67*	***1.05***	***1.39***	*1.17*	*1.67*	*1.76*	*1.84*	***.56***	***1.31***	*1.76*	*1.56*	*1.72*	*1.60*	***.62***	***1.55***	*1.57*	*1.74*	*1.55*	*1.44*
Download speed		**6.18**	4.19	**5.80**	4.55	4.35	4.64	**6.12**	3.58	**5.91**	4.43	4.52	4.60	**6.04**	4.59	**5.83**	4.09	4.14	4.63	**6.37**	3.38	**5.81**	4.43	5.15	4.32
		1.23	*1.64*	***1.26***	*1.32*	*1.64*	*1.73*	***.68***	*1.94*	***1.08***	*1.77*	*1.89*	*2.05*	***1.43***	*1.79*	***1.24***	*1.86*	*1.90*	*1.80*	***.58***	*1.70*	***1.32***	*2.05*	*1.38*	*1.83*
Visual aesthetics		**5.81**	3.83	3.86	**4.83**	3.33	3.60	**5.13**	3.19	3.63	**4.62**	3.80	3.24	**5.02**	3.64	3.11	**4.47**	3.38	3.37	**5.41**	2.85	3.14	**4.96**	3.90	2.18
		.97	*1.66*	*1.70*	***1.68***	*1.58*	*1.98*	***1.43***	*1.68*	*1.47*	***1.54***	*1.67*	*1.66*	***1.51***	*1.66*	*1.61*	***1.54***	*1.89*	*1.75*	***.67***	*1.60*	*1.67*	***1.45***	*1.92*	*1.24*
Security		**5.60**	4.46	5.00	4.69	**4.58**	4.44	**4.86**	3.84	4.30	4.67	**4.94**	4.16	**5.12**	4.32	3.59	4.42	**4.20**	4.14	**5.03**	3.68	3.95	4.73	**4.56**	3.01
		1.14	*1.48*	*1.40*	*1.50*	***1.33***	*1.65*	***1.20***	*1.56*	*1.37*	*1.91*	***1.87***	*1.78*	***1.54***	*1.70*	*1.64*	*1.75*	***1.69***	*1.80*	***1.47***	*1.69*	*1.85*	*1.66*	***1.28***	*1.87*
SQ		**5.93**	4.65	5.25	4.86	4.33	4.63	**5.71**	3.89	4.83	4.76	4.40	4.36	**5.43**	4.88	4.21	4.62	4.00	3.68	**5.62**	3.59	4.65	4.19	4.67	3.13
		.60	*1.33*	*1.26*	*1.27*	*1.34*	*1.58*	***.70***	*1.57*	*1.26*	*1.59*	*1.39*	*1.55*	***1.07***	*1.27*	*1.60*	*1.35*	*1.56*	*1.73*	***1.26***	*1.50*	*1.43*	*1.60*	*1.29*	*1.47*

Notes:
H: High quality; L: Low quality
Bold: High quality
Upper values: Mean; *Lower italicized values*: Standard deviation

Comparison for *collective halo* (See Table 9 for detailed information.)

Comparison for *reciprocal-quality halo* (See Table 13 for detailed information.)

Table F2. Results of Confirmatory Factor Analysis

	MI	FI	DI	IQ	NAV	DS	VA	SEC	SQ	REP	Gender	Age	FRE	PDB	INV	AOD	WS	ICR
MI	***.85***																	
FI	.53***	***.84***																
DI	.73***	61***	***.87***															
IQ	.80***	.62***	.82***	***.94***														
NAV	.51***	.42***	.56***	.62***	***.88***													
DS	.30***	.31***	.32***	.36***	.42***	***.93***												
VA	.44***	.30***	.47***	.59***	.57***	.38***	***.95***											
SEC	.47***	.45***	.52***	.58***	.43***	.39***	.50***	***.93***										
SQ	.57***	.47***	.61***	.71***	.72***	.62***	.69***	.63***	***.96***									
REP	.64***	.53***	.64***	.70***	.53***	.36***	.52***	.64***	.63***	***.89***								
Gender	.00	.00	-.05	-.03	-.01	-.03	-.08	-.03	-.05	-.01	-							
Age	-.06	-.08	-.07	-.09*	-.12**	-.06	.00	-.18***	-.11**	-.13**	.06	-						
FRE	.05	.08	.03	.05	.01	-.03	.03	.01	.03	.03	-.09	.04	-					
PDB	.12***	.05	.08**	.11**	.06	.05	.09*	.09**	.09*	.14***	-.16	-.05	.52***	-				
INV	.14**	.13**	.12**	.14***	.12**	.00	.16***	.12**	.12**	.18***	-.14***	-.09*	.32***	.44***	***.94***			
AOD	.15***	.16***	.14**	.12**	.07	.12**	.07	.19***	.13**	.17***	.10*	-.04	.25***	.25***	.33***	***.88***		
WS	.00	.06	.01	-.09*	.02	-.05	-.07	-.04	-.03	.01	-.02	-.10*	.02	.03	.13**	.23***	***.84***	
ICR	.02	.11	.07	.01	.00	.00	.03	.01	.02	-.01	-.09*	.10*	.11**	.16***	.22***	.14***	.15***	-
Mean	4.89	5.06	4.67	4.44	5.27	4.91	3.94	4.43	4.60	4.68	.59	21.59	2.64	3.35	4.48	5.11	5.47	5.55
SD	1.44	1.48	1.52	1.47	1.55	1.78	1.82	1.67	1.50	1.37	.49	4.28	1.32	1.19	1.47	1.50	1.14	1.46
CR	.91	.91	.93	.96	.91	.95	.97	.95	.97	.95	-	-	-	-	.96	.91	.88	-
AVE	.73	.71	.76	.88	.77	.87	.91	.86	.92	.79	-	-	-	-	.89	.78	.71	-
Factor Loafing Ranges	.77 - .90	.77 - .88	.84 - .89	.94 - .94	.82 - .91	.93 - .94	.95 - .96	.92 - .94	.95 - .97	.80 - .93	-	-	-	-	.91 - .97	.86 - .90	.79 - .90	-

Notes:
1. $^{***}p < .001$; $^{**}p < .01$, $^{*}p < .05$
2. MI: mission information; FI: financial information; DI: donation information; NAV: Navigability; DS: download speed; VA: visual aesthetics; SEC: security; REP: perceived reputation; FRE; frequency of visit of charity websites; PDB: Prior donation behaviors; INV: involvement with child relief issues; AOD: attitude toward online donation; WS: web skills; ICR: importance of charity's reputation
3. SD: standard deviation; CR: composite reliability; AVE: average variance extracted
4. Diagonal elements display the ***square root of AVE***.

About the Authors

Dong-Heon (Austin) Kwak is an assistant professor of information systems at Kent State University. He received his PhD in management information systems from the University of Wisconsin-Milwaukee in 2014. His research focuses on online donations, website design, persuasion, information processing, gamification, and IT training. He has published in *Journal of the Association for Information Systems*, *Computers in Human Behavior*, *Computers & Education*, among other outlets.

K. Ramamurthy is a professor emeritus of information technology management at the Sheldon B. Lubar School of Business of the University of Wisconsin-Milwaukee. He received a PhD in business with an MIS concentration from the University of Pittsburgh. He also has 20 years of industry experience, holding several senior technical and executive positions. His research interests have included e-commerce with interorganizational systems/electronic data interchange and the Internet; role of IT in nonprofit organizations; IT outsourcing; data resource management and data warehousing; IT business value; decision and knowledge systems for individuals and groups; adoption, assimilation, and diffusion of modern IT; and total quality management, including software quality. He has published over 50 research articles in major scholarly journals, including *MIS Quarterly*, *Journal of Management Information Systems*, *IEEE Transactions on Software Engineering*, *Journal of the Association for Information Systems*, *Decision Sciences*, and *European Journal of Information Systems*, among others. He has also published over 30 articles in refereed scholarly conference proceedings. He served as an associate editor of *MIS Quarterly* for four years, and is a charter member of the Association for Information Systems.

Derek L. Nazareth is an associate professor of information technology management at the Lubar School of Business at the University of Wisconsin, Milwaukee. He received his PhD in management information systems from Case Western Reserve University, a PGDM from IIM Calcutta, and a BTech from IIT Bombay. His current research interests include information security and privacy, web services, modeling and heuristic problem solving, and health informatics. He has published over 40 articles in leading journals including *IEEE Transactions on Knowledge and Data Engineering*, *IEEE Transactions on Systems Man & Cybernetics*, *ACM Transactions on Management Information Systems*, *Journal of Management Information Systems*, *Decision Support Systems*, *Communications of the ACM*, and *Information & Management*, among others. He has also published over 45 papers in refereed conference proceedings. He has served as associate editor for *IEEE Transactions on Services Computing*. In addition, he was the program chair for the 1999 Americas Conference on Information Systems, and the treasurer for the 2006 International Conference on Information Systems.

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