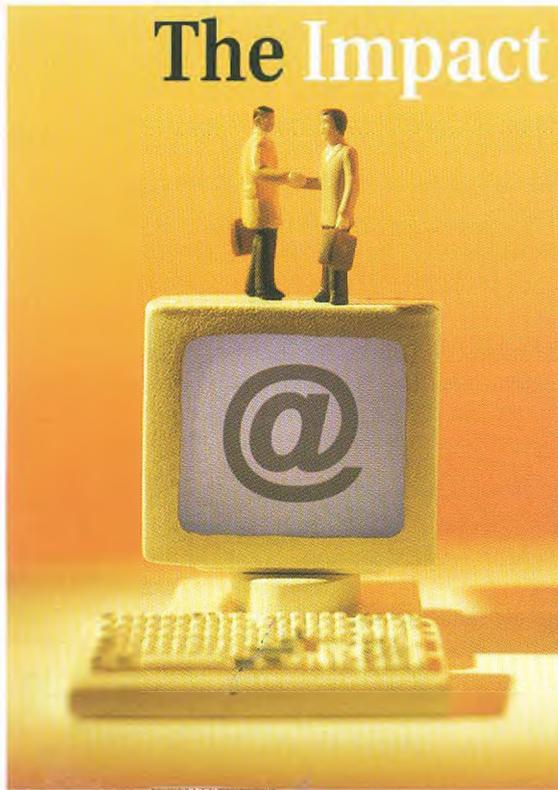


## ABSTRACT

Web designers have developed and implemented various functional techniques for enhancing user trust in Business-to-Consumer e-commerce websites; however these have proved inadequate as consumers still do not trust the online environment. This "trust-gap" is seen as a major impediment to the continued growth of B2C e-commerce activities. Our research examines the impact of the basic design elements of color and typography in influencing user perceptions of trust in e-commerce websites. An experimental study was conducted in the context of an online banking website. Results indicate that a website with blue as the dominant design color and New Roman as the primary typeface engenders greater trust in the user than a website with green as the dominant design color and Calibri as the primary typeface. Thus, in addition to its aesthetic role, web-designers can use color and typography to explicitly increase user trust in e-commerce websites.

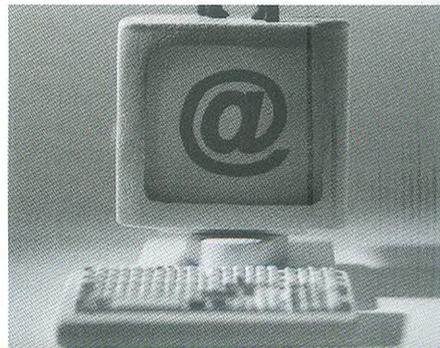
**Keywords :** Business - to - Consumer (B2C), E-commerce, Trust, Color.



# of Website Design on B2C E-Commerce Trust

## - An Empirical Study

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## INTRODUCTION

With a 360% increase in users over the last decade, the Internet and the World Wide Web have fast become an integral part of our daily life. This growth has been fueled by the developing nations of Africa and the Middle East, each of which accounted for a 1360% increase in users. Among the developed nations of North America and Europe, the Internet penetration rate stands at an all time high of 74% and 50% respectively (Internet World Stats 2009). The growth of the Internet and its increasing geographical spread has fueled the growth of electronic commerce (e-commerce), with the Business to Consumer (B2C) e-commerce segment projected to reach \$330 billion by 2010 (Forrester Research 2006). The global economic recession has further fueled B2C e-commerce growth as it facilitates comparison-shopping (Rainie and Smith 2009).

E-commerce researchers and practitioners have focused on developing web interfaces and technologies that ensure the security of online transactions and the integrity of user data. Despite these technologies being incorporated into the design of e-commerce websites, recent reports have indicated that 75% of internet users do not trust the online environment (Horrigan 2008). This "trust-gap" is a major limiting factor for the continued expansion of B2C e-commerce activities (Fox and Beier 2006, Horrigan 2008, Princeton Survey Research Associates 2002, 2005). To bridge the "trust-gap" and to ensure the continued growth of B2C e-commerce, it is essential that researchers and practitioners explore ways and means to further enhance the credibility and trustworthiness of e-commerce websites.

This research study examines the role of web design elements such as color and typography in influencing user perceptions of trust in e-commerce websites. We first discuss the meaning of trust in an online environment. This is followed by a discussion on the psychology and typeface personality and its possible role in influencing user perceptions of trust. Based on our discussions, we develop hypotheses that are then tested using an experimental study. We conclude with a discussion of the results and its practical implications.

## Commerce and Trust

Trust is an integral component of human interpersonal relationships. We prefer interacting with and maintaining lasting relationships with those that we perceive are reliable and trustworthy. Formally, trust has been defined as "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or confront that other party" (Mayer et al. 1995, p 712). With the advent of the Internet and the World Wide Web, human beings have extended the concept of trust to online e-commerce transactions (Holsapple and Sasidharan 2005).

What constitutes trust in an online context? Drawing upon the Mayer et al. definition, trust has been viewed from a "vulnerability" perspective: a state of mind where the online shopper is aware of possible injustices that could be perpetrated by the online merchant; however, the shopper is willing to be exposed to these injustices (Holsapple and Sasidharan 2005, Kimery and McCord 2002, Lee and Turban 2001). The other major conceptualization of trust centers on the "faith in humanity" perspective: the implicit belief that the shopper has in the integrity, reliability, benevolence, and competence of the online merchant (Holsapple and Sasidharan 2005, McKnight et al. 2002). The shopper believes that the online merchant can be relied upon, has the best interests of the customer in mind, and will not take undue advantage of the shopper in case there are problems in the transaction (Gefen et al. 2003, Stewart 2003, Suh and Han 2003).

E-commerce trust has also been viewed as being composed of multiple constructs: institution-based trust, trusting beliefs, and disposition to trust (McKnight et al. 2002). Institution-based trust is the belief that the structural conditions needed for the execution of a secure business transaction are available, such as the use of security techniques, third-party certification, and assurance seals (Kimery and McCord 2002, Lee and Turban 2001). Trusting beliefs encompasses views regarding the integrity of the online merchant and disposition to trust measures the extent to which the shopper has faith in the benevolence and competence of others across a wide range of situations. Institution based trust, trusting beliefs, and disposition to trust lead to trusting intentions, i.e. being involved in trust related behavior with a specific online merchant (McKnight et al. 2002).

Based on these conceptualizations of trust, numerous research studies have sought to identify design factors that could influence user trust in B2C e-commerce websites. The functional features of a website such as its usability, ease of use, and navigability (Roy et al. 2001), and its security features such as third-party certification and assurance seals have been found to influence user trust in an online merchant (Kimery and McCord 2002, Lee and Turban 2001). In addition, providing users with information regarding privacy practices, security precautions, and compensation procedures (Heidnerman 2000, Suh and Han 2003), displaying user feedback through online communities, and providing customers with unbiased information about competing

products serve to enhance user trust (Urban et al. 2000).

While prior research has contributed to our knowledge of online trust, its primary focus has been on the functional aspects of a website, rather than on its basic foundational design elements such as color schemes, layout, typography, white space, and images. We propose that the basic design elements of a website could influence user perceptions of trust. Thus, in this preliminary study, our substantive research question reads; "Do website design elements such as color and typography influence user perceptions of trust in a B2C e-commerce website?"

## The Psychology of Color

Color has a significant impact on our perception of the world. It has been found to convey meaning, shape perceptions, and inspire emotion (Johnson 2006, Nicholson 2002, Walker 1991). When compared to black and white, color visuals increase motivation by up to 80%, increase willingness to read by 80%, and enhance learning by 75% (Green 1984). In addition, color is the decisive factor in any visual experience and contributes to 60% of the acceptance or rejection of an object (Walker 1991).

The emotional response to color and its influence on shaping human perceptions occurs subconsciously and is a result of both human physiology and childhood conditioning. From a physiological perspective, when faced with the color red, the pituitary gland secretes flight hormones that result in excitement, anger, hatred, passion, and alertness. However, when faced with the color blue, the pituitary gland releases tranquilizing chemicals that can soothe and calm an individual (Wagner 1991).

Apart from the physiological aspect, human response to color is also an artifact of childhood conditioning. For example, children are taught to associate the color red with "no" and the color green with "yes". These childhood lessons are subsequently reinforced by the conventions on the real world; a red light at a traffic signal indicates that you have to stop and a green light indicates that it is safe to move. Green also has an association with nature and the environment, as well as the human emotions of jealousy, inexperience, and envy.

The color blue has an association with trust, truth, and confidence. This is exemplified by the fact that the phrase true blue is used to refer to loyalty and faithfulness. Security personnel and other public servants commonly wear blue. Job productivity has been found to increase when people work in a blue room and blue is often the recommended dress color for a professional appearance, particularly for job interviews (Johnson 2006, Nicholson 2002, Wagner 1991).

Of the other major colors, white is associated with goodness, cleanliness and peace; black is associated with power, wealth and evil; and yellow with joy, happiness and dishonesty. Table 1 shows a list of the meanings and emotions attributed to some of the major colors. As color has a defining role in shaping our perceptions of the world around us, we expect the dominant color used in the design of a website to influence our perceptions regarding the website and guide our interactions with it.

**Table 1: Meanings and Emotions Attributed to Major Colors**  
(Adapted from Nicholson 2002, Johnson 2006)

Color	Meaning / Emotional Response
Blue	Peace, Tranquility, Calm, Stability, Harmony, Unity, Trust, Truth, Confidence, Conservatism, Security, Cleanliness, Order, Loyalty
Green	Life, Growth, Nature, Environment, Health, Renewal, Youth, Vigor, Spring, Generosity, Fertility, Jealousy, Inexperience, Envy, Misfortune
Red	Danger, Excitement, Aggression, Passion, Hatred, Heat, Power, Desire, Speed, Strength, Violence, Anger
Yellow	Joy, Happiness, Newness, Optimism, Idealism, Imagination, Hope, Dishonesty, Cowardice, Betrayal, Jealousy, Covetousness, Deceit, Illness, Hazard
Black	Solidity, Power, Sexuality, Submission, Sophistication, Formality, Elegance, Wealth, Fear, Evil, Unhappiness, Evil, Sadness, Remorse, Anger, Mourning And Death
White	Reverence, Purity, Chastity, Simplicity, Peace, Goodness, Cleanliness, Peace, Humility, Precision, Innocence, Youth, Birth.
Orange	Vibrant, Warm, Cozy

**Typography and Personality**

The overall appearance of printed matter, particularly its style, arrangement, and appearance, is called typography. It includes the study of typefaces; the term "typeface" is used to refer to a font family. There are multiple categories of typefaces (or font families), the most common ones being serif, sans serif, and monospace. A serif typeface has short lines called "serifs" at the end of letter strokes whereas a "sans-serif" typeface is devoid ("sans") of such lines. The Times New Roman (TNR) font used for this manuscript is a serif typeface; note the base line for letters such as "r" and "l" and the vertical line at the top right and top left curved segments for the letter "s". Other examples include Cambria, Constantia, and Georgia. Perhaps the most popular example of a sans-serif typeface is Arial, where extensions at the end of letter strokes are absent; other examples include Verdana and Calibri. As characters in the serif and sans-serif family physically occupy a space proportional to their width, they are called variable-width typefaces. In contrast, a monospace typeface is fixed-width with all characters occupying the same amount of space, a prominent example being the Courier typeface. Apart from these, other typefaces include scripted and display (Shaikh et al. 2006). The scripted typeface is based on the continuous stroke created by cursive handwriting and it depicts handwritten pen/pencil writing. Examples of the script typeface include Monotype Corsiva, Rage Italic and Gigi fonts. The display typeface is bold and assertive and is usually used for advertising and display panels. The Impact font belongs to this category (Shaikh et al. 2006).

In the context of printed text material, readers have been found to perceive typefaces as possessing human personality and intention (Bernard et al. 2001, Brumberger 2003, Kostelnick 1990, Shaikh et al. 2006). In particular, serif and sans-serif typefaces are perceived to convey stable, mature, and trustworthy personalities; traits that make it the preferred typeface of the legal and financial establishments. In contrast, a monospace typeface is viewed as plain, cold, unimaginative, and unappealing. Scripted typefaces are viewed as feminine, casual, and youthful, whereas display typefaces are viewed as

masculine, assertive, and rude (Shaikh et al. 2006).

A Lexmark study conducted in Britain attempted to relate a perception of fonts with celebrity personalities. Respondents were asked to associate fonts with top personalities in public domain. The results indicate that the Verdana font (a sans serif typeface) was associated with Richard Branson, a successful, professional businessman, and owner of the Virgin brand of over 360 companies. Also, the Times font (a serif typeface) was associated with Anna Ford, who was known as a respected, trustworthy, news and television personality in Britain. The same study associated the Courier font (a monospace typeface) with Ian Beale, a character from a popular British TV show "EastEnders". This character portrayed as being socially awkward, isolated, cheap, and referred to as a "cheapskate anorak" (British Broadcasting Corporation 2001). Thus the Lexmark study reinforces the perception that serif and sans-serif typefaces are trustworthy and that the monospace typeface is plain and cheap.

We believe that the impact of typefaces in shaping user perceptions would be greater for online transactions than for paper-based transactions. For the latter, buyer perceptions will only be marginally influenced by the typeface used in business related paperwork, as the customer has no opportunity for direct face-to-face interaction with the seller. The media richness theory (Daft and Lengel 1984) points to face-to-face communication being the richest form of communication medium. Also, such a business transaction might occur in a commercial setting such as a brick and mortar office or a store, which in turn might shape buyer perceptions. In contrast, in the online context, given the limited amount of face-to-face interaction with the online seller, we expect user perceptions to be influenced largely by the various design aspects of the website, including the typeface used in presenting the text material. For example, when used as the primary font in a website, a serif font such as Times that is perceived to be stable, mature, and trustworthy can be expected to engender greater trust in the user in comparison to a monospaced font such as Courier that does not possess similar connotations.

**RESEARCH FRAMEWORK**

Website design incorporates multiple elements; the primary ones being color schemes, layout, typography, white space, and images (Lynch and Horton 2009). A color scheme might involve the use of a variety of

colors; however, there typically is a primary color used for the design of the page background, banner, and sidebars; we refer to this as the dominant design color. Based on our prior discussion in Section 2.1, we theorize that the dominant design color could influence user perceptions of trust in an e-commerce website. From Table 1, it can be seen that among the major colors, blue is perceived as having the closest association with trust, truth, confidence, and loyalty. In contrast, the color green has little or no association with trust, and is more representative of nature and the environment, as well as the human emotions of jealousy, inexperience, and envy. Hence, we propose:

*H1: User trust in an e-commerce website will be higher when the dominant design color is blue than when it is green.*

Apart from color, the typeface of the text material could influence user perceptions of trust in the website. As discussed in Section 2.2, a serif typeface such as Times New Roman (TNR) is perceived to possess human qualities of stability, maturity, and trustworthiness, whereas a monospaced font such as Courier has a closer association with cheapness. When used as the primary font in an e-commerce website, it is expected that the former will engender higher trust in the user. Hence, we propose:

*H2: User trust in an e-commerce website will be higher when the primary typeface is TNR than when it is Courier.*

Based on the preceding discussions, we expect a combination of blue as the dominant design color and Times New Roman (TNR) as the primary typeface to engender higher trust in the user than a combination of green as the dominant design color and Courier as the primary typeface. Thus, we propose,

*H3: User trust in an e-commerce website will be higher when the dominant design color is blue and the primary typeface is TNR than when the dominant design color is green and the primary typeface is Courier.*

We conducted an experimental research study using a simulated online banking website to test our propositions. The experimental procedures for our study are detailed in the following section.

**RESEARCH METHOD**

**Experimental Design**

Though user trust is an important component of all B2C e-commerce transactions, it plays a defining role in the context of online banking (Holsapple and Sasidharan 2005). Over 80% of

users consider trust to be the most important factor in interacting with online banking websites. Online banking has been one of the fastest growing e-commerce activities, with over 40% of internet users using it regularly (Fox and Beier 2006) and around 101 million projected to use it by 2011 (Philips 2007). However, due to trust concerns, there has been a

recent slowing in the rate of adoption of online banking (Philips 2007). We decided to use a simulated online banking website as our research context due to the crucial role played by trust in influencing its adoption and its importance in the B2C e-commerce world.

From a functional perspective, the simulated banking website was modeled around the actual website of a popular commercial bank. It provided information regarding typical online banking activities such as opening accounts, ordering checks, advancing loans, and transferring funds. Four experimental versions of the simulated banking website were designed:

- (1) With dominant design color blue and with primary typeface TNR (referred to as BT)
- (2) With dominant design color blue and with primary typeface Courier (referred to as BC)
- (3) With dominant design color green and with primary typeface TNR (referred to as GT)
- (4) With dominant design color green and with primary typeface Courier (referred to as GC)

Such a design would enable a 2 X 2 factorial experiment (see Figure 1) that would enable us to test the hypotheses. In addition, it would help us elucidate interaction effects, though in this initial study, we do not have theoretical arguments for interaction effects and do not hypothesize any. All other elements of website design such as layout, typography, images, and content were identical across the four experimental conditions.

**2X2 Experimental Design**

		Typeface	
		Times New Roman	Courier
Color	Blue	BT	BC
	Green	GT	GC

Figure 1

**Experimental Procedures**

Our study participants were administrative personnel associated with a mid-sized organization. They were housed in the central office of the organization and performed typical day-to-day administrative and support activities. Participation was voluntary. To ensure that there was control for alternate explanatory variables that could otherwise influence trust perceptions, participants were randomly assigned to one of the four experimental conditions (i.e. BT, BC, GT, or GC). Participants were told to explore the functional provisions and information provided at the online banking site and respond to a questionnaire that would ask questions regarding their impressions of the website.

Before commencing the experiment, participants were provided with a questionnaire that collected their demographic information as well as their prior internet experience, online banking experience, and online banking self-efficacy (the inherent belief users' have regarding their ability to engage in online banking) (Holsapple and Sasidharan 2005, Hu et al. 2003, Venkatesh 2000). After twenty minutes of exploring the contents of the experimental website, participants were provided with a questionnaire that measured their extent of trust in the website.

In the specific context of online banking, trust has been

conceptualized as the belief that the user has in the safety and security of online transactions as well as the perception that the banker will treat the user fairly and benignly in case of unforeseen circumstances (Holsapple and Sasidharan 2005). Elements of this approach include user perceptions regarding the honesty, knowledge, skill levels, capability, and commitment of the banker in ensuring safe and secure online transactions. Arising out of this conceptualization, we measured trust using an eight-item questionnaire with a seven-point Likert scale (Holsapple and Sasidharan 2005, Jarvenpaa et al. 2000, Roy et al. 2001, Suh and Han 2003) (see Appendix 1). The measures for prior internet experience, online banking experience, and online banking self-efficacy (Holsapple and Sasidharan 2005, Hu et al. 2003, Venkatesh 2000) are also outlined in Appendix 1.



**DATA ANALYSIS AND RESULTS**

We had eighty participants, and twenty were randomly allotted to each of the four experimental groups BT, BC, GT, and GC. The average age of participants was thirty-nine and almost half of them were females. The descriptive statistics and correlations among the experimental variables are shown in Table 2.

**Table 2: Correlations, Means, and Standard Deviations (N=80)**

		1	2	3	4	5	6	7	Mean	SD
1	Age	1							38.85	10.29
2	Gender	.18	1						0.55	0.50
3	Education	.02	-.02	1					1.13	0.79
4	Internet Experience	-.11	.20	-.09	1				3.99	2.15
5	Online Banking Experience	-.48**	-.05	.02	.22*	1			1.39	1.63
6	Online Banking Self Efficacy	-.49**	.03	-.06	.11	.27*	1	1	4.28	0.88
7	Trust	-.26*	-.05	-.09	-.17	-.16	.07	1	3.88	1.40

Note: \*\* - Correlation significant at the .01 level; \* - Correlation significant at the .05 level

We conducted a simultaneous comparison of means between the four experimental groups and did not find any significant demographic differences between the groups, nor could we find any significant differences in their prior internet experience, prior online banking experience, and online banking self-efficacy. The trust score was the highest for experimental condition BT [with dominant design color blue and with primary typeface TNR] (Mean=4.56, SD=1.71) and the least for experimental condition GC [with dominant design color green and with primary typeface Courier] (Mean=3.26, SD=1.21). Experimental conditions BC [with dominant design color blue and with primary typeface Courier] and GT [with dominant design color green and with primary typeface TNR] had mean trust scores of 3.83 and 3.87 respectively (see Table 3).

**Table 3: Means and Standard Deviations for Dependent Variable (Trust)**

Color	Font	Mean	SD	N
Blue	TNR (BT)	4.56	1.71	20
	Courier (BC)	3.83	1.22	20
	<b>Total (Blue)</b>	4.20	1.51	40
Green	TNR (GT)	3.87	1.15	20
	Courier (GC)	3.26	1.21	20
	<b>Total (Green)</b>	3.56	1.20	40
Total	TNR	4.21	1.48	40
	Courier	3.54	1.23	40
	<b>Total (Overall)</b>	3.88	1.40	80

conducted a 2 X 2 (Color X Font) between-subjects ANOVA on user perceptions of trust (see Table 4). There was a significant main effect for color ( $F = 4.50, p < .05$ ). Participants who had experimental websites with blue as the dominant design color (Mean = 4.20, SD = 1.51) had significantly higher perceptions of trust than those with green as the dominant design color (Mean = 3.56, SD = 1.20), thus we find support for H1 [User trust in an e-commerce website will be higher when the dominant design color is blue than when it is green]. There was also a significant main effect for the typeface ( $F = 4.97, p < .05$ ). Those participants that had experimental websites with TNR as the primary typeface (Mean = 4.21, SD = 1.48) had significantly higher perceptions of trust than those with Courier as the dominant design typeface (Mean = 3.54, SD = 1.23), thus we find support for H2 [User trust in an e-commerce website will be higher when the typeface is TNR than when it is Courier]. We could not find any significant interaction between color and typeface; however, as stated earlier, we do not have theoretical arguments for interaction effects and do not hypothesize any.

Test for H3 [User trust in an e-commerce website will be higher when the dominant design color is blue and the typeface is TNR than when the dominant design color is green and the typeface is Courier], we conducted a simultaneous comparison of means (using the Bonferroni test) across the two experimental groups. We found a statistically significant difference for user perceptions of trust between the BT and GC groups ( $p < .05$ ), thus we find support for H3 (see Table 5). None of the other comparisons between experimental groups was significant at the .05 level.

**Table 4: Tests of Between-Subjects Effects (Dependent Variable: Trust)**

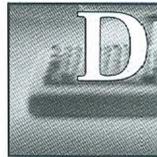
Source	F-value	p-value
Color	4.50	.04*
Font	4.97	.03*
Color X Font	0.40	.84

**Table 5: Simultaneous Comparison of Trust Means between groups (Bonferroni Test)**

Comparison	Mean Diff.	p-value
BT vs. BC	0.73	0.56
BT vs. GT	0.70	0.62
BT vs. GC	1.30*	0.02*
BC vs. GT	-0.03	1.00
BC vs. GC	0.58	1.00
GT vs. GC	0.61	0.44

\* - p-value significant at the .05 level

Summarizing the above, the data broadly supports our contention that basic web-design elements such as color and typeface can influence user perceptions of trust in an e-commerce website.



**DISCUSSION**

The lack of user trust while interacting with e-commerce websites remains one of the major hindrances to the spread of B2C e-commerce. To address this, web designers have developed and implemented several functional techniques that seek to enhance user trust in e-commerce websites. Despite this, trust still remains an overriding concern for users, and web designers need to develop new approaches aimed at increasing user trust. Our study examined the possible role of website design elements such as color and typography in enhancing user trust in an online merchant.

Our results indicate that the dominant website design color and primary typeface influences trust perceptions. In particular, the color blue engendered greater trust in the user than the color green and the font Times New Roman engendered greater trust than the font Courier in the context of an online banking website. Also, a combination of blue as the dominant design color and Times New Roman as the primary typeface engendered greater trust than a combination with green as the dominant design color and Courier as the primary typeface. Thus, the impact of color and typeface in shaping our perceptions of trust in everyday life was found extended to the online environment.

To engender user trust, web designers have hitherto focused on providing functional features such as third-party certification, assurance seals, and online user communities. Though they address color and typeface issues, it is from an aesthetic perspective aimed at increasing readability rather than with the specific intention of influencing user trust. Our results indicate that color and typeface can explicitly be used to enhance user trust.

Though not directly related to the research hypotheses, the correlations paint a predictable picture: older people tend to have significantly less online banking experience, lower online banking self-efficacy, and less trust than younger users. Another point to be noted is that for the participants as a whole, the mean trust was 3.88, less than the midpoint (i.e. 4) of the 7-point Likert scale used to measure trust. This result is consistent with prior studies that point to the overall "trust-gap" that users have in e-commerce websites.

Though these results are interesting, they need to be interpreted with a note of caution, particularly regarding its validity in different cultural and social settings. User perceptions of color have a cultural dimension; thus while the color blue might broadly have the connotations described in Table 1; this might be different in specific cultural and social contexts. Thus, care must be taken while generalizing the results of this study to different cultural and social groups.

Likewise, the experimental conditions do not address the product and market context. For example, in the case of an e-commerce site selling outdoor adventure/sporting equipment, it could be argued that a dominant design color of green (representing nature, environment, health, and youth) would be more favorably perceived than blue. Similarly, in the case of an e-commerce site selling "hip" youth merchandise, a youthful, rebellious script typeface with red as the dominant design color could engender trust in its targeted youth market.

In fact, it has been suggested that serif and sans serif typefaces that are perceived as business-like would be more appropriate for an online banking site and script typefaces that are perceived as youthful and fun would be more appropriate for an online toy store (Bernard et al. 2001).

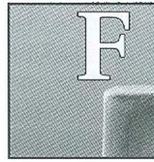


**LIMITATIONS**

Like any experimental research study, ours too has its limitations. The experimental website mimicked the operational features of a commercial banking website, however study participants were aware that it was a simulated website and this knowledge could have influenced their responses. To the extent that we were attempting to identify differences in user perceptions of trust vis-à-vis the dominant design color and typeface, we do not feel this has affected the validity of our results.

The participants had varying degrees of experience with online banking. To address this, we had randomly allocated participants to experimental conditions, and we could find no statistically significant differences between participants in different experimental conditions. However, prior experience does remain a concern and needs to be addressed in future studies. The sample size for the experiment is relatively small,

hence it is important that further research be conducted using a larger sample in order to confirm the veracity of the results.



**FUTURE RESEARCH**

Prior studies have conceptualized trust as a multi-dimensional measure (for e.g., McKnight et al. 2002). It is important for future research consider these multiple dimensions of trust while elucidating the impact of design elements on trust. The "net" trust engendered in the user will be influenced by other design elements such as color schemes, layout, white space, images and accessibility. Future research could examine the possible interaction of these other web design elements in influencing trust perceptions.

Other avenues of research include taking into consideration the impact of culture on color perceptions and its influence on user trust. Given that the World Wide Web is accessible globally, this raises an important question: Would a dominant design color of blue invoke the same trust perceptions in different cultural contexts? If not, in practical terms, an e-commerce website might have to consider having different design elements depending on the cultural context of their customers.

**REFERENCES**

- 1 Bernard, M., Peterson, M. and Storrer, K. (2001) A Comparison of popular online fonts: Which is best and when? Usability News, 3, 2, Software Usability Research Laboratory, Wichita State University, KS.
- 2 British Broadcasting Corporation (2001) (<http://news.bbc.co.uk/2/hi/science/nature/1348871.stm>, last accessed Nov 1, 2009)
- 3 Brumberger, E. (2003). The rhetoric of typography: The persona of typeface and text. Technical Communication, 50, 2, 206-223.
- 4 Daft, R. and Lengel, R. (1984) Information richness: A new approach to managerial behavior and organizational design, in L. L. Cummings and B. M. Staw (Eds.) Research in Organizational Behavior, JAI Press, Homewood, IL, pp. 191-233.
- 5 Forrester Research. (2006) Online sales to surpass \$200 billion this year, Forrester Research, MA.
- 6 Fox, S. and Beier, J. (2006) Surfing to the Bank, Pew Research Center, DC.
- 7 Gefen, D., Karahanna, E. and Straub, D. (2003) Trust and IAM in online Shopping: An integrated model, MIS Quarterly, 27, 1, 51-90.
- 8 Green, R. (1984) The Persuasive Properties of Color, Marketing Communications, 9, 10, 50-54.
- 9 Holsapple, C., and Sasidharan, S. (2005) The dynamics of trust in online B2C e-commerce: A research model and agenda, Information Systems and E-Business Management, 3, 4, 377-403.
- 10 Horrigan, J. (2008) Online Shopping, Pew Internet & American Life Project, Pew Research Center, DC.
- 11 Hu P, Clark T., and Ma, W. (2003) Examining technology acceptance by school teachers: a longitudinal study, Information and Management, 41, 2, 227-241.
- 12 InternetWorld Stats (2009) <http://www.internetworldstats.com/stats.htm>, last accessed Nov 1, 2009
- 13 Jarvenpaa S., Tractinsky N. and Vitale M. (2000) Consumer trust in an Internet store, Information Technology and Management, 1, 1, 45 - 71.
- 14 Johnson, D. (2006) Color Psychology (<http://www.infoplease.com/spot/colors1.html>, last accessed Nov 1, 2009)
- 15 Kimery, K. and McCord, M. (2002) Third-party assurances: Mapping the road to trust in e-retailing, Journal of Information Technology Theory & Application, 4, 2, 63-82.
- 16 Kostelnick, C. (1990) The rhetoric of text design in professional communication, The Technical Writing Teacher, 17, 189-202.
- 17 Lee, K. and Turban, E. (2001) A trust model for consumer internet shopping, International Journal of Electronic Commerce, 6, 1, 75-91.
- 18 Lynch, P. and Horton, S. (2009) Web Style Guide - Basic Design Principles for Creating Web Sites, Yale University Press, New Haven, CT.
- 19 Mayer, R., Davis, J. and Schoorman, F. (1995) An integrative model of organizational trust, Academy of Management Review, 20, 3, 709-734.
- 20 McKnight, D., Choudhury, V. and Kacmar, C. (2002) Developing and validating trust measures for e-commerce: An integrative typology, Information Systems Research, 13, 3, 334-359.
- 21 Nicholson, M. (2002) Colors and Moods, <http://iit.bloomu.edu/vthc/Design/psychology.htm>, last accessed Nov 1, 2009.
- 22 Phillips, E. (2007) Banking and bill paying online: Chasing those digital dollars, eMarketer, May 2007.
- 23 Princeton Survey Research Associates. (2002) A matter of trust: What users want from web sites? Consumer Reports Web Watch, NY.
- 24 Princeton Survey Research Associates. (2005) Leap of faith: Using the internet despite the dangers, Consumer Reports Web Watch, NY.
- 25 Rainie, L. and Smith, A. (2009) The Internet and the Recession, Pew Internet & American Life Project, Pew Research Center, DC.
- 26 Roy, M., Dewit, O. and Aubert, B. (2001) The impact of interface usability on trust in web retailers, Internet Research, 11, 5, 388-398.

1 Shaikh, A., Chaparro, B. and Fox, D. (2006) Perception of fonts: Perceived personality traits and uses, Usability News, 8, 1, Software Usability Research Laboratory, Wichita State University, KS.

2 Shneiderman, B. (2000) Designing trust into online experiences, Communications of the ACM, 43, 12, 57-59.

3 Stewart, K. (2003) Trust transfer on the World Wide Web, Organization Science, 14, 1, 5-17.

4 Suh, B. and Han, I. (2003) The impact of customer trust and perception of security control on the acceptance of electronic commerce, International Journal of Electronic Commerce, 7, 3, 135-161.

5 Urban, G., Sultan, F. and Qualls, W. (2000) Placing trust at the center of your internet strategy, Sloan Management Review, 42, 1, 39-49.

6 Venkatesh, V. (2000) Determinants of perceived ease of use: Integrating perceived behavioral control, computer anxiety and enjoyment into the technology acceptance model, Information Systems Research, 11, 4, 342-365.

7 Wagner, C. (1991) The Wagner Color Response Report, Color Communications, Chicago.

8 Walker, M. (1991) The Power of Color, Avery Publishing Group, New York, NY.

Annexure

	Study Measures
Trust (7-point Likert Scale): (Holsapple and Sasidharan 2005, Jarvenpaa et al. 2000, Roy et al. 2001, Suh and Han 2003)	<ul style="list-style-type: none"> <li>• I know that this banker is honest.</li> <li>• This online bank is one that keeps promises and commitments.</li> <li>• This online bank has more to lose by not delivering on promises.</li> <li>• This online bank is very capable of performing their job.</li> <li>• This online bank is known to be successful at the things it tries to do.</li> <li>• This online bank has much knowledge about the work that needs to be done.</li> <li>• I feel very confident about this banker's skills.</li> <li>• My needs and desires are very important to this banker.</li> </ul>
Prior internet experience	On an average, in a week, how many hours do you browse the Internet?
Prior online banking experience	On an average, in a week, how many times do you log into your online banking account?
Online Banking Self Efficacy (7-point Likert Scale): (Holsapple and Sasidharan 2005, Hu et al. 2003, Venkatesh 2000)	I could complete an online banking transaction · <ul style="list-style-type: none"> <li>• if there was no one around to tell me what to do as I go.</li> <li>• if I had only the software manuals for reference.</li> <li>• if I had seen someone else using it before trying it myself.</li> <li>• if I could call someone for help if I got stuck.</li> <li>• if someone else had helped me get started.</li> <li>• if I had a lot of time to complete the job.</li> </ul>
Gender	Male – 0; Female – 1
Education	0 - High School Diploma; 1- Associate Degree; 2- Undergraduate degree; 3- Graduate degree and higher