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**Verified by Visa:  
Usability Findings and Recommendations  
for Merchant Websites**

**March 31, 2004**



Nielsen Norman Group

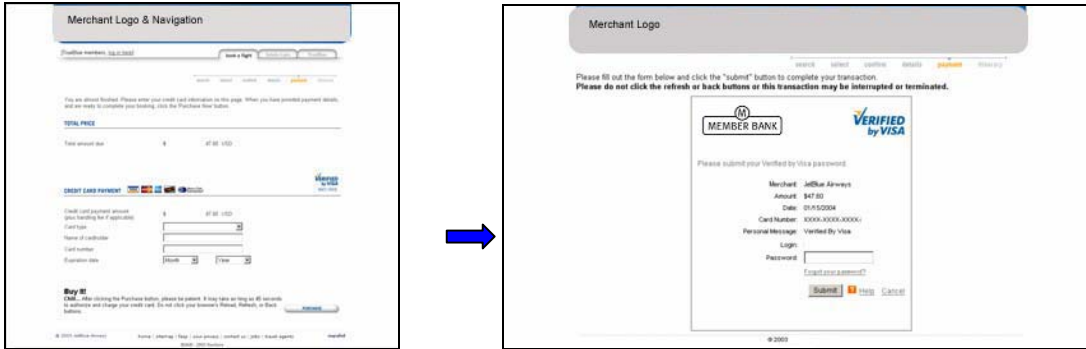
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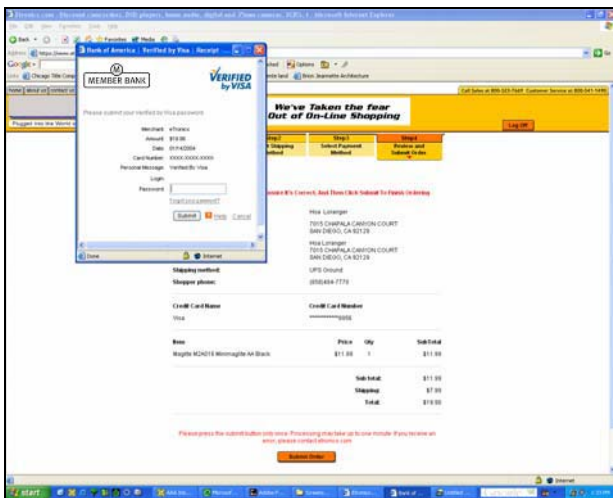
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**Frame Description:** Contains the company logo and may have some graphical treatment in the top area. The Verified by Visa content appears in the middle of the page.



**Pop-up Description:** The Verified by Visa content is contained within a Pop-up Window.



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## Overview of Findings and Recommendations

### SUMMARY OF FINDINGS

The following summarizes the main findings:

- The Frame design is an effective method of displaying the Verified by Visa authentication window. The Frame design provides a consistent look and feel across the site, which preserves the site's context. Doing so creates an integrated user experience that helps guide people through a complete process. When using this approach, the merchant should minimize the buttons and links within frame that could distract the cardholder or allow them to click to another page. It is important that when this approach is used, that the cardholder should not be presented with any links to pages outside of the check out process.
- The Inline design is also a good method of displaying Verified by Visa authentication window. The main advantage of the Inline implementation is that it's simple and eliminates the temptation for designers to include anything frivolous that might distract users from the main purpose of the page. The main downside is that it doesn't provide site context, thus possibly creating a jarring user experience. Presenting people with a completely different looking screen may cause people to wonder if they've made a mistake, left the site, or lost the data they've entered.
- The Pop-up implementation causes confusion and distrust and should be avoided.
- Pre-messaging helps prepare users for what's to come, especially since a user may not have encountered Verified by Visa previously during the checkout process.
- Pre-messages should be placed immediately next to the Submit button to create a strong visual association. People are more likely to notice and read the pre-message if they see that it's related to the action button.
- Pre-messages should be brief and only give information people need. It's not necessary to reveal the technology behind the interface; most people don't care.
- It is advantageous to place Verified by Visa logos next to the credit card entry area. The logos add credibility to the website by enhancing feelings of trust and security.

## RECOMMENDATIONS

The recommendations in this report are numbered for easy reference. This review lists 16 recommendations. Of course, it would be preferable if all of these recommendations were followed. We realize that this is not always possible due to the constraints of available budget, time, and commitment to other priorities.

Therefore, we have divided the recommendations into the following two levels:

**Essential**> We believe these recommendations must be fixed as an absolute minimum for sites to achieve a viable level of usability.

**Important**> These recommendations will contribute substantially to improving the quality of the user experience on the site. However, it would be possible to achieve a reasonably good site even if a few of the important recommendations were not followed.

“**Essential**” recommendations are listed below, and are numbered as they appear numbered in the report, so that you can find the descriptions of the usability problems that led to the recommendation.

### Essential Recommendations

Guideline Number	Guideline
<b>1</b>	Use logos, images, and graphical elements judiciously to provide site context.
<b>3</b>	Keep any messages in the Frame short, concise and related to the purpose of the screen.
<b>4</b>	Make sure messages come during the appropriate time in the signup process.
<b>5</b>	Present pre-messaging to help set proper expectations.
<b>6</b>	Keep messages free from technical jargon.
<b>7</b>	Keep pre-messages as short and concise as possible.
<b>13</b>	Provide a simple status indicator that give visual feedback that the system is processing.

“**Important**” recommendations are listed below, and are numbered as they appear numbered in the report, so that you can find the descriptions of the usability problems that led to the recommendation.

### Important Recommendations

Guideline Number	Guideline
<b>2</b>	Don't have a horizontal line separating the Frame area from the rest of the page.
<b>8</b>	Place the pre-message immediately next to the final order button.
<b>9</b>	Consider using graphical techniques to make the message more noticeable.
<b>10</b>	Consider placing the Verified by Visa logo next to the credit card entry area and other security related icons.
<b>11</b>	Make sure that the Verified by Visa logos aren't overshadowed by other elements on the page.
<b>12</b>	Have a way for people to get more information about Verified by Visa.
<b>14</b>	Provide an estimated waiting time.
<b>15</b>	Make sure the <i>Back</i> button works properly.

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## Discussion of the Presentation Formats

### **The Inline Format is simple, but can create a jarring user experience**

The main advantage of the Inline presentation is that it is simple and free from potentially distracting clutter. The blank white background creates a clean canvas, thereby keeping the users focused on the message. The main disadvantage however, is that it dumps people onto a completely different looking screen without the proper context. Encountering a screen that looks completely different to the rest of the site can create unnecessary tension that can cause distrust and doubt in Web consumers. To improve the user experience, we recommend that the merchant provide a concise pre-message immediately before check-out (ideally next to the final order button) to prepare users for what is coming (see Section 5, Pre-Messages).

### **Be wary of using the Pop-up Windows format**

Our evaluation supports Visa's plan to eliminate the use of pop-up windows. Pop-up windows are mostly perceived negatively by users and often result in disastrous usability outcomes. People often associate pop-up windows with advertisement or superfluous content that is unrelated to their immediate task at hand. They are intrusive, and startling. They make users feel that they are being advertised to, rather than informed. People often immediately close pop-ups or even worse struggle with them and lose their place on the website.

Embedding Verified by Visa in HTML-based pages is a better strategy than opening a new window of any size on top of the launching web page's window. The embedded approach prevents people from accidentally clicking outside the parent browser window and thus burying the new window underneath it. We've seen users in other studies make this error over and over again — then they can't find their way back to the parent window and conclude that they had lost their data. Also, many people don't see the application window's icon at the bottom of the screen.

User Quotes:

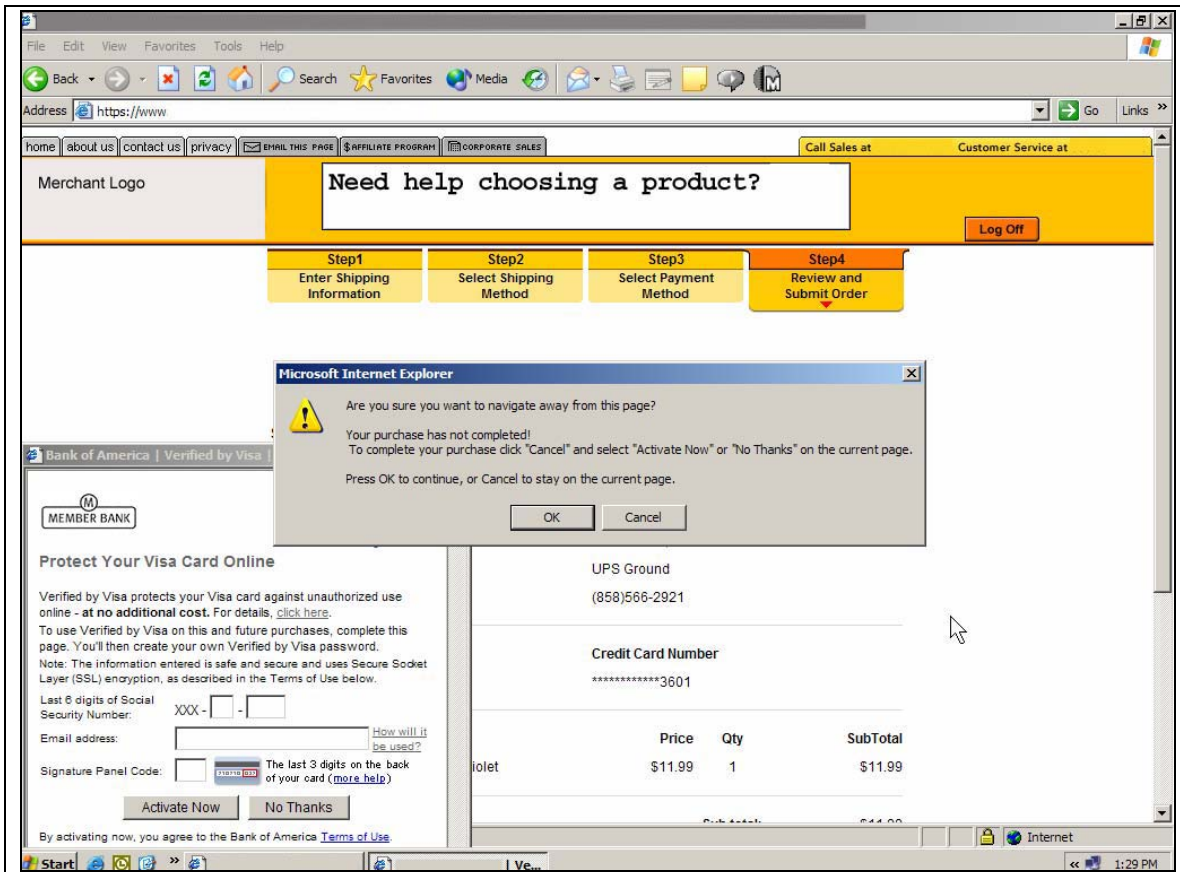
*"I hate pop-ups. They're annoying and they just get in the way."*

*"This [pop-up window] makes it appear more like a solicitation. By coming over the site I'm on, it says it's a solicitation. I automatically said 'No Thanks'."*

Several users on the next sample site (see next page) had difficulty closing the pop-up window because they were confronted with a confusing dialog box that warned them about moving away from the site. People didn't understand the message and automatically clicked cancel each time, prompting the same message to reappear over and over again.

User Quote:

*"That's irritating. I want to get rid of this pop up. It thinks I'm trying to close the page. I can't get rid of this. Now I'm going to minimize this and now it's down there...which I'm not happy about."*



Users had difficulty closing the Verified by Visa Pop-up window because they couldn't understand the message in the dialog box that appeared every time they tried to close it.

A final argument against any pop-ups is that many web browsers, plug-ins, toolbars, and other technologies block pop-ups or otherwise make them less likely to be seen by users who have installed such technologies. Pop-up blockers are getting to be more popular (because of users' negative experience with pop-ups) and will become a standard component of Internet Explorer — the most commonly used browser.

### **The Frame Method preserves context**

Of the three different ways merchants are currently displaying VBV screens (i.e. Inline, Frame, and Pop-up); the Frame implementation is the best way to preserve the user's context on the website. Having some merchant branding in the top area creates a consistent look and feel across the entire site, fostering a sense of uniformity and cohesiveness.

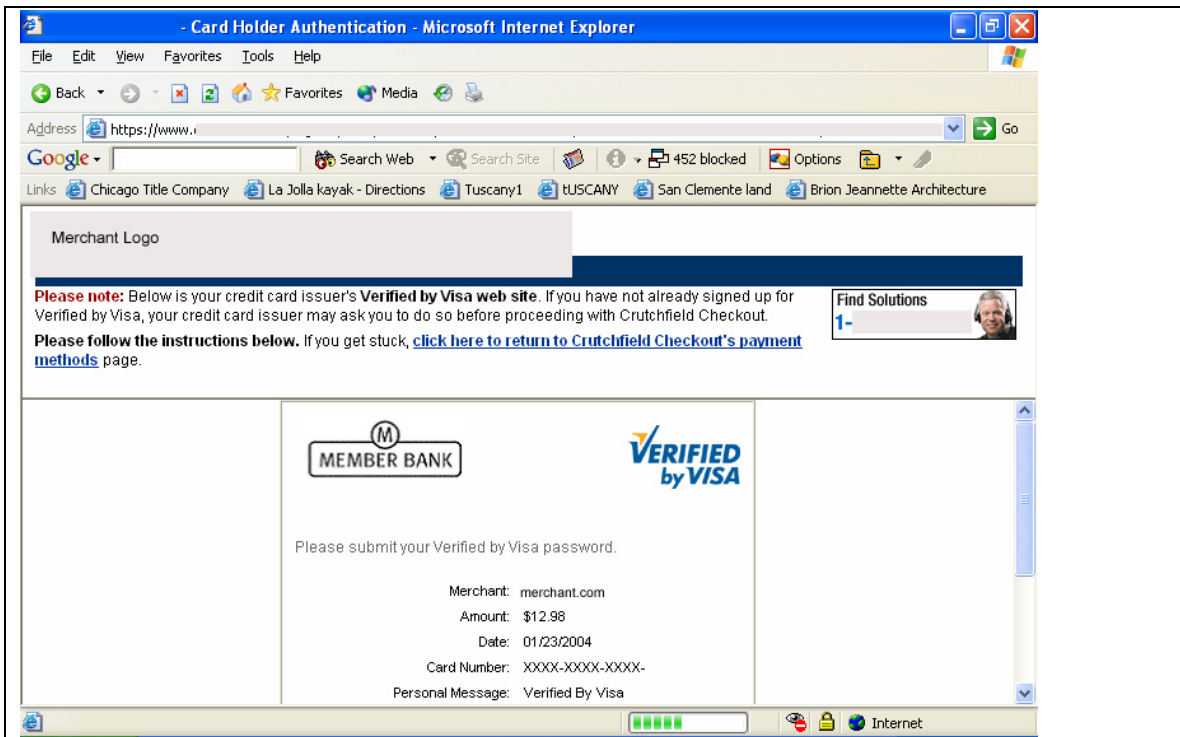
When pages look similar, people know they're still on the same site. Pages that look dramatically different are jarring and make people wonder if they're on the right page or even on the right website. Preserving context offers an integrated experience that eases people through the signup and checkout process, which is critical in minimizing abandonment.

We usually recommend against using traditional frames because of problems such as printing and bookmarking. However, in this case, it is acceptable since most people will not need to print or bookmark Verified by Visa screens — and the benefit of having some branding far outweighs the disadvantages of not having any.

Currently, some merchant sites use frames. With screen resolution at 1024x768, these sites do a good job of making the screen **not** appear like traditional frames, with several different panels and scrolling areas. However, at 800x600, the panels appear, making the page look slightly more busy than necessary. If possible, consider a way of creating the embedded look without the use of traditional frames for a cleaner and more professional appearance.

When comparing an Inline format with a Framed format a user commented:

*"This would appear to be part of the website [referring to the Frame]. The subtle difference is that if it did not have the frame, I might have a minor panic that I was bumped out...It would freak me out that I entered all this information and got bumped out."*



At 800x600 screen resolution, the page looks like a traditional frame, with a panel having its own scrolling area. This should be avoided if possible.

## Discussion of Recommended Guidelines

This section discusses the reasoning behind the guidelines and offers examples to support them.

### FRAME DESIGN

#### 1. Use logos, images, and graphical elements judiciously to provide site context. <Essential>

In general, use graphics judiciously and only when they convey information people need. Some branding is good to ensure a smooth transition between the Checkout and Verified by Visa screens. The main purpose of the logo is to provide reassurance to customers that they're on the right path. However, the design of logos should be kept to a minimal. The graphical treatment should have enough detail to preserve the site's context, but not be so elaborate that they cause distractions or take the focus away from the main body of the page. Leave out any unnecessary elements such as navigational links, text, and icons that might draw the person's attention away from the information they need to focus on.



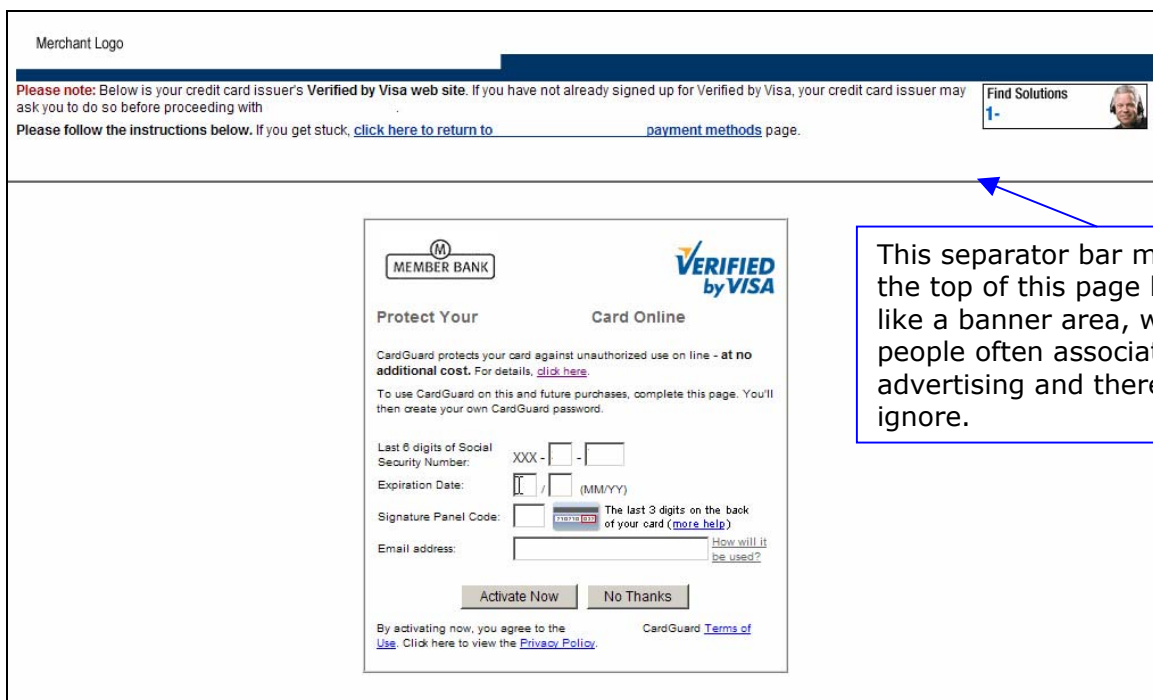
**Current Design:** Currently, the Frame area on the above site contains too many visual distractions that unnecessarily clutter the top banner area of the page.



**Suggested Design:** Removing unnecessary graphical elements reduce clutter, helping users focus on the important area below.

## 2. Don't have a horizontal line separating the Frame area from the rest of the page. <Important>

The horizontal line separates the top area from the rest of the page, causing people's eyes be drawn downward; people can easily miss any important messages that are contained in the top frame area.



**3. Keep any messages in the Frame short, concise and related to the purpose of the screen. <Essential>**

*If messages are used, make sure to leave out anything that sounds like marketing. People are constantly bombarded with marketing messages on the Web and are skeptical of offers that sound too good to be true. While in the checkout process, people are especially focused on the task at hand and tend to filter out anything that doesn't get them to their final goal. Therefore, if you're going to have any messages at all, make sure they're short and to the point*

The merchant website on the following page tries to combine too much information onto one screen resulting in a very long page that requires excessive scrolling. Combining two completely different views on the same page creates information overload. The top frame displays the itinerary summary while the bottom one shows the Verified by Visa information. It's better to separate them onto different screens so that people can process the information separately in smaller chunks. The instructions are misleading, making it appear as if signing up with Verified by Visa is required. Such a message is jarring especially at this point since people are expecting to complete their transaction.

Merchant Logo Country of Residence  
USA

Home | Contact Us | Site Index | Privacy and Legal | Cookies

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1  
Dates
2  
Flights
3  
Price
4  
Passengers
5  
Payment
6  
Confirmation

### Payment verification


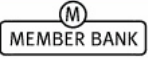
Check your itinerary details

	From / To	Flight Number	Cabin	Departing	Arriving
Outbound					
Outbound					
Inbound					
Inbound					

Passengers : Mr Total Price : \$ 4,271.00

#### Contacting your bank

- As you are enrolled in either Visa's "Verified by Visa" or MasterCard's "SecureCode" scheme, your bank requires you to verify your identity.
- Your bank's form is loading below, please enter any details that they request.
- Once your bank has confirmed your identity we will be able to complete your booking.
- When entering your details below you are communicating directly with your bank via a secure link. The information that you enter is not disclosed to
- If the form does not load, or you experience any other problems, please call


Protect Your Visa Card Online

Verified by Visa protects your Visa card against unauthorized use online at no additional cost. For details, [click here](#).

To use Verified by Visa on this and future purchases, complete this page. You'll then create your own Verified by Visa password.

Enter the cardholder's birth date:  /  /

Email address:  [How will it be used?](#)

Signature Panel Code:   The last 3 digits on the back of your card ([more help](#))

Expiration Date:  /  (MMYY)

By activating now, you agree to the Bank's Terms of Use. [Click here](#) to view the Bank's Privacy Policy.

[Start Again](#)

Home | Site Help | Company Information | Privacy and Legal | Cookies

The above site combines two different views on a single screen which causes information overload.

**4. Make sure messages come during the appropriate time in the signup process. <Essential>**

Ensure that the instructions match with the interaction flow. Pre-messages need to come right before the Verified by Visa screens are presented. Instructions that are provided out of sequence cause confusion, making people question their understanding of the sign-up process.

People on some sites were puzzled by messaging in the frame because it contained too much technical jargon and appeared in an inappropriate place during the signup process. The instructions tell people that their credit card issuer might ask them to sign up for Verified by Visa when they were already enrolled in Verified by Visa. Users kept reading this message over and over again and couldn't make sense of it. Worse, it distracted them from focusing on the main purpose of the screen, which is completing the Verified by Visa form.

A user was irritated that the instructions came too late in the sign-up process:

*"Now it tells me that if I don't sign up with Verified by Visa, I should sign up now. It tells me I have to go to Verified by Visa, it should tell me before hand....They should have told you upfront, that if you don't have Verified by Visa, I should sign up first..."*

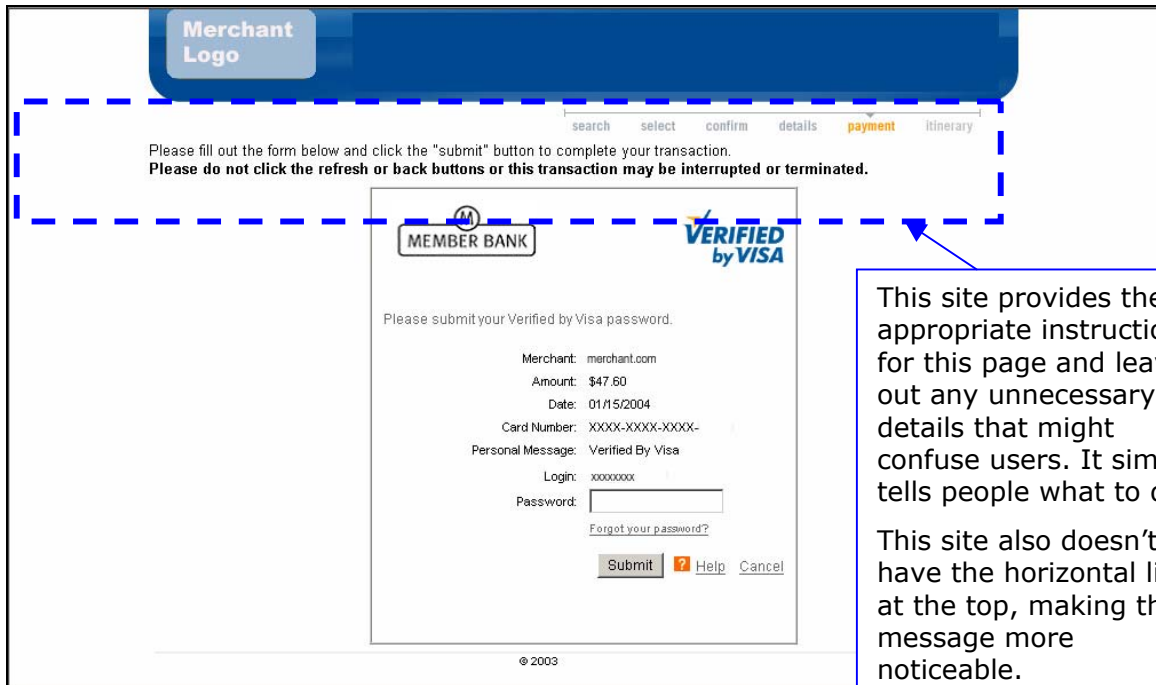
Another user read the message over three times and didn't fully understand it:

*"Argh... They are asking me to do something..."*

Another user on the second Verified by Visa sign up screen thought that the instructions were redundant because she already started signing up.

*"I do not quite understand it. I just signed up for it. It sounds redundant."*

The screenshot shows a web page for 'MEMBER BANK' with the 'VERIFIED by VISA' logo. The main heading is 'Protect Your Card Online'. Below this, there is a paragraph: 'CardGuard protects your card against unauthorized use on line - at no additional cost. For details, [click here](#).' This is followed by another paragraph: 'To use CardGuard on this and future purchases, complete this page. You'll then create your own CardGuard password.' The form contains fields for: 'Last 6 digits of Social Security Number: XXX - [ ] - [ ]', 'Expiration Date: [ ] / [ ] (MM/YY)', 'Signature Panel Code: [ ] [ ] [ ]', and 'Email address: [ ]'. At the bottom of the form are 'Activate Now' and 'No Thanks' buttons. A 'Find Solutions' button with a user icon is in the top right corner. A blue callout box highlights a message above the form: 'Please note: Below is your credit card issuer's Verified by Visa web site. If you have not already signed up for Verified by Visa, your credit card issuer may ask you to do so before proceeding with [ ]'. Below this, it says 'Please follow the instructions below. If you get stuck, [click here to return to](#) [ ] [payment methods](#) page.' A text box on the right explains: 'People on this site didn't understand what the message meant and how it applied to them. Also, the same instructions came up on different screens, which confused users because it didn't make sense in the overall flow.'



## PRE- MESSAGES

### 5. Consider pre-messaging to help set proper expectations. <Essential>

Since Verified by Visa is a new experience for many customers, consider having a concise message immediately before checkout, which will help prepare users of what's coming. When people are at the end of checkout process they strongly believe that the next screen will confirm their purchase. Seeing something different can be startling. Therefore, having a gentle message that explains what's next helps create a smoother transition and ease the tension.

User Quote:

*"I noticed that...It helps you now what's going on. It says hold on tight."*

### 6. Keep messages free from technical jargon. <Essential>

Do not expose the technical implementation of the feature. It only causes confusion and most people don't care. For example, it's not necessary to tell people that they will be taken to a different site. Rather present the information from a user perspective and explain more of what they see. Try and keep the technology as transparent as possible to users. People get confused when too much technological information is revealed.

Users view the shopping process as one continuous flow. That is, they don't differentiate between what's happening behind the scene, what server is doing, or whether they're technically on a different site. They see it as one continuous process and don't want to be bothered with what's happening in the back end.

People glossed over or misinterpreted the pre-message on the following site because it gave too much technical detail that people didn't care about. For example, rather than simply stating what they'll see next, the site talks about being taken to a different website.

The screenshot shows a checkout form with fields for Card Number, Expiration Date, and Special Messages. Below the form is a table titled 'Your order includes:' with columns for Quantity, Item Number, Description, Unit Price, and Amount. The table shows one item with a unit price of \$9.99 and an amount of \$9.99. Below the table are fields for Merchandise SubTotal (\$9.99), Shipping (\$5.99), and Order Total (\$15.98). A 'Submit Order' button is located at the bottom right. A callout box on the right side of the screenshot contains the text: 'Most people on this site either ignored the pre-message or misinterpreted it because the text was too dense and small and the message was too technical to understand.' A dashed blue box highlights a pre-message text block at the bottom left of the form, which reads: 'When you click Submit, you may be taken to the secure Verified by Visa web site for credit card verification. You will be returned to our secure checkout to complete your order when this process is complete.'

**7. Keep pre-messages as short and concise as possible.**  
**<Essential>**

Numerous studies support the notion that people scan, rather than read, online. People tend not to read word-by-word on the Web, but rather they scan for information or pick out important words or terms. This is particularly true during the checkout process where people are completely focused on completing their transaction. Therefore, it's critical to keep messages as short and concise as possible in order to have the best prospect of capturing the user's attention. People are extremely task focused and tend to gloss over by dense text, missing important information. Reduce the complexity by being concise and to the point. Don't make people read through lines of small text. It's better to be brief and direct.

Below is a suggested phrase:

**Note:** *The next screen you see may be payment card verification through Verified by Visa.*

(Bank):  
 Card Number: \*\*\*\*\*  
 Expiration Date:  
**Make Corrections**

---

**Additional Information**  
 Receive merchant emails? **No**  
 Product Advisor:  
 Catalog ID:  
 Special Messages:  
**Make Corrections**

---

**Your order includes:**

Quantity	Item Number	Description	Unit Price	Amount
1	XXXXXXX	item description	\$9.99	\$9.99
<b>Merchandise SubTotal:</b>				<b>\$9.99</b>
<b>Shipping:</b>				<b>\$5.99</b>
<b>Order Total:</b>				<b>\$15.98</b>

When you click Submit, you may be taken to the secure **Verified by Visa web site** for credit card verification. You will be returned to our secure checkout to complete your order when this process is complete.

**Submit Order**

**Current:** The long dense text makes it difficult for people to read. Therefore they ignore it and go for the more prominent and desired area, the submit button.

(Bank):  
 Card Number: \*\*\*\*\*  
 Expiration Date:  
**Make Corrections**

---

**Additional Information**  
 Receive merchant emails? **No**  
 Product Advisor:  
 Catalog ID:  
 Special Messages:  
**Make Corrections**

---

**Your order includes:**

Quantity	Item Number	Description	Unit Price	Amount
1	XXXXXX	Item description	\$9.99	\$9.99
<b>Merchandise SubTotal:</b>				<b>\$9.99</b>
<b>Shipping:</b>				<b>\$5.99</b>
<b>Order Total:</b>				<b>\$15.98</b>

**Note:** The next screen you see may be credit card verification through Verified by Visa

**Submit Order**

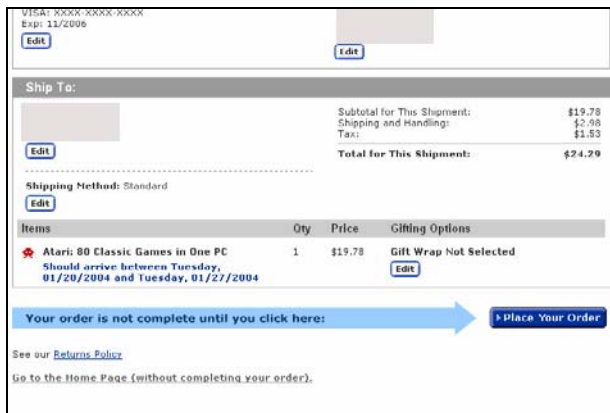
**Suggested:** This version is more concise, making it easier for people to quickly scan and understand the information.

**8. Place the pre-message immediately next to the final order button. <Important>**

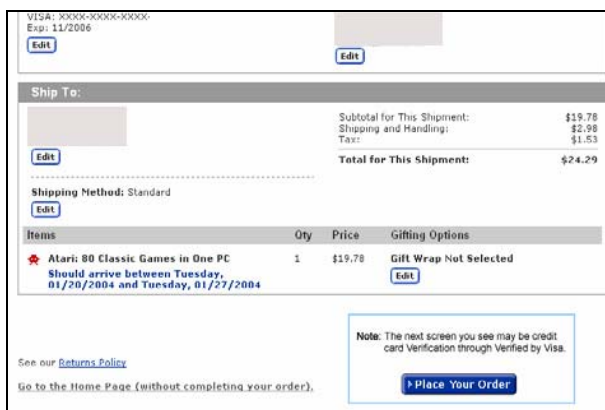
The message works best when placed immediately next to the final order button. Having the message and the button in close proximity to each other helps create a strong visual association and ties the message together with the action. When these two elements are visually close, people are more likely to notice the message and think that it's important to read it before moving on to the next step.

**9. Consider using graphical techniques to make the message more noticeable. <Important>**

Consider graphical treatments such as using large text, bolding, and color to help draw attention to the message. People are very task focused, especially at the end of the checkout process and even the most clearly written message can easily be overlooked. The checkout button is a very strong visual cue that indicates the finish line and people are extremely eager to click on it to complete their task. Also, creating a visual grouping such as drawing a box around the button and message can also help tie these two elements together.



**Current design:** The above site doesn't have any pre-messages.



**Suggested Design:** The blue box groups the pre-message and *Order* button together, drawing people's attention to both elements.

## VERIFIED BY VISA LOGOS

### 10. Consider placing the Verified by Visa logo next to the payment card entry area and other security related icons. <Important>

Having the Verified by Visa logo next to the payment card entry fields serves as a way to reassure customers that the company is concerned about security issues, which is comforting to users.

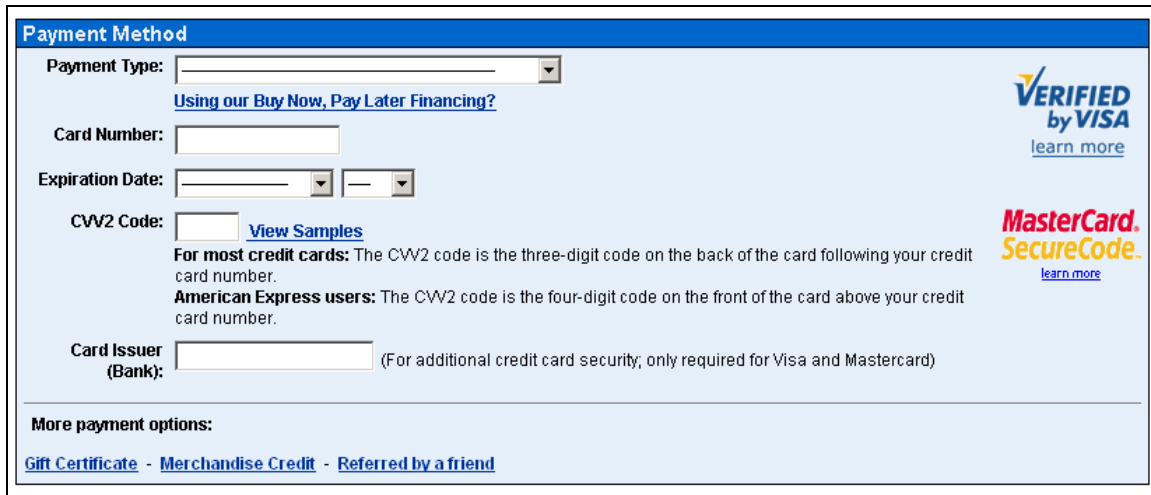
While most people didn't click on the logo to sign up or learn more, many people felt that it boosted the site's credibility and furthered people's trust in the company. Also, the logo shows that site is a participating in Verified by Visa, which is especially helpful for those who are specifically looking for it, or have already signed up.

User Quotes:

*"It's for security--That your information is not going out into cyberspace."*

*"I noticed them and it registered subconsciously. It's surely a secure website."*

*"I noticed the MasterCard and then Visa. My eyes went to the red first. I've seen it before. It tells me that it's a secure site."*



The screenshot shows a 'Payment Method' form with the following fields and elements:

- Payment Type:** A dropdown menu with a link below it: [Using our Buy Now, Pay Later Financing?](#)
- Card Number:** A text input field.
- Expiration Date:** Two dropdown menus for month and year.
- CVV2 Code:** A text input field with a link: [View Samples](#).
- Card Issuer (Bank):** A text input field with a note: (For additional credit card security; only required for Visa and Mastercard).

Logos and links are positioned to the right of the form:

- VERIFIED by VISA** logo with a [learn more](#) link.
- MasterCard SecureCode** logo with a [learn more](#) link.

At the bottom, there is a section for **More payment options:** with links for [Gift Certificate](#), [Merchandise Credit](#), and [Referred by a friend](#).


The above site does a good job of displaying the payment card logos in the appropriate place, next to the payment method entry fields. Although this design works, the visual association would be stronger if the logos were placed slightly closer to the fields.

**11. Make sure that the Verified by Visa logos aren't overshadowed by other elements on the page.**  
**<Important>**

People are more likely to notice logos if they are free from other visual clutter. For example, two sites below both have logos next to the payment card fields. However, users are more likely to notice the logos on the second site because it stands alone, free from other competing elements. The first site, however, has several different icons grouped together with dense red text on top and bottom. Presentations like this overwhelm users and reduce the likelihood that any of the information will be noticed or read.

The screenshot shows a payment form titled "3 Enter Payment Information:". On the right side, there is a red warning message: "DEBIT/CHECK CARD USERS: Please click here to read this important notice before completing your transaction." The form is divided into two main sections. The left section contains input fields for "Credit Card Type" (with radio buttons for Discover, VISA, MasterCard, DISCOVER, and American Express), "Select Credit Card" (with a dropdown menu for "Add New Credit Card"), "Name on Credit Card", "Credit Card Number", "Expiration Date" (with "Month" and "Year" dropdowns), a "Save changes" checkbox, "Card Identification Number (CIN)", and "Re-Enter your CIN". Below these fields are links for "How to locate your Card Identification Number" and "Payment Plan", with a link to "Payment Plan Terms and Legal Agreements". The right section features a "VeriSign Secure Site" logo with a "click to verify" button, a "VERIFIED by VISA" logo with a "learn more" link, and the "CyberSource" logo with the tagline "the power behind the buy button". Below the logos is a paragraph of red text: "Clicking the 'Finish Checkout' button below begins the authorization and verification process. Please wait patiently and DO NOT hit the 'Finish Checkout' button again. This will avoid any disruption to your order's processing. Thank you for shopping at". At the bottom of this section is a "FINISH CHECKOUT" button.

The close placement of the Verified by Visa learn more logo with the other icons and heavy red copy on this site creates a busy screen.



Select Another Address ▾

Select Another Address ▾

Product	In Stock	Qty.	Price	Total
	No	1	\$30.00	\$30.00

Subtotal: \$30.00

Tax: \$2.33

Shipping & Handling: \$11.18

Standard Shipping

**Total Due: \$43.51**

**Shipping Method**

[Shipping FAQs](#)  
(Please note that this may change your final total.)

- Standard Shipping \$11.18
- Second Day Afternoon Delivery \$15.99
- Next Day Afternoon Delivery \$30.82
- Next Day Morning Delivery \$34.27

**Payment Method**

**Choose Billing Type**

▼ Visa

**Credit Card Number**

**Name On Credit Card**

**Expiration Date**

▼ 11

/

▼ 2006

By ordering products on this Site, you are agreeing to the [Terms and Conditions](#) and [Return Policy](#) of this Site.

**Complete Order**

This site does a good job of placing the Verified by Visa learn more logo on the left-side panel so that it's unobtrusive yet prominent enough to be noticeable. The smaller Verified by Visa activate now logo in the bottom however, while placed in a relevant place, is too small to read.

Home

Checkout

Merchant Logo

Logon - **Payment** - Shipping - Confirmation

**Payment Information**

Please ensure the billing address information is as it appears on your credit card statement. We are unable to accept internationally issued credit cards. (Required information in bold)

**Choose Billing Type**  
 Visa

**Credit Card Number**

**VERIFIED by VISA** Protection when you buy online. >>Activate now.

**Name On Credit Card**

**Expiration Date**  
 1 / 2004

**Billing Information**

**First Name**

**Address**

**City**

**Zip Code**

**Company Name**

**Fax Number**  
 (e.g. 888-555-1212)

**Last Name**

**Address 2**

**State**  
 Select State/Province

**Billing Phone**  
 (e.g. 888-555-1212)  
 Company Phone  
 (e.g. 888-555-1212)

**Shipping Information**

If your shipping information differs from your bill to information, your order may be delayed for verification. Due to shipper restrictions, we cannot deliver to P.O. Boxes, APO/FPO, U.S. Territories or international addresses. For additional information, please see the [Shipping FAQs](#).

Click here to use Billing Address.

**Newsletter Information**

Yes, I would like to be contacted about information, news, and special buying opportunities.

[continue checkout](#)

The above site places the Verified by Visa activate now logo in the right area, but the logo needs to be larger in order to optimize readability.

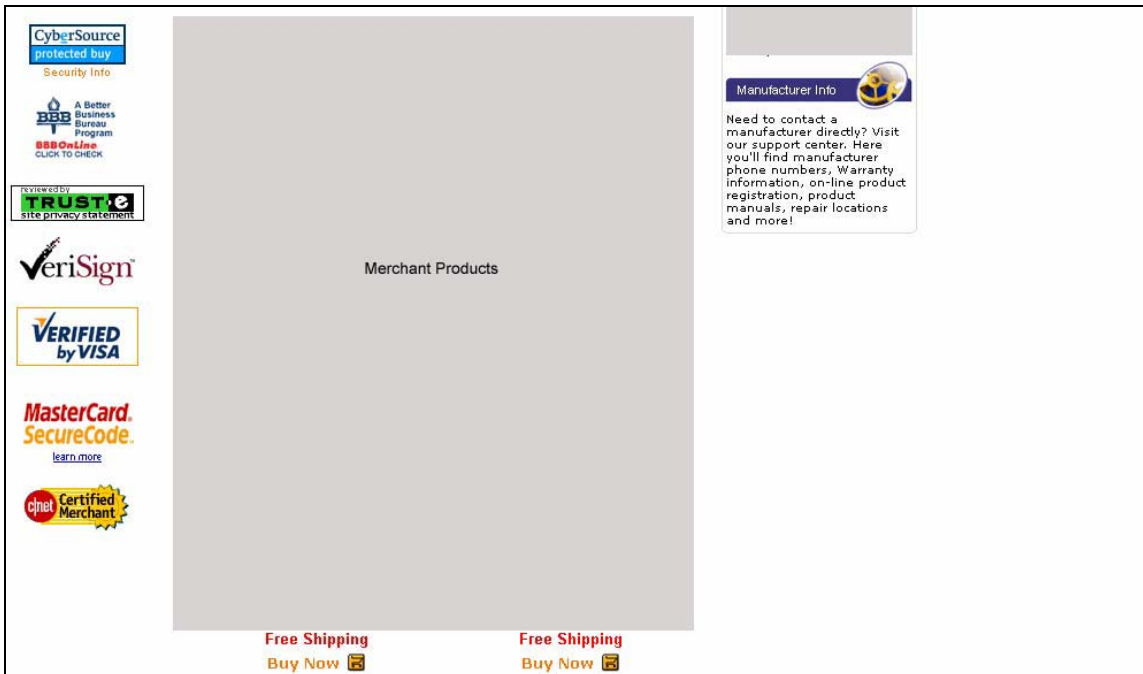
## 12. Have a way for people to get more information about Verified by Visa. <Important>

Make sure that there's any easy way for people to learn more about Verified by Visa by providing a link to more information. Having the logo alone doesn't give people enough information or a way to sign up.

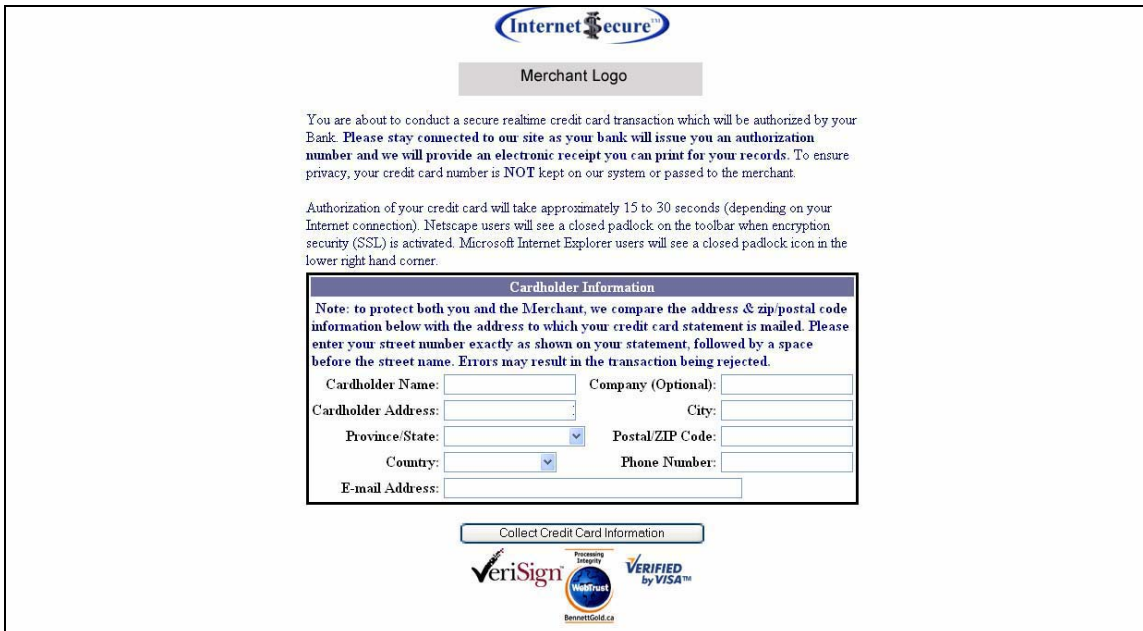
Logos that had "Learn More" links were viewed more favorably than those that didn't have any links at all.

User Quotes:

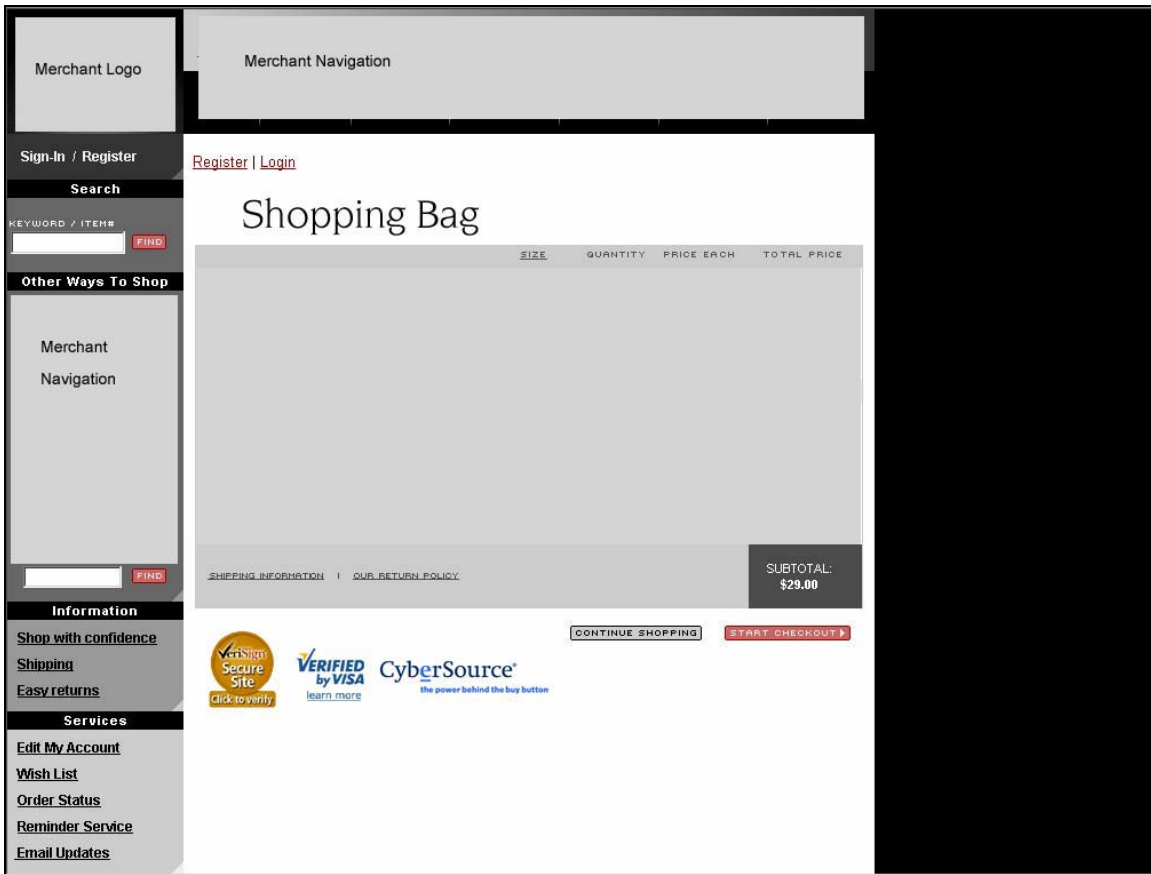
*"Learn More—good choice of words. There's something about it. It sounds intelligent but not condescending."*



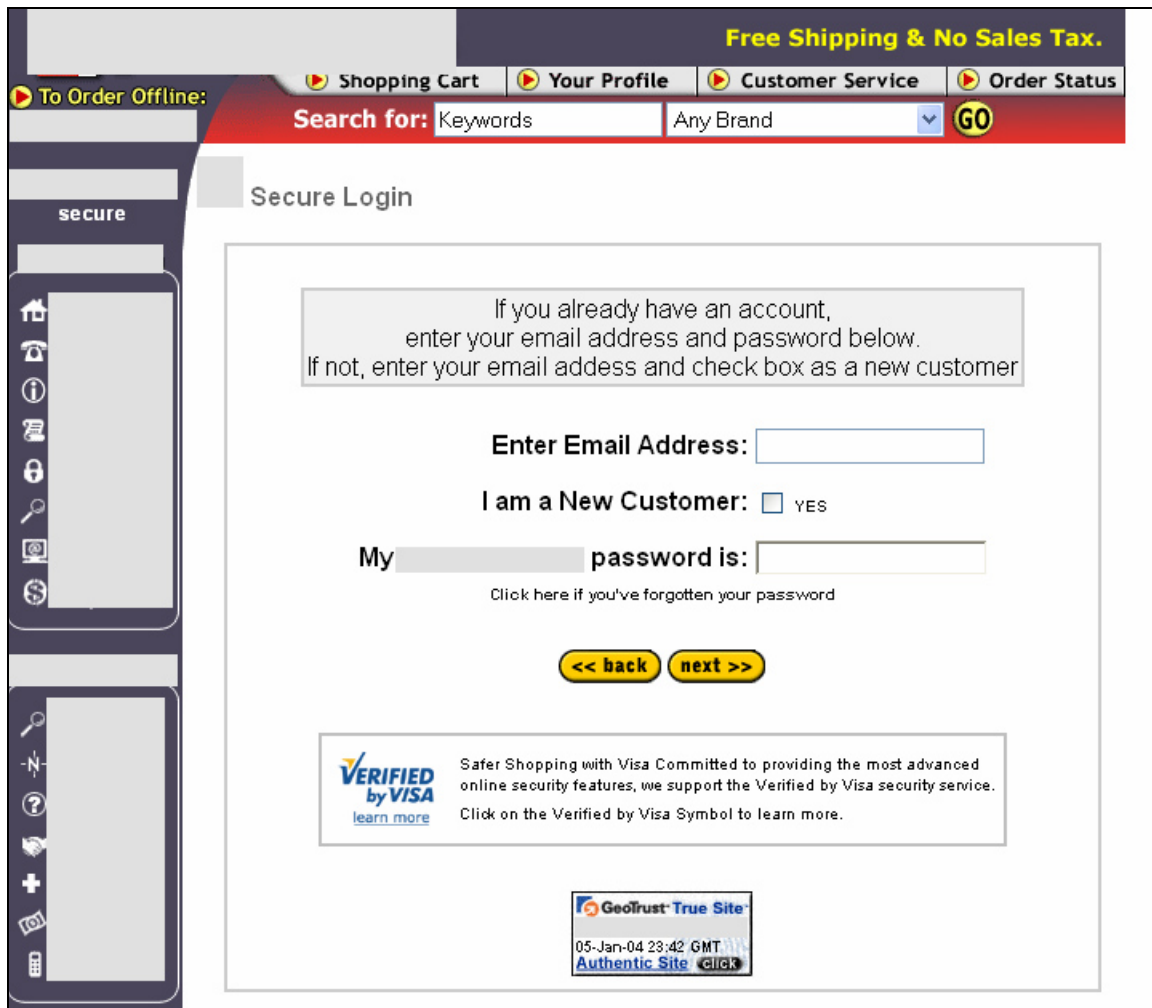
This site properly places the Verified by Visa logo next to other security related icons. However, there isn't an easy way to learn more about the program.



Similarly, this site doesn't provide a link to Verified by Visa "Learn More". Also, the logos at the bottom of this screen are too close together which makes the Verified by Visa logo blur in the user's visual field. Inserting a small space between the logos would help without adding clutter or confusion.



The *Learn More* link on this site gives people an easy way to get more information.



This site goes the extra step of explaining what Verified by Visa is and how it relates to them. While not necessary for sites that don't have much space on their pages, this type of explanation can be helpful for sites that have an uncluttered screen available that doesn't become cluttered by adding this information.

## STATUS INDICATORS

### 13. Provide a simple status indicator that give visual feedback that the system is processing. <Essential>

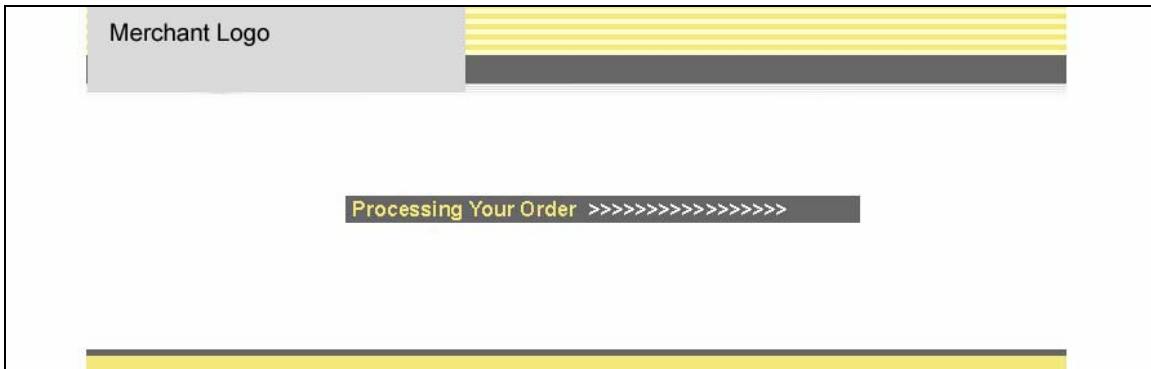
Let people know that the system is running by providing a processing indicator that has a simple movement. Something like dots from left to right is enough to let people know that something is working in the background. Static processing screens confuse users because it's difficult to tell whether the system is working or frozen. People tend to be more impatient when there isn't any visual feedback and often click Back, Cancel, Refresh or close the browser window, which usually disrupts their purchase.

**14. Provide an estimated waiting time. <Important>**

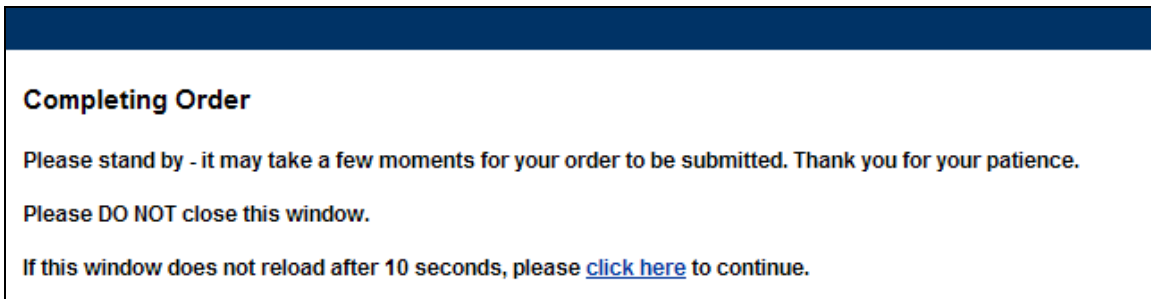
People are more likely to patiently wait if they have an expected waiting time. Even if you don't know an exact time, it's still helpful to give people a general sense of how long they should wait. For example, people want to know if it is going to be a few seconds, or minutes. Also, it's helpful to give a gentle warning if any unintentional action could disrupt the processing of their order. Consider saying something like:

*Processing...[ moving dots]*

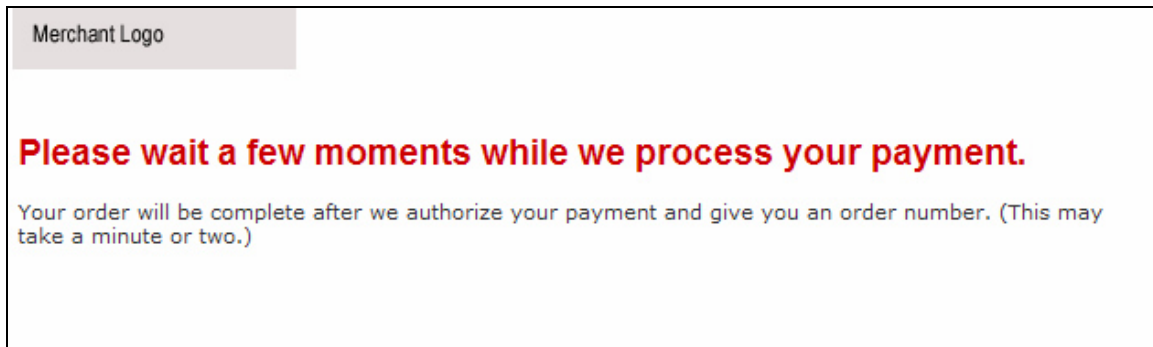
*It may take a few seconds. Please do not click the Refresh or Back button or this transaction may be interrupted or terminated.*



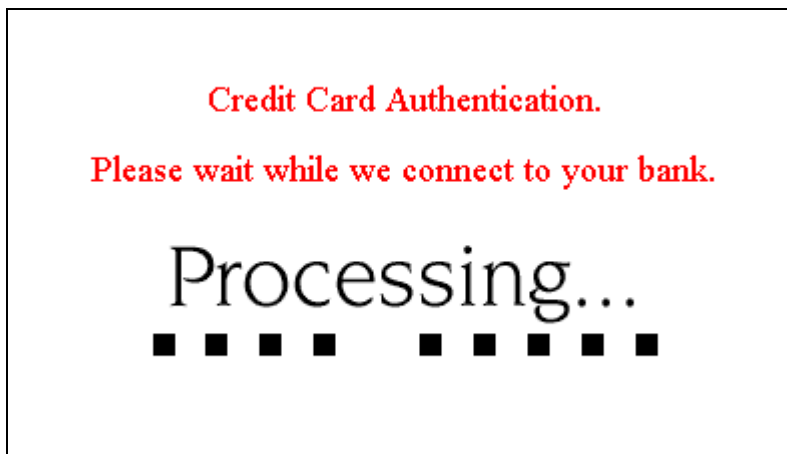
This site (above) does a good job of keeping their design simple. However, it would be even better to give feedback on the expected waiting time and any other waiting instructions.



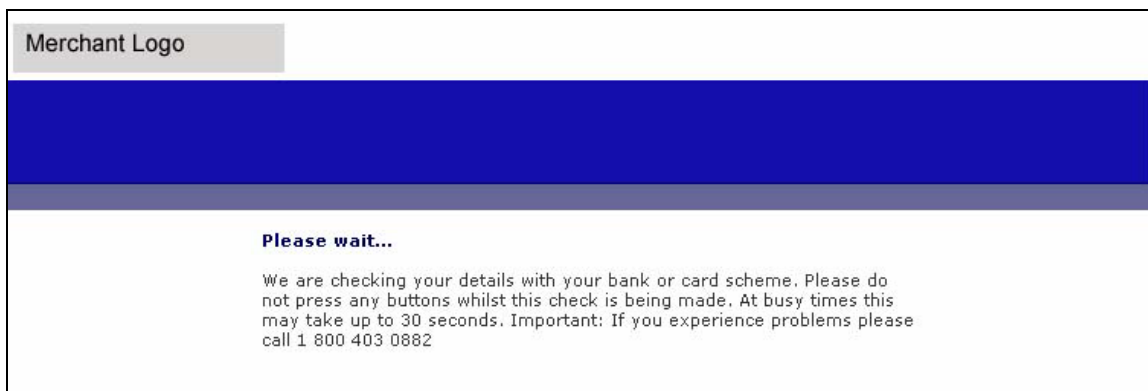
This site (above) could be improved with a simple moving element to show that the system is still working and not frozen.



This site (above) needs a visual feedback mechanism to show that the system is still functioning.



This site (above) gives away too much detail about where the system is connecting. This is especially confusing for people who don't make the distinction between their bank and credit card company.



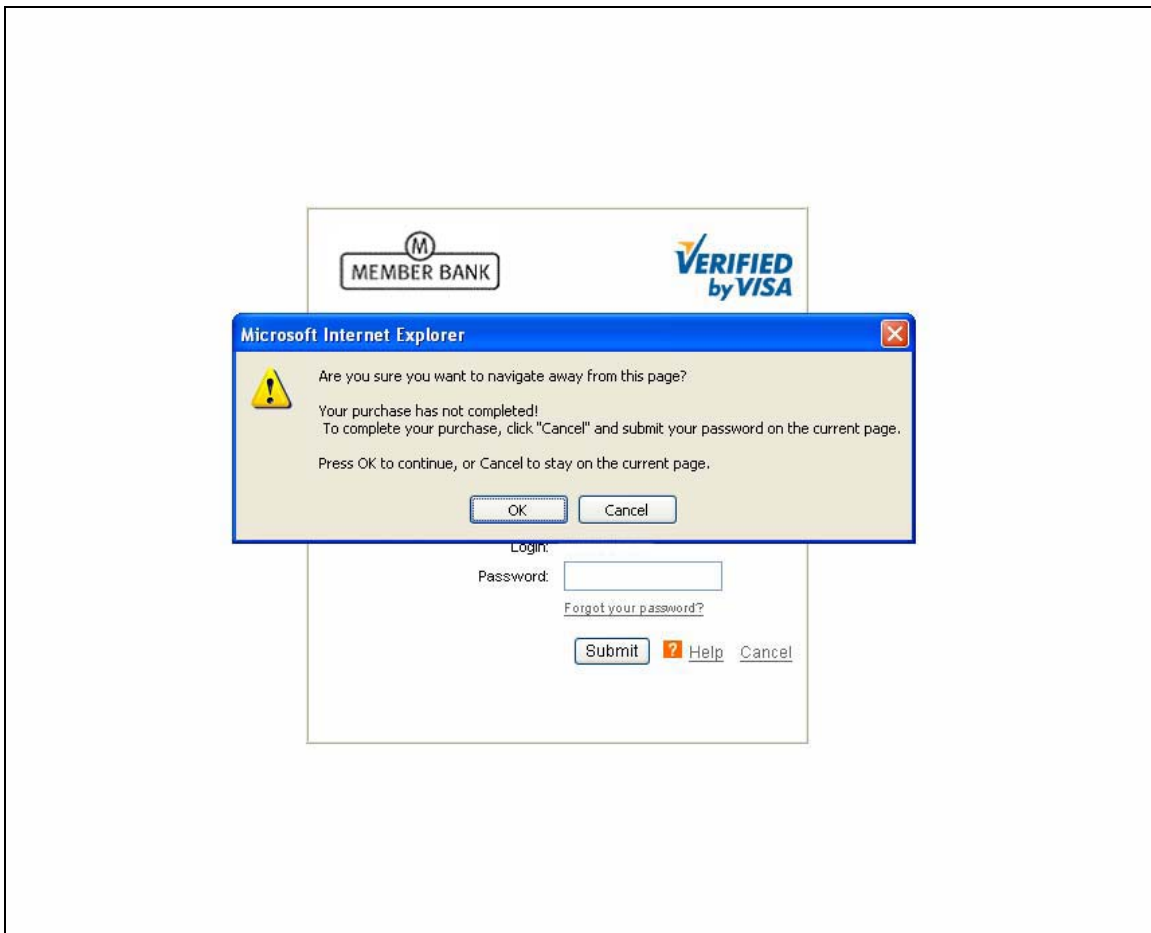
This site (above) could be improved by having an indicator. Also, the message is too wordy, making it difficult for people to quickly scan and understand it. Note, however, that it is good to provide an estimated waiting time (30 seconds).

## MISCELLANEOUS

### 15. Make sure the *Back* button works properly. <Important>

The *Back* button is the lifeline of Web users and the second-most used navigation feature (after following hypertext links). Users depend on the back button to return them to familiar territory. If possible, make the back button work the way people expect.

The Back button on many of the websites we evaluated didn't work properly. Once on the Verified by Visa screen, clicking the back button produced unexpected results. For many sites, clicking the back button brings up an unexpected and confusing dialog box. Then once the dialog box is closed, an expired warning page appears. Finally clicking the Back button many more times brings back the shopping cart where people will have to log back in. Clicking *Back* some sites didn't do anything at all.



Many sites didn't have back buttons that worked properly. Clicking *Back* opens up a confusing dialog box. Then an expired message appears once the dialog box is closed.

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# Evaluation Methodology

## OVERVIEW

The analysis for this evaluation consisted of three different parts:

### Part 1: Design Review

We conducted an independent usability visual inspection of 20 different merchant websites to evaluate the ways Verified by Visa was implemented on each of them.

### Part 2: User Testing

We conducted user tests using the thinking aloud protocol. We gave participants tasks to perform, mainly purchasing products online. The facilitator sat next to the user and observed, listened, and took notes as the participant attempted tasks on selected websites. Participants were encouraged to talk about their rationales, strategies and questions as they performed the tasks.

### Part 3: Creating and Testing Paper Prototypes

The data obtained from user testing in Part 2 was used to inform the third part of our study. Paper mock-ups were created to fine-tune new ideas, assumptions, and screen flow.

## PARTICIPANTS

A total of 12 people participated in this study. All of the participants were Internet users, ranging from novice to experience. We screened out any participants who were "technical experts," such as IT personnel, programmers, or Web or software designers, since they have expert knowledge in using the Web.

The main requirements were:

- They must have purchased products online using a credit card.
- Must have at least 1 year experience with using the Web.
- For the online test, participants must have Visa cards and be willing to use them to purchase products online.

There were 4 male and 8 female participants. The table below shows participants by age group.

Age Group	20-30	30-40	40-50	50-60	Over 60
Number of Participants	1	3	3	2	3

The following is a partial list of participants' occupations:

- Travel Agent
- Office Manager
- Administrative Assistant
- Facilities Manager
- Banker
- Systems Analyst
- Student