

# The Relation of Usability and Branding of a Financial Website

## An Integration of Qualitative and Quantitative Methods

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**Abstract.** We conducted a usability and branding study for a financial web-site. The aims of the study were to evaluate the usability of the web-site, and to evaluate the influence of the web-site on the image of the company. Image test design followed a pre-post-design ratio. Attitudes were indexed with two different measurements. Mind mapping for assessing individual constructs and indexing explicit attitudes and the Implicit Association Test (IAT, Greenwald, 1989) to index the influence on implicit attitudes. Usability was measured with a scenario based testing of the web-site. The subjects should fulfill certain tasks and think aloud. They had to rate their subjective feeling of how good they managed the tasks. The experimenter rated the quality of completing the tasks as well. After the site testing subjects got a questionnaire with usability questions. Main results demonstrate the need of a multi-method approach in investigating the image of a brand.

## 1 Introduction

During the last years traditional banking had to face a dramatic change. More and more customers choose the option of online-banking from home than going to the actual counter them self. That means that the appearance of a financial company and its own presentation on a web-site becomes more important in terms of customer binding and acceptance than ever before. One factor of the general acceptance of a web-site is based on its usability. In this study we did not only focus on usability in terms of „ease of use“, moreover, we raised the question what impact the web-site design might have on the image of the brand. The main question was therefore, how does the interaction with a web site influence the image of the brand?

## **2 Methodology**

### **2.1 Subjects**

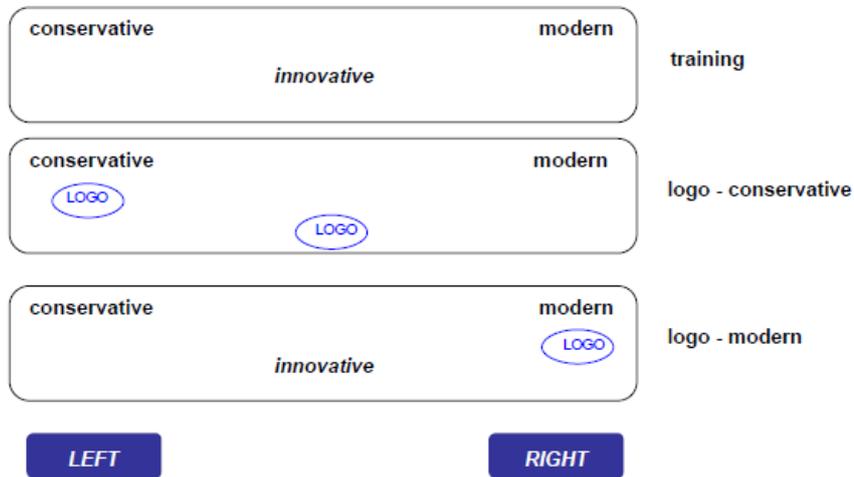
Ten participants took part in this study. Five out of ten were customers of the company. Participants had to fill in a questionnaire concerning personal data including pre-experience in financial questions, internet experience, education and so on. All together we can state that the participants were well educated (9 had a university degree) and well experienced with computers and internet (daily use). All of them described their knowledge about stocks and funds as good.

### **2.2 Procedure**

To measure the image of the company we used a pre-post-test design. We started with the image-pretesting using a Mind Mapping procedure as an explicit index of attitudes and the Implicit Association Test (IAT) as an implicit measurement of attitudes towards the web-site of the company. Mind Mapping describes a procedure which enables the experimenter to find out about an individual construct a participant creates towards a company. Our participants were asked to write down all their associations concerning the brand on little paper cards. Afterwards they had to put them in an individually chosen order around the logo of the company. The Mind Mapping procedure reveals a highly intentional and controlled judgment of the brand and therefore, it represents an explicit index of attitudes.

As a second method to investigate the image of the brand the Implicit Association Test was used. Implicit associations can be understood as automatic and unconscious information processing by the low level channels of the brain. Stimuli of the environment receive a fast and pre-attentive processing which is the basis of further attending. These kind of processes reflect our first impression we have of our surroundings, people or the web-site of a company. Metaphorically spoken, one might argue, that decisions made up on implicit associations are based on our intuitions.

The IAT-method is based on two general dimensions. An evaluation dimension and a target dimension. The target dimension contained the logo of the company which had to be assessed in terms of three evaluation dimensions (table 1) included in this study. Figure 1 shows a sample of the IAT-procedure.



**Fig. 1.** Example of an IAT-session using the evaluation dimension „conservative vs. modern“. In a training session words appeared in the lower middle of the screen and had to be categorized whether they described a more conservative term (left button) or a modern term (right button). In the first experimental trial words as well as the logo of the company could appear in the lower middle of the screen. The logo was combined with the response button of the conservative words (left). That means in addition to conservative words the left button had to be pressed in response to the logo. In a second experimental trial the response to the logo was combined with the response button for modern word (right). In both sessions reaction times were measured. The mean reaction times were afterwards compared with each other. The difference described the implicit association of the brand in terms of the evaluation dimension. In this presentation a dummy-logo is used because we were not allowed to insert the logo of the investigated company.

1	conservative / modern	outdated, yesterdays, obsolete, old contemporary, innovative, up to date, trend
2	self / others	i, myself, self, mine foreign, others, they, those
3	success / failure	open, nice, pretty, healthy dumb, evil, ugly, dirty

**Fig. 2.** Table 1. Evaluation dimensions and wordlists used in the IAT.

All participants performed on the Mind Mapping Test and the IAT in the image pre-test session. This was followed by the usability testing in which participants had to explore the websites of the company in solving 13 user tasks. These tasks were designed to investigate the content of the web-sites. Examples were finding an appropriate investment fund, getting informed about financial questions, job offers, help functions and so on. Participants were video taped and asked to report their thoughts and impressions (thinking aloud protocols). After each task they had to rate on a five point

scale how well they performed on it (1-very well ... 5 very bad). The experimenter rated the quality of completing the tasks as well. This took all together 40-60 minutes. A post-image testing took place after this session, involving the same experimental design of the IAT as before. In terms of the created mind map (cards in distance to the logo) participants got the chance to change positions or add new cards with associations. In addition participants had to fill in an explicit usability and image questionnaire (Usability@Metrics).

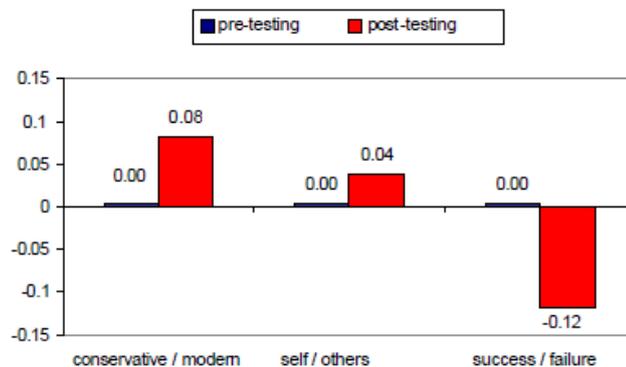
### 3 Results

#### 3.1 Usability

Because our main focus involved the question about a potential change of the image after dealing with the website, only general usability results are reported. Participants described their performance on the tasks generally as good. They gave positive feedback about the “look and feel” of the sites. Usability problems occurred when they had to deal with the “deeper” content. Participants reported difficulties when looking for specific funds or stocks. Especially topics concerning the potency of the company (funds, stocks, financial questions) lead to increased usability problems.

#### 3.2 Image

In the pre-test the method of Mind Mapping revealed three main dimensions that people associated with the brand: A strong connection to the mother company, seriousness and safety, performance and potency of the company. In the post-test four participants took the opportunity to change their original map into the direction of more innovation. In addition, four testers put more value on autonomy and independence of the mother company. Only two testers reduced the potency of the company. As stated above the IAT measures more the implicit associations. Figure 2 shows the result of the IAT in dependence of the three evaluation dimensions in the pre- and post-test session.



**Fig. 3.** Results of the IAT in the pre- and post-testing. The chart shows the z-transformed differences in reaction times between the categorization tasks for each evaluation dimension. Positive scores indicate the availability of positive parts of the concept.

The results clearly demonstrate that participants did not have any implicit and automatic associations regarding the brand before dealing with the web-sites. Therefore, it can be concluded that participants do not have an established visual binding towards the brand. In the post-testing session, results indicate a slight shift in the direction “modern” and a tendency towards the own self concept. A more strong effect is revealed in the dimension “success / failure”. After performing the usability tasks participants seem to have more implicit associations in the direction of reduced potency of the brand.

## 4 Discussion

The aim of this study was to demonstrate how the usability and the image of a brand are interconnected. We used a web-site of a financial company to elaborate this question. Image was tested with two different methods. The Mind Mapping procedure representing an explicit index of attitudes and the Implicit Association Test (IAT) representing an implicit index. Whereas the Mind Mapping procedure is a controlled and intentional process of presenting attitudes and opinions, the IAT is an unbiased method which allows to show attitudes beyond the so called “cognitive scissor”. The results are quite interesting in terms of these two approaches.

The main result of the Mind Mapping procedure in the pre-post-test design is an intentional positive change in attitudes towards the brand in terms of more innovation and more autonomy. Only two out of ten participants reduce the experienced potency of the company after using the web-sites. On the other hand, the usability tests show significant problems of participants performing on sites containing financial information (stocks, funds), a topic which actually defines the strength and the power of a financial company.

The results of the IAT make the connection between usability and image of a brand more evident. After participants showed no specific representations of the brand in the pre-test, results of the posttest also demonstrate a positive change of the implicit associations of participants following the use of the web-sites in direction “modern”. We argue, that this might be based on the generally positive judgment of the participants in terms of the usability dimension “look and feel”. The usability problems experienced in dealing with the “serious” contents of the financial sites (stocks, funds) reflect the drastically decrease in the associated potency and power of the brand (see figure 2). Although, participants did not show this directly in the “open” Mind Mapping method, the results of the IAT support this argumentation.

The question now, why participants did not report the decrease in potency of the brand while implicitly having such associations, is one that can not be answered within the frame of this study. One assumption could be that a controlled and intended behavior is much more complex than a simple implicit, automatic association. Implicit means in this term that participants don’t have (yet) cognitive access to these repre-

sentations which in fact predict future behavior. Nevertheless, the study provides clear evidence of the importance of a multi-method approach investigating the image of a brand. Only the use of an implicit and explicit index of attitudes allowed us to get a more differentiated view on the complexity of the connection between the usability of a website and the image of a brand.

Based on the results presented in this study we would assume that although innovation, autonomy and self concept go congruent with a general satisfaction, but that the critical factor underlying the intention of buying a product (in our case a fund) is related with the anticipated and associated strength and potency of the brand. Moreover, this associated potency is directly related to usability.