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The Role of Design Elements and Aesthetics on Perceived Trustworthiness of a Mobile Application

The aim of this research is to find any possible effects of design elements, such as shapes of the items, used methods for displays and overall design aesthetics on the users' perception of the trust to a mobile application or mobile web site.

Gained results and insight from this study will be very important for several kinds of mobile applications. For example, m-commerce applications are always trying to persuade their users to spend their money and the effect of trust is tremendous on this kind of applications. A small increase on the trust level may increase the revenue in great amounts. Moreover, an enterprise application can also benefit from the increase on users' trust. It is known that the experience of the platform will determine whether the user stay and shops or leave. (Jiang, 2003) Apart from these examples, every other application, event though the immediate purpose of the application is not commercial, can use the results of this research to increase the user satisfaction rates.

As a result of the proposed research, empirical data on measured effects of certain elements and colors on the trust rates of users will be collected and any correlation between design paradigms and the trust rates will be learnt from the collected data.

In order to perform this research three different types of data will be collected. First of them will be the users' trust rating to the given application page. This data will be a rating between 1 and 10 that will indicate the trust rate of the user according to the given scenario. The second type of data that will be collected is the comparison result of different design elements. In order to collect this data only a small section of the page will be changed while the remaining is untouched. And the final type of data will be situational questions, which will ask the user to perform task that needs a certain level of trust, such as buying an item from the application. This data will show the effects of design elements and aesthetics on the perceived trust of the application.

Data for this research will be collected by user tests. In order to test the effects of individual design elements, methodologies, colors and overall design aesthetics, many variations of mobile application pages will be prepared. According to the type of the data that will be collected, three different kinds of tests will be conducted. Data collection from these test will be similar to a digital

survey, where the users will be faced with different situations and they will be asked to rate the given pages for the context.

Literature Review

There are a lot of studies on trust of individuals and the effects of cognitive elements on their trust. Doney and Cannon(1997) states that the trust is the perception of credibility and benevolence and several other studies on website and mobile application trust bases on this idea.

There are similar studies that are trying to increase the trust rate of mobile applications. Most of these studies focus on m-commerce application. A research shows the effects of design elements on perceived easy of use. (Cyr, 2006) It is seen on that research that the perceived easy of use also effects the perceived usefulness and these rates correlate with the loyalty of the users.

Another study show the effects of usefulness and ease of usage on the perceived trust on m-commerce domain. (Li, 2010) This study shows that design aesthetics can improve the trust of users on an m-commerce application.

Moreover, another study shows that the replacement of a single design element, grid, with another design element list affects the trustworthiness of a mobile application.(Kammerer, 2014) This study will take this study as a proof of concept and try to expand its results for common uses. Furthermore, it can be seen that the research on this area mostly focuses on m-commerce applications. This research will fill the gap on the literature by focusing on the design elements instead of selling rates and the result of this study can be applied to various different types of applications.

Research Methodology

Participants of this research will be ordinary smartphone or tablet pc users. Having no limit on the age of the participants, it is expected that the average age will be around 25. In order to participate this research, individuals will be required to have any mentioned device with them.

As a pilot study, the offered user tests will be performed as supervised tests on a test environment. This pilot phase is planned to be performed to five individuals to understand the effectiveness of the given situations and detect any possible directions other than changed design elements.

After the completion of the pilot study, a mobile based survey system will be implemented and selected test users will be asked to perform the tests on their smartphones or tablet devices. This will also demonstrate the effect of the sizes and the usability of the given design elements.

The main possible error on the collected data may be the effects of items, such as used images for simulation purposes. Any item images or any person photograph may effect the trustworthiness of the seen page because of the previous experiences of test users. This situation will pollute the collected data and so as to reduce the possibility of this phenomenon natural images or placeholders are going to be used as much as possible.

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