

Chapter 6 Conclusions

6.1 Summary of Results

The purpose of this study was to investigate the impact of cognitive styles and different devices on performance of using shopping web site. Four different cognitive styles, Wholist-Verbal, Wholist-Imager, Analytic-Verbal, and Analytic-Imager dimensions have been studied. A conceptual model is developed to represent the relationship between the browsing performance of the participants from a specific cognitive style and different devices.

The results are summarized as follows:

- The Wholist participants using computer were less disoriented than the analytic participants using computers. The Imager participants using computer conducted fewer errors than the Verbal participants using computers.
- The Analytic participants using handheld devices conducted fewer errors than the Wholist participants using handheld devices. The Analytic participants using handheld devices conducted fewer total steps than the Wholist participants using handheld devices.
- Regarding the browsing tools, it was found that the Wholist participants were inclined to use sitemap most frequently both in the computer xperiment and the

handheld experiment.

- Both with computers and with handheld devices, the fewest participants used the key word search. Sitemap is the most crucial tool for the Wholist participants to browse or search on shopping websites. The drop down menu is a prevalent searching tool among all participants, by which they can minimize the searching range instead of using keyword directly especially with handheld devices.
- The Analytic participants made fewer errors than the Wholist participants when booking using computer on shopping websites. The Verbal participants spent less time than the Imager participants when searching using computer on shopping websites. While the imager participants spent less time than purchasing when using computer on shopping websites.
- The Analytic participants spent less time than the Wholist participants when searching using handheld device on shopping websites .The Wholist participants were inclined to make fewer errors than the Analytic participants when booking using handheld device on shopping websites.

6.2 Contributions and Suggestions

Many mobile commerce studies concern macroscopic strategies and market

surveys rather than user interface design and browsing performance of different users.

This study also investigated how task types would influence the users' browsing performance, and the relationship between the browsing tools and devices. This study is the first research on the impact of users of different cognitive styles when browsing wireless shopping websites. The results of this study are able to provide suggestions for further studies on user interface design of shopping web site for handheld devices.

Based on the results, this research provides the following suggestions:

- Due to the unfamiliarity of the stylus input and scrolling, Web designers are suggested to provide the drop down menu instead of the keyword searching.
- Sitemap is effective on handheld device regardless of the structure of information and user interface. Wholist participants tend to use the sitemap to explore the whole structure when they purchase and browse on shopping websites using handheld devices.
- Designers are suggested to embed customization functions according to the user's cognitive style for better browsing performance and potential transaction increase on shopping websites.

6.3 Limitations

Due to the time and resource constrains, only the Wholist-Analytic and

Verbal-Imager dimensions of cognitive styles had been studied. Furthermore, most of the participants never use PDA before. After the practice section, they were still novice users.

Although the quantitative methodology is more promising, for collecting more qualitative data, the author suggests further researches to combine quantitative and qualitative methodologies to study the problems of usability and mobile commerce more deeply and completely in the future.

Further researches are needed to investigate the impact of the browsing performances of users with other factors such as the purchaser's decision making, product promotion, discount, or advertisement on mobile wireless websites. The types of the products in the experiments were classified into two groups: product and service. The representative product is flower; the other type is travel package. Further studies could include more products to discover potential problems.