

Conceptual Model Cognitive, Affective, Physical, and External Factor for Individual Information Technology Acceptance

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Abstract – Information technology growth provides a lot of opportunity for business and industries. Information technology provide chances to business and industries to improve their ability effectiveness and efficiency. Information technology provide more effective data which can be use to analyze the business process. But many business and industry specially home industry which cannot take the advantage of information technology growth and effect to loss opportunity to built time to market correctly and can predicted market behaviors. There are several factors that affected in decisions making related to the use of information technology are factor cognitive, affective factors, physical factors and external factors that can be analyzed to determine the effect the relationship between the four factors in decision making.

Index Terms – Acceptance, technology.

INTRODUCTION

In line of information technology growth directly proportional to the increase of the technological needs of the individual. Information technology provide many advantage for individuals or industries in resolving problems or create the business processes more effective and efficient.

The formulation of the problems can be concluded are factors influence the approach among cognitive, affective, physical and external factors in the acceptance of a technology, probably it will take several approaches in this research are: 1. Make construction conceptual model that can describe the approach among the factors (cognitive factor, affective factor, physical factor and external factor) that affect the individual in acceptance of information technology, 2. Designing a survey based research models, pre-survey, 3. Examine the approach among the factors (cognitive factor, affective factor, physical factor and external factor) that affect an individual in receipt of a technology, 4. The conceptual model to make decision according approach through certain indicators.

MATERIAL AND METHOD

The methodology is divided into several stage list, they are: 1. Study literature, 2. Identification of problems, 3. Determination of objectives, constraints and contributions, 4. Design, 5. Implementation, 6. Testing and analysis results, 7. Reporting. The research will be done by conducting a survey to get sampling of the respondents to the application of

hypothesis testing. Data collection techniques is used in this research by distributing questionnaires to the respondents who have been determined empirically in order to obtain data relating to the hypotheses that have been proposed and used like scale to assess the research instrument. The analysis technique is used in this research analysis of descriptive analysis and inferential analysis. Descriptive analysis is describing the data based on the tendency of respondents to the question items related to indicators of research variables.

RESULT AND DISCUSSION

A. *Designing emotionally evocative homepages: an empirical study of The quantitative relations between design factors and emotional dimensions*

The emotional aspects of the homepage is becoming important due to people spend their time in cyberspace. In this study aims to identify the quantitative approach among the factors of design and dimensions of the secondary emotions that done by targeting the development homepage emotions more effectively.

B. *The impact of colour on Website appeal and users cognitive processes*

In this study conducted 2 pilots of study that focused on one specific feature, namely the color of the website. The first study investigated the preferences of colors chosen by designers and users are 23 sites homepage with different color variations. While the second study analyzed the impact measurement of 3 different colors (chosen based on the results of the first study) both subjectively and objectively. Whereas in designing various color versions homepage, we need a calculation so that the color can be defined into three dimensions: hue, value and chroma

C. *Effects of four workplace lighting technologies on perception, cognition and affective state*

In this research, testing of visual perception, affective and cognitive used LED lighting system with a color temperature and illumination are varied. Four lighting technologies include fluorescent (3345 K) and three LED technologies that are labeled with a color temperature as follows: LED 1 (4175 K), the LED 2 (5448 K) and LED 3 (6029 K). For the environment (a) experiments were performed at the tent / indoor spaces controlled by Tent Expandable Modular Personnel (TEMPER) 320L x 20 '6' W military shelter (640 sq ft)

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D. Human factors in computer simulations of urban environment. Differences between architects and non-architects' assessments

In this research, the identification of affective responses that may affect the evaluation of the urban environment and analyze the preference model of architects and non-architects. Here is an example of urban design model of the preferences of architects and non-architects:

E. The effects of light blue and white backgrounds on the brain activity of Web-based English tests' takers

In this study, the authors conducted an experiment to see how the background color of a web-based tests (WBTs) can affect the brain activity of web-based test takers in relation to performance. A total of 30 subjects (20s) were included to test web-based English grammar tests and also test the counting circle on a computer screen with a blue background and white. For the second background color, text and symbols are presented in black.

Physical factors can affect user cognitive factor

- This study shows that color - a particular color can affect the quality of the performance of the brain.
- This study shows that areas in the brain associated with linguistic task tend to have higher concentrations of Hb with light blue background than on a white background.

External factors can affect the user's physical factors.

- In this study comparing the effects of repeated measurements of four lighting technology (a neon, three LED) to the basic visual acuity.
- External factors can affect the user affective factors. This study shows that the effect of the lighting can affect the level of individual feelings
- This study shows that the advanced picture successfully evokes the feelings and emotions that can be stimulated with the room.

The external factors may influence user cognitive factor.

- The study also showed that the effect of the lighting can affect the workings of the brain.

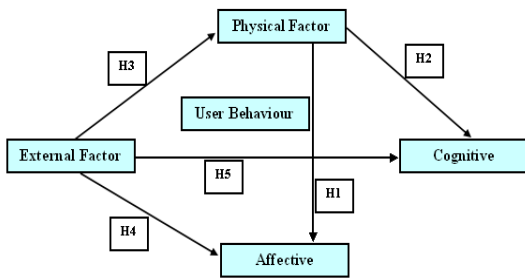


Figure 1. Modeling Design

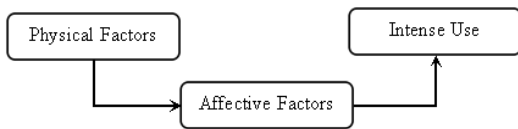


Figure 2. Modelling Physical → Affective

CONCLUSION

Based on the analysis of the study concluded that: Physical factors can influence the user affective factor

- Establishment of a specific design of the homepage can affect the feelings of the user.
- Use of certain colors on the homepage but can evoke certain emotions, can also affect behavior intention (intention to buy / shopping).

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