

## Study on Factors which Affect the Intent of Exhibitions Attendees' Individual Mobile Service Use

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**Abstract.** This study searched precedent researches on individual mobile service and IT technologies-associated exhibition service and also identify the features of intelligent individual mobile service. Through TAM theory which measured intent of use and information system admitting attitude efficiently, this study was conducted by applying recognized usability, ease of use, etc. Based on variables resulted from individualization, survey was performed. The affecting factors when exhibitions attendees use individual mobile service and their relations with perceived ease of use, perceived usability, and intent of use were identified.

**Keywords:** exhibitions attendees, individualization, mobile service

### 1 Introduction

There has been little research on the factors which attendees affect individual mobile service in the key exhibition industry. Nor academic study. In this paper, TAM model was employed and variables depending on attendees' characteristics were adopted to study the factors which affect exhibition attendees' individualized mobile service.

### 2 Theoretical Backgrounds

Yoo, Ye-gyeong (2010) studied factors to develop the contents required for smart phone, factors of main objectives of exhibition participation, impact of required contents development on exhibition success at U-exhibition in her paper [1]. Cho, Yeong-hee (2011) studied systems and application services for entire individualized mobile service by situation information such as attendees' interest, location, etc. for better understanding smart phone-applications-related designs for intelligent individualized service. [2]. Park, Deuk-hee (2011) studied new exhibition services and users' patterns, and sub-groups' characteristics from booth visit data and social network analysis and direct observation methodology [3].

### 3 Study Models

This study is to identify the factors which affect the intent of exhibition attendees' individualized mobile service use with the above-mentioned variables from previous technologies-employed models.

The features of individualized mobile service were Usability, Preciseness, Connectivity, Mobility, Situation-Adaptation, Personal Information Anxiety, and Reliability. Control variables were the experience to visit exhibition and the experience to visit overseas exhibition. And based on TAM model, usability and availability were parameters.

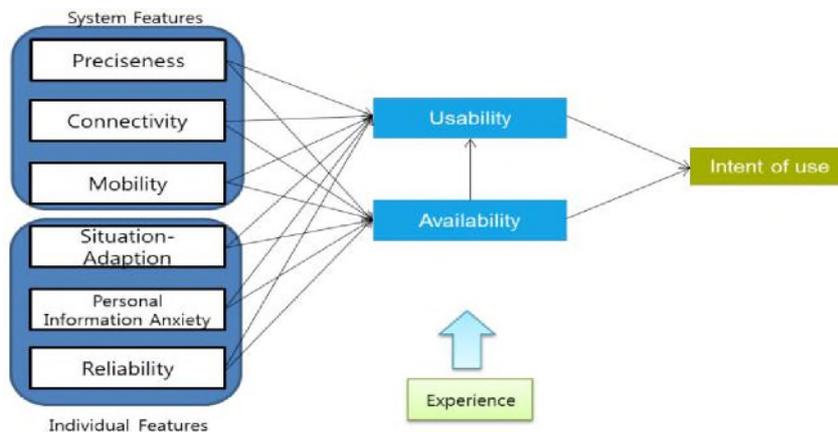


Fig. 1. A Research Model

Like the model in Figure 1, the features of individualized mobile service were largely classified into systemic features and individual features. More specifically, independent variables were preciseness, connectivity, and mobility. Individual features were situation-adaptation, personal information anxiety, and reliability. Therefore, total six factors were selected. In addition, experience was adopted as a control variable. In order to analyze the outcomes from experience, models as the below fig. were established.

### 4 Analysis of Outcomes

#### 4.1. Data collection and analysis methodologies

The data collection targeted general adults. Those who have participated in exhibition halls were targeted among general people. Total 1000 copies of survey were distributed through online and offline. 438 people participated in the survey. Among

the survey, total 410 copies were used for final analysis except 28 copies with poor answers or omitted.

First of all, frequency was analyzed by SPSS. The preciseness of data was tested. Demographic features of samples were identified. Second, as a factor of this study, in order to verify the validity of established questions, factors analysis was conducted. And by adopting Cronbach's  $\alpha$  coefficient, reliabilities among variables were measured. Third, by using Amos, to find whether study model structure is adapted, path of structural equation was analyzed. Finally, the effect of the frequency of experience, control variable was analyzed. Domestic exhibition visit experience and overseas exhibition visit experience were verified for their difference. Those who have visited exhibitions 1 to 2 times for recent 3 years and those who have visited more than that were verified for their difference.

#### 4.2. Results of verifying study hypothesis

**Table 1.** Individualized mobile features and their relation verification with perceived usability

| Parameter | Independent variable         | Path coefficient | Standard error | C.R.   | Outcome        |
|-----------|------------------------------|------------------|----------------|--------|----------------|
| Usability | Availability                 | 0.165            | 0.060          | 2.547  | <b>adopted</b> |
|           | Connectivity                 | -0.040           | 0.055          | -0.726 | rejected       |
|           | Mobility                     | 0.180            | 0.050          | 3.083  | <b>adopted</b> |
|           | Adaptability                 | 0.146            | 0.068          | 2.134  | <b>adopted</b> |
|           | Personal information anxiety | 0.350            | 0.076          | 4.670  | <b>adopted</b> |
|           | Reliability                  | 0.104            | 0.030          | 3.355  | <b>adopted</b> |
|           | Connectivity                 | 0.161            | 0.057          | 2.868  | <b>adopted</b> |

Preciseness has been considered affecting perceived usability positively. Its path coefficient was -0.040, CR 2547 which was considered not-significant in this study. Choi, Hyeon-sik and Choi, Yeong-min (2010) presented that preciseness of mobile tourism information affects perceived usability positively but its impact on individualized mobile service used by attendees at exhibition halls was found little [4].

**Table 2.** Individualized mobile features and their relation verification with perceived availability

| Parameter    | Independent variable | Path coefficient | Standard error | C.R.  | Outcome        |
|--------------|----------------------|------------------|----------------|-------|----------------|
| Availability | Preciseness          | 0.133            | 0.067          | 2.098 | <b>adopted</b> |
|              | Connectivity         | 0.219            | 0.060          | 3.360 | <b>adopted</b> |
|              | Mobility             | 0.177            | 0.083          | 2.274 | <b>adopted</b> |
|              | Adaptability         | 0.246            | 0.090          | 3.005 | <b>adopted</b> |

|                              |       |       |       |                |
|------------------------------|-------|-------|-------|----------------|
| Personal information anxiety | 0.016 | 0.037 | 0.465 | rejected       |
| Reliability                  | 0.186 | 0.069 | 2.939 | <b>adopted</b> |

## 5 Conclusion

In the results of this study, the features of individualized mobile service which has been researched and developed from precedent studies and documentary studies, connectivity, mobility, adaptability, and reliability affected intent of use positively. On the other hand, preciseness doesn't affect intent of use. Personal information anxiety affected intent of use negatively [5]. The results of preciseness in this study could be checked by exhibition attendees directly. Therefore, in the survey, it was presented that it didn't affect intent of use. In personal information anxiety, considering many accidents of personal information exposure at card companies and banks, anxiety for personal information on individualized mobile service was great which affected intent of use negatively [6]. Therefore, safe security system should be advertised in advance and declare thorough observation of personal information management and annulment transparently based on Personal Information Protection Law [7]. In addition, personal information agreed online or on practical sites should be coded. The operation of security systems such as DB access control system and management system should be notified clearly [8]. The experience to have visited overseas exhibition halls was checked by control variable. There were 193 people who have visited overseas exhibition halls and 217 people who have not had. Moreover, in personal information anxiety, there was huge difference in availability. Rather than in entire data, in those who have visited overseas exhibition reacted a little more sensitively.

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