

A study on the effect of brand satisfaction, formed through user experiences with a smartphone, on the purchase of other smart devices of the same brand

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Abstract. This research focuses on the effect of brand perceptions formed through the usage of a smartphone on user satisfaction and on subsequent purchasing decisions for other smart devices of the same brand, using the theoretical background of the Expectation-Confirmation Model in IT. This study showed that the brand expectation confirmation before and after using a smartphone affected brand user experiences (perceived usefulness, perceived enjoyment, and perceived aesthetics) significantly. Among the elements of brand user experiences, perceived enjoyment and aesthetics affected the user's brand usage satisfaction significantly; however, perceived usefulness did not have a significant effect. Still, brand usage satisfaction affected the purchasing intention of portable and non-portable devices significantly. While the functionality and performance are no longer the key differentiation factors, perceived enjoyment and aesthetics, which appeal to the user's senses and emotions, were suggested as critical factors in user satisfaction.

Keywords: Brand user experience, smart device, smartphone, ECM, SEM, purchasing intention, aesthetic, mediating effect

1 Introduction

Smartphone market growth has already begun to stagnate, so manufacturers have released or are trying to launch new types of smart devices to develop new avenues for growth. IDC [1] predicted that potential wearable device shipments would explode by more than 500% in 2015, i.e. 25.7 million units from 4.2 million in 2014.

Thus, it is important for smart devices not to be separated from smartphones, but rather smart devices should be an expansion of the existing ecosystem of the platform and the services formed through smartphones. Bhattacharjee [2] suggested through the Expectation-Confirmation Model of IT (ECM-IT) that a product's function (usefulness) is significant; however, a consumer's satisfaction can be determined not only

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by function (usefulness) but also by the confirmation of expectations before purchase and user experience after purchase.

The ECM-IT has been used in the study to examine the continuous use of smart devices, but it has limitations in explaining the trend of consumer value in modern society because it only focuses on perceived usefulness. As the personal computer (PC) and smartphones have emerged as a means of personalization of IT devices, previous studies found that the emotional characteristics like enjoyment [3] [4] and aesthetic elements such as design are important factors for consumers to consider when using IT products continuously [5] [6].

The objective of this study is to investigate the impact of the smartphone experience on selection of other smart devices based on ECM-IT

2 Research Model and Methodology

2.1 Research Model

This study sets up the conceptual research model (Fig1) based on the IT Continuance Model.

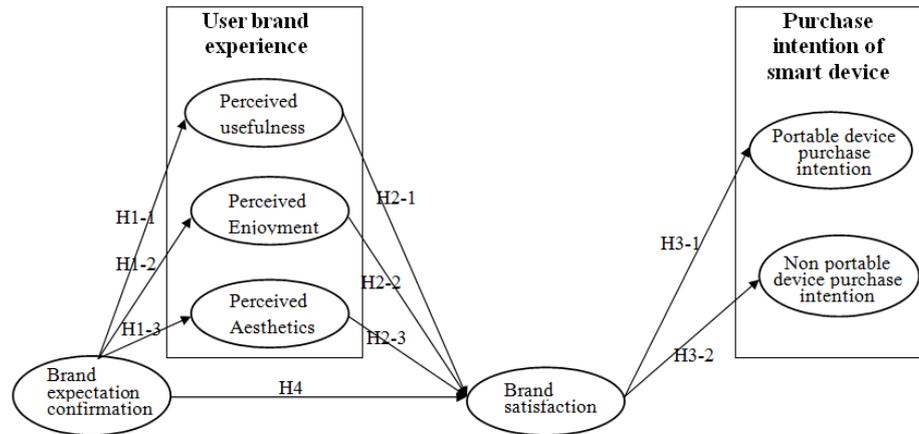


Fig. 1. Research model

2.2 Measurement

There are a total of 7 constructs in this study, and 28 questions were developed to measure the constructs. The items for measurement were adopted from previous studies and reworded to suit the context of the current study. Each item was meas-

ured with a 5 point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

2.3 Data Collection and Analysis Method

The survey was conducted with smartphone users, and it was collected from April 22, 2015 to April 30, 2015. Of 613 respondents a total of 583 respondents were eligible for analysis using SPSS 22.0 and AMOS 22.0.

3 Empirical Analysis

3.1 Demographic Characteristics of the Sample

The characteristic of the respondents by demographic variables showed that are more females (315 respondents, 54.0%) than males (268, 46.0%), and the number of respondents in their 20s, 30s, and 40s accounted for 173 (29.7%), 167 (28.6) and 123 (21.1%) respectively.

3.2 Measurement Model Estimation and Analysis

A confirmatory factor analysis was performed to estimate the measurement model. The fit of the measurement model was estimated with various indices which are shown on the last row of Table 1. The reliability of the constructs was validated (Composite Reliability > 0.7, Cronbach's alpha > 0.7). Convergent validity was validated (AVE (Average Variance Extracted) > 0.5 Factor Loading > 0.7, SMC (Squared Multiple Correlation) > 0.4). Discriminant validity was also confirmed (Square root of AVE > correlation).

3.3 Structural Equation Model Estimation and Hypothesis Testing

The structure equation model was used for hypothesis testing. From Table 1 the structural model shows an adequate fit. All the hypothesized paths were significant except for the path between perceived usefulness and brand satisfaction (see Table 1).

Table 1. Hypothesis Model Testing Results

Hypothesis	Path of Model	Coefficient	t-value	Result
H 1-1	brand expectation confirmation → perceived usefulness	0.722	19.085**	accept
H 1-2	brand expectation confirmation → perceived enjoyment	0.621	15.493**	accept
H 1-3	brand expectation confirmation → perceived aesthetics	0.805	17.656**	accept
H 2-1	usefulness → brand satisfaction	0.063	-1.372	reject
H 2-2	enjoyment → brand satisfaction	0.286	3.842**	accept
H 2-3	aesthetics → brand satisfaction	0.329	5.845**	accept
H 3-1	brand satisfaction → portable purchase intention	0.505	4.400**	accept
H 3-2	brand satisfaction → non-portable purchase intention	0.355	2.991**	accept
H 4	brand expectation confirmation → brand satisfaction	0.550	8.519**	accept
Model Fit	X ² = 932.683 (P=.000) (p>0.05), X ² /df=2.343 (2-3), GFI=0.908 (> 0.9), AGFI=0.878 (>0.9), IFI=0.969 (>0.9), TLI=0.961 (> 0.9), CFI=0.969 (> 0.9), RMSEA =0.48 (< 0.8)			

** : p<0.01, * : p<0.05

The number inside () of each index of Model Fit is the recommended cutoff value

4 Conclusions

This study found that perceived usefulness does not have an impact on brand satisfaction; this implies that functionality and performance are not key differentiation factors in the mature smartphone market. Meeting user satisfaction through functionality is difficult in the markets in the maturity phase because the speed of technology development and user IT skills do not match [7]. Currently smartphones have been standardized in an upward direction in terms of functionality. Thus, usefulness no longer plays a role as a differentiation factor [8]. The study also suggests that user satisfaction in a matured market like the smartphone market may be enhanced by focusing on the senses and emotions or stimulating perceived enjoyment and aesthetics.

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