## 國立澎湖科技大學應用外語系

## 實務專題計畫

# Exploring the Causes of End Users' Dependency on Smartphones and Purchasing Behaviors 手機使用者依賴性成因及購買行為之探討

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#### 手機使用者依賴性成因及購買行為之探討

#### 中文摘要

由於高科技的進步以及手機的發展,傳統式的手機逐漸被擁有結合個人電腦以及手機設備特性的先進操作系統所取代,像是個人數位助理PDA、影音播放器、計算功能和(GPS)地理位置導航功能。智慧型手機的流行遍及全球,導致隨處可見智使用者過度依賴智慧型手機。本研究目的是在探討社交需求、社會影響,以及智慧型手機的便利性是否可以影響使用者的購買行為。

本問卷根據便利抽樣,調查來自台灣各地、其他國家的遊客及澎湖當地居民,共664名受訪者的手機使用狀況。此研究使用統計分析以及結構分析,而受訪者們的開放性問題之回答則使用內容分析法。除此之外,為檢查兩者或以上變數之間的關係,本研究使用 SPSS 的單因子變數分析、相關係數、皮爾森卡方、逐步迴歸分析,SEM 結構方程式之結構模型以及探索因素分析。受訪內容則使用內容分析的方法做紀錄、轉錄以及分析。

定量研究及定向研究所顯示的事實是:社會影響及便利性對受訪者使用智慧型手機的依賴性有巨大的影響。除了購買行為,所有變異數皆有正相關。表 4.2 的結果總結出智慧型手機使用者的依賴性迴歸模型。逐步迴歸指出便利性 ( $\beta$ =. 434, t=8.359, p<. 05),社會影響( $\beta$ =. 396, t=7.060, p<. 05)以及社交需求( $\beta$ =. 147, t=2.227, p<. 5)。智慧型手機使用者的依賴性有著強烈顯著的決定因子是社會影響( $\lambda$ 1=0.54, p<. 01),以此支持假設三。然而,社交需求( $\lambda$ 2= -0.21, p<. 01)無法支持假設論點,因為 t 檢定值過小而無法通過基準的結構模型,因此假設六被拒絕。接下來,基於 SEM 模型,因為 t 檢定的值大於 1.96,便利性( $\lambda$ 3=0.41, p<. 01)和智慧型手機使用者的依賴性有密切關聯。此外,購買行為和使用者的依賴性也有密切相關,因為  $\lambda$ 4=0.49, p<. 010 皮爾森的卡方結果顯示智慧型手機的依賴性及使用時間因為  $\chi$ 2 (664, 12) =103.342, p=. 000 <. 05 有統計顯著,而合理的解釋是,使用的時間越多,智慧型手機使用者的依賴性就會越高。

結果顯示有 458 位受訪者很依賴他們的智慧型手機,其中有 272 位受訪者 表示對於使用智慧型手機的優點,使用智慧型手機為他們帶來了許多的便利。 手機使用者認為智慧型手機是作為通話、傳簡訊、玩遊戲、社交以及下載應用 程式的多功能設備。這意味普遍的使用智慧型手機徹底改變了人們的生活型態。 它們已經成為人們日常生活中不可或缺的一部分,且大多數的受訪者表示自己 會無時無刻都攜帶它們。總而言之,智慧型手機在這個先進高科技的社會環境 中顯然成為一個能與他們的同儕、家人和同事的強大溝通工具。

基於以上種種結果,此研究發現影響使用者對手機依賴性的因素有便利性,社交需求及社會影響。使用者對於智慧型手機的依賴性也會影響他們的購買行為。意味著依賴性及社交需求之間沒有正相關。另一個結果顯示社會影響和智慧型手機使用者之依賴性之間的關係是正相關的,由此確認假設三是成立的。綜合以上,在此研究中使用者認為智慧型手機的優點是多於缺點的。

但不可否認的是,高科技提供我們立即的滿意及喜好度。這可能是高層次的 文明和人類自省之間的兩難選擇。此研究顯示,有一大族群的使用者對他們的 智慧型手機更加依賴。基於 Seward 的研究(2014),智慧型手機是現代人生活中 不可或缺的一部分。根據他的研究有 28%的受訪者表示,他們可以一個星期沒 有手機,但卻有 22.3%的受訪者表示他們沒有智慧型手機就無法做任何事。然 而,研究顯示有 41.3% (274位)受訪者表示當手機沒帶在身邊上時,他們會感 到焦慮;且將近有 31% (205位)受訪者會經常查看他們的手機。此研究更進一 步強調,使用者對智慧型手機的依賴性更勝於電視及社交網站。研究指出擁有 智慧型手機已逐漸成為現代人的流行趨勢,但同時他們的日常生活也已被智慧 型手機取代,像是實踐學習及休閒活動,這些都是在現實生活上的學習、溝通 技巧、社會交際及問題的解決技巧上很重要的一環。

關鍵字:依賴性,購買行為,社會影響,社交需求,實踐式學習

## **Exploring the Causes of End Users' Dependency on**

### **Smartphones and Purchasing Behaviors**

#### **Abstract**

Due to high-tech advancement and development of mobile phones, traditional cell phones have been replaced by smartphones which possess advanced operating systems combined with features of a personal computer operating system with those of popular mobile devices such as personal digital assistant (PDA), media player, computing and GPS navigations functions (Wikipedia, 2015). The popularity of smartphones throughout the world leads to smartphone users' dependency that can be seen everywhere. The aim of this paper is to explore whether social needs, social influence, and conveniences of smartphones can affect the users' purchasing behaviors.

Questionnaire was administered to 664 tourists from different parts of Taiwan, locals and the other countries, based upon convenience sampling. In this study, SPSS and SEM model were utilized. Their responses to the open-ended questions were analyzed using a content analysis procedure. Apart from this, to check the relationship between two more variables, One-Way ANOVA, correlation, and stepwise regression model, Pearson Chi-square and CFA as well as Structural Model of SEM Approach were utilized in this study. Interviews were recorded, transcribed, and analyzed with the method of content analysis.

Both quantitative and qualitative results shed light on a fact: Social influence and convenience might have a great impact on the participants' dependency on smartphones. All of the variables are mildly positive correlation except purchasing behavior on account of r > 0.40. Table 4.2 summarizes the results of the regression model of the smartphone users' dependence. The stepwise regression indicated that convenience ( $\beta$ =.434, t=8.359, p<.05), social influence ( $\beta$ =.396, t=7.060, p<.05) and social needs ( $\beta$ =.147, t=2.227), p<.5). The strongest significant determinant of smartphone users' dependency was social influence( $\lambda$  1=0.54, p<.01), supporting H3. Whereas, social needs ( $\lambda$  2= -0.21, p<.01) was unsupported since t value=-1.67 was smaller than 1.96, based upon structural model of SEM approach. Next, convenience ( $\lambda$  3=0.41, p<.01) was closely associated with smartphone users' dependence in H5 on account of t value >1.96 based upon SEM Model. Additionally, there was closely

related between purchasing behavior and users' dependence on smartphones on account of  $\lambda$  4=0.49, p<.01. The results from Pearson Chi-square showed that the degree of smartphone dependency and hours spent on smartphones are statistically significant due to  $\chi^2$  (664, 12) =103.342, p=.000 < .05. One possible explanation was that the more hours spent, the more dependency the smartphone users.

The results show that 458 participants relied on their smartphones a lot. As to their attitudes towards the advantages of using smartphones, 272 participants supposed that the use of smartphones brought them a lot of convenience. Consumers view smartphones as multi-use devices for calling, texting, gaming, socializing, and downloading applications. This implies that the popularity of using smartphones revolutionized the consumers' way of life styles. They have become indispensable components of everyday life and a majority of participants carry them all the time. All in all, smartphones are apparently becoming a powerful tool to communicate with their peers, family members, and co-workers in this advanced high-tech social environment.

Based upon the above results, the influential factors on the consumers' dependency on the smartphones are the influence of convenience, social needs and social influence. The consumers' purchasing behavior was also affected by their dependency on smartphones. This implies that there is no positive relationship between dependency and social needs, which contracts the literature review. The other results show that confirming H3 suggested that there be a positive relationship between social influence and consumers' dependency on the smartphones. To sum up, the advantages outweighed the disadvantages of using smartphones in the study.

However, there is no denying that the high tech offers us immediate satisfaction and likes. This may be a dilemma between high-level civilization and human introspection. This study shows that a large number of consumers are increasingly relying on their smartphones a lot. Based upon Seward's study (2014), a smartphone plays an indispensable part in modern people's lives. According to his study, 28% respondents said that they could do without their phone for about a week. By contrast, in this study, 22.3% respondents said that they could not do anything without their smartphones. However, the study shows that 41.3% (274) respondents felt annoyed when they did not carry their smartphones with them. Furthermore, almost 31% (205) respondents might check their phones constantly. This further highlights more dependency on smartphones than television and social networking sites. This pinpoints that having a smartphone has been greatly popular with modern people.

These devices can replace their hands-on learning and leisure activities which are important for real-world learning, communication skills, social interaction, problemsolving skills as well as develop their empathy in their everyday lives.

Keywords: dependency, purchasing behavior, social influence, social needs, handson learning