



國立高雄應用科技大學
企業管理系碩士班
碩士論文

以科技接受模式探討使用者採用

NFC 行動支付之意圖

Using Technology Acceptance Model To Explain Why Users
Adopt NFC Mobile Payment

研究生：鍾興祺

指導教授：朱培宏 博士


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摘要

每一次支付方式的改變，都為人類的生活帶來了極大的影響。從早期的實體支付，乃至於今日的虛擬支付，人們的生活變得更加便利，可以選擇最有利的支付方式進行交易。然而，多元的支付方式，卻缺少整合的工具，整合所有的支付方式，使得在支付時增加困擾。

NFC 行動支付是一種新的支付方式，它整合了電子錢包、實體的智慧卡(像是信用卡或儲值卡)，若是普及了之後，甚至可以透過點對點傳輸的功能，代替實際的貨幣。因此，本研究探討了在推廣 NFC 行動支付時，個人創新 IT 接受度與手機自我效能對採用 NFC 行動支付意願的影響。

結果顯示，個人創新 IT 接受度與信任，在本研究中是很重要的因素。個人創新 IT 接受度會正向顯著地影響信任，也是正向顯著地影響知覺易用性的主要因素。而信任除了對知覺易用性有正向顯著地影響之外，也會正向顯著地影響知覺風險。

關鍵字：科技接受模式、NFC 行動支付、信任、知覺風險、手機自我效能、個人創新 IT 接受度

Using Technology Acceptance Model To Explain Why Users Adopt NFC Mobile Payment

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Abstract

From ancient times, the changes in payment methods are only a handful. However, every change in payment methods has brought great impacts to human life. From the early barter to the use of metal currency, and even virtual payment today, people's lives become more and more convenient. They can choose to pay with the most beneficial way for them to trade.

However, in the mean while of the diversity of payment methods, people don't have one tool to integrate all the payment methods which they used. Therefore, such situation causes some problems while performing transactions.

NFC mobile payment is a brand new payment method, which integrates electronic wallet, smart cards (such as a credit card or Pre-paid card), and it can even replace the real currency through point to point transmission function.

However, new technology cannot be accepted so fast by public, therefore, this study discusses the relationship among the Personal Innovativeness in IT, Mobile Self-Efficacy, and the willingness of using NFC from a perspective of TAM.

The empirical results show that the Personal Innovativeness in IT and Trust are important factors influencing NFC payment adoption. Personal Innovativeness in IT has a significantly positive impact on trust and perceived ease of use. Trust has a significantly positive impact on perceived ease of use and Perceived risk.

Key word: Technology Acceptance Model 、 NFC Mobile Payment 、 Trust 、 Perceived Risk 、 Mobile Self-Efficacy 、 Personal Innovativeness in IT



第一章 緒論

本章主要是說明本研究的背景與動機、目的，同時也確立研究的基本思維。第一節說明本研究的背景與動機；第二節為研究目的；第三節為研究流程。

第一節 研究背景與動機

自古以來，支付的方式從各式各樣的東西都可以拿來交換的以物易物，到貨幣的出現，人們不用再費神的計算自己的得失，財富的累積也更為容易。因為有了統一的貨幣計價方式，人類生活的便利性提升了許多，然而貨幣並沒有一直保持著原樣，隨著時間的不同，貨幣也呈現不同的樣貌，從早期以貝殼、珠子作為貨幣，然而這些物品並沒有實質的價值，因此便衍生了以賤金屬為主所形成的貨幣如：刀錢、孔方錢等，這類貨幣以銅為主，其稀有性低，因此價值也低，所以出現了以貴金屬所打造的貨幣，而這類貨幣通常以銀或金為主，到此皆屬於商品貨幣，貨幣價值即等於實際價值。這一類的貨幣，通常其體積或重量，都會造成其攜帶的不便。而紙鈔的發明，在支付方式上便又是另一個大的突破，紙鈔便屬於法定貨幣，其實際的價值通常遠低於其被政府賦予的價值，攜帶性也較商品貨幣來的好。因此從貨幣的發展史來看，支付方式從複雜變成單純，又從單純形成便利，但這一類的支付都屬於在資訊科技尚未萌芽以前，都是以實體的支付方式呈現。

到了近代，信用卡、儲值卡、虛擬貨幣(像是比特幣)等，又再次的顛覆了支付的方式，人們可以透過預先儲值、先購後付等方式進行支付。與以往不同的是，這些支付方式，都必須仰賴先進的資訊科技，而且在支付的過程中，不必攜帶或直接使用實體的貨幣，而是透過間接的方式，扣除預先儲值之金額或是由銀行先代為支付，之後再繳交一定的金額予銀行。所以人們出門購物時，不必再擔心現金有沒有帶夠，或是擔心被不肖人士搶劫以及實體貨幣的遺失。

對人們來說，更為多元的支付方式，反而提供人們可以選擇自己最便利、或是最有利的方式進行支付，也更能保障人們的金融安全。

但是，當人們的選擇變多了，在缺乏整合工具的同時，越多的選擇反而容易造成混亂。例如：當一個人名下有許多的信用卡或儲值卡，當然就能夠選擇最有利的支付方法，像是加油可以使用每公升進行折價的信用卡，或是在便利商店消費可以累積紅利的儲值卡，但是過多的信用卡或是儲值卡，不僅會在支付的當下造成混亂，事後的整理也是一大麻煩。

而 NFC 行動支付即可解決這個難題，NFC 行動支付可以透過手機或平板等行動裝置，將實體卡片虛擬化，並將其整合在自己的帳戶中，以軟體模擬成一機多卡，如此在支付的過程中，便不必擔心自己是否遺失了卡片，或是忘了帶卡片出門，不僅延續了實體卡片的便利性，更可以整合為一，使其在使用前、使用中與使用後都能進行妥善的管理。

然而新科技的導入，通常不會那麼的順遂，NFC 行動支付由於牽涉到許多的層面，例如：發卡銀行、行動支付系統商、以及實體商店的感應裝置等。每一個層面都有其風險的存在，根據 IThome(2015)的報導，民眾使用 NFC 行動支付的疑慮，高達 73.6%受訪者擔心手機遺失，信用卡遭到盜刷，68.1%擔心個資外流，信用卡資料被竊，其他則是交易過程中因為干擾導致交易失敗、使用上複雜、銀行或商家不支援 NFC 付款。因此可以得知，在 NFC 行動支付尚未普及時，要如何去說服民眾，相信 NFC 行動支付是安全的、便利的，甚至是可以取代錢包的，這仍是一條漫長的路。

因此本研究，在 NFC 行動支付尚未普及的台灣，將以不同的使用者差異，去探討其使用意願，並且探討這些使用者是基於甚麼原因，會願意去使用 NFC 行動支付，此為本研究之研究動機。

第二節 研究目的

經由上述研究背景與動機之後，本研究主要探討使用者差異中的手機自我效能、個人創新 IT 接受度、信任、知覺風險以及科技接受模式對 NFC 行動支付使用意圖的影響，本研究重點將以線上探討手機功能以及手機軟體應用之論壇的使用者為主要研究對象。希望藉此研究結果，給予 NFC 行動支付的相關廠商參考，進而提升 NFC 行動支付在台灣的普及度，以及應用程度。茲將本研究目的整理如下：

- 一、 探討手機自我效能與個人創新 IT 接受度對於信任以及科技接受模式的影響。
- 二、 探討信任對於知覺風險以及科技接受模式的影響。



第三節 研究流程

本研究所進行的步驟是先確定研究主題與方向，再進行相關文獻蒐集與探討，進而從文獻探討中發展出理論架構與研究假說，確認研究對象後進行問卷發放與調查，最後進行回收問卷之分析工作，從分析資料中得到結論。詳細流程如圖 1-1。



圖 1-1 研究流程

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