EXAMINING THE SUCCESS FACTORS OF SMART WATCH: A BEHAVIORAL PERSPECTIVE ON CONSUMERS

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Abstract: The purpose of this study was to investigate factors influencing consumers' intention to use Apple Watch by applying Decomposed Theory of Planned Behavior (DTPB). The subject of the study was the Apple Watch users in Taiwan. The researcher used purposive and snowball sampling as the sampling method, a total of 350 surveys were issued, 327 valid surveys were collected and the effective response rate was 93.43%. The collected data were analyzed by confirmatory factor analysis and structural equation model. The results are illustrated as follow. First, the overall behavior model of Apple Watch users constructed by Decomposed Theory of Planned Behavior in this study fitted well. Second, the research model has well explanatory power to wearable device users, which is R^2 of attitudes, subjective norms and perceived behavioral control on behavior intentions have reached 63%. Third, perceived usefulness and perceived playfulness are the most two important influencing factors on attitudes. Interpersonal influence is the most important influencing factor to subjective norm. The most influencing factor of perceived behavioral control is facilitating condition.

Introduction

With the advancement of mobile networks and communication technologies, people's lifestyles have changed. Traditional products have been unable to meet the needs of consumers, even the highly integrated and versatile smart phone market has gradually become saturated. The 21st century is an era of rapid change; all enterprise had been facing an emergence problem on how to attract consumers to continue use in a product.

As a result, "user-oriented" has become the mainstream, many companies have begun to put their focus back on users, turning electronic products and digital devices into a variety of products in their lives, making these electronic wearable devices gradually become part of their lives.

In fact, smartwatches are no longer new, but it all becomes a trend after Apple Watch was launched in the global market in April 2015, it really drove the global consumers' willingness to buy smartwatches. IHS Technology (2015) pointed out that Apple's contribution to the future of smartwatches will be the biggest, because

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Apple Watch allows many consumers to pay attention to smartwatches, but also to attract media attention.

The study by Deng (2015) also pointed out that consumers prefer the "hand-worn" wearables, which in the form of "watches" are the most popular. Smartwatches are the most prominent in many wearable devices because they have a clear application context compared to other wearable products and can be linked to smartphones to bring consumers a diverse experience (DIGITIMES, 2016). Gartner (2016) further estimates that smartwatch revenues will be the highest of all wearable devices in the future, as Apple transforms wearable devices into a lifestyle. It can be seen that wearable devices have increased the overall exposure rate because of Apple Watch, which has accelerated the acceptance of smartwatches. Many companies are now investing in the wearable device market, it is known that the wearable device is an emerging market, it is necessary to understand the consumer's intentions and influencing factors for wearable devices. Therefore, this study takes Apple Watch as the research topic, discusses the influencing factors affecting users' use of Apple Watch, and further analyze factor that affecting use intention.

With the advancement of technology, human behavior has become more complicated due to various influence factors. In the past, it was often used theory such as Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), and Technology Acceptance Model (TAM) to understand and predict human behavioral theories, but there are some shortcomings and deficiencies of those theories, caused the explanatory power of today's human behavior is insufficient. Therefore, these simple theoretical models begin to add different variables as the times change, extending into theoretical models that are more applicable to new forms of technological products. In recent years, the Decomposed Theory of Plan Behavior has been used by many studies to explore the use of new information technology products (Wu & Jiang, 2014；Mäntymäki et. al., 2014).

Decomposed Theory of Planned Behavior (DTPB), proposed by Taylor and Todd (1995a), is based on TPB model and combines TAM proposed by Davis et al. (1989) and innovation diffusion theory proposed by Rogers (1983). DTPB replaces the single belief structure of TPB with a multi-faceted belief structure model. Decomposed belief facet has a better advantage than one-dimensional belief, it's represents various degrees of orientation related to intentional antecedents (Shimp & Kavas, 1984). Taylor and Todd (1995a) also pointed out that through decomposed, the relationship between variables is clearer and easier to understand, so that the specific factors that may have an impact on behavior are more clearly understood.

After a period of discussion, the wearable device has gradually become more rational; the industry after returning to rationality is more suitable for development. The industry also began to think deeply for wearable devices, from technical products to show to future applications, are beginning to have a clearer future direction of the industry. In an era of continuous improvement and elimination, wearable device industry had to successfully attract users' willingness to continue

using products is very important. This study is based on the decomposed theory of plan behavior, according to the research purpose, modify and added the perceived playfulness to the original theory, to understand the influence and explanatory power of the DTPB.

Literature review

Behavioral intention (BI) is a driving force that pushes a subject to perform a target behavior, unwilling act, such as unplanned situational and/or environmental elements that are out of control for a person, participate to assess the possability of performing the behavior (Wu & Jiang, 2014). These unplanned factors also have greater influence on buying patterns of customers. BI develops pre-planned purchase decisions among customers that restricts them to explore the other factors and products. In simple words, BI is a persons pre-planned self commitment to act or demonstrate a certain behavior. The self-centered orientation of BI reflects the deep roots and influance of intrinsic motivation of an individual (Davis & Warshaw, 1992).

In the context of technology developement and adoption mostly prior studies have applied the technology acceptance model (TAM). The TAM theorized that the peron's intentions to performe a specific behavior for adopting a technology or technological product depends upon their perception of usfulness and ease of use about the same product. Therefore, researchers have discussed TAM in different context and evantually several extended forms of TAM has been developed for better understanding of the phenomena (Moon & Kim, 2001). One of the most significant development of TAM is the Decomposed Theory of Planned Behavior (DTPB) that is discussed in the following section.

Decomposed Theory of Planned Behavior (DTPB) and Behavioral intention

In the past, people's demand for information technology products mainly focused on improving their work efficiency or bringing convenience to life (Oh et. al, 2009). However, with the changes of the times, people's demand for technology products has gradually increased, in addition to the hope of achieving work or tasks (Deng, 2015). In addition to the purpose, it is also hoped that the information technology products can obtain internal satisfaction, and the interest can be regarded as the inner pleasure that consumers get after using the service or technology (Oh et. al, 2009). In DTPB, the perceived usefulness and perceived ease of use of the TAM model are important factors. However, Moon and Kim (2001) believe that TAM cannot fully explain the user's intention to use. The reason is that TAM explores the impact on attitudes primarily through the use of technology products (perceived usefulness and perceived ease of use) (Davis, Bagozzi & Warshaw, 1992), lacking intrinsic motivational factors that affect users. Therefore, Moon and Kim incorporate the perceived playfulness into the TAM, and define it as the intrinsic motivation that the individual feels when using the IT process. Venkatesh and Bala (2008) pointed out that perceived playfulness represents the intrinsic motivation associated with the use of any new technology system.

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Wakefield and Whitten (2006) pointed out that pleasure is a factor of emotion, while concentration and curiosity are factors of cognitive function. Lu (2010) believes that attracting consumers to continue using a product is no longer by focus on function but on an emotional experience because consumers are potentially hoping to obtain sensory pleasure and satisfy their desire for dreams. In addition to the basic audio and video communication capabilities, Apple Watch also has the entertainment function of attracting users. It can be seen that when discussing the intention of Apple Watch, the effect of perceived playfulness cannot be ignored. From past related research, it has been found that the perceived playfulness has a significant positive influence on the attitudes of the internet, audio-visual communication software, e-commerce and mobile commerce; and attitude has a significant positive influence on intention to use (Moon & Kim, 2001; Oh et al., 2009; Hung et.al, 2016). The playfulness feature is the tendency to interact relatively slowly with technology, and the state of playfulness is a temporary state in which users interact with technology (Ingham, Cadieux & Berrada, 2015). Apple Watch is a smartwatch, the users will have a long time to interact with it, the feeling during use is the key to affecting whether the user is willing to continue using it. Therefore, this study incorporates the perceived playfulness into the influencing factors of attitude, in order to understand the behavior intention of Apple Watch user and hypothesized that:

H1: Perceived usefulness has significant relationship with attitude.
H2: Perceived ease of use has significant relationship with attitude.
H3: Compatibility has significant relationship with attitude.
H4: Perceived playfulness has significant relationship with attitude.
H5: Interpersonal influence has significant relationship with subjective norms.
H6: External influence has significant relationship with subjective norms.
H7: Self efficacy has significant relationship with perceived behavioral control.
H8: Facilitating condition has significant relationship with perceived behavioral control.
H9: Attitude has significant relationship with behavioral intentions.
H10: Subjective norms has significant relationship with behavioral intentions.
H11: Perceived behavioral control has significant relationship with behavioral intentions.

Methodology

This study takes the Apple Watch users in Taiwan as the research subject and used the google form to distribute the survey by purposive and snowball sampling. Due to Apple Watch's subject-seeking process was difficult and the current number of users in Taiwan were few, the researchers issue the survey in the Facebook fan page, forum and ptt.cc which were related to Apple Watch, and filter the user through initiate discussions and posts, and ask relevant users to help answer the questionnaire. In addition, the researchers also sent the online survey to the members of the Apple Watch Taiwan Fan Club and the Apple Watch Appreciation

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Club on Facebook by private message, members who received the private message were voluntarily to fill out the online survey and forwarded to friends and families. The survey was distributed from March 15th, 2017 to May 5th, 2017 through online, a total of 350 surveys were collected, and 327 valid surveys, the effective recovery rate was 93.43%.

Research Tools

The scale of this study was conducted by Likert 7-point scale. The scale of perceived usefulness (PU), perceived ease of use (PEU), compatibility (COM), perceived behavioral control (PBC) of this study were mainly referred to Taylor and Todd (1995b) and measurement of Wu and Jiang (2014) and Chen (2012);perceived playfulness (PP) was mainly referred to Moon and Kim (2001) and measurement of Chen (2012); Attitude (ATT), subjective norm (SN) were mainly referred to Bhattacherjee (2000) and measurement of Wu and Jiang (2014); Interpersonal influence (INP) was mainly referred to Taylor and Todd (1995b), Bhattacherjee (2000) and measurement of Chen (2012); External influence (EXT) was referred to Bhattacherjee (2000) and measurement of Mäntymäki et. al. (2014); Self-efficacy (SE), facilitating condition (FC), behavior intention (BI) was referred to Taylor and Todd (1995a) and measurement of Chen (2012); The total number of questions in this study was 46.

Reliability and Validity Analysis

Confirmatory Factor Analysis (CFA) results showed that some model fit index adjusted goodness of fit index (AGFI), relative fit index (RFI), TLI, normed fit index (NFI) and critical N (CN) were not up to standard, further examination overall scale question of Apple Watch found that factor loading of Compatibility Q4 was too low (<.50), after deleting Q4, most of the value have reached the standard.

Through the CFA, convergent validity of Apple Watch overall scale, factor loading is above .50. The factor loading of perceived usefulness are between .80 to .85, Composite Reliability (C.R.) is .89, Average Variance Extracted (AVE) is .67; factor loading of perceived ease of use are between .82 to .91, C.R. is .92, AVE is .74; factor loading of compatibility are between .63 to .92, C.R. is .87, AVE is .69; factor loading of perceived playfulness are between .75 to .85, C.R. is .89, AVE is .67; factor loading of attitude are between .84 to .91, C.R. is .92, AVE is .74; factor loading of interpersonal influence are between .69 to .91, C.R. is .87, AVE is .69; factor loading of external influence are between .69 to .91, C.R. is .84, AVE is .64; factor loading of subjective norm are between .67 to .87, C.R. is .84, AVE is .63; factor loading of self-efficacy are between .63 to .89, C.R. is .84, AVE is .64; factor loading of facilitating condition are between .67 to .78, C.R. is .77, AVE is .53; factor loading of perceived behavioral control are between .70 to .87, C.R. is .89, AVE is .66; factor loading of behavior intention are between .74 to .90, C.R. is .89, AVE is .67;

According to Hair, Anderson, Tatham and Black (1997), the criterion for C.R. is above 0.7 and, AVE value had to be above 0.5. Overall the C.R. and AVE of this

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study have all reached the standard, indicating that the overall scale of the Apple Watch has good reliability and validity.

Discriminant validity analysis

This study used the confidence interval method to test the discriminant validity of the overall behavior model. Pearson correlation was analyzed before performing the discriminant validity test.

From Pearson correlation analysis showed that each variable were significantly correlated, the correlation coefficient is between .182 to .784, indicating that there is a positive correlation between variables. According to Torkzadeh, Koufteros, and Pflughoeft (2003), in confidence interval method, if the confidence interval does not contain 1 representative there is no correlation at all, indicating that the variables have discriminant validity. In this study, the bootstrap method was used to estimate (2000 times), the confidence level was below 95%, percentile confidence intervals and bias-corrected confidence intervals were used to measure. In this study, the upper bounds of the confidence interval method are between .30 and 92 respectively and the lower bounds are between .09 and .82, confidence interval do not contain 1, indicating that each variable has discriminant validity.

Data Analysis

In this study, SPSS 21.0 and AMOS 21.0 were used to analyzed the data by descriptive statistics, confirmatory factor analysis and structural equation modeling.

Research Analysis

The subject in this study majority were male (75.8%); age around 26-35 (38.2%); occupation was dominated by the service industry (26.23%) and business (24.8%); average monthly income was above NTD50, 001 (30.3%); majority was using Apple Watch Series 1 (52.0%) and bought by themselves (80.7%).

Confirmatory Factor Analysis of the Apple Watch User behavior model

Normality Test

Accoding to West, Finch and Curran (1995), in accordance with normality distribution, the skewness coefficient should less than 2; kurtosis coefficient shouldn't more than 7. From the results, the skewness coefficient was between -0.17 to -1.51, kurtosis coefficient between -0.65 to 2.45, indicating that the sample of this study was qualified with the normality test.

Structural Equation Model Analysis of the behavior model of Apple Watch User

Although the sample data of this study were qualified with the normality test but the c.r. of Multivariate kurtosis is 59.68, failure to meet multivariate normal distribution, therefore Bollen and Stine (1992) Bootstrap was used to modify the overall model. In the overall model fit analysis, all values have reached the standard, GFI=.91, AGFI=.90, RMSEA=.03, NFI=.91, RFI=.91, CFI=.98, CN=.261.67 and χ^2/df =1.25, indicating that the overall model fit well.
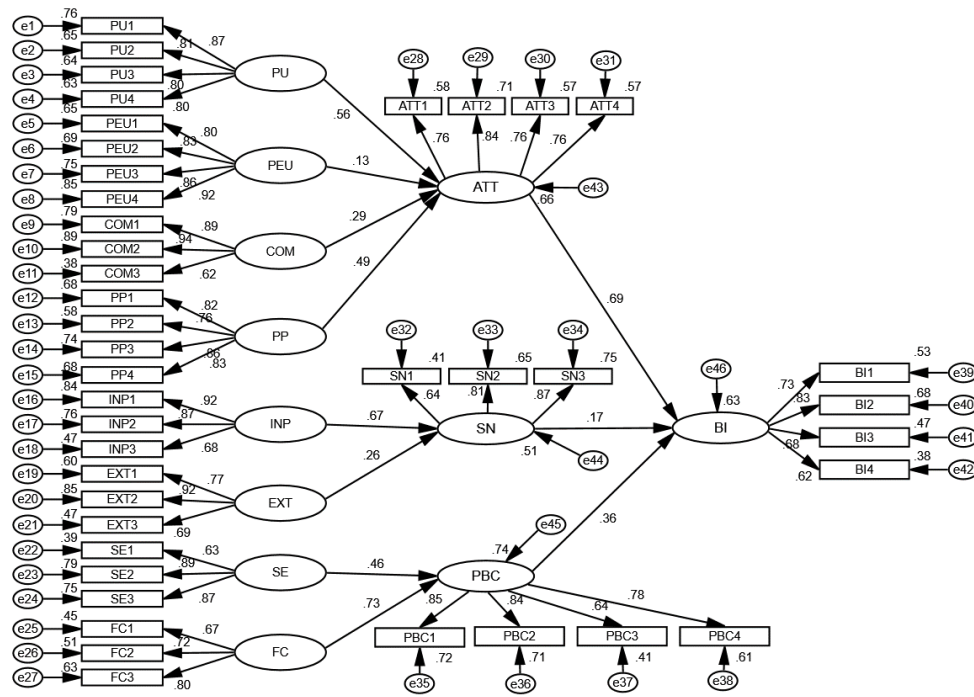
Figure 1: Apple Watch users behavioral model path analysis

From the results presented on figure 1, it can be found that perceived usefulness, perceived ease of use, and perceived playfulness have positive influence on attitudes, in which the perceived usefulness has the greatest influence on attitude (.56), followed by perceived playfulness (.49), indicating that perceived usefulness and perceived playfulness is an important factor in the formation of attitudes.

The first consideration for user is the practical value (external factors) that can be brought about by life, followed by the psychological sense of pleasure brought by-product (intrinsic factor). Interpersonal influence and external influence have a positive influence on subjective norms. The influence coefficient of interpersonal influence on subjective norms is the largest (.67), indicating that interpersonal influence is an important factor influencing subjective norms, although Apple Watch is an innovative technology products but because of their similarities with smartphones, users are still mainly influenced by family and friends, hoping to achieve the purpose of communication, sharing and communication with family and friends, resulting an interplay between each other in group. Self-efficacy and facilitating conditions have positive effects on perceived behavioral control. The influence coefficient of facilitating conditions on perceived behavioral control is the largest (.73), indicating that the facilitating condition is an important

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influencing factor for the formation of perceived behavioral control, for most of the Apple Watch user the external resources is a major factor affecting the perceived behavior control.

Discussion

According to the results of the Apple Watch user behavioral model path analysis, all factors have more than 50% explanatory power for attitude, subjective norm and perceived behavioral control, respectively the explanatory power of attitude is 66%, subjective norm is 51% and perceived behavioral control is 74%, indicating that the influencing factors of this study have good explanatory power. Attitude, subjective norms and perceived behavioral control have 63% explanatory power for behavioral intentions. Among them, the influence coefficient of attitude on behavioral intention is the highest, which is .69, followed by perceived behavioral control (.36). It can be seen that users will priority consider the benefits brought by Apple Watch, then think about the resources and opportunities they have, and finally take the decision of behavior.

Maslow said: "When a person changes his mind and his attitude will change; when his attitude changes, his behavior will change". Attitude is the most direct evaluation for user, Dan Shaffer (2016) found that Apple users are mostly the higher-income people, and Apple's products are also claimed by Taiwanese netizens, even if the deposits are empty have to buy it (Appledaily, 2012). It can be seen that the Apple brand has its fixed consumers, and the public has created a brand myth, as long as it's Apple's products, users self-superiority will also be improved. Also, the average monthly income of this study is high compared with the basic salary in Taiwan, this may also be affected by the Apple brand. Regardless of the evaluation of Apple Watch by friends, family or friends, the users still choosing Apple Watch. Therefore, compared with subjective norms and perceived behavioral control, Apple watch users' attitudes have the greatest impact on future behavioral intentions.

From the overall behavioral model path analysis results, it can be found that the facilitating condition is the highest among all coefficient values. Facilitating conditions include resource and time constraints related to time and money. Cristelle, Sam and Zafar (2017) explored the factors that influence users' use of high-tech products and found that the consideration of money is the largest obstacle of high-tech products by users. From the demographics in this study, most of the Apple Watch users have certain economic capabilities, which can be regarded as middle-class groups. It can be seen that for this type of innovative technology products, users believe that sufficient external resource conditions are the main factors affecting the perceived behavioral control.

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Conclusion

Watches not only represent the time but also represent the elements of fashion, glamour and success. The watch represents the man's taste and identity, while the traditional watch is biased towards spiritualism, which is essentially lack of functionality. In contrast, the Apple Watch is a fashion representative, but also functional, a combination of both mental and functional smartwatch. From the demographics in this study, Apple Watch users are mainly young man with capable economic, indicating that Apple Watch is more attractive to men. Therefore, it is suggesting that related companies and development groups, in addition to enhancing functionality, Apple Watch should be based on fashion and elegance, offering different shapes of watches (such as round shape) and various straps to match the different occasion.

Nowadays, consumers pay more attention to the fundamentals of products, and expect products to bring their excellent experience and good quality. Currently, Apple Watch is like other early IT products, Apple Watch still lacks in function and performance, which makes the user unable to get full satisfaction from it. Therefore, this study suggests that the research and development department of Apple Watch should understand the needs of users and develop new features that are compatible with modern life. From the perspective of user-oriented, focus on functional development, and improve the current Apple Watch flaws.

In the process of survey distribution, the research learned from the user that while using the Apple Watch is fun but just a short-lived freshness, in fact, the Apple Watch cannot fulfill user's entertainment needs, because the designation of Apple Watch is like a filter, which is separate some of the privatized functions from the iPhone to the wrist. Although there are many interesting small functions, but it's not a common function for users. Since Apple Watch mainly emphasizes functions and performance, it's suggested that it can integrate some interesting tasks or milestones. The improvement is only purely functional, which makes users feel interesting and satisfied in the process of using Apple Watch.

References

Appledaily. (2012). 40% of Apple users is a high-paying group. Retrieved from http://www.appledaily.com.tw/appledaily/article/headline/20120130/33987761/

Bhattacherjee, A. (2000). Acceptance of e-commerce services: the case of electronic brokerages. *IEEE Transactions on Systems, Man, and Cybernetics - Part A: Systems and Humans*, *30*(4), 411–420.

Bollen, K. A., & Stine, R. A. (1992). Bootstrapping Goodness-of-Fit Measures in Structural Equation Models. *Sociological Methods & Research*, *21*(2), 205–229.

Chen, P. W. (2012). *Examining Consumers' Intention to Use Mobile Phone Applications: A Decomposed Theory of Planned Behavior Perspective*. National Central University, Taiwan.

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1992). Extrinsic and Intrinsic Motivation to Use Computers in the Workplace1. *Journal of Applied Social Psychology*, *22*(14), 1111–1132.

POLISH JOURNAL OF MANAGEMENT STUDIES
Lin C.W., Yang C.C., Sia W.Y., Tang K.Y.

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Deng, M. H. (2015). *Using Innovation Diffusion Model to Forecast Wearable Device in the Next Generation*. Chung Yuan Christian University, Taiwan.

DIGITIMES. (2016). Smart phone back trend, wearable device starts to run. Retrieved from http://www.digitimes.com.tw/tw/dt/n/shwnws.asp?cnlid=13&id=0000471677_W0J5W R5B8767IW6GMQZ38

Gartner. (2016). Gartner Says Worldwide Wearable Devices Sales to Grow 18.4 Percent in 2016. Retrieved from http://www.gartner.com/newsroom/id/3198018

Hair, J. T., R.E., A., Tatham, R. L., & Black, W. C. (1997). *Multivariate Data Analysis with Readings* (3rd, Ed.). New York: Macmillan.

Hung, S.-Y., Tsai, J. C.-A., & Chou, S.-T. (2016). Decomposing perceived playfulness: A contextual examination of two social networking sites. *Information & Management*, *53*(6), 698–716.

IHS Technology. (2015). Apple Watch Success Needed for a Smartwatch Mega Boom, New IHS Report Says. Retrieved from https://technology.ihs.com/530842/apple-watch-success-needed-for-a-smartwatch-mega-boom-new-ihs-report-says

Ingham, J., Cadieux, J., & Mekki Berrada, A. (2015). e-Shopping acceptance: A qualitative and meta-analytic review. *Information & Management*, *52*(1), 44–60.

Lu, C. C. (2010). *Research on the Attractive Factors of Pleasurable Products and Pleasure Durability*. National Cheng Kung University, Taiwan.

Mäntymäki, M., Merikivi, J., Verhagen, T., Feldberg, F., & Rajala, R. (2014). Does a contextualized theory of planned behavior explain why teenagers stay in virtual worlds? *International Journal of Information Management*, *34*(5), 567–576.

Moon, J.-W., & Kim, Y.-G. (2001). Extending the TAM for a World-Wide-Web context. *Information & Management*, *38*(4), 217–230.

Msaed, C., Al-Kwifi, S. O., & Ahmed, Z. U. (2017). Building a comprehensive model to investigate factors behind switching intention of high-technology products. *Journal of Product & Brand Management*, *26*(2), 102–119.

Oh, S. H., Kim, Y. M., Lee, C. W., Shim, G. Y., Park, M. S., & Jung, H. S. (2009). Consumer adoption of virtual stores in Korea: Focusing on the role of trust and playfulness. *Psychology and Marketing*, *26*(7), 652–668.

Rogers, E. M. (1983). *Diffusion of Innovation* (3rd ed.). New York: The Free Press of Glencoe.

Shaffer, D. (2016). Higher income U.S. states use Apple iPhones; lower income states use Samsung Galaxy phones. Retrieved from MacDailyNews website: http://macdailynews.com/2016/09/27/higher-income-u-s-states-use-apple-iphones-lower-income-states-use-samsung-galaxy-phones/

Shimp, T. A., & Kavas, A. (1984). The Theory of Reasoned Action Applied to Coupon Usage. *Journal of Consumer Research*, *11*(3), 795-809.

Taylor, S., & Todd, P. (1995a). Decomposition and crossover effects in the theory of planned behavior: A study of consumer adoption intentions. *International Journal of Research in Marketing*, *12*(2), 137–155.

Taylor, S., & Todd, P. A. (1995b). Understanding Information Technology Usage: A Test of Competing Models. *Information Systems Research*, *6*(2), 144–176.

Torkzadeh, G., Koufteros, X., & Pflughoeft, K. (2003). Confirmatory Analysis of Computer Self-Efficacy. *Structural Equation Modeling: A Multidisciplinary Journal*, *10*(2), 263–275.

Venkatesh, V., & Bala, H. (2008). Technology Acceptance Model 3 and a Research

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Agenda on Interventions. *Decision Sciences*, *39*(2), 273–315.

Wakefield, R. L., & Whitten, D. (2006). Mobile computing: a user study on hedonic/utilitarian mobile device usage. *European Journal of Information Systems*, *15*(3), 292–300.

West, S. G., Finch, J. F., & Curran, P. J. (1995). *Structural equation models with nonnormal variable s: Problems and remedies.* (Thousand Oaks, Ed.). California, USA: Sage Publications.

Wu, M. Y., & Jiang, P. S. (2014). A Study of Usage Intention of Digital TV Based on Decomposed Theory of Planned Behavior. *Journal of Data Analysis*, *9*(1), 147–168.

BADANIE CZYNNIKÓW SUKCESU INTELIGENTNEGO ZEGARKA: BEHAWIORALNA PERSPEKTYWA KONSUMENTÓW

Streszczenie: Celem tego badania było zbadanie czynników wpływających na zamiar korzystania przez Apple z zegarka przez zastosowanie dekompozycji teorii planowanego zachowania (DTPB). Przedmiotem badania byli użytkownicy Apple Watch na Tajwanie. Badacz zastosował celowe i śnieżkowe pobieranie próbek jako metodę pobierania próbek, wykonano w sumie 350 badań, zebrano 327 ważnych badań, a efektywny odsetek odpowiedzi wyniósł 93,43%. Zebrane dane przeanalizowano za pomocą potwierdzającej analizy czynnikowej i modelu równań strukturalnych. Wyniki zostały zilustrowane w następujący sposób. Po pierwsze, ogólny model zachowania użytkowników Apple Watch skonstruowany przez Dekomponowaną Teorię Planowanego Zachowania (DTPB) w tym badaniu dobrze skonstruowany. Po drugie, model badawczy wyjaśnia użytkownikom tych urządzeń, subiektywnych norm i postrzeganej kontroli behawioralnej nad zamiarami zachowań osiągnął 63%. Po trzecie, postrzegana użyteczność i postrzegana zabawa to dwa najważniejsze czynniki wpływające na postawy użytkowników.

Słowa kluczowe: postrzegana użyteczność, kompatybilność, model akceptacji technologii, teoria dyfuzji innowacji

检查智能手表的成功因素:消费者的行为视角

摘要:这项研究的目的是通过应用计划行为分解理论(DTPB),研究影响消费者使用AppleWatch的意图的因素。该研究的对象是台湾的AppleWatch用户。研究者采用目的性和滚雪球式抽样作为抽样方法,共发布了350份调查表,收集了327份有效调查表,有效答复率为93.43%。通过验证性因子分析和结构方程模型对收集的数据进行分析。结果说明如下。首先,本研究中由计划行为分解理论构建的AppleWatch用户的整体行为模型非常合适。其次,该研究模型对可穿戴设备用户具有很好的解释力,即态度,主观规范和对行为意图的感知行为控制的R2达到了63%。第三,感知的有用性和娱乐性是态度的最重要的两个重要因素。人际影响是影响主观规范的最重要因素。知觉行为控制的最大影响因素是便利条件。

关键词:感知的嬉戏性,兼容性,技术接受模型,创新扩散理论