



Development of a Conceptual Model to Understand the Adoption of Wearable Technology

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Nowadays e-commerce has influentially extended to everywhere and anytime. Also, wearable technology, a newly developing and industrializing technology, is a “next to skin” product, by which people can easily and quickly involve wireless and interactive IT events. Since these two areas have already grown independently, to combining these two technologies will address e-commerce to another informatics platform with even more convenience. High-tech fashion in wearable technology devices, such as Smart Watch, activity trackers and Smart Glasses are growing in popularity as the functionality improves and their design becomes more stylized (High-Tech Fashion, 2014). The well-developed and practical technologies for companies will allow for their developers and designers to efficiently create and save time while making consumers lives easier. Therefore, wearable technology is a useful tool to make this happened. By combining these together will make an easier life for consumers and industry, expanding the economy.

In the past, the most research on e-commerce has been focusing on webpage users and mobile users. In addition, there is a positive relationship between attitude toward online store and purchase intention via webpage and mobile apps. The fashion industry launched wearable technology in 2014; therefore, the purpose of this study is to examine the consumer behavior regarding Smart Watch focusing on attitude shift on online shopping with a theoretical approach. This research uses the theory of planned behavior (TPB) (Ajzen, 1991) and the diffusion of innovation theory (DIT) (Rogers & Shoemaker, 1971) to better understanding consumer behavior regarding the adoption of Smart Watch. The proposed conceptual model based on two theories include attitude toward, subjective norm, perceived behavior control, and social media influence. Tim Cook, Apple’s CEO said Apple Watch is a most personal product that Apple made and it is a revolutionary product that changes people’s daily life. Apple Watch gives people an opportunity to live closer with your family and friends; therefore, the subjective norm becomes an important element that influences customers’ intention to use it. The price, time, and resources will influence regarding using Apple Watch. Social media influence consumers’ attitude toward brand and intention to purchase (Abzari, Ghassemi, & Vosta, 2014). Based on DIT (Rogers & Shoemaker, 1971), Lu, Chang, and Chang (2014) concluded that consumers have strongly positive attitude toward supported recommendation posts, which influence intention to purchase products. This study also investigated the brand attitude toward Apple, consumers’ involvement toward wearable technology, and other resources to acquire and use of Apple Watch/wearable technology.

We developed the conceptual model by modifying and adding other crucial variables based on the literature, such as brand attitude, involvement with new technology, and past behavior. Dolbec and Chebat (2013) determined that store image and brand experience have a

strong influence for brand attitude. Brand attitude affects consumers to purchase the products regardless of quality or use. According to Lai and Chen (2011), consumer's involvement has a positive effect on behavioral intentions. Past behaviors directly influence behavioral intention and actual behavior regarding apparel products (De Canniere, De Pelsmacker, & Geuens, 2009). When consumers have positive attitudes toward new technology, the past behavior will directly influence their purchasing and using behavior (Venkatesh, Morris, & Ackerman, 2000).

This modified theory can be adopted to analyze consumer behavior by using attitude toward, subjective norm regarding, and perceived behavior control of using wearable technology, social media influences, brand attitude, involvement with wearable technology, and past behavior regarding using wearable technology. Findings of the research could be helpful to trend forecasting and/or business strategy development by analysis consumers' purchasing power and utilize social media to attract potential customers. Furthermore, it can be use in fashion industry for analysis new technology, such as 3D body scanner and virtual dressing room.

- Abzari, M., Ghassemi, R. A., & Vosta, L. N. (2014). Analysing the effect of social media on brand attitude and purchase intention: The case of Iran Khodro Company. *Procedia - Social and Behavioral Sciences*, 143, 822-826.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Cook, T. (2014, September 9). Apple Watch [Video file]. Retrieved from <https://www.apple.com/watch/>
- De Canniere, M. H., De Pelsmacker, P., & Geuens, M. (2009). Relationship Quality and the Theory of Planned Behavior models of behavioral intentions and purchase behavior. *Journal of Business Research*, 62(1), 82-92. <http://dx.doi.org/10.1016/j.jbusres.2008.01.001>.
- Dolbec, P., & Chebat, J. (2013). The impact of a flagship vs. a brand store on brand attitude, brand attachment and brand equity. *Journal of Retailing*, 89(4), 460-466.
- High-tech fashion: wearable technology devices—Smart Watches, activity trackers and Smart Glasses are growing in popularity as functionality improves and styles get sharper. (2014), *Retail Merchandiser*, 4, 6. Retrieved from <http://eds.b.ebscohost.com/eds/pdfviewer/pdfviewer?sid=95e5df91-2f51-44d1-8f95-c5dc4a381af1%40sessionmgr111&vid=2&hid=114>.
- Lai, W.-T., & Chen, C. -F. (2011). Behavioral intentions of public transit passengers—The roles of service quality, perceived value, satisfaction and involvement. *Transport Policy* 18(2), 318-325.
- Lu, L., Chang, W., & Chang, H. (2014). Consumer attitudes toward blogger's sponsored recommendations and purchase intention: The effect of sponsorship type, product type, and brand awareness. *Computers inhuman Behavior*, 34, 258-266.
- Rogers, E. M., & Shoemaker, F. F. (1971). *Communication of Innovation*. New York: The Free Press.