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A literature review of the classic and extended Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) model

Przegląd literatury wykorzystującej klasyczną i rozszerzoną jednolitą teorię akceptacji i użycia technologii 2 (UTAUT2)

UTAUT2 is a model that explains why technology is adopted by the users. It integrates eight most important technology acceptance models that were proposed in the past. The aim of this article is to answer the question "why people use technology?" by summarizing seven years of research based on classic and extended UTAUT2 since the model was formulated in 2012. This paper consists of three main parts. The first part is devoted to presentation of different technology acceptance theories / models including presentation of the three different types of UTAUT2 based research. Second part is regarding methodology of the literature review. Third part consists of discussion (including limitations and further research ideas). Table summarizing 25 UTAUT2 studies is added as attachment.

Keywords

UTAUT2, Unified Theory of Acceptance and Use of Technology 2, technology acceptance theories, literature review

UTAUT2 to teoria, która wyjaśnia, dlaczego dana technologia jest akceptowana i wykorzystywana przez użytkowników. Integruje osiem najważniejszych modeli akceptacji technologii, które zostały zaproponowane w przeszłości. Celem tego artykułu jest odpowiedź na pytanie: Dlaczego ludzie używają technologii? Cel ten został osiągnięty przez podsumowanie siedmiu lat badań opartych na klasycznej i rozszerzonej teorii UTAUT2. Artykuł składa się z trzech głównych części. Pierwsza część jest poświęcona prezentacji różnych teorii/ modeli akceptacji technologii, w tym prezentacji trzech różnych typów badań opartych na UTAUT2. Druga część dotyczy metodologii przeglądu literatury. Trzecia część obejmuje dyskusję (w tym ograniczenia i dalsze pomysły badawcze). Tablica podsumowująca 25 badań opartych na UTAUT2 została dodana jako załącznik.

Słowa kluczowe

UTAUT2, jednolita teoria akceptacji i użycia technologii 2, teorie akceptacji technologii, przegląd literatury

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References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-t](https://doi.org/10.1016/0749-5978(91)90020-t)
- Alalwan, A. A., Dwivedi, Y. K., & Rana, N. P. (2018). Examining factors influencing Jordanian customers' intentions and adoption of internet banking: Extending UTAUT2 with risk. *Journal of Retailing and Consumer Services*, 40, 125–138. <https://doi.org/10.1016/j.jretconser.2017.08.026>
- Ali, F., & Lim, C. L. (2015). Factors affecting acceptance & use of ReWIND: Validating the extended unified theory of acceptance and use of technology. *Interactive Technology and Smart Education*, 12(3), 183–201. <https://doi.org/10.1108/itse-02-2015-0001>
- Ali, F., Nair, P. K., & Hussain, K. (2016). An assessment of students' acceptance and usage of computer supported collaborative classrooms in hospitality and tourism schools. *Journal of Hospitality, Leisure, Sport & Tourism Education*, 18, 51–60. <https://doi.org/10.1016/j.jhlste.2016.03.002>
- Bagozzi, R. P. (1992). The self regulation of attitudes, intentions, and behavior. *Social Psychology Quarterly*, 55, 178–204. <https://doi.org/10.2307/2786945>

- Bandura, A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs: Prentice-Hall. <https://doi.org/10.5465/amr.1987.4306538>
- Baptista, G. & Oliveira, T. (2015). Understanding mobile banking: The unified theory of acceptance and use of technology combined with cultural moderators. *Computers in Human Behavior*, 50, 418–430. <https://doi.org/10.1016/j.chb.2015.04.024>
- Baptista, G. & Oliveira, T. (2017). Why so serious? Gamification impact in the acceptance of mobile banking services. *Internet Research*, 27(1), 118–139. <https://doi.org/10.1108/intr-10-2015-0295>
- Brauner, P., van Heek, J., & Martina, Z. (2017). *Age, Gender, and Technology Attitude as Factors for Acceptance of Smart Interactive Textiles in HomeEnvironments Towards a Smart Textile Technology Acceptance Model*. Porto: ICT4AWE. <https://doi.org/10.5220/0006255600130024>
- Buettner, R. (2016). *Getting a Job via Career-oriented Social Networking Sites: The Weakness of Ties*. Kauai. Proceedings from: 49th Hawaii International Conference on System Sciences. <https://doi.org/10.1109/hicss.2016.272>
- Chong, A. Y.-L. & Ngai, E. T. (2013). *What Influences Travelers' Adoption of a Location-based Social Media Service for Their Travel Planning?* Jeju Island: PACIS.
- Chopdar, P. K., Korfiatis, N., Sivakumar, V., & Lytras, M. D. (2018). Mobile shopping apps adoption and perceived risks: A cross-country perspective utilizing the Unified Theory of Acceptance and Use of Technology. *Computers in Human Behavior*, 86, 109–128. <https://doi.org/10.1016/j.chb.2018.04.017>
- Compeau, D. R. & Higgins, C. A. (1995). Computer self-efficacy: Development of a measure and initial test. *MIS Quarterly*, 19(2), 189–211. <https://doi.org/10.2307/249688>
- Davis, F. (1986). *A technology acceptance model for empirically testing new end-user information systems: Theory and results (Unpublished doctoral dissertation)*. Cambridge: MIT Sloan School of Management.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1992). Extrinsic and intrinsic motivation to use computers in the workplace. *Journal of Applied Social Psychology*, 22(14), 1111–1132. <https://doi.org/10.1111/j.1559-1816.1992.tb00945.x>
- El-Masri, M. & Tarhini, A. (2017). Factors affecting the adoption of e-learning systems in Qatar and USA: Extending the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2). *Education Technology Research and Development*, 65, 743–763. <https://doi.org/10.1007/s11423-016-9508-8>
- Escobar-Rodriguez, T. & Carvalaj-Trujillo, E. (2013). Online drivers of consumer purchase of website airline tickets. *Journal of Air Transport Management*, 32, 58–64. <https://doi.org/10.1016/j.jairtraman.2013.06.018>
- Farooq, M. S., et al. (2017). Acceptance and use of lecture capture system (LCS) in executive business studies. Extending UTAUT2. *Interactive Technology and Smart Education*, 14(4), 329–348. <https://doi.org/10.1108/itse-06-2016-0015>
- Fishbein, M. (2008). A reasoned action approach to health promotion. *Medical Decision Making*, 28(6), 834–844. <https://doi.org/10.1177/0272989x08326092>
- Fishbein, M. & Ajzen, I. (1975). *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research*. Reading: Addison-Wesley.
- Gaitan-Arenas, J., Peral-Peral, B., & Ramon-Jeronimo, M. A. (2015). Elderly and internet banking: An application of UTAUT2. *Journal of Internet Banking and Commerce*, 20(1), 1–23. https://doi.org/10.1007/978-1-4614-8184-3_6
- Kang, M., et al. (2015). Investigating the determinants of mobile learning acceptance in Korea using UTAUT2. In G. Chen, et al. (Eds), *Emerging Issues in Smart Learning* (pp. 209–216). Berlin: Springer. https://doi.org/10.1007/978-3-662-44188-6_29
- Karasiewicz, G., Kulak, J., Nowak, J., & Trojanowski, M. (2018). Mobile phone usage in buying process: Extending the UTAUT2 model with trust and perceived risk. *Journal of Euromarketing*, 27(1–2), 70–78.
- Khan, I. U., Khan, S. U., & Hameed, Z. (2017). Understanding online banking adoption in a developing country: UTAUT2 with cultural moderators. *Journal of Global Information Management*, 25(1), 43–65. <https://doi.org/10.4018/jgim.2017010103>
- Macedo, I. M. (2017). Predicting the acceptance and use of information and communication technology by older adults: An empirical examination of the revised UTAUT2. *Computers in Human Behavior*, 75, 935–948. <https://doi.org/10.1016/j.chb.2017.06.013>
- Momani, A. M. & Jamous, M. M. (2017). The evolution of technology acceptance theories. *International Journal of Contemporary Computer Research*, 1(1), 51–58.
- Moore, G. C. & Benbasat, I. (1991). Development of an instrument to measure the perceptions of adopting an information technology innovation. *Information Systems Research*, 2(3), 192–222. <https://doi.org/10.1287/isre.2.3.192>
- Nguyen, T. D., Nguyen, D. T., & Cao, T. H. (2014). Acceptance and use of information system: E-learning based on cloud computing in Vietnam. In Linawati, et al. (Eds), *Information and Communication Technology* (pp. 139–149). Bali: Springer. https://doi.org/10.1007/978-3-642-55032-4_14
- Nguyen, T. D., Nguyen, T. M., Pham, Q.-T., & Misra, S. (2014). Acceptance and use of e-learning based on cloud computing: The role of consumer innovativeness. In G. Goos, J. Hartmanis, & J. van Leeuwen (Eds), *Computational Science and Its Applications — ICCSA 2014* (pp. 159–174). London: Springer. https://doi.org/10.1007/978-3-319-09156-3_12
- Oechslein, O., Fleischmann, M., & Hess, T. (2014). *An Application of UTAUT2 on Social Recommender Systems: Incorporating Social Information for Performance Expectancy*. Proceedings from: 47th Hawaii International Conference on System Science. <https://doi.org/10.1109/hicss.2014.409>
- Pare, G. & Kytsiou, S. (2017). Methods for literature reviews. In F. Lau & C. Kuziemsky (Eds), *Handbook of eHealth Evaluation: An Evidence-based Approach*. University of Victoria.
- Rogers, E. M. (1983). *Diffusion of Innovations*. New York: The Free.
- Rondan-Cataluna, J. F., Arenas-Gaitan, J., & Ramirez-Correa, P. E. (2015). A comparison of different versions of technology acceptance models. A non-linear perspective. *Kybernetes*, 44(5), 788–805. <https://doi.org/10.1108/k-09-2014-0184>
- Sheikh, Z., et al. (2017). Acceptance of social commerce framework in Saudi Arabia. *Telematics and Informatics*, 34, 1693–1708. <https://doi.org/10.1016/j.tele.2017.08.003>
- Slade, E., Williams, M., & Dwivedi, Y., 2015. Exploring consumer adoption of proximity mobile payments. *Journal of Strategic Marketing*, 23(3), 209–223. <https://doi.org/10.1080/0965254x.2014.914075>
- Sylvester, A., Tate, M., & Johnstone, D. (2013). Beyond synthesis: Re-presenting heterogeneous research literature. *Behaviour & Information Technology*, 32(12), 1199–1215. <https://doi.org/10.1080/0144929x.2011.624633>
- Taiwo, A. & Downe, A. (2013). The theory of user acceptance and use of technology (UTAUT): A meta-analytic review of empirical findings. *Journal of Theoretical and Applied Information Technology*, 49(1), 48–58.
- Tamilmani, K., Rana, N., & Dwivedi, Y. (2017) A systematic review of citations of UTAUT2 article and its usage trends. In A. Kar, et al. (Eds), *Digital Nations — Smart Cities, Innovation, and Sustainability. I3E 2017*. Lecture Notes in Computer Science, 10595. Cham: Springer. https://doi.org/10.1007/978-3-319-68557-1_5
- Tavares, J. & Oliveira, T. (2017). Electronic Health Record Portal Adoption: A cross country analysis. *BMC Medical Informatics and Decision Making*, 97(17), 1–17. <https://doi.org/10.1186/s12911-017-0482-9>
- Taylor, S. & Todd, P. (1995). Assessing IT usage: The role of prior experience. *MIS Quarterly*, 19(4), 561–570. <https://doi.org/10.2307/249633>
- Thompson, R., Higgins, C., & Howell, J. (1991). Personal computing: Toward a conceptual model of utilization. *MIS Quarterly*, 15(1), 124–143. <https://doi.org/10.2307/249443>
- Trojanowski, M. & Kulak, J. (2016). *Wpływ postrzeganego ryzyka na proces korzystania przez konsumentów z mobilnego handlu elektronicznego — rozszerzenie modelu UTAUT2*. Poznań: Uniwersytet Ekonomiczny w Poznaniu w Poznaniu. <https://doi.org/10.7172/1644-9584.62.13>
- Trojanowski, M. & Kulak, J. (2017). The impact of moderators and trust on consumer's intention to use a mobile phone for purchases. *Journal of Management and Business Administration. Central Europe*, 25(2), 91–116. <https://doi.org/10.7206/jmba.ce.2450-7814.197>
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425–447.

<https://doi.org/10.2307/30036540>

- Venkatesh, V., Thong, J. Y., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending The Unified Theory of Acceptance and Use of Technology. *MIS Quarterly*, 36(1), 157–178. <https://doi.org/10.2307/41410412>
- Wittland, J., Brauner, P., & Ziefle, M. (2015). Serious games for cognitive training in ambient assisted living environments — a technology acceptance perspective. In G. Goos, H. Juris, & J. van Leeuwen (Eds), *Lecture Notes in Computer Science* (pp. 453–471). Bamberg: Springer. https://doi.org/10.1007/978-3-319-22701-6_34
- Wong, C.-H., Tan, G. W.-H., Loke, S.-P., & Ooi, K.-B. (2014). Mobile TV: A new form of entertainment? *Industrial Management & Data Systems*, 114(7), 1050–1067. <https://doi.org/10.1108/imds-05-2014-0146>
- Wong, K. K.-K. (2013). Partial Least Squares Structural Equation Modeling (PLS-SEM) techniques using SmartPLS. *Marketing Bulletin*, 24, 1–32.
- Yousafzai, S. Y., Foxall, G. R., & Pallister, J. G. (2007). Technology acceptance: A meta-analysis of the TAM: Part 1. *Journal of Modelling in Management*, 2(3), 251–280. <https://doi.org/10.1108/17465660710834453>
- Yuan, S., Kanthawala, S., Ma, W., & Peng, W. (2015). Keep using my health apps: Discover users' perception of health and fitness apps with the UTAUT2 Model. *Telemedicine and e-Health*, 21(9), 735–741. <https://doi.org/10.1089/tmj.2014.0148>