EPH - International Journal Of Business And Management Science
ISSN (Online): 2208-2190
Volume 09 Issue 03 August 2023
DOI:https://doi.org/10.53555/eijbms.v9i3.142

ADOPTION OF DIGITAL VACCINATION SERVICES FROM A LITERALLY PROFESSIONAL VIEW: A COMMENTARY ON "IT IS THE CLICK FLOW, NOT THE VALUE" FROM A HEALTH CARE WORKERS AND AGILITY PERSPECTIVE

Alexander Alscher[1*,2], Christian Wissing[1]

[1]BSP Business and Law School Siemens Villa / Calandrellistraße 1-912247 Berlin, Germany www.businessschool-berlin.de*
[2]University of Hawaii - Hilo (CoBE), 200 W. Kawili St Hilo, HI 96720, United States www.business.uhh.hawaii.edu, BSP Business and Law School Siemens Villa / Calandrellistraße 1-9

Corresponding Author:
alexalscher@gmail.com

© Copyright 2023 EIJBMS
Distributed under Creative Commons CC-BY 4.0 OPEN ACCESS

INTRODUCTION

The interplay of innovation and health care workers (HCWs) focusing on vaccination were key in mastering the COVID-19 pandemic, which led to serious health, social and economic problems worldwide[3]. Apart from optimizing traditional approaches to contain the pandemic outbreak, such as hygiene rules, testing regime, contact tracing, quarantine[9], new mRNA-vaccines and innovative digital technologies such as vaccination platforms were introduced[4]. In this context, the study "Adoption of Digital Vaccination Services: It Is the Click Flow, Not the Value—An Empirical Analysis of the Vaccination Management of the COVID-19 Pandemic in Germany" [1] focused on the digital management of vaccination processes. Existing adoption theories and acceptance models from consumer market research were adapted to the public health sector and formed into a digital platform framework for policy makers and pandemic managers to manage public health services, such as vaccination offerings. Based on a survey in Germany's federal state with the highest vaccination rate, results showed that (1) the usability barrier is the most important barrier which harms adoption, whereas the most emphasized value barrier does not play a dominant role in contrast to consumer market research. By analyzing the three digital platform configuration areas Communication, Data Management, Personalization, (2) Personalization stood out as the most important factor for managing the usability barrier by optimizing the best click flow on the digital health platform to address the needs, preferences, and situation of the citizens as users.

"Yet, the endgame of the pandemic is not vaccines; it is vaccination"[2] and thus, the fast implementation of the vaccination by health care workers (HCWs) are critical premises and antecedents for a successful vaccination adoption[10]. In this direction, we want to highlight the role of professional HCWs in the adoption of digital vaccination services: First, their own adoption of the vaccination as a role model and their position as first priority vaccination group, and second, their contribution in adapting their service to the new pandemic situation from an agility point of view.

Discussion

The concept of agility was originally introduced as a capability to enhance value delivery to stakeholders through quick responses[13]. "agility is all about customer responsiveness and mastering market turbulence"[11] which ultimately describes the situation of the COVID-19 pandemic in its core. Different studies provide evidence that agility can promote the adoption of innovations by increasing the adoption and satisfaction of relevant stakeholders[8]. Agility is not only a strategy to create value but also a paradigm for the development of organizations[13]. HCWs work in competitive, regulated and thus dynamic settings, that lead to various challenges, which are in connection to change and uncertainty[14]. The study of Zain et al. (2005) gave evidence for a positive relationship between information technology (IT) acceptance and organizational agility by highlighting the same technical adoption factors as the given study "It is the click flow, not the value": technology usage, perceived usefulness, and perceived ease of use of IT. Agile management is a key approach to meeting these challenges because it is characterized by the ability of an organization to respond to changes and sudden events in a quick and flexible manner, by an iterative and collaborative working style in form of sprints, by a strong customer and value focus, by iterative learning processes and by a management, that empowers self-organized, multi-disciplinary teams[7]. Equipped with these skills, health care organizations and their HCWs can not only succeed to detect infectious and contagious diseases at national and international levels but can also derive appropriate defense and containment measures such as vaccination programs[6]. On a macro level, agility shows potential value through more effective and efficient healthcare. On an individual micro level, agility can promote the adoption of innovations by fostering the satisfaction of relevant stakeholders[6]. Thus, more research and detailed examination is needed to understand whether and how agility affects the adoption of digital health service such as for vaccination.

The HCW's attitude as a role model and, moreover, their service delivery determines the vaccination adoption through their relation with the vaccination receivers in two levels: from a technical performance and interpersonal care perspective. Kraai et al. (2011) distinguish satisfaction with health care delivery, treatment satisfaction, and satisfaction with medication or medical device.[12] differentiate eight dimensions: interpersonal manner, technical quality of care, accessibility or convenience, finances, efficacy or outcomes of care, continuity, physical environment, and availability. Future studies may take those variables to understand the specific role of HCWs and to explicitly measure their effect on the adoption of the vaccination. In a positive relationship with HCWs, satisfied vaccinated people show numerous benefits for service providers in healthcare systems such as fewer complaints, less doubt, hardly repeated investigations, and, most of all, higher adherence to medical treatment regimens[5]. In this case, higher adherence relates to a higher adoption of followup vaccination and booster shots. Accordingly, a positive relation between HCWs and patient/customer is highly beneficial for the providers of digital vaccination services and therefore also for the present discussion. A closer examination seems highly relevant whether agility promotes, first, the adoption of (non-professional) patients/people and, second, the performance of professional HCWs. Specifically, the differentiated roles of HCWs in hospitals, clinics, practices, nursing homes, and further institutions like health insurances needs to be further differentiated in their adoption rates. The adoption rate of health care professionals is of increased interest within vaccination programs due to central role of those professionals within nosocomial transmission[3]. We distinguish them from non-professionals based on their institutional tenure, their knowledge, their performance incentives and motivations, and their behaviors and decision-making processes within the health care work[15].

Conclusion

In the initial study, *personalization of services*, a proper *communication*, and an adequate *data management* were shown to have a significant effect to lower adoption barriers of digital vaccination services[1]. Following the vaccination (health

care) journey, we propose a more detailed examination whether and how agility of HCWs affects the digital vaccination (health care) adoption. Additionally, we also suggest an analysis, if agility promotes the satisfaction of professional HCWs significantly more than that of (non-professional) people, to optimize the success of future vaccination campaigns and related digital health platforms.

References

[1]. Alscher, A., Schnellbächer, B., & Wissing, C. (2023). Adoption of Digital Vaccination Services: It Is the Click Flow, Not the Value—An Empirical Analysis of the Vaccination Management of the COVID-19 Pandemic in Germany. *Vaccines*, *11*(4), Article 4. https://doi.org/10.3390/vaccines11040750

[2]. Dai, T., & Song, J.-S. (2021). Transforming COVID-19 vaccines into vaccination: Challenges and opportunities for management scientists. *Health Care Management Science*, *24*(3), 455–459.

[3]. Holzmann-Littig, C., Frank, T., Schmaderer, C., Braunisch, M. C., Renders, L., Kranke, P., Popp, M., Seeber, C., Fichtner, F., Littig, B., Carbajo-Lozoya, J., Meerpohl, J. J., Haller, B., Allwang, C., & on behalf of the CEOsys Consortium. (2022). COVID-19 Vaccines: Fear of Side Effects among German Health Care Workers. *Vaccines*, *10*(5), Article 5. https://doi.org/10.3390/vaccines10050689

[4]. Kis, Z., Kontoravdi, C., Shattock, R., & Shah, N. (2021). Resources, Production Scales and Time Required for Producing RNA Vaccines for the Global Pandemic Demand. *Vaccines*, *9*(1), Article 1. https://doi.org/10.3390/vaccines9010003

[5]. Kraai, I. H., Luttik, M. L. A., Jong, R. M. de, Jaarsma, T., & Hillege, H. L. (2011). Heart Failure Patients Monitored With Telemedicine: Patient Satisfaction, a Review of the Literature. *Journal of Cardiac Failure*, *17*(8), 684–690. https://doi.org/10.1016/j.cardfail.2011.03.009

[6]. Mahmoudi, G., & Talarposhti, M. A. (2018). An assessment of agility in selected hospitals of Mazandaran province, Iran. *Journal of Basic Research in Medical Sciences*, *5*(3), 32–41. https://doi.org/10.29252/jbrms.5.3.32

[7]. Meier, A., & Kock, A. (2022). *Characteristics, Antecedents, and Consequences of Agile R&D Units' Organization – A Conceptual Framework | Journal of Competences, Strategy & Management*. https://www.jcsm-journal.de/JCSM/article/view/11

[8]. Pantouvakis, A., & Dimas, A. (2013). The role of corporate agility and perceived price on the service quality – customer satisfaction link: Some preliminary evidence from the port industry. *International Journal of Shipping and Transport Logistics*, *5*(4–5), 412–431. https://doi.org/10.1504/IJSTL.2013.055275

[9]. Saw, Y. E., Tan, E. Y.-Q., Liu, J. S., & Liu, J. C. (2021). Predicting Public Uptake of Digital Contact Tracing During the COVID-19 Pandemic: Results From a Nationwide Survey in Singapore. *Journal of Medical Internet Research*, *23*(2), Article 2. https://doi.org/10.2196/24730

[10]. Scroggins, S., Goodson, J., Afroze, T., & Shacham, E. (2023). Spatial Optimization to Improve COVID-19 Vaccine Allocation. *Vaccines*, *11*(1), Article 1. https://doi.org/10.3390/vaccines11010064

[11]. Swafford, P. M., Ghosh, S., & Murthy, N. (2006). The antecedents of supply chain agility of a firm: Scale development and model testing. *Journal of Operations Management*, *24*(2), 170–188. https://doi.org/10.1016/j.jom.2005.05.002

[12]. Ware, J. E., Snyder, M. K., Wright, W. R., & Davies, A. R. (1983). Defining and measuring patient satisfaction with medical care. *Evaluation and Program Planning*, *6*(3), 247–263. https://doi.org/10.1016/0149-7189(83)90005-8

[13]. Yusuf, Y. Y., Sarhadi, M., & Gunasekaran, A. (1999). Agile manufacturing: The drivers, concepts and attributes. *International Journal of Production Economics*, *62*(1), 33–43. https://doi.org/10.1016/S0925-5273(98)00219-9

[14]. Zain, M., Rose, R. C., Abdullah, I., & Masrom, M. (2005). The relationship between information technology acceptance and organizational agility in Malaysia. *Information & Management*, *42*(6), 829–839. https://doi.org/10.1016/j.im.2004.09.001

[15]. Zanatta, F., Giardini, A., Pierobon, A., D'Addario, M., & Steca, P. (2022). A systematic review on the usability of robotic and virtual reality devices in neuromotor rehabilitation: Patients' and healthcare professionals' perspective. *BMC Health Services Research*, *22*(1), 523. https://doi.org/10.1186/s12913-022-07821-w