7-22-2023

Perception and Intent to Use Advance Data Analytic Technology

Jordan E.F. Bernot
University of North Texas, jordanbernot@my.unt.edu

Russel Torres
University of North Texas, russel.torres@unt.edu

Follow this and additional works at: https://aisel.aisnet.org/irais2023

Perception and Intent to Use Advance Data Analytic Technology

Jordan E.F. Bernot, jordanbernot@my.unt.edu; Russell Torres, russel.torres@unt.edu

Methods encompassed within data analytics continue to gain popularity within the business landscape. In some regard data analytics have revolutionize how business is conducted. This influence of data analytics and similar technologies on business apply significant pressure on professionals within certain business sectors to adapt to forthcoming changes. In this study we focus on the adoption and use of advanced data analytic technology (ADAT) within business disciplines. While a broad approach is utilized specific interest is placed on the field of accounting, particularly how this discipline perceives and moderates the inclusion of ADAT. Though ADAT has the potential to increase efficiency, reduce costs, and improve overall effectiveness of the decision-making process (Moll & Yigitbasioglu, 2019), accountants or the field of accounting has seemingly remained steadfast, and at times almost defiant, in their resistance to ADAT. This often takes the form of maintaining a sense of comfort and security with existing methods such as Excel (Schmidt et al., 2020). This may be due in part that Excel and similarly related technology represent a significant portion of tools utilized within popular accounting textbooks (Blix et al., 2021). Excel being ubiquitous as an accounting analytics technology solution and reinforcing accountants' exposure to and comfort with Excel as their primary information system (IS) technology.

The methods utilized by many accountants may seem traditional in terms of current advancements in accounting information systems (AIS). However, these traditional methods have proved to be foundational components of the domain as they have been consistent and reliable over time. However, the utilization of ADAT within organizations is becoming an increasingly important topic throughout business and prior research has identified a shortage of managers across all business fields with the necessary skills to understand, utilize, implement, and develop ADAT solutions (Huerta & Jensen, 2017). This study aims to identify the perception, willingness, and applicable level of adoption of ADAT by various business professionals, placing particular focus on accounting professionals. This study targets both incoming and current professionals' willingness to incorporate ADAT in their work roles. In addition, this study seeks to identify, by way of contrast, the effects that educational and professional experience may have on the adoption of ADAT solutions.

The study draws upon the Value-based Adoption Model (VAM) (Kim et al., 2007) to identify business professional's reluctance to the utilization of ADAT in current and future business practices. VAM was used in the context of this study as a theoretical foundation in order to better understand the perceived value as it relates to the intention to adopt ADAT within a certain context. In addition, VAM can provide a method through which benefits and sacrifice can be evaluated as antecedents of perception while enabling the examination of the effect of experience, both professional and educational, has on business professionals' willingness to adopt ADAT solutions. Through a theoretical understanding of VAM, we develop a framework and analyze the interplay between various aspects of accountant's willingness, knowledge, and utilization of ADAT.

This study contributes to the understanding of the various business disciplines as they relate to ADAT and specifically the profession of accounting, AIS, and IS literature. Utilization of the VAM lends itself to practical applications as it can assist in identification of factors that may serve a precursor to the evolution of organizational processes such as individuals' classification of benefits and sacrifices of new technology. The study extends previous research as it highlights the need for accountants to understand and adopt the skillset necessary to fully utilize and embrace ADAT (Schmidt et al., 2020). This study also extends the research through the understanding of new and emerging professionals and their intention to use the ADAT. Additionally, as a benefit of collecting and analyzing student data, this study allows for a relevant understand regarding the perception of technology adoption within the contemporary workforce.

The study contributes to the understanding of how an individual's experience as well as their education factor into the decision to incorporate ADAT with their current processes. The study also contributes to practice, providing insights as part of a holistic understanding as to why accountants have historically resisted change while clinging to their current methods. In addition, this research provides a foundation upon which future research will be able to explore whether certain identified characteristics remain consistent as accountants develop as professionals.

References

Blix, L. H., Edmonds, M. A., & Sorensen, K. B. (2021). How well do audit textbooks currently integrate Data analytics. *Journal of Accounting Education*, *55*, 100717. https://doi.org/10.1016/j.jaccedu.2021.100717

Huerta, E., & Jensen, S. (2017). An accounting information systems perspective on ADATa analytics and big ADATa. *Journal of Information Systems*, *31*(3), 101–114. https://doi.org/10.2308/isys-51799

Kim, H. W., Chan, H. C., & Gupta, S. (2007). Value-based Adoption of Mobile Internet: An empirical investigation. Decision Support Systems, 43(1), 111–126. https://doi.org/10.1016/j.dss.2005.05.009

Moll, J., & Yigitbasioglu, O. (2019). The role of internet-related technologies in shaping the work of accountants: New directions for accounting research. *British Accounting Review*, *51*(6). https://doi.org/10.1016/j.bar.2019.04.002

Schmidt, P. J., Riley, J., & Church, K. S. (2020). Investigating accountants' resistance to move beyond excel and adopt new ADATa analytics technology. *Accounting Horizons*, *34*(4), 165–180. https://doi.org/10.2308/HORIZONS-19-154