



Cloud Office Services and Student Satisfaction in Academic Document Management

May Dina Safira

Secretariat Department, Universitas Sumatera Utara, Medan 20155, Indonesia
maydinasafira119@gmail.com

ABSTRACT

This study examines student perceptions of Cloud Office services for academic document management at the Faculty of Economics and Business, Universitas Sumatera Utara. The study used a quantitative survey involving students who actively used Cloud Office services on the ASA USU platform. Participants were selected purposively, and data were collected through an online structured questionnaire addressing service effectiveness, document management efficiency, and student satisfaction. Partial least squares structural equation modeling was identified as the analytical method. The reported findings describe easier document storage, faster access to academic files, and better document organization, alongside favorable student perceptions of the service. However, the available results do not include the sample size, measurement model assessments, or structural path estimates. The findings therefore provide a preliminary account of perceived benefits and cannot establish statistical significance, effect magnitude, or a mediating relationship. Improving document access and organization remains a practical service priority, while a complete statistic report is necessary to evaluate the proposed relationships and support conclusions about effectiveness.

Keywords: Cloud Office; academic document management; student satisfaction

Received: 2 January 2025

Revised: 4 February 2025

Published: 30 March 2025

INTRODUCTION

Digital academic services enable students to access and manage documents without relying entirely on physical files or in-person administrative processes. Cloud computing provides one possible infrastructure for these services. Its institutional value depends on implementation conditions as well as technical capabilities. Odeh et al. (2015) examined potential strengths and risks of cloud adoption in higher education, while Ali (2019) identified technological, organizational, environmental, and personal perspectives in the adoption literature. These studies provide context for evaluating a particular service without assuming that cloud deployment automatically produces satisfied users.

Usefulness, ease of use, and satisfaction are related but distinct concepts. Davis (1989) developed measures of perceived usefulness and ease of use in technology acceptance research. Doll and Torkzadeh (1988) examined end-user satisfaction through dimensions including information content, accuracy, format, ease of use, and timeliness. In a university setting, Rai et al. (2002) evaluated information systems success models using an integrated student information system. Their study supports careful specification of constructs within the context in which the system is used.

The present study focuses on Cloud Office services on the ASA USU platform among students at the Faculty of Economics and Business, Universitas Sumatera Utara. It considers how perceived service effectiveness relates to academic document management and student satisfaction. The contribution is a context-specific account of students' reported experiences with document access and organization. The available evidence is assessed cautiously because the statistical results needed to evaluate the proposed relationships have not been reported in full.

METHODS

The study used a quantitative survey design at the Faculty of Economics and Business, Universitas Sumatera Utara. Participants were students who actively used Cloud Office services on the ASA USU platform. Purposive sampling was used to recruit users with relevant experience. This selection approach defines the scope of the study as participating service users; it does not establish that the responses represent all students at the university.

Data were collected through a structured questionnaire distributed online. The questionnaire addressed Cloud Office service effectiveness, academic document management efficiency, and student satisfaction. The source report does not specify the number of respondents, data collection period, response scale, item wording, or treatment of incomplete responses. These details are needed to establish how the constructs were measured and to assess the reproducibility of the study.

Partial least squares structural equation modeling (PLS-SEM) was identified as the analytical method. The available report does not include software details, model specification, indicator loadings, reliability estimates, or structural coefficients. Guidance from Hair et al. (2019) distinguishes the assessment of measurement quality from evaluation of structural relationships. The use of PLS-SEM alone therefore cannot substantiate a claim that a relationship is statistically supported.

Construct distinctiveness is particularly relevant when perceived service effectiveness and document management efficiency may involve similar questionnaire wording. Henseler et al. (2015) introduced the heterotrait-monotrait ratio for assessing discriminant validity, and Roemer et al. (2021) subsequently developed HTMT2 for congeneric measurement models. These methods identify assessment options; neither is presented here as a test already performed on the study data. The present report retains the qualitative direction of the supplied results without reconstructing missing numerical outputs.

RESULT AND DISCUSSION

The reported responses describe Cloud Office as helpful for storing academic documents, accessing files more quickly, and organizing academic materials. Students were also

described as perceiving the service as practical and easy to use. These observations identify the aspects of document management emphasized in the supplied results. No response distributions, mean scores, or comparisons with an earlier system were provided, so the magnitude and consistency of these perceptions cannot be determined.

The reported benefits are conceptually compatible with the usefulness and ease-of-use constructs examined by Davis (1989). They also relate to the application-specific view of satisfaction developed by Doll and Torkzadeh (1988). This correspondence provides a basis for interpretation, but it does not demonstrate that the present questionnaire used either validated instrument. Clear item definitions are needed before differences between the three constructs can be interpreted empirically.

University information systems research provides a relevant comparison. Rai et al. (2002) examined system quality, information quality, usefulness, satisfaction, and use within a student information system. In Indonesia, Mursityo (2018) studied lecturers' acceptance of an academic information system at Universitas Brawijaya. These contexts differ from student document management at USU, but both illustrate why the target users and specific application should remain explicit when evaluating a digital service.

The source account associates more efficient document management with favorable student satisfaction. However, it supplies no path coefficients, confidence intervals, or significance tests. A positive association, direct effect, and indirect effect are different statistical claims. In particular, the proposed role of document management between service effectiveness and satisfaction cannot be treated as established mediation without an estimated indirect effect and its uncertainty. No such estimate is reported here.

Satisfaction should also be distinguished from continued use. Bhattacharjee (2001) examined satisfaction and perceived usefulness in an expectation-confirmation model of information systems continuance. In an educational setting, Lashayo and Mhina (2021) investigated service and system quality in relation to instructors' intention to continue using e-learning systems. These studies suggest questions for future evaluation of ASA, but the present study does not report a continuance measure. It therefore cannot determine whether favorable perceptions lead to sustained use.

User group and institutional context may affect how a service is evaluated. Okazaki and Renda dos Santos (2012) studied e-learning adoption among university faculty in Brazil and found relationships that did not fully reproduce the original technology acceptance model. Their findings caution against assuming identical relationships across users and settings. For the USU study, information about participants' experience with ASA and their document-related tasks would help clarify the scope of the reported perceptions.

Cloud service assessment also extends beyond convenience. Van Der Schyff and Krauss (2014) examined trust and information security in South African higher education, while Odeh et al. (2017) investigated cloud adoption enablers and barriers in Jordanian institutions. Their work identifies institutional and trust-related considerations that could be examined in a broader evaluation. Security performance and student trust were not documented as measured outcomes in the present report, so no conclusions about them are drawn.

A practical implication is to evaluate improvements against the tasks students need to complete. Document access and organization are suitable starting points because they

appear in the reported experiences. Future assessment could combine clearly defined questionnaire items with observed task completion or retrieval times. Such measures would help distinguish perceived efficiency from changes in operational performance. This is a recommendation for subsequent evaluation, not a description of data already collected.

The principal limitation is the absence of the numerical survey and PLS-SEM results required to assess the proposed relationships. The unreported sample size also prevents an assessment of statistical power or sampling coverage. The findings should therefore be treated as preliminary descriptions of perceived benefits. A complete analysis should document participant characteristics, measurement quality, and structural results before drawing conclusions about service effectiveness or generalizing beyond the participating users.

CONCLUSION

The reported student experiences suggest that Cloud Office services on ASA USU support convenient storage, access, and organization of academic documents. Favorable satisfaction is described in the source account, but the available evidence does not establish the magnitude or statistical significance of the proposed relationships. Service improvement can focus on the document management tasks identified by students. Completion of the survey and PLS-SEM reporting is necessary before stronger conclusions about effectiveness or mediation can be supported.

BIBLIOGRAPHY

- Ali, M. B. (2019). Multiple perspective of cloud computing adoption determinants in higher education a systematic review. *International Journal of Cloud Applications and Computing*, 9(3), 89–109. <https://doi.org/10.4018/ijcac.2019070106>
- Bhattacharjee, A. (2001). Understanding information systems continuance: An expectation-confirmation model. *MIS Quarterly*, 25(3), 351–370. <https://doi.org/10.2307/3250921>
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>
- Doll, W. J., & Torkzadeh, G. (1988). The measurement of end-user computing satisfaction. *MIS Quarterly*, 12(2), 259–274. <https://doi.org/10.2307/248851>
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/eb-11-2018-0203>
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>

- Lashayo, D. M., & Mhina, J. R. A. (2021). Antecedents of instructor intention to continue using e-learning systems in higher learning institutions in Tanzania. *International Journal of Technology-Enabled Student Support Services*, 11(1), 1–16. <https://doi.org/10.4018/ijtesss.2021010101>
- Mursityo, Y. T. (2018). Analysis of Brawijaya University academic information systems acceptance on the user characteristic, system quality, support of top management and information technology, perceived usefulness, and perceived ease of use. *Journal of Information Technology and Computer Science*, 3(2), 202–213. <https://doi.org/10.25126/jitecs.20183270>
- Odeh, M., Garcia-Perez, A., & Warwick, K. (2017). Cloud computing adoption at higher education institutions in developing countries: A qualitative investigation of main enablers and barriers. *International Journal of Information and Education Technology*, 7(12), 921–927. <https://doi.org/10.18178/ijiet.2017.7.12.996>
- Odeh, M., Warwick, K., & Garcia-Perez, A. (2015). The impacts of cloud computing adoption at higher education institutions: A SWOT analysis. *International Journal of Computer Applications*, 127(4), 15–21. <https://doi.org/10.5120/ijca2015906367>
- Okazaki, S., & Renda dos Santos, L. M. (2012). Understanding e-learning adoption in Brazil: Major determinants and gender effects. *The International Review of Research in Open and Distributed Learning*, 13(4), 91. <https://doi.org/10.19173/irrodl.v13i4.1266>
- Rai, A., Lang, S. S., & Welker, R. B. (2002). Assessing the validity of IS success models: An empirical test and theoretical analysis. *Information Systems Research*, 13(1), 50–69. <https://doi.org/10.1287/isre.13.1.50.96>
- Roemer, E., Schuberth, F., & Henseler, J. (2021). HTMT2—an improved criterion for assessing discriminant validity in structural equation modeling. *Industrial Management & Data Systems*, 121(12), 2637–2650. <https://doi.org/10.1108/imds-02-2021-0082>
- Van Der Schyff, K., & Krauss, K. (2014). Higher education cloud computing in South Africa: Towards understanding trust and adoption issues. *South African Computer Journal*, 55. <https://doi.org/10.18489/sacj.v55i0.254>