Intelligent IT governance decision-making support framework for a developing country's public university  

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Abstract

Decision support systems (DSS) can be helpful tools in university's planning and management. Decision support systems can contribute to efficient exchange of information between experts, stakeholders, decision makers and laypeople. However, intelligent Information technology (IT) governance decision support system for public universities is yet to be thoroughly investigated. This is because IT governance (ITG) is just evolving as a new paradigm to take care the stakeholders' expectations in leveraging IT with business goals. This study explores issues of IT governance and the suggestion for ITG intelligent decision making support system (IDMSS) in a public university in Malaysia. The interviews and documents were analysed to generate themes. The findings show the need for effective IT governance in the university. This will enable optimal usage of IT resources, which are expected to have an impact on the university's performance. The findings is aligned to Control Objectives for Information and related Technology (COBIT) framework and then several proposals from extant researches on IDMSS are described to form a basis for an intelligent ITG DMSS framework suitable for adoption in the context of public Institutes of Higher learning in Malaysia. © 2014 - IOS Press and the authors. All rights reserved.

Cited by 3 documents

- Public ICT governance: A quasi-systematic review

- IT governance for public universities: Developing a model

- IT governance for public universities: Proposal for a framework using Design Science Research

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- IDMSS
- institutes of higher learning
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References (46)

7. Arnott, D., Pervan, G.
A critical analysis of decision support systems research
View at Publisher

Catch: Decision support for stakeholders in catchment areas
View at Publisher

9. Turban, E., Aronson, J.E.

10. Golovina, E.Y.
An approach to designing intelligent decision-making support systems on the basis of the logic-semiotic apparatus
doi: 10.1109/ICAIS.2002.1048082
View at Publisher

11. Bannister, F., Remenyi, D.
Why IT continues to matter: Reflections on the strategic value of IT

12. Forgionne, G., Mora, M., Gupta, J., Gelman, O.
Decisionmaking support systems

Decision support for participatory wetland decision-making
doi: 10.1016/j.ecoleng.2006.11.004
View at Publisher

14. Simon, H.A.


Board briefing on IT governance, IT governance institute (2003) Rolling Meadows


32. Webb, P., Pollard, C., Ridley, G.

**Attempting to define IT governance: Wisdom or folly?**

doi: 10.1109/HICSS.2006.68

View at Publisher

33. Weill, P., Ross, J.

Designing IT governance

34. Weill, P., Ross, J.W.


35. Galliers, R.D.

Strategic information systems planning: Myths, reality and guidelines for successful implementation

36. Yin, R.K.

Sage Thousand Oaks

37. Kaplan, R.S., Norton, D.P.

**The balanced scorecard--measures that drive performance.**


View at Publisher

38. Yanosky, R., Caruso, J.B.

Process and politics: IT governance in higher education


**Integrated decision support systems: A data warehousing perspective**

doi: 10.1016/j.dss.2005.05.029

View at Publisher

40. Pardo, T.A., Gil-Garcia, J.R., Burke, G.B.

Governance structures in cross-boundary information sharing: Lessons from state and local criminal justice initiatives

4438915. Cited 23 times.
ISBN: 0769530753; 978-076953075-8
doi: 10.1109/HICSS.2008.185

View at Publisher
Belfourd, T., Furner, J.
Fast learners or time wasters? Intelligent agents on the Web: A user study

Kim, T.H., Hong, G.H., Park, S.C.
Developing an intelligent web information system for minimizing information gap in government agencies and public institutions
doi: 10.1016/j.eswa.2007.01.041

Vathanophas, V., Stuart, L.
Enterprise resource planning: Technology acceptance in Thai universities
doi: 10.1080/17517570802653800

Van Grembergen, W., De Haes, S.
Enterprise governance of IT in Practice in W. Van Grembergen Enterprise Governance of Information Technology

Van Grembergen, W., De Haes, S., Guldentops, E.
 Structures, processes and relational mechanisms for IT governance

Arshad, Y.
unpublished Ph.D dissertation, faculty of information and communication technology International Islamic University Malaysia

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