



Scopus

Document details

[< Back to results](#) | 1 of 1[Export](#) [Download](#) [Print](#) [E-mail](#) [Save to PDF](#) [Add to List](#) [More... >](#)[Full Text](#)[View at Publisher](#)Intelligent Decision Technologies
Volume 8, Issue 2, 2014, Pages 131-146

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

Arshad, Y.^a , Ahlan, A.R.^b, Ajayi, B.A.^b ^aDepartment of Technology Management, Faculty of Technology Management and Technopreneurship, Universiti Teknikal Malaysia Melaka, Melaka, Malaysia^bDepartment of Information Systems, Faculty of Information and Communication Technology, International Islamic University Malaysia, Gombak, Kuala Lumpur, Malaysia

Abstract

[View references \(46\)](#)

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.

Author keywords

decision making IDMSS institutes of higher learning IT governance Malaysia

Indexed keywords

Engineering Artificial intelligence Decision making Decision support systems Developing countries
controlled terms:Metrics  [View all metrics >](#)3 Citations in Scopus
45th Percentile0.33 Field-Weighted
Citation ImpactPlumX Metrics Usage, Captures, Mentions,
Social Media and Citations
beyond Scopus.

Cited by 3 documents

Public ICT governance: A quasi-systematic review

Da Silva, M.B.D. , Silva, E.C. , De Carvalho Filho, F.A.
(2017) *ICEIS 2017 - Proceedings of the 19th International Conference on Enterprise Information Systems*

IT Governance for public universities: Developing a model

Bianchi, I.S. , De Sousa, R.D.
(2015) *Proceedings of the 26th International Business Information Management Association Conference - Innovation Management and Sustainable Economic Competitive Advantage: From Regional Development to Global Growth, IBIMA 2015*

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

Bianchi, I. , de Sousa, R.D.
(2015) *Espacios*[View all 3 citing documents](#)

Inform me when this document is cited in Scopus:

[Set citation alert >](#)[Set citation feed >](#)

Control objectives
for information and
related technologies

Decision making
support

Decision support
system (dss)

Higher learning

IDMSS

Intelligent decision
making

IT governance

Malaysia

Engineering main
heading: Information technology

ISSN: 18724981

Source Type: Journal

Original language: English

DOI: 10.3233/IDT-130183

Document Type: Article

Publisher: IOS Press

References (46)

[View in search results format >](#)

All [Export](#) [Print](#) [E-mail](#) [Save to PDF](#) [Create bibliography](#)

- 1 Ahlan, A.R., Arshad, Y., Lubis, M.
Implication of human attitude factors toward information security awareness in Malaysia public university
(2011) *International Conference on Innovation and Management*
Kuala Lumpur, Malaysia

- 2 Rai, A., Sambamurthy, V.
Editorial notes-the growth of interest in services management: Opportunities for
information systems scholars

(2006) *Information Systems Research*, 17 (4), pp. 327-331. Cited 164 times.

<http://isr.journal.informs.org/cgi/reprint/17/4/327.pdf>

doi: 10.1287/isre.1060.0108

[View at Publisher](#)

- 3 Ajayi, B.A., Badi, B., Al-Ani, M., Dahlan, A.
Taking community-based system to Malaysian communities for disaster management
(2011) *International Journal of Humanities and Social Science*, 1 (7), pp. 171-177. Cited 3 times.

- 4 Graham, C.
Business intelligence software market grows by 12% (Gartner Research Report ID. G00130216)
(2005) *Gartner Inc*
Stamford, CT

- 5 Ruland, C.M., Bakken, S.
Developing, implementing, and evaluating decision support systems for shared
decision making in patient care: A conceptual model and case illustration

(2002) *Journal of Biomedical Informatics*, 35 (5-6), pp. 313-321. Cited 37 times.

doi: 10.1016/S1532-0464(03)00037-6

[View at Publisher](#)

Related documents

IT Governance in a Malaysian
Public Institute of Higher
Learning and Intelligent Decision
Making Support System Solution

Ahlan, A.R. , Arshad, Y. , Ajayi,
B.A.

(2014) *Intelligent Systems
Reference Library*

Role of governance, ethics and
integrity in managing
information technology
resources: Muslim practitioner's
view

Ahlan, A.R. , Ajayi, B.A. , Hussin,
H.

(2013) *2013 5th International
Conference on Information and
Communication Technology for
the Muslim World, ICT4M 2013*

Exploring information
technology governance in a
Malaysian public university:
Providers' perspectives

Ajayi, B.A. , Hussin, H.
(2014) *2014 the 5th International
Conference on Information and
Communication Technology for
the Muslim World, ICT4M 2014*

[View all related documents based
on references](#)

[Find more related documents in
Scopus based on:](#)

[Authors >](#) [Keywords >](#)

-
- 6 (2000) *Control Objectives for Information and Related Technologies (COBIT)*. Cited 23 times.
3rd eds USA: IT Governance Institute
-
- 7 Arnott, D., Pervan, G.
A critical analysis of decision support systems research

(2005) *Journal of Information Technology*, 20 (2), pp. 67-87. Cited 226 times.
doi: 10.1057/palgrave.jit.2000035

View at Publisher
-
- 8 Collentine, D., Forsman, Å., Galaz, V., Bastviken, S.K., Ståhl-Delbanco, A.
Catch: Decision support for stakeholders in catchment areas

(2002) *Water Policy*, 4 (5), pp. 447-463. Cited 13 times.
doi: 10.1016/S1366-7017(02)00038-7

View at Publisher
-
- 9 Turban, E., Aronson, J.E.
(1998) *Decision Support Systems and Intelligent Systems*. Cited 1309 times.
London:Prentice-Hall
-
- 10 Golovina, E.Y.
An approach to designing intelligent decision-making support systems on the basis of the logic-semiotic apparatus

(2002) *Proceedings - 2002 IEEE International Conference on Artificial Intelligence Systems, ICAIS 2002*, art. no. 1048082, pp. 169-176. Cited 2 times.
ISBN: 0769517331; 978-076951733-9
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
(2005) *Electronic Journal of Information Systems Evaluation*, 8 (3), pp. 159-168. Cited 12 times.
-
- 12 Forgionne, G., Mora, M., Gupta, J., Gelman, O.
Decisionmaking support systems
(2005) *Encyclopedia of Information Science and Technology*, pp. 759-765. Cited 10 times.
-
- 13 Goosen, H., Janssen, R., Vermaat, J.E.
Decision support for participatory wetland decision-making

(2007) *Ecological Engineering*, 30 (2 SPEC. ISS.), pp. 187-199. Cited 25 times.
doi: 10.1016/j.ecoleng.2006.11.004

View at Publisher
-
- 14 Simon, H.A.
(1977) *The New Science of Management Decision*. Cited 2016 times.
NJ:Prentice-Hall
-

-
- 15 Watson, H.J., Fuller, C., Ariyachandra, T.
Data warehouse governance: Best practices at Blue Cross and Blue Shield of North Carolina
(2004) *Decision Support Systems*, 38 (3), pp. 435-450. Cited 80 times.
doi: 10.1016/j.dss.2003.06.001
[View at Publisher](#)
-
- 16 Nemati, H.R., Steiger, D.M., Iyer, L.S., Herschel, R.T.
Knowledge warehouse: An architectural integration of knowledge management, decision support, artificial intelligence and data warehousing
(2002) *Decision Support Systems*, 33 (2), pp. 143-161. Cited 205 times.
doi: 10.1016/S0167-9236(01)00141-5
[View at Publisher](#)
-
- 17 Board briefing on IT governance, IT governance institute
(2003) *Rolling Meadows*
ITGI
-
- 18 Grix, J.
(2004) *The Foundations of Research*. Cited 79 times.
New York:Palgrave Macmillan
-
- 19 Saldana, J.
(2009) *The Coding Manual for Qualitative Researchers*. Cited 2782 times.
Sage Publication London
-
- 20 Creswell, J.W.
(2008) *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research 3rd Ed*. Cited 2572 times.
Merrill. Upper Saddle River
-
- 21 Miles, M.B., Huberman, A.M.
(1994) *Qualitative Data Analysis: An Expanded Sourcebook*. Cited 29925 times.
2nd ed., Sage Thousand Oaks
-
- 22 Myers, M.D.
Qualitative research in information systems
(1997) *MIS Quarterly: Management Information Systems*, 21 (2), pp. 241-242. Cited 611 times.
[View at Publisher](#)
-
- 23 Marrone, M., Hoffman, L., Kolbe, L.M.
IT executives' perception of CobiT: Satisfaction, business-IT alignment and benefits
(2010) *Proceedings of the Sixteenth Americas Conference on Information Systems*, pp. 1-10. Cited 3 times.
Lima, Peru
-

-
- 24 Patton, M.Q.
(1990) *Qualitative Evaluation Methods*. Cited 17131 times.
Sage Thousand Oaks
-
- 25 Simonsson, M.
(2008) *Predicting IT Governance Performance: A Method for Model-based Decision Making Unpublished Doctoral Thesis, Industrial Information and Control Systems KTH*
Royal Institute of Technology Stockholm, Sweden
-
- 26 Simonsson, M., Johnson, P., Ekstedt, M.
The effect of IT governance maturity on IT governance performance

(2010) *Information Systems Management*, 27 (1), pp. 10-24. Cited 35 times.
doi: 10.1080/10580530903455106

[View at Publisher](#)
-
- 27 Vicziány, M., Puteh, M.
Vision 2020, the multimedia supercorridor and Malaysian universities
(2004) *Proceedings 15th Biennial Conference of Asian Studies Association of Australia*, pp. 1-20. Cited 13 times.
D.R. Cribb, ed., Canberra, Australia
-
- 28 Ismail, N.A.
Information technology governance, funding and structure: A case analysis of a public university in Malaysia

(2008) *Campus-Wide Information Systems*, 25 (3), pp. 145-160. Cited 12 times.
doi: 10.1108/10650740810886321

[View at Publisher](#)
-
- 29 Carr, N.G.
IT Doesn't Matter

(2003) *Harvard Business Review*, 81 (5), pp. 41-49+128. Cited 1037 times.

[View at Publisher](#)
-
- 30 Venkatraman, N.
Valuing the IS contributions to business
(1999) *Computer Sciences Corporation*. Cited 4 times.
-
- 31 Orriols-Puig, A., Martínez-López, F.J., Casillas, J., Lee, N.
Unsupervised KDD to creatively support managers' decision making with fuzzy association rules: A distribution channel application

(2013) *Industrial Marketing Management*, 42 (4), pp. 532-543. Cited 6 times.
doi: 10.1016/j.indmarman.2013.03.005

[View at Publisher](#)
-

-
- 32 Webb, P., Pollard, C., Ridley, G.
Attempting to define IT governance: Wisdom or folly?

(2006) *Proceedings of the Annual Hawaii International Conference on System Sciences*, 8, art. no. 1579684, p. 194a. Cited 115 times.
ISBN: 0769525075; 978-076952507-5
doi: 10.1109/HICSS.2006.68

[View at Publisher](#)
-
- 33 Weill, P., Ross, J.
Designing IT governance
(2005) *MIT Sloan Management Review*. Cited 3 times.
-
- 34 Weill, P., Ross, J.W.
(2004) *IT Governance-how Top Performers Manage IT Decision Rights for Superior Results*. Cited 517 times.
Harvard Business School Press: Boston
-
- 35 Galliers, R.D.
Strategic information systems planning: Myths, reality and guidelines for successful implementation
(1991) *European Journal of Information Systems*, pp. 55-64. Cited 190 times.
-
- 36 Yin, R.K.
(2003) *Case Study Research: Design and Methods*. Cited 44683 times.
Sage Thousand Oaks
-
- 37 Kaplan, R.S., Norton, D.P.
The balanced scorecard--measures that drive performance.

(1992) *Harvard Business Review*, 70 (1), pp. 71-79. Cited 5236 times.

[View at Publisher](#)
-
- 38 Yanosky, R., Caruso, J.B.
Process and politics: IT governance in higher education
(2008) *Educause Centre for Applied Research*, pp. 1-10. Cited 2 times.
-
- 39 March, S.T., Hevner, A.R.
Integrated decision support systems: A data warehousing perspective


(2007) *Decision Support Systems*, 43 (3), pp. 1031-1043. Cited 157 times.
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

(2008) *Proceedings of the Annual Hawaii International Conference on System Sciences*, art. no. 4438915. Cited 23 times.
ISBN: 0769530753; 978-076953075-8
doi: 10.1109/HICSS.2008.185

[View at Publisher](#)
-

- 41 Belfour, T., Furner, J.
Fast learners or time wasters? Intelligent agents on theWeb: A user study
(1997) *Managing Information*, 4 (9), pp. 32-34. Cited 6 times.
-
- 42 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
(2008) *Expert Systems with Applications*, 34 (3), pp. 1618-1629. Cited 2 times.
doi: 10.1016/j.eswa.2007.01.041
[View at Publisher](#)
-
- 43 Vathanophas, V., Stuart, L.
Enterprise resource planning: Technology acceptance in Thai universities
(2009) *Enterprise Information Systems*, 3 (2), pp. 133-158. Cited 17 times.
doi: 10.1080/17517570802653800
[View at Publisher](#)
-
- 44 Van Grembergen, W., De Haes, S.
Enterprise governance of IT in Practice in W. Van Grembergen *Enterprise Governance of Information Technology*
(2009) *Springer Science + Business Media*, pp. 21-75.
-
- 45 Van Grembergen, W., De Haes, S., Guldentops, E.
Structures, processes and relational mechanisms for IT governance
(2004) *Strategies for Information Technology Governance*, pp. 1-36. Cited 180 times.
W. Van Grembergen, ed., Idea Group Publishing, Hershey
-
- 46 Arshad, Y.
IT Outsourcing Decisions and Implementations in Malaysia Public Healthcare Sector Agencies: Grounding An ITO Relationship Model Using Qualitative Approach, 2012.
unpublished Ph.D dissertation, faculty of information and communication technology International Islamic University Malaysia

 Arshad, Y.; Department of Technology Management, Faculty of Technology Management and Technopreneurship, Universiti Teknikal Malaysia Melaka, Malaysia; email:ayusri@utem.edu.my

© Copyright 2014 Elsevier B.V., All rights reserved.

[< Back to results](#) | 1 of 1

[^ Top of page](#)

About Scopus

[What is Scopus](#)
[Content coverage](#)
[Scopus blog](#)
[Scopus API](#)
[Privacy matters](#)

Language

[日本語に切り替える](#)
[切换到简体中文](#)
[切换到繁體中文](#)
[Русский язык](#)

Customer Service

[Help](#)
[Contact us](#)

