



IT Service Management Research and Education: A Global View

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Agenda

- Introduction to ITSM
- ITSM Education
- ITSM Curriculum Development
- ITSM Research: Web of Science
- Remarks
- Reference List

Introduction to ITSM-1

- A service is defined as a time-perishable, intangible experience performed for a customer acting in the role of a co-producer [Sasser, 1978].
- In the ITIL sense, service is defined as **a means of delivering value to customers by facilitating outcomes the customers want to achieve without the ownership of specific costs or risks** [Orand, 2011].

Introduction to ITSM-2

- Services Science builds on the term “**service**” by incorporating the people, processes, and technology elements that interact to deliver a GBS (Government and Business Services) [Galup, 2007].
- **Informatics, Operations Research, Business Administration, and Social, Cognitive and the Legal Sciences.**

Introduction to ITSM-3

- Information Technology Service Management (ITSM) is considered as a sub discipline of the Services Science which **focuses on the delivery and support of IT services to customers.**
- Information Technology Infrastructure Library (ITIL), is known as the set of best practices, which provides the basic standards of the service delivery and support processes.

Introduction to ITSM-4

- In the IT sector, ITIL is complemented by the other process improvement models such as
 - COBit
 - TQM
 - Six Sigma
 - CMMI and
 - **ISO/IEC 20000 Standards for ITSM**

ITSM Education-1

- Designing an ITSM curriculum:
 - Inclusion of ITSM content into traditional IS courses
 - Creating new ITSM courses, both at the undergraduate and/or graduate levels, and related curricula from scratch.
 - Creation of certificate programs in ITSM or designations of “Minors in ITSM” with the traditional CS and IS degrees

ITSM Education-2

- ITSM in System Architecture, OS and Networking courses
- ITSM in Security Management
- ITSM concepts in the introductory IT/IS Management courses
- ITSM in Infrastructure Management
- ITSM in Service or Relationship Management
- ITSM in SOA
- ITSM in Software Development Services
- ITSM in Autonomic Computing (Cloud Computing Infrastructure)
- ITSM in Network Management
- ITSM in Storage Management

ITSM Education-3

- Creating a new ITSM course based on ITIL and COBit, and IBM's ITSC (IT Services Curriculum program)
 - ITSC Program is a specific implementation of SSME (Service Science Management & Engineering) where the class of services is those for operating IT.
 - ITSC has identified a set of over 100 IT services topics that combine to form courses, represent full semester courses, or combine or expand into full degree curricula.
 - The courses are designed to be implemented across disciplines or within existing computer science, management information systems, or business administration degree programs.
 - Universities may use or modify the course material, and IBM assists in developing courses of interest.

ITSM Education-4

- *Existing ITSM Programs*
- There have been over 360 universities worldwide that have downloaded the ITSC Program's Foundations in IT Services I and II course material.

ITSM Programs-1

<ul style="list-style-type: none"> • Missouri State ITSM Undergraduate Program 	<ul style="list-style-type: none"> • MS Certificate Dallas University • Arizona State University • Indiana University • San Jose State University • New Jersey Institute of Technology • Metropolitan Community College 	<ul style="list-style-type: none"> • University of Wisconsin – River Falls • Webster University • Temple University • Nicholls State University • Carnegie Mellon • Stevens Institute • BYU Hawaii 	<ul style="list-style-type: none"> • SIPA • Neumont University • OSU • Bowling Green State University • DeVry • Capella University
<ul style="list-style-type: none"> • NCSU • Florida Atlantic University • Appalachian State University • Marist University • Florida State University 	<ul style="list-style-type: none"> • Brno University of Technology – Czech Republic • Masaryk University - Czech Republic • University of Economics Prague - Vysoka Skola Ekonomicka – Czech Republic 	<ul style="list-style-type: none"> • University of Sofia – Bulgaria • Sofia University St. Kliment Ohridski – Bulgaria 	<p>MS ITSM The University of Northampton - UK</p>
<ul style="list-style-type: none"> • MS ITSM At Atilim University - Turkey • Bilgi University - Turkey • Bahçeşehir University - Turkey • Ozyeğin University - Turkey • Sabancı University- Turkey • Kültür University - Turkey 			

ITSM Programs-3

<ul style="list-style-type: none"> University of Savoie - IAE Savoie Mont-Blanc - France 	<ul style="list-style-type: none"> University of Applied Sciences Zittau/Goerlitz Denmark 	<ul style="list-style-type: none"> National University of Singapore Temasek - Singapore 	<ul style="list-style-type: none"> DePaul (MBA ITSM Concentration)
<ul style="list-style-type: none"> College of Technology (COLTECH) - Vietnam National University 	<ul style="list-style-type: none"> Faculty of Engineering of University of Porto (FEUP) – Portugal Instituto Superior Engenharia do Porto – Portugal 	<ul style="list-style-type: none"> Universiti Teknologi Malaysia APIIT/UCTI– Malaysia Asia eUniversity – Malaysia INTI – Malaysia Universiti Kebangsaan Malaysia Albukhary International University - Malaysia 	<ul style="list-style-type: none"> Peking University Northeastern University Software College – China Wuhan University – China
<ul style="list-style-type: none"> AUT University - New Zealand Whitireia Polytechnic - New Zealand 	<p>Universita' degli Studi di Roma - Italy</p>		

ITSM Curriculum Development

- Infrastructure of the base department/program
- Minimum requirements of ITSM
- Staffing
- Research interests
- Industrial relations
- Support from related disciplines
- Management Sciences
- Industrial Engineering
- CS, IT/IS, Computer/Software Engineering

ITSM Research: Web of Science-1

- A keyword search was conducted on Web of Science (WOS) indexes to find the number of research articles published in ITSM and related areas. Topic terms:
 - Title, Abstract, Author Keywords
 - Keywords Plus (are index terms created by Thomson Reuters in which the terms are derived from the titles of articles cited by the author of the article being indexed. *KeyWords Plus* augments traditional keyword or title retrieval.)

ITSM Research: Web of Science-3

- Two sets of keywords are used.
- First set: Table 2 - covers ITSM and a wide range of topics in related areas, including service quality. In general, frameworks (ITIL, COBit, and CMMI), service science and some ITSM standards.
- Second set: Table 3 – covers a limited number of keywords, which incorporates the key areas of research in ITSM.

ITSM Research: Web of Science-4

#	Keyword Search – Set 1	Category
1	ITSM; IT Service Management; Information Technology Service Management	ITSM
2	ITIL	FRAMEWORK
3	COBIT	FRAMEWORK
4	CMMI	FRAMEWORK
5	BS 15000	STANDARDS
6	ISO 20000; ISO/IEC 20000	STANDARDS

ITSM Research: Web of Science-5

#	Keyword Search Set 2	Category
1	Service Science; Services Science	SERVICE SCIENCE
2	ITSM; IT Service Management; Information Technology Service Management	ITSM
3	ITIL	FRAMEWORK
4	COBit	FRAMEWORK
5	CMMI	FRAMEWORK
6	Six Sigma	FRAMEWORK
7	TQM; Total Quality Management	FRAMEWORK
8	eTOM	FRAMEWORK
9	ISO 20000; ISO/IEC 20000	STANDARDS
10	BS 15000	STANDARDS

ITSM Research: Web of Science-6

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Web of Science

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Web of Science®

Results Topic=("itsm" or "it service management" or "information technology service management" or "iso 20000" or "iso/iec 20000" or "itil" or "cobit" or "cmmi" or "bs 15000")

Timespan=2012. Databases=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH.

Lemmatization=On

Scientific WebPlus^{BETA}
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Note: Alternative forms of your search term (for example, tooth and teeth) may have been applied, in particular for Topic or Title searches that do not contain quotation marks around the terms. To find only exact matches for your terms, turn off the "Lemmatization" option on the search page.

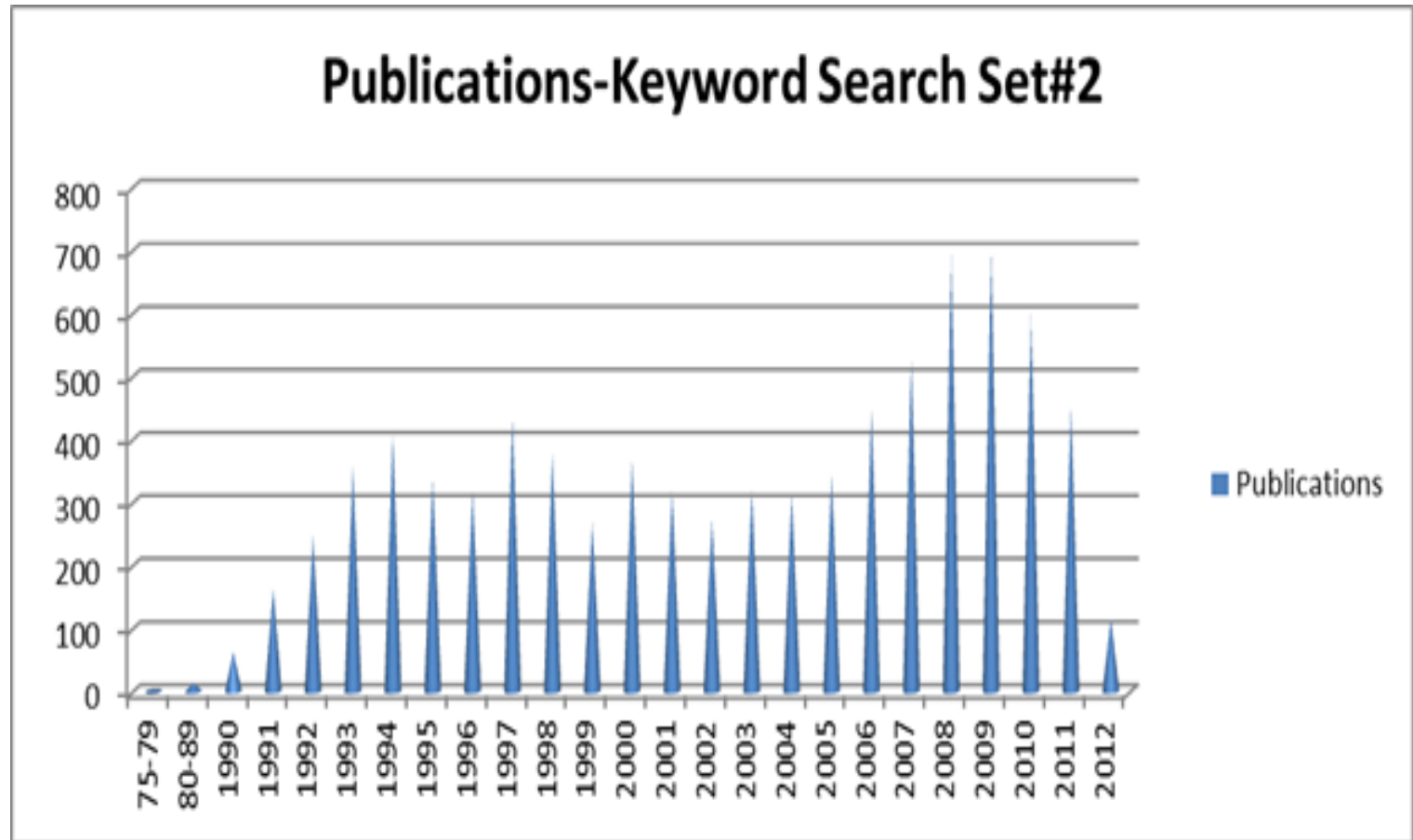
Results: 20

Page 1 of 2 [Go](#)

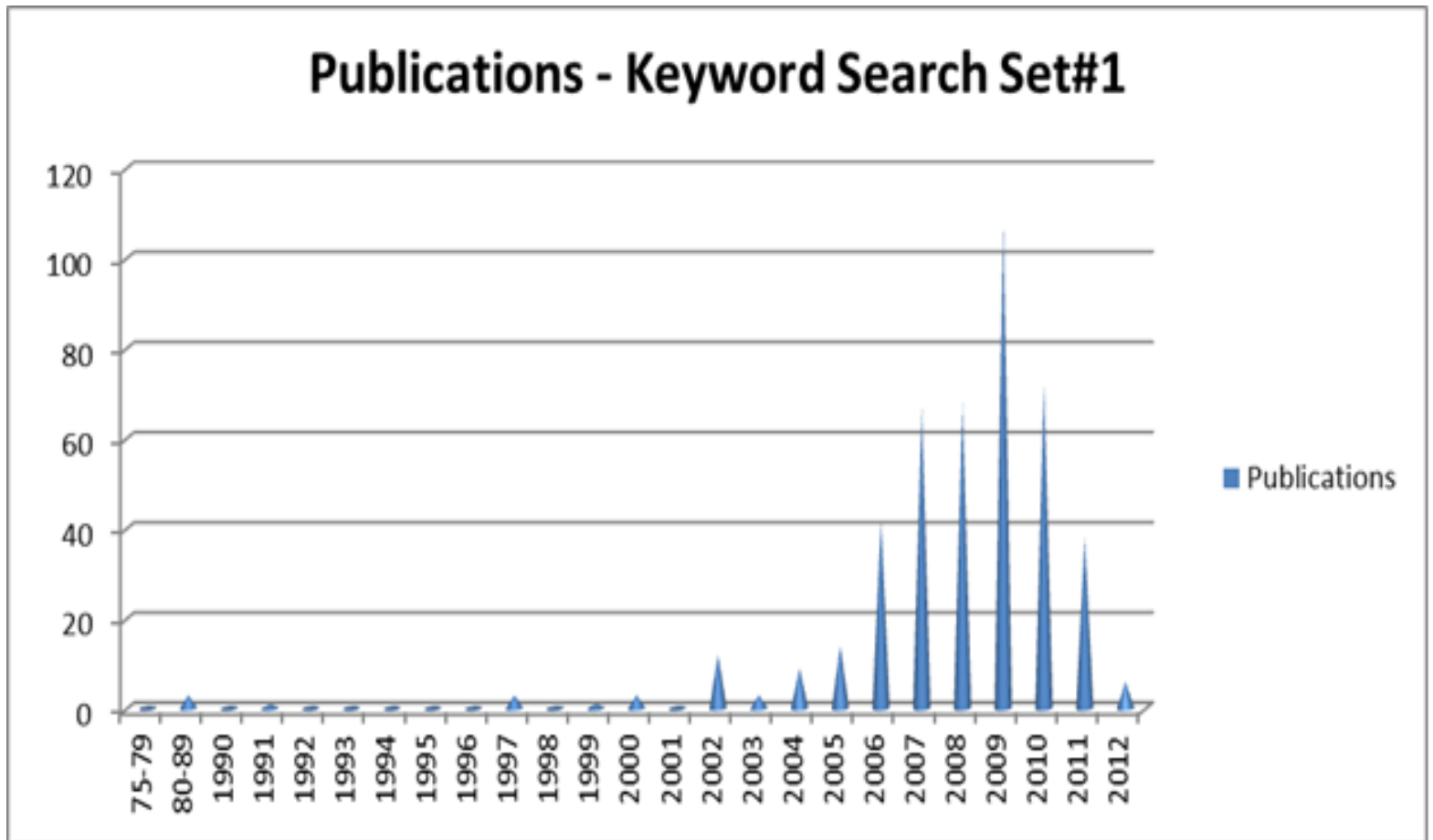
Sort by:

Publication Date -- newest to oldest

ITSM Research: Web of Science-7



ITSM Research: Web of Science-8



Remarks

- This article investigates the research and education activities in the ITSM discipline from a global point of view by using the research output as displayed in the Web of Science and searching the training programs at the undergraduate and graduate levels all around the world.
- Some issues concerning the development of ITSM programs in the universities and educational institutions are also discussed.
- A further study may elaborate some of the data about the ITSM degree and certificate programs in the World by region and content.

References

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