APTIKOM
ASOSIASI PENDIDIKAN TINGGI INFORMATIKA DAN KOMPUTER
INDONESIAN ASSOCIATION OF HIGHER EDUCATION IN INFORMATICS AND COMPUTING

Insider's Guide to Academic Writing: Tips and Trick

Dr. Achmad Nizar Hidayanto

Universitas Indonesia

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Purpose

The purpose of this workshop is to describe and practice writing a scholarly paper.

1. I will introduce the importance of topic selection
2. I will explain the importance of writing papers in high quality journals
3. I will explain the main points that need to be addressed in each of the major sections commonly found in scholarly papers.

WHY IS IT IMPORTANT TO SELECT A GOOD RESEARCH TOPIC?

Research….

- The process of exploring the unknown, studying and learning new things, building new knowledge about things that no one has understood before - that is what we think of as performing research
- The activity of a diligent and systematic inquiry or investigation in an area, with the objective of discovering or revising facts, theories, applications etc. The goal is to discover and disseminate new knowledge

Why is it Important to Select a Good Research Topic?

- A good topic is a key for international publication!!
  - Although you write your paper very well, if the topic is not good, your effort will be useless

Criteria for a Good Research Topic

- A good research topic should be:
  - Feasible (can be done/workable)
  - Interesting (up-to-date, wider audience, etc.)
  - Novel (solving theoretical gap)
  - Ethical
  - Relevant (has an implication)

These criteria have been collectively called the FINER formula (Hulley et al., 2001)

WHERE TO GET INSPIRATIONS FOR YOUR RESEARCH TOPICS? EVALUATING JOURNAL QUALITY

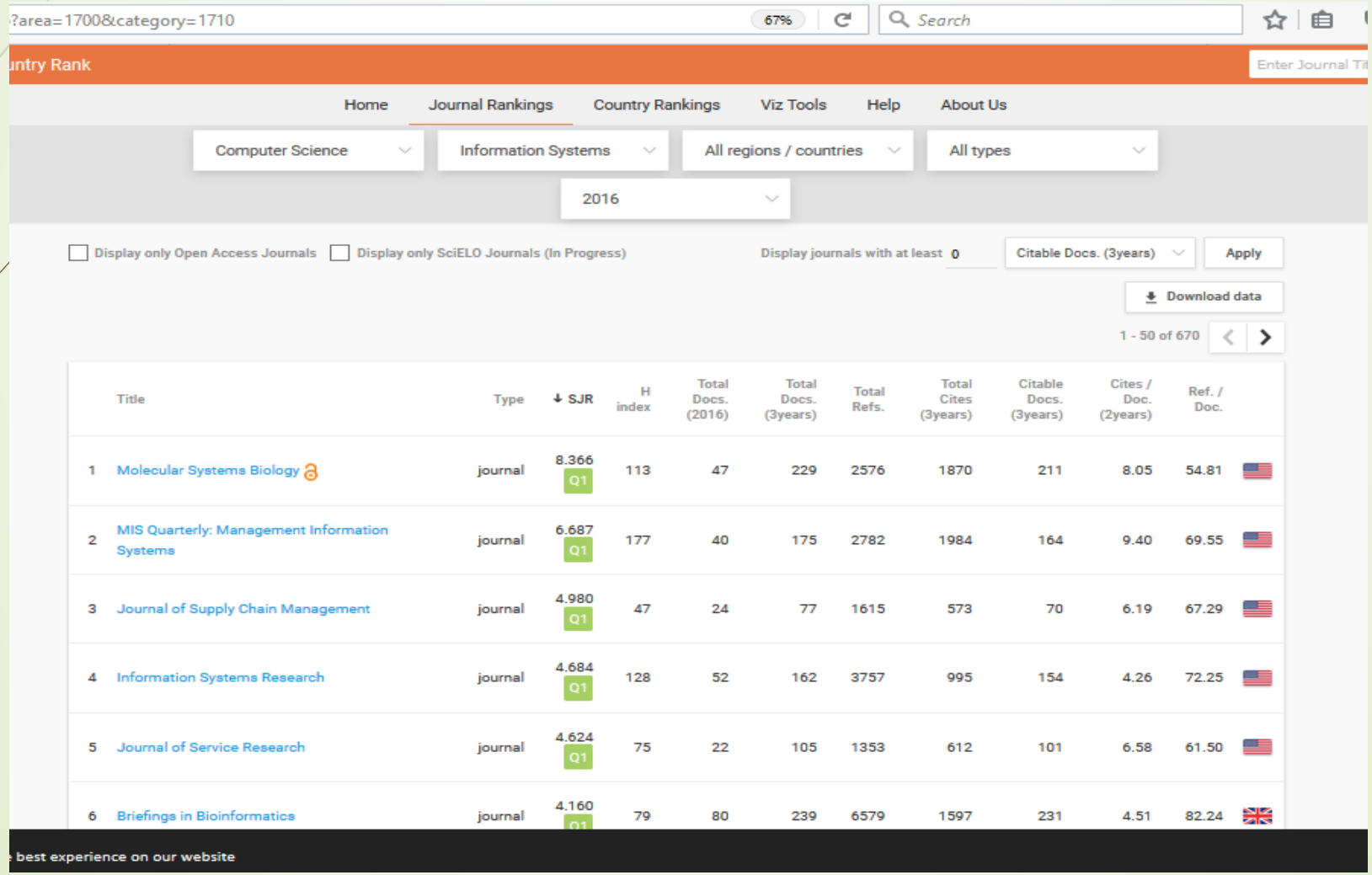
What should we do to get insight of a good topic?

- Read, Read and Read…
- Know good journals and conferences in your research area
  - 1) top conferences
    - For example: portal.core.edu.au/conf-ranks/
  - 2) Edited and peer reviewed book chapters
  - 3) Journals

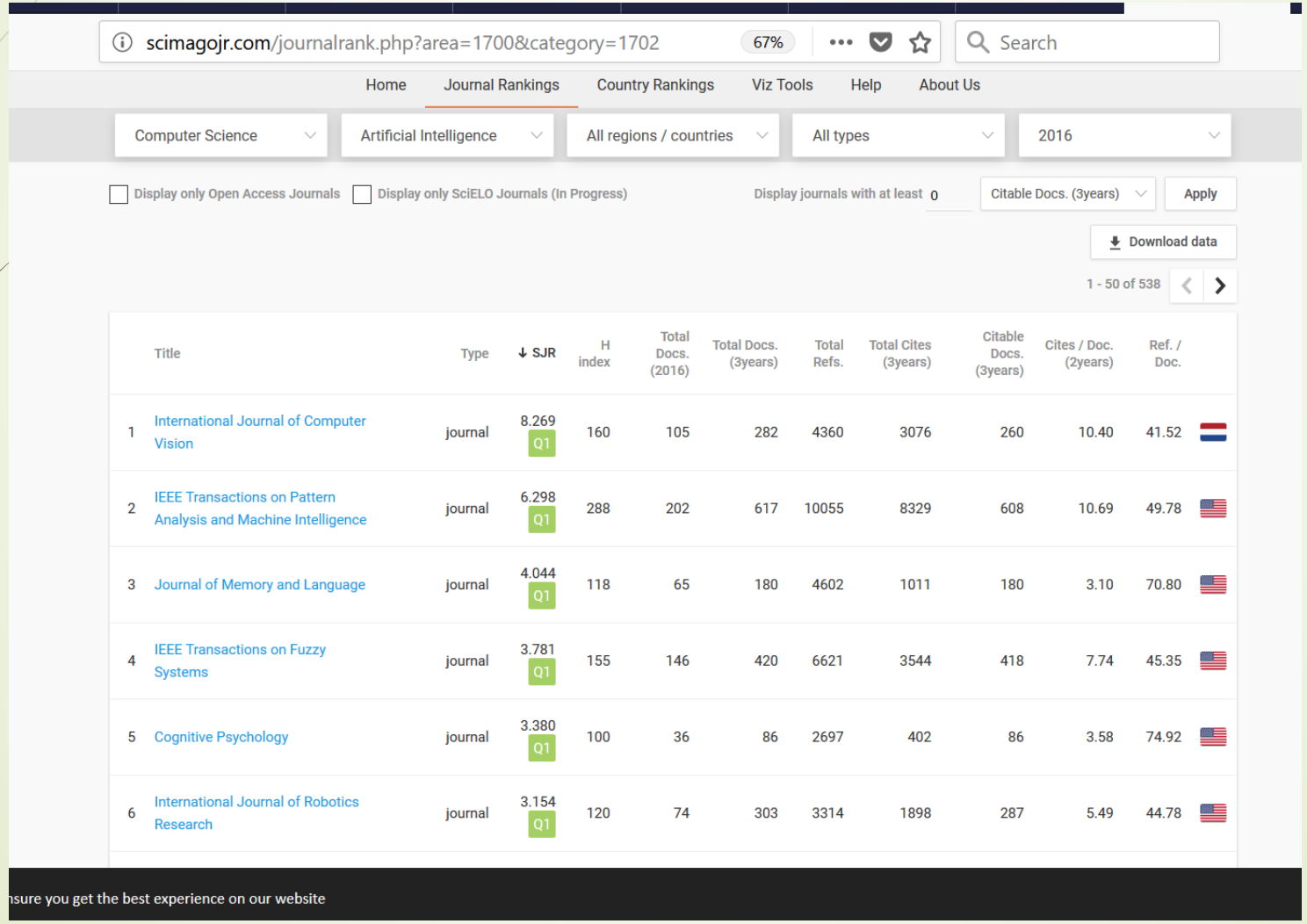
Sources to Search Journal Rankings

- Example from Information Systems communities
  - ABDC - Australian Business Deans Council (http://www.abdc.edu.au/master-journal-list.php)
  - ACPHIS - Australian Council of Professors and Heads of Information Systems (http://www.acphis.org.au/v2wp/rank-order/)
  - Association of Business School (ABS) journal list (www.kfs.edu.eg/com/pdf/2082015225391 7.pdf)
- Reputable database:
  - Scopus (ww.scimagojr.com)
  - Web of Science ISI Thomson

Sources to Search Journal Rankings



Sources to Search Journal Rankings



Predatory Journals

- Use names on editorial boards without consent or change names on photos (see Ottawa Citizen link)
- Invitations to fake conferences
- Become members of legitimate organizations such as COPE (Committee on Publication Ethics)
- Easily get an ISSN or a fake impact factor
- List of predatory journals can be found in: https://predatoryjournals.com/

Credible journals

Peer review, Revisions, Rejections

Predatory journals

Greetings, We Adore Your Research!

Impact Factor Palsu (Bogus)

Journal **Impact Factor** is from **Journal Citation Report (JCR)**, a product of Thomson ISI (Institute for Scientific Information). JCR provides quantitative tools for evaluating journals.

Perhitungan impact factor PALSU (Bogus Impact Factor Companies)?

- CiteFactor ➔ http://www.citefactor.org
- Global Impact Factor ➔ http://globalimpactfactor.com
- ISRA: Journal Impact Factor(JIF) ➔ http://www.israjif.org
- IMPACT Journals ➔ http://www.impactjournals.us
- General Impact Factor (GIF) ➔ http://generalimpactfactor.com
- Journal Impact Factor (JIF) ➔ http://www.jifactor.com
- Universal Impact Factor ➔ http://uifactor.org
- IndexCopernicus ➔ http://journals.indexcopernicus.com
- International Impact Factor Services (IIFS) ➔ http://impactfactorservice.com
- ISI International Scientific Indexing ➔ http://isindexing.com

Selain DOAJ terdapat beberapa indeking serupa:

- Directory of Research Journals Indexing ➔ www.drji.org
- CABELL'S Directories ➔ http://www.cabells.com

Other providers documents, papers and essays?

- EDU Libs ➔ https://edulibs.org
- ISSUU ➔ http://issuu.com

Modified from Tole S, Rakornas APTIKOM, 2016

Where to Get Papers for Your Research?

- Dari pemerintah:
  - http://e-resources.perpusnas.go.id
  - http://simlitabmas.ristekdikti.go.id/ejournal/ (panduan bisa dilihat di http://simlitabmas.ristekdikti.go.id/ejournal/Panduan_Akses_E-Resources_Kemenristekdikti_Tahun_2017.pdf
- Umum:
  - http://doaj.org
  - sci-hub (mis. http://sci-hub.tw)
  - http://aisel.aisnet.org (bidang Sistem Informasi)
  - http://researchgate.net

CHOOSING RESEARCH TOPICS FOR INTERNATIONAL PUBLICATION

Selecting A Topic for CS/IS Research

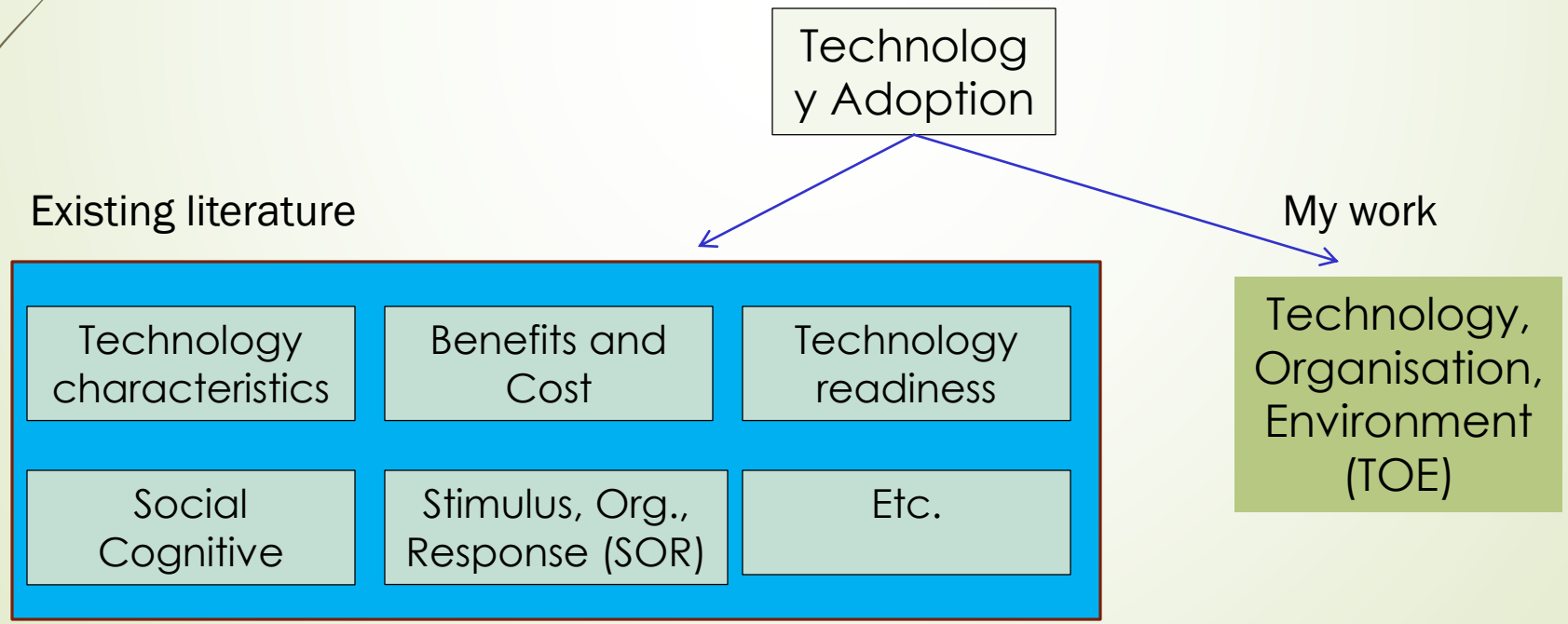
- **Research:** The activity of a diligent and systematic inquiry or investigation in an area, with the objective of discovering or revising facts, theories, applications etc. The goal is to discover and disseminate new knowledge
- The key is **Novelty**, solving **the gap in theory**

Defining Research Gap(s)

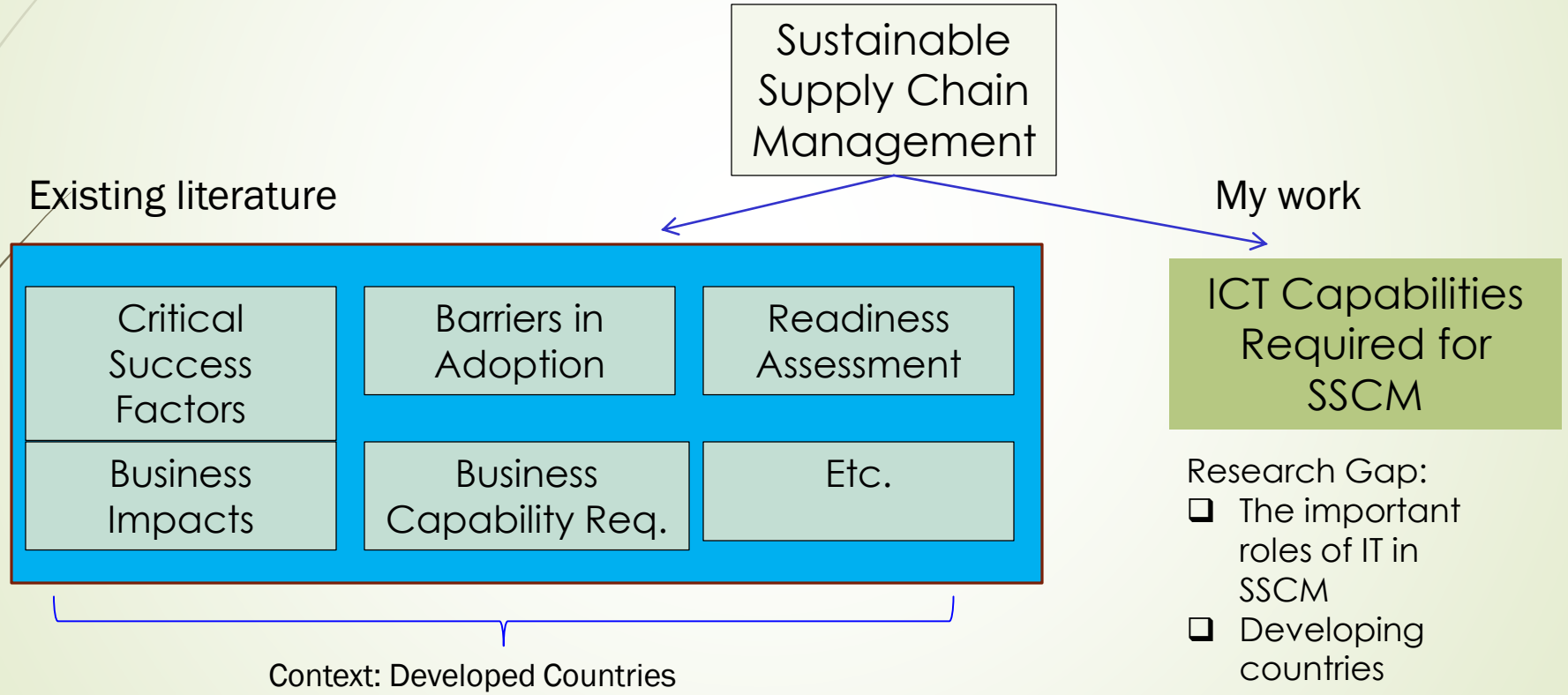
- Melakukan literature review untuk menentukan state of the art (tabel, mindmap, dsb)
  - Critical analysis terhadap literature yang ada (compare, contrast, criticize, summarize, synthesize)
- Identifikasi research gap
  - Topik/area yang masih belum lengkap/cukup informasinya
  - Gap antara harapan dan kenyataan
- Contoh research gap
  - Penelitian yang masih terbatas di negara maju, negara berkembang belum ada
  - Peneliti sebagian besar melihat dari perspektif teknologi, belum ada yang melihat dari faktor personal
  - Kelemahan dari algoritma, yang tidak bisa menentukan parameter secara adaptif

How to assess the novelty of your research?

- Do a systematic literature review
  - obtain the state of the art
  - See the position of your work among others
  - Is your work just repeating other researcher's work?



How to assess the novelty of your research?



Research Gap:

- ❑ The important roles of IT in SSCM
- ❑ Developing countries

WHY IS IT IMPORTANT TO PUBLISH IN HIGH IMPACT FACTOR JOURNALS?

Why it is Important to Publish in High Impact Factor Journals

- *Publish or perish*
- Greater visibility of research findings
- Increase chances of citations
- Greater recognition among peers
- Associated benefits such as promotions, productivity allowances, etc

Which Manuscript are Published in High Impact Factor Journals

- Work of established scientists
- Results of general interest
- Novelty of findings
- Concise and well written

Attributes of a Good Manuscript

- Concise but powerful
- Story like
- To the point
- Free from grammatical and stylistic errors
- Recognizing contributions of others
- Technically correct

Deciding the Journal for Publishing

- Aim high- Go for first tier journals if you have time and temperament to write a good manuscript.
- Decide the target journal before writing or drafting the article.
- Prefer those journals which publish similar work or the journal articles you are citing for your work.
- If you think that your competitor is ahead of you, go for second tier rapid publication journal, because it is important to first

Deciding the Journal for Publishing

- How to find the impact factor and rank for a journal?
  - Journal Citation Report (JCR) Impact Factor – ISI Thompson (beware of another ISI impact used by predatory journals)
    - SCI, SSCI, SCIE, ESCI
  - SJR – Scopus
  - Journal List from reputable organization (ERA Australia, ABS Journal Ranking, etc)

Deciding the Journal for Publishing

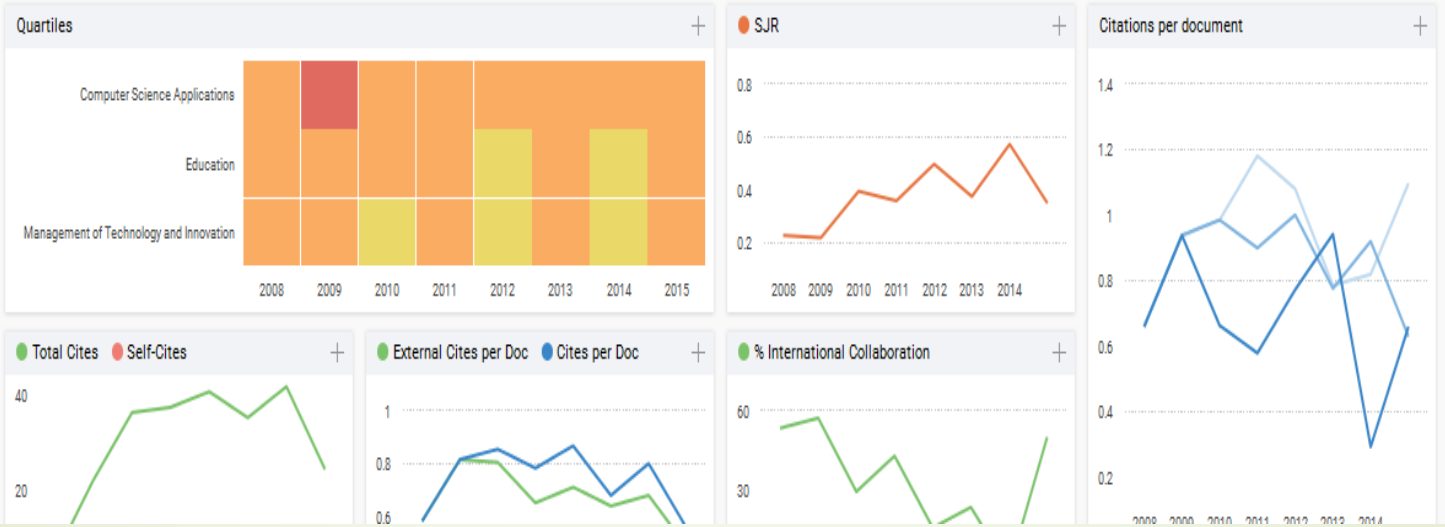
- Example Scopus Ranking based on SJR
  - Q1, Q2, Q3, and Q4 (the highest is Q1)
  - See http://scimagojr.com

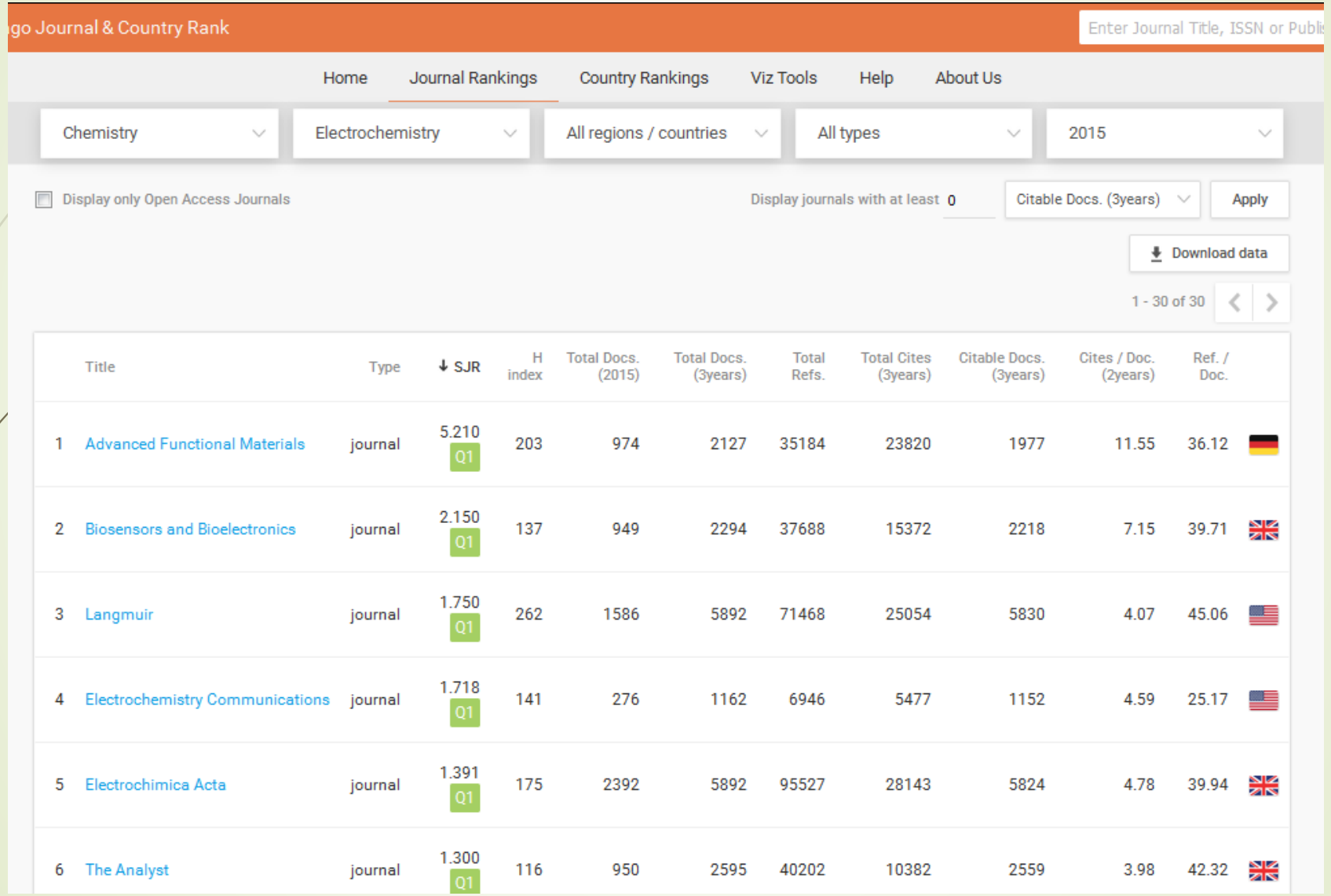
International Journal of Technological Learning, Innovation and Development

Country	United Kingdom
Subject Area and Category	Business, Management and Accounting Management of Technology and Innovation Computer Science Computer Science Applications Social Sciences Education
Publisher	Inderscience Enterprises Ltd.
Publication type	Journals
ISSN	17531950, 17531942
Coverage	2011-ongoing

13

H Index





	Title	Type	SJR	H index	Total Docs. (2015)	Total Docs. (3years)	Total Refs.	Total Cites (3years)	Citable Docs. (3years)	Cites / Doc. (2years)	Ref. / Doc.	
1	Advanced Functional Materials	journal	5.210 Q1	203	974	2127	35184	23820	1977	11.55	36.12	
2	Biosensors and Bioelectronics	journal	2.150 Q1	137	949	2294	37688	15372	2218	7.15	39.71	
3	Langmuir	journal	1.750 Q1	262	1586	5892	71468	25054	5830	4.07	45.06	
4	Electrochemistry Communications	journal	1.718 Q1	141	276	1162	6946	5477	1152	4.59	25.17	
5	Electrochimica Acta	journal	1.391 Q1	175	2392	5892	95527	28143	5824	4.78	39.94	
6	The Analyst	journal	1.300 Q1	116	950	2595	40202	10382	2559	3.98	42.32	

Deciding the Journal for Publishing

- Do all journals charge publishing fee to authors?
  - NO!!!
- Reputable publishers (IEEE, Elsevier, Springer, Palgarve, etc.) usually offer two options to authors: open access vs non open access
  - If we choose an open access mode, we have to pay some money to publisher
- Some publishers also offer open access mode with free of charge (usually affiliated with university)
  - Knowledge Management & E-Learning (KMEL), Journal of Theoretical and Applied Electronic Commerce Research (JTAER), Electronic Journal of University of Malaya (Malaysian Journal of Computer Science, Malaysian Journal of Library & Information Science, etc), International Journal on Smart Sensing and Intelligent Systems, etc

Deciding the Journal for Publishing

- Recommended publishers for beginner(free publishing fee and easier to get accepted)
  - Inderscience
  - IGI Global
- Some journals may have an impact factor, but easy to get accepted there, for example:
  - Library Hi Tech News (emerald, https://www.emeraldinsight.com/loi/lhtn)
  - International Journal of Reasoning-based Intelligent Systems (inderscience, http://www.inderscience.com/jhome.php?jcode=ijris)

Points to be Considered before Publishing

- Targeted audience
- Prestige of journal and your own institution
- Access (open access/ subscribed)
  - availability free of charge on the World Wide Web
  - On payment
- Impact factor of the journal
- Probability of acceptance
- Publication time

How to Write A Scholarly Paper

Dr. Achmad Nizar Hidayanto

Sabtu, 30 Mei 2020, APTIKOM

Key Elements of Publishing

- Ethical Issues
- Style and language
- Structure of paper
- Components of paper
- Article submission/journal selection
- Publisher's process/peer review

Ethical Issues

- Disclosure of Conflict of Interest
- Acknowledgment of funding sources
- Image manipulation guidelines
- Online submission - supplemental information (datasets, videos)
- For Health Sciences
  - Submission of a Clinical Trials to a Central Registry
  - Institutional Review Board approval

See: Blackwell Science - Best Practice Guidelines on Publishing Ethics
http://www.blackwellpublishing.com/Publicationethics/

Style and Language

- Refer to the journal's author guide for notes on style (see Publishing Skills Web-Bibliography for examples)
  - Some authors write their paper with a specific journal in mind
  - Others write the paper and then adapt it to fit the style of a journal they subsequently choose
- Objective is to report your findings and conclusions clearly and concisely as possible

Style and Language

- If English is not your first language, find a native English speaker (if possible) to review the content and language of the paper before submitting it
  - At first, you can use the googletranslate to help you in translating your paper
- Regardless of primary language, find a colleague/editor to review the content and language of the paper

Structure of a Paper

Scientific writing follows a rigid structure –
a format developed over hundreds of years

Consequently, a paper can be read at several levels:

- Some people just will refer to the title
- Others may read only the title and abstract
- Others will read the paper for a deeper understanding

Components of a Paper – Basic Template

Section	Purpose
Title	Clearly describes contents
Authors	Ensures recognition for the writer(s)
Abstract	Describes what was done
Key Words (some journals)	Ensures the article is correctly identified in abstracting and indexing services
Introduction	Explains the problem
Literature Review	Discuss what the discipline (your audience) already knows
Methods	Explains how the data were collected
Results	Describes what was discovered
Discussion	Discusses the implications of the findings
Conclusion	Conclude your research finding
Acknowledgements	Ensures those who helped in the research are recognised
References	Ensures previously published work is recognised
Appendices (some journals)	Provides supplemental data for the expert reader

Authors Listing

- ONLY include those who have made an intellectual contribution to the research
- OR those who will publicly defend the data and conclusions, and who have approved the final version
- Order of the names of the authors can vary from discipline to discipline
  - In some fields, the corresponding author's name appears first

Title

- Describes the paper's content clearly and precisely including keywords
- Is the advertisement for the article
- Do not use abbreviations and jargon
- Search engines/indexing databases depend on the accuracy of the title - since they use the keywords to identify relevant articles

Title

Titles should be interesting and reflect the content of the paper. Include key constructs in the title.

Examples:

Examining cloud computing adoption intention, pricing mechanism, and deployment model (Hsu, Ray, & Li-Hsieh , 2014).

Moody news: The impact of collective emotion ratings on online news consumers' attitudes, memory, and behavioral intentions (Myrick & Wojdynski, 2016).

Abstract

- **Briefly** summarize (often 150 words) - the problem, the method, the results, and the conclusions so that
  - The reader can decide whether or not to read the whole article
- Together, the title and the abstract should stand on their own
- Many authors write the abstract last so that it accurately reflects the content of the paper

See: The Structured Abstract: An Essential Tool for Research
https://www.mlanet.org/page/structured-abstract

Example of Abstract

Examining cloud computing adoption intention, pricing mechanism, and deployment model (Hsu, Ray, & Li-Hsieh , 2014).

"Cloud computing is a new information technology (IT) paradigm that promises to revolutionize traditional IT delivery through reduced costs, greater elasticity, and ubiquitous access. On the surface, adopting cloud computing requires a firm to address many of the same concerns they face in adopt-ing any enterprise IT. However, cloud technologies also offer new pricing and deployment strategies that are unavailable in traditional enterprise solutions. It is unclear how previous research frameworks of enterprise IT adoption relate to these new adoption strategies. To bridge this gap in the literature, our study uses the technology–organization–environment (TOE) framework of innovation diffusion theory to develop a cloud service adoption model that deals with not only adoption intention, but also pricing mechanisms and deployment models. Our research model has been empirically tested using 200Taiwanese firms. We found that: (1) Cloud adoption is still at its initial stage, since the adoption rates are very low; (2) the perceived benefits, business concerns, and IT capability within the TOE framework are significant determinants of cloud computing adoption, while external pressure is not; (3) firms with greater IT capability tend to choose the pay-as-you-go pricing mechanism; (4) business concern is the most important factor influencing the choice of deployment model, with higher concerns leading to private deployment options.." (Reinecke & Hofmann, 2016)

Problem

Method

Conclusion

Introduction

- Clearly state the:
  - Problem being investigated
  - Background that explains the problem
  - Reasons for conducting the research
- Summarize relevant research (state of the art) to provide context
- Identify the research gaps that you want to address
- Identify the questions (objectives) you are answering
- Discuss the theoretical foundation used to answer the questions and their rational
- Explain what other findings, if any, you are challenging or extending

Example of Introduction

- Examining cloud computing adoption intention, pricing mechanism, and deployment model (Hsu, Ray, & Li-Hsieh , 2014).

1. Introduction

With the advance of computer science and the introduction of the Internet, cloud computing has developed from abstract laboratory sketches into a concrete business paradigm (Armbrust et al., 2010). According to the National Institute of Standards and Technology (NIST), Cloud Computing is defined as, "...a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g. networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction" (Mell & Grance, 2009). Cloud computing enables customers to rent IT infrastructure, platform, and software services in the cloud when needed (Buyya, Yeo, Venugopal, Broberg, & Brandic, 2009; Dikaiakos, Katsaros, Mehra, Pallis, & Vakali, 2009). Thus, cloud clients can deploy their business applications, store data, and run analyses via the Internet on a pay-per-use basis (Sultan, 2011).

* Corresponding author. Tel.: +886 35742221.
E-mail addresses: pfhsu@mx.nthu.edu.tw (P.-F. Hsu), soumya.ray.research@gmail.com (S. Ray), ozakiyuyu@gmail.com (Y.-Y. Li-Hsieh).

With the special and unique characteristics listed above, cloud computing revolutionizes traditional IT adoption. In the past, expensive IT innovations were usually adopted first by large firms since only they could afford them. Now, it is believed that cloud computing will benefit small and medium-sized enterprises (SMEs), as well as startups, by "eliminating the up-front commitment," and allowing companies to "pay for use of computing resources on a short-term basis (i.e. pay-as-you-go)" (Armbrust et al., 2010; Hofmann & Woods, 2010; Sultan, 2011). Despite the attractive benefits presented above, misgivings about cloud computing remain. A variety of issues, such as "security," "confidentiality," "performance instability," "latency," and "network bottleneck," need to be considered when choosing a cloud computing solution (Hofmann & Woods, 2010; Sultan, 2011; Chang, 2013). With the pros and cons listed above, cloud computing is a somewhat double-edged sword – it is never easy for corporate executives to decide whether they should move their original IT systems onto the cloud. Thus, a thorough investigation on the issue of cloud adoption has been called for by many scholars and practitioners (Armbrust et al., 2010; Marston, Li, Bandyopadhyay, Zhang, & Ghalsasi, 2011).

Our study investigating cloud adoption not only responds to this call but also has its uniqueness since cloud computing is not merely another enterprise IT adoption issue. Cloud computing has some characteristics that are very different from traditional IT innovations, such as its customer targets (small and medium firms), its pricing mechanism (pay-as-you-go), and its deployment models (public/private), which have seldom been analyzed in previous adoption studies (Böhm, Leimeister, Riedl, & Krcmar, 2011; Kakumanu & Portanova, 2006; Qu, Pinsoneault, & Oh, 2011). When considering enterprise adoption, the most important distinction of cloud technology is that it offers a larger array of adoption strate-

States of the art

Research gap

Example of Introduction

Moody news: The impact of collective emotion ratings on online news consumers' attitudes, memory, and behavioral intentions

While research has yet to answer these questions, it has begun to demonstrate the importance of investigating emotional reactions to news in order to further our understanding of news effects on audiences. For example, researchers have found that online news content judged as more intensely emotional is more likely to be shared with others, particularly if it is awe-inspiring (Berger and Milkman, 2012). Stories about the virtuous and awe-inspiring acts of others, so-called human-interest stories, have long been part of the news (Hughes, 1940). They can lift the spirits of audiences, and, as the Berger and Milkman study demonstrates, they are quite popular. The existence of news websites such as *Huffpost Good News, Daily Good: News that Inspires*, and *Upworthy* indicates that online news consumers are interested in uplifting non-fiction content. One emotion evoked by these types of news stories is elevation. Elevation is a warm feeling aroused by witnessing acts of moral beauty, akin to feeling touched, moved, or inspired (Haidt, 2003a, 2003b; Oliver et al., 2013). It is an emotional response associated with some types of media consumption (Oliver et al., 2012b, 2013). Although most communication research to date on elevation has focused on entertainment content, human-interest news stories are a prime example of how non-fictional media may also elevate audiences.

This study examined the potential effects of the growing trend of news websites posting collective emotion ratings alongside human-interest news stories. Based on theories of emotion (i.e. functional theories of emotion and emotional contagion) and conceptual frameworks from the computer-mediated communication literature (i.e. social identity model of deindividuation effects [SIDE] and congruity theory), we developed an online between-subjects experiment to test the ways in which the presence of mood meters impacts how online news consumers react to human-interest stories. Specifically, we

Theoretical foundation

Literature Review

- To show the current state of knowledge as well as to highlight your contribution. So do not just focus on others' work but also voice yours. Provide thorough discussions of the current literature insights for each of the key constructs and relationships between them.
- Research is about advancing understanding, so literature review must not necessarily lead to filling the gap. What is more important is advancing understanding, not simply filling any gaps. You can use a model to depict your theory.
- Hypotheses: tell a story that explains why the relationships exist.

Related works

Theoretical Foundations

Hypotheses Development/ Theoretical Framework

Example of Literature Review

- Examining cloud computing adoption intention, pricing mechanism, and deployment model (Hsu, Ray, & Li-Hsieh , 2014).

Present the previous works as a "story"

2. Theoretical foundation

2.1. Previous studies on cloud adoption

Since cloud computing is a new business model and a trend that involves next-generation application architecture, most existing cloud studies are exploratory, descriptive, or case-based research. For example, studies from Buyya et al. (2009), Sultan (2011), and Marston et al. (2011) focus on the general concepualization and definition of cloud computing, and further discuss some practical issues such as resource management strategy of cloud computing. Furthermore, many previous studies on cloud adoption rely on case study method to qualitatively investigate cloud's benefits and concerns (e.g. Alshamaila, Papagiannidis, & Li, 2013; Brender & Markov, 2013; Lin & Chen, 2012; Wang & He, 2014), hypothetically calculate cloud's benefits based on cloud vendors' price-lists (e.g. Buyya et al., 2009; Khajeh-Hosseine et al.), or propose frameworks to help firms achieve cloud design, deployment and services (e.g. Chang, Walters, & Wills, 2013). While the extant literature provides a fundamental understanding of cloud computing, empirical studies that rigorously examine the proposed factors that might affect the adoption of cloud computing is needed (Lin & Chen, 2012; Low, Chen, & Wu, 2011). Though some previous studies have used survey data to quantitatively exam cloud adoption issue (e.g. Garrison, Kim, & Wakefield, 2012; Gupta, Seetharaman, & Raj, 2013; Lee, Chae, & Cho, 2013; Lian, Yen, & Wang, 2014; Wu, Cegielski, Hazen, & Hall, 2013), they mostly focus on a binary cloud adoption proposition. Our study, instead, intends to explain not only the adoption decisions but also the modalities of adoption (pricing and deployment) offered by cloud platforms. Moreover, we found that many of the previous cloud adoption studies do not have a grounded theory to guide their research, and our study will

Not a good literature review

Penelitian yang dilakukan oleh Indo Intan yang berjudul peningkatan kualitas pembelajaran melalui penyajian materi berbasis multimedia di pulau Barrang Lompo, dalam penelitian ini membahas mengenai peningkatan pencapaian pembelajaran yang diberikan guru-guru melalau kegiatan pelatihan multimedia di sekolah yang berada di pulau Barrang Lompo (Intan, 2016). Kemudian penelitian yang dilakukan oleh Nurchaili dengan judul pengaruh media pembelajaran berbasis teknologi informasi dalam proses pembelajaran kimia terhadap peningkatan hasil belajar siswa, dalam penelitian ini membahas mengenai penggunaan media pembelajaran berbasis TI untuk pelajaran kimia (Nurchaili, n.d.). Selanjutnya penelitian yang dilakukan Hasbullah dengan judul implementasi *life skill* dalam bidang teknologi informasi berbasis kewirausahaan di pangalengan kabupaten Bandung, dalam penelitian ini

Example of Literature Review

- Examining cloud computing adoption intention, pricing mechanism, and deployment model (Hsu, Ray, & Li-Hsieh , 2014).

their preferred choice of adoption strategies would be determined

Appendix A. Previous studies on cloud adoption

	Article	Theory	Sample/methodology	Main results
1	Buyya et al., *Future Generation Computer Systems*, 2009	No specific theory is used.	• Overview of cloud computing	Definition, characteristics, resource management strategy, platforms, pricing and adoption of cloud computing.
2	Lin and Chen *International Journal of Information Management*, 2012	TOE framework	• Interview of 19 Taiwanese IT professionals	While the benefits of cloud computing such as its computational power and ability to help companies save costs are often mentioned in the literature, the primary concerns that IT managers and software engineers have are compatibility of the cloud with companies' policy, IS development environment, and business needs.
3	Chang, Walters, and Wills *International Journal of Information Management*, 2013	CCBF model	• Case study	CCBF is proposed to help organizations achieve good Cloud design, deployment, migration and services.
4	Wang and He *International Journal of Information Management*, 2014	No specific theory is used.	• Case study of a small e-learning service provider and its four clients in Taiwan	The service strategies of small cloud service providers are individually differentiated in order to survive in the competitive cloud computing market.
5	Sultan *International Journal of Information Management*, 2011	No specific theory is used.	• Case study of a British SME	Cloud computing is likely to be an attractive option for many SMEs, particularly in the current global economic crisis, due to its flexible cost structure and scalability.
6	Brender and Markov *International Journal of Information Management*, 2013	No specific theory is used.	• Case study of Swiss companies	The adoption of cloud services depend on the company's size with larger and more technologically advanced companies being better prepared for the cloud.
7	Khajeh-Hosseini, Greenwood, and Sommerville, *Working paper*	No specific theory is used.	• Case study of a UK SME	The results show that the system infrastructure in the case study would have cost 37% less over 5 years on cloud computing, and using cloud computing could have potentially eliminated 21% of the support calls for this system. These findings seem significant enough to call for a migration of the system to the cloud but there are

Example of Hypotheses Development

- Examining cloud computing adoption intention, pricing mechanism, and deployment model (Hsu, Ray, & Li-Hsieh , 2014).

with Tornatzky and Fleischer (1990) that the three TOE dimensions influence adoption, but that these dimensions must be uniquely operationalized in each specific innovation context (Baker, 2011). In the following, we developed a conceptual model for cloud computing adoption.

3. Research model and hypotheses

Following the TOE framework, we propose a research model shown in Fig. 1.

3.1. Cloud computing adoption intention

Cloud computing involves scalable and elastic IT-enabled computing capabilities that are delivered as a service to customers using Internet technologies. Cloud computing itself is a complex summation of different service models, and a firm can choose various combinations of distinct service models in order to adopt cloud computing. In general, there are three cloud service models: Software as a Service (SaaS), Platform as a Service (PaaS), and Infrastructure as a Service (IaaS). National Institute of Standards and Technology (NIST) defines Software as a Service (SaaS) as: *consumers can access software or applications from various client devices through the Internet, and do not manage or control underlying cloud infrastructure such as servers, operating systems*, etc. (Mell & Grance, 2009). The NIST definition of Platform as a Service (PaaS) is: *consumers can deploy onto the cloud infrastructure their own-created or acquired applications using programming languages and tools supported by cloud vendors* (Mell & Grance, 2009). The NIST definition of Infrastructure as a Service (IaaS) is: *consumers are provided with processing, storage, networks, and other fundamental computing resources from cloud vendors* (Fenn, 2010; Mell & Grance, 2009; Vaquero, Rodero-Merino, Caceres, & Lindner, 2008). In our

3.2. Pricing mechanism

After a firm has decided to adopt cloud computing based on its technological, organizational, and environmental benefits, the choice of a pricing mechanism emerges. One of the most distinctive features of cloud computing is its "pay-as-you-go" pricing mechanism. The literature suggests that with this elastic pricing mechanism, compared to a traditional IT/IS pricing mechanism (such as one-time license or monthly plan), a firm will not only eliminate the formidable up-front investment for IT resources but also acquire the ability to quickly scale up and balance an unexpected load surge (Armbrust et al., 2010). By avoiding heavy preliminary investments, choosing pay-as-you-go makes cloud computing attractive to SMEs and startups (Armbrust et al., 2010; Hofmann & Woods, 2010; Leavitt, 2009; Sultan, 2011). Since the elastic pay-as-you-go pricing mechanism is one of the major features of cloud computing, this study will examine how each factor in the TOE framework affects potential cloud adopters' choice of pricing mechanisms.

3.3. Deployment models

The second most innovative concept of cloud computing is its deployment models. According to NIST documents, there are two types of deployment models: Public cloud and Private cloud. Public cloud has the key feature that the infrastructure and computational resources are made available to the general public through the Internet, and it is owned and operated by a cloud provider; also, it is external to the consumer's organization (Jansen & Grance, 2011). Examples of public cloud providers include Amazon, Google, Microsoft, and Rackspace (Li, Yang, Kandula, & Zhang, 2010). In contrast to a public cloud, a private cloud is a deployment model

Example of Hypotheses Development

Research model

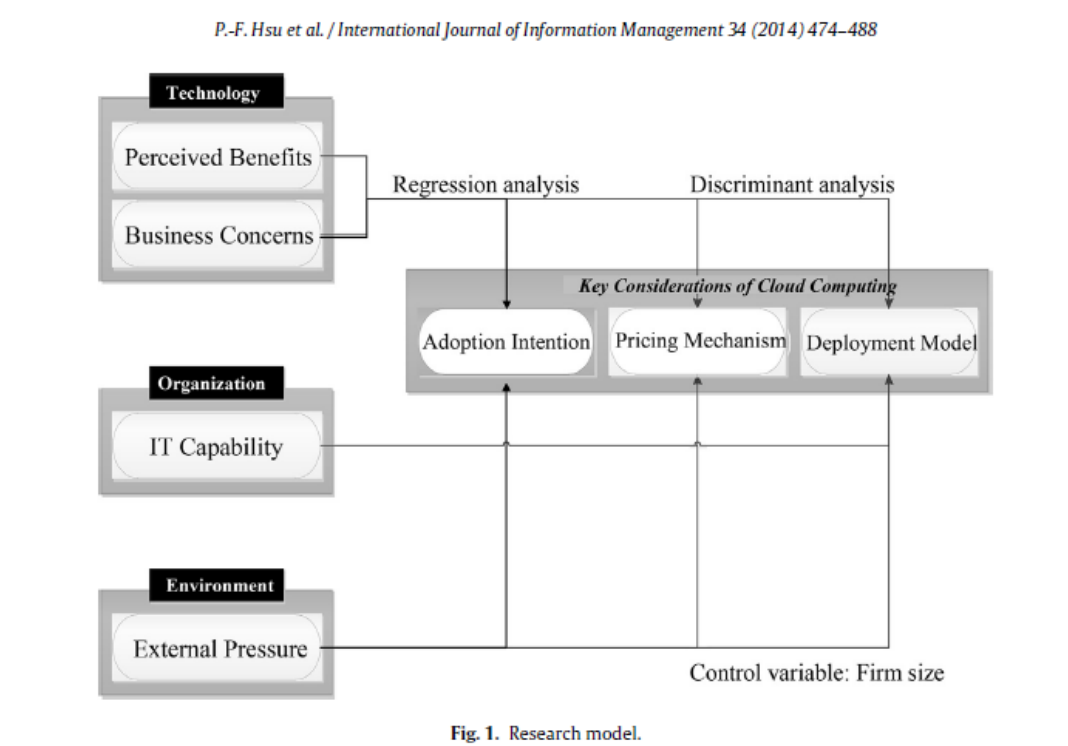
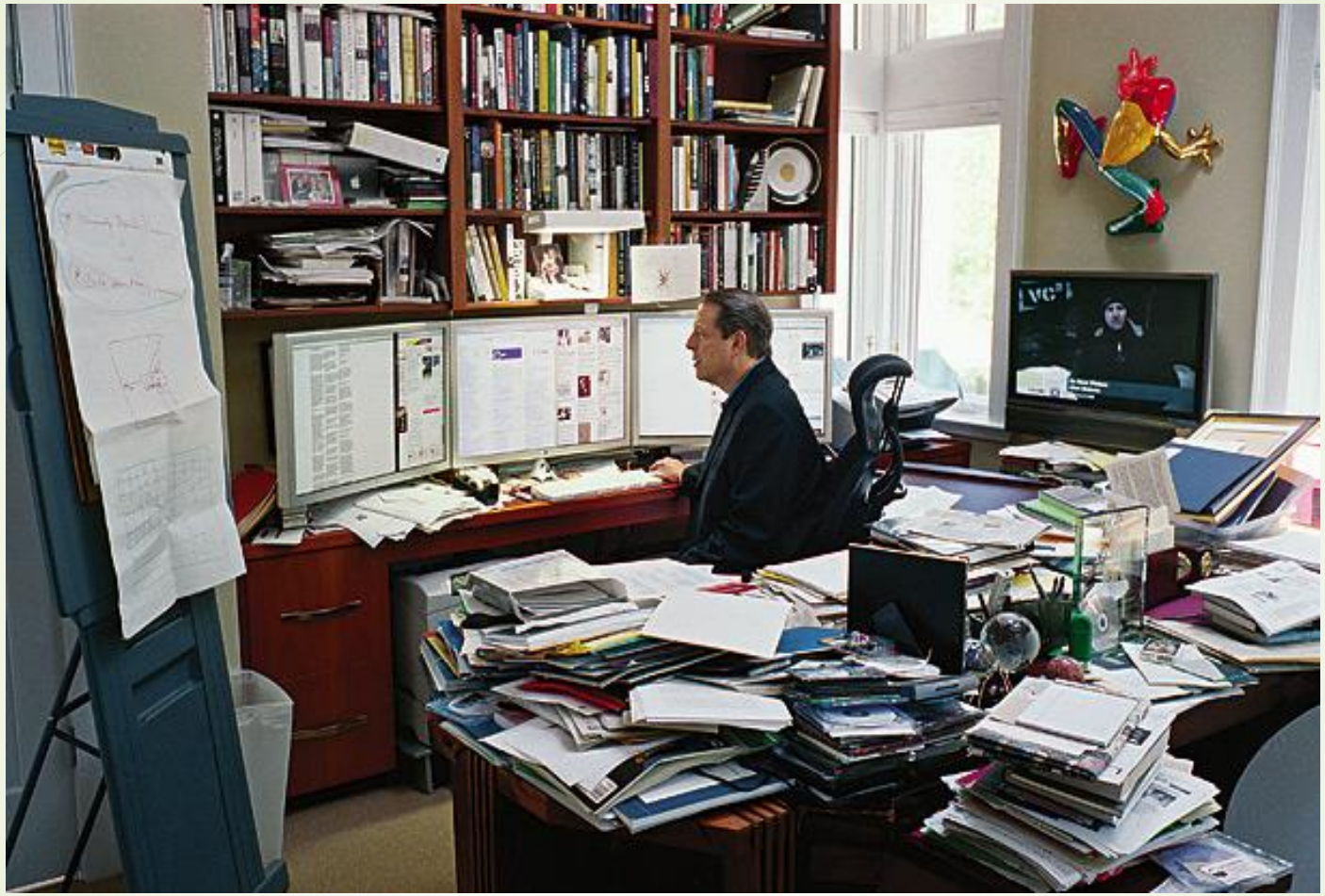


Fig. 1. Research model.

- Examining cloud computing adoption intention, pricing mechanism, and deployment model (Hsu, Ray, & Li-Hsieh , 2014).

Methods

- Provide the reader enough details so they can understand and replicate your research
- Explain how you studied the problem, identify the procedures you followed, and order these chronologically where possible
- Explain new methodology in detail; otherwise name the method and cite the previously published work
  - For example: "thematic analysis as outlined by Braun and Clarke (2006) was conducted to identify anxiety themes, using the constant comparative method (Creswell, 2007), which consists of six basic phases.
- Include the frequency of observations, what types of data were recorded, etc.
- Be precise in describing measurements and include errors of measurement or research design limits



Gerald had begun to think that his methodology was too detailed.

Example of Methods - Survey

4. Methodology

4.1. Data

To test our research model, a survey was designed to collect data on each of the variables in the model. Each items on the survey instrument was reviewed for content validity by an expert panel comprised of faculty whose work focuses on cloud computing, as well as some practitioners and consultants from industry. The initial questionnaires were pilot tested on ten firms randomly selected from the sample frame and, based on the responses received, some items were revised for clarity. After finalizing the survey instrument, we conducted a telephone survey in August of 2010. Our target population was the Top 5000 company list in Taiwan, which is published annually by the largest professional survey company in Taiwan.[1] The businesses selected for our survey were evenly distributed over four sectors of Taiwan's main industries: Information and communications technology (ICT) manufacturing, ICT service, general service, and general manufacturing industry. Anecdotal evidence suggests that firms in the four industries tend to approach cloud computing differently, with ICT industries leading in the use of cloud, while traditional industries appear to be laggards. Thus, the four industries provide appropriate testing fields for our research model. Eligible respondents for our survey are CIOs or senior IT managers in each company. The sampling was a stratified sample by industry and by size (large – 200 or more employees, and small and medium – between 20 and 200 employees).

Our sampling frame comprised 200 Taiwanese firms. In total, 623 potential respondents were contacted with a response rate was 32.1%. Fig. 1 shows the sample's statistics. We found that our surveyed companies were composed of 65% SMEs (<200 employees) and 35% large corporations, which is consistent with statistics indicating most Taiwanese companies are SMEs. Second, although Taiwan is famous for its high-tech industries, the numbers of IT employees and their IT budgets are generally low. Of the companies surveyed, 72% have fewer than 5 IT employees, and 72.5% of the surveyed companies have an annual IT budget of less than 5 million NT dollars (0.17 million USD). Based on this observation, it can be deduced that IT departments in Taiwanese companies serve a supporting function instead of having a core development focus. Given this, it can be predicted that firms in Taiwan having low numbers of IT technicians and low IT budgets may view the adoption of cloud computing services as a reasonable substitute for their original IT systems.

- Examining cloud computing adoption intention, pricing mechanism, and deployment model (Hsu, Ray, & Li-Hsieh , 2014).

Research instrument

Data collection procedure

Data evaluation

Since all data is self-reported, we used two approaches to examine the quality of our data. First, we compared the profiles of the responding firms with non-responding firms on demographic variables such as firm size and revenue using Chi-square analysis. The results indicated no significant response bias. We also examined

Example of Methods - Experimental

Moody news: The impact of collective emotion ratings on online news consumers' attitudes, memory, and behavioral intentions (Myrick & Wojdynski, 2016).

Method

This study is a 4 (Mood meter: Absent, readers report being inspired or happy, readers report not caring or being annoyed, and readers report a mix of many different emotions) × 2 (Timing of emotions self-report: Immediately after consuming the stimulus materials versus after remaining questionnaire items) between-subjects fully factorial experiment.

Participants

Participants were recruited on Amazon's Mechanical Turk (MTurk) website. MTurk is an increasingly common and valid pool of participants for social science research (Buhrmester et al., 2011). Participation was limited to individuals residing in the United States who had a previous MTurk completion rate of at least 90% and had previously participated in at least 50 human intelligence tasks on the platform. These restrictions help prevent fraudulent participation. A total of 329 MTurk members participated. However, 31 participants were removed from the analysis because they spent less than 45 seconds on the stimulus page (as measured by a concealed Qualtrics timer, final $N=298$). The final sample was 58.05% male, 81.5% Caucasian, and nearly half of the participants (47.65%) had at least a bachelor's degree.

Example of Methods - Experimental

Moody news: The impact of collective emotion ratings on online news consumers' attitudes, memory, and behavioral intentions (Myrick & Wojdynski, 2016).

Procedures

An online questionnaire hosted by Qualtrics first assessed demographics and trait self-monitoring. Next, the questionnaire randomly displayed one of four mock websites to participants. Following the stimulus, Qualtrics randomly presented participants with items measuring emotional reactions to the story or with the remaining dependent variables (DVs). If participants saw the emotion questions first, they then viewed the remaining measures. If participants saw the remaining measures first, they saw the emotion items last before completing the questionnaire. After participating, participants received a code to submit to MTurk in order to receive compensation of USD 0.50. A university Institutional Review Board approved all procedures.

Stimulus material

All participants saw the same 719-word mock human-interest news story (created for this study). The story, modeled after actual human-interest news stories, told of a small-town lottery winner who continued to live a simple life and generously shared his riches with neighbors in need. The story appeared to participants as part of a screenshot of a mock news website named Newslinger.com.

In the no-mood-meter condition, participants only saw the header of the Newslinger website and the stimulus story. In the mood meter conditions, participants saw a "News Mood Meter" to the right of the story content (see Figures 1 and 2 for sample stimuli). This mood meter for the positive emotion condition reported most readers feeling "inspired" and "happy" about the story. For the negative emotion condition, the mood meter displayed feelings of "don't care" and "annoyed," and for the mixed emotion condition, the mood meter displayed a relatively even distribution of seven different emotions.

Example a Wrong Research Method

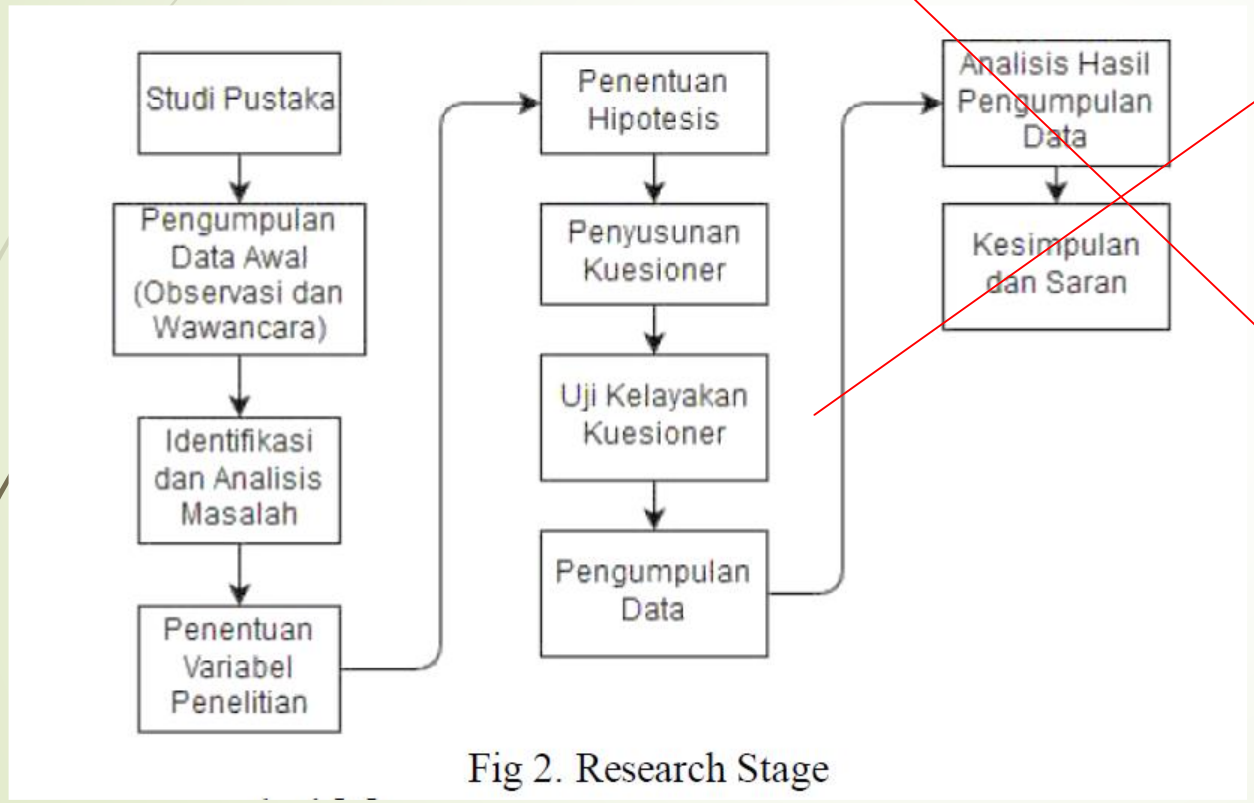


Fig 2. Research Stage

Ini adalah TAHAPAN PENELITIAN **BUKAN** METODE PENELITIAN

Results

- Objectively present your findings, and explain what was found
- Show that your new results are contributing to the body of scientific knowledge
- Follow a logical sequence based on the tables and figures presenting the findings to answer the question or hypothesis
- Figures should have a brief description (a legend), providing the reader sufficient information to know how the data were produced

Quantitative:

1) Demografi Responden
2) Hasil Pengolahan Data (misalnya hasil pengolahan SPSS, sampai hipotesis diterima/ditolak)
3) Diskusi (interpretasi hasil dan kaitannya dengan penelitian sebelumnya)
4) Implikasi penelitian, secara praktis maupun teoretis)

Qualitative:

1) Demografi Responden
2) Hasil Pengolahan Data (misalnya berupa analisis tematik, dengan menyitir perkataan responden)
3) Diskusi (interpretasi hasil dan kaitannya dengan penelitian sebelumnya)
4) Implikasi penelitian, secara praktis maupun teoretis)

Experimental:

1) Hasil Pengolahan Data (misalnya laporan kinerja metode yang diusulkan)
2) Diskusi (interpretasi hasil dan kaitannya dengan penelitian sebelumnya)

Example of Results (Quantitative)

Table 4
Distribution of SaaS, PaaS, and IaaS adoption.

	SaaS adoption		PaaS adoption		IaaS adoption	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
No intention	57	28.5	176	88	161	80.5
Will adopt within 12 months	83	41.5	14	7	13	6.5
Already adopted	60	30	10	5	26	13

Table 5
Pricing mechanism.

	Mechanisms	Code	Frequency	Percent
Pricing mechanism (PM)	Pay-as-you-go	PM1	40	20
	License	PM2	27	14
	Fixed monthly fee with unlimited access	PM3	132	66

cloud adoption, even though cloud has been discussed intensively over the past few years. Furthermore, when combining "planning to adopt" and "already adopted," we found that the SaaS solution has a relatively higher acceptance rate over the PaaS and IaaS solutions, which indicates that, at this early stage of cloud computing, firms are more willing to give SaaS application a chance to test cloud computing.

As for pricing mechanisms, the data indicated that the choice of fixed monthly fee with unlimited access was the most widely preferred, with 132 firms (66%) choosing that option (Table 5).

We also asked about the possible deployment type of cloud computing that each company would choose. In Table 6, only 7% of the companies chose public cloud, which indicates that concerns about issues such as information leakage and data lock-in are still prevalent among business practitioners. As such, 93% of respondents chose private cloud to maintain more control of their crucial business-related data. Consistent with Gartner's latest report on "Hype cycle for emerging technologies", private cloud computing has overtaken more general-cloud computing (i.e. public cloud) at the top of the peak, and private cloud computing is among the highest interest areas across all cloud computing (Gartner, 2012).

Table 6
Deployment model.

Type	Frequency	Percent
Public cloud	14	7
Private cloud	186	93

4.3. *Instrument validation*

Constructs and measurement items used in this research are adapted from previously validated measures, or are developed on the basis of literature review. Details of the constructs and items are listed in Appendix B. The processes of instrument validation are discussed below.

In order to test construct reliability, the preferred composite reliability (CR) measurement is applied to examine internal consistency. The suggested cut-off value for CR for better research quality is greater than 0.70 (Fornell & Larcker, 1981). The reflective construct used in our model, IT capability, has a composite reliability of 0.881, indicating high reliability and internal consistency (Table 7). *Convergent validity* is verified through the *t*-statistic for each factor loading. As shown in Table 7, all factor loadings are greater than the typical cutoff value of 0.7 and significant at the $p < 0.01$ level.

We formatively measured the "perceived benefits", "business concerns", and "external pressure" constructs because their

Table 7
Reliability of reflective constructs.

Construct	Code	Loadings	CR
IT Capability (IC)	IC1	0.815***	0.881
	IC2	0.955***	

*$p < 0.1$.
**$p < 0.05$.
***$p < 0.01$.

- Examining cloud computing adoption intention, pricing mechanism, and deployment model (Hsu, Ray, & Li-Hsieh , 2014).

Example of Results (Qualitative)

H). The distributors (Companies D, E and F) distribute different manufacturers' products to various regions in Indonesia. Company D distributes Company C's products and those of a few other large manufacturers within West Java, while Company F distributes the products of Company A and other manufacturers within East Java. Company E is the only large local sole distributor of a large processed food company that supplies to both participating retailers.

In terms of B2B EC technologies, all organizations use the barcode system and a range of EDI capabilities, as summarized in Table 3. In addition, some also embrace other B2B EC concepts such as VMI and cross docking. However, only two organizations have sufficiently matured to adopt the CPFR practice. The study shows that more advanced B2B EC initiatives, such as VMI, cross docking and CPFR, rely on barcode and EDI. Each of the adopted B2B EC initiatives is explained briefly in Appendix C.

7. The study findings

In this section, we describe how the adoption factors captured in our research framework drive or inhibit the adoption of various B2B EC technology initiatives currently adopted by the organizations involved in our study. Table 4 summarizes factors affecting the adoption of B2B EC by the participants. Each factor is discussed below.

7.1. Technological context

Within the technological context, the study findings highlight three salient factors that affect adoption: perceived benefits, compatibility and cost of technologies. Each factor has a different

Table 4
Overview of factors affecting adoption and their influence.

efficiency, which all finally lead to cost savings for the organizations. These benefits are the main drivers behind the pursuit of B2B EC initiatives such as barcode, EDI, and cross docking. B2B EC initiatives such as the handheld PDA system are perceived to have additional benefits. Apart from speed and efficiency, participants acknowledged other benefits of implementing these initiatives, including the following: (1) ability to control and monitor human factors, imposing discipline and strict policy to ensure a sufficient level of salesmen performance, (2) ability to increase information visibility for both its own employees and external customers, and (3) ability to maintain good relationships with trading partners by maintaining face-to-face interactions. According to the Managing Director, Manufacturer (Company C):

> We need to do things more efficiently and faster. Automation [the use of PDA] reduces human errors, which results in efficiency and speed, leading to more sales. It increases our speed of processing data. Also, it helps to control and impose discipline on our salesmen. We can track down all their activities in the field.
>
> Managing Director, Manufacturer (Company C)

As technology adoption would typically require substantial investment capital, it is very important for organizations to foresee the perceived benefits to be gained from such an investment.

7.1.2. (+) Compatibility

The case study confirms the importance of introducing IT-enabled business practices that are compatible with the current organizational practices and expertise. Because there are different IT sophistication levels across organizations within the industry, B2B EC technologies and initiatives have been adapted in different ways

Kutipan ke perkataan responden

Example of Results (Experimental)

TABLE 2. The cross-validation results.

method	accuracy	precision	recall	F1
10-fold cross-validation	93.2%	92.5%	93.5%	93.0%
5*2 cross-validation	93.3%	93.2%	93.2%	93.2%

TABLE 3. The effect of the fixed length of the input statement on the model.

sentence_length	accuracy	precision	recall	F1
12	91.9%	91.4%	92.0%	91.7%
648	93.4%	92.9%	93.8%	93.3%

D. EXPERIMENTAL RESULTS

The model parameters used in this experiment are shown in Table 1.

In order to more accurately evaluate the performance of our proposed SLCABG model, we use 10-fold cross-validation [56] and 5*2 cross-validation [57] to divide the dataset we use. In the 10-fold cross-validation method, we randomly divide the data set into 10 parts, using 9 of them as the training set in turn, and the remaining 1 part as the verification set, taking the mean of these 10 results as the evaluation result of our model. In the 5*2 cross-validation method, we randomly divided the dataset into two parts, used one of them as the training set in turn, and the remaining part as the test set, and the average of the five results was taken as the evaluation result of our model. Tables 2 show the experimental results of the SLCABG model under 10-fold cross-validation and 5*2-fold cross-validation, respectively.

Since the length of the text statement in the dataset is different, we will take the length of the statement to a certain value when we input the model. We select the maximum

TABLE 5. The effect of the number of iterations on the model.

epoch	accuracy	precision	recall	F1
3	93.2%	92.7%	93.5%	93.1%
5	93.5%	93.5%	92.9%	93.2%
8	93.9%	93.3%	94.3%	93.8%
10	93.3%	93.3%	93.1%	93.2%
12	93.0%	92.8%	93.4%	93.1%
15	92.6%	91.8%	93.2%	92.5%

TABLE 6. The impact of the dropout value on the model.

dropout	accuracy	precision	recall	F1
0.2	93.1%	92.1%	94.1%	93.1%
0.4	93.8%	93.7%	93.5%	93.6%
0.5	93.5%	93.5%	92.9%	93.2%
0.6	93.5%	93.8%	93.2%	93.5%
0.8	92.7%	92%	93.6%	92.8%

of the words in the thesaurus is reduced from the words with the lowest frequency, and an experiment is repeated for every 5000 words. The experimental results are shown in Table 4 and Figure2. As can be seen from the table, when the number of words in the lexicon is in the appropriate number of 35,000 words, the performance of the model is optimal. As the number of words in the thesaurus increases or decreases, the performance of the model decreases.

In the experiment, different iterations of the model will also affect the performance of the model. As the number of iterations of the model increases, the performance of the model will first rise and then fall. It can be seen from Table 5 and Figure 3 that when the number of iterations of the model is less than 8 times, the performance of the model increases with the number of iterations. When the number of iterations of the model is greater than 8 times, the model gradually overfits,

FIGURE 3. The effect of the number of iterations on the model.

TABLE 7. The impact of the weighted word vector on the model.

type	accuracy	precision	recall	F1
the weighted word vector	93.5%	93%	93.6%	93.3%
the unweighted word vector	92.8%	92.1%	93.1%	92.6%

by the sentiment lexicon can enhance the sentiment features expressed in the sentence, so the model can obtain better performances than the ordinary word vector.

We compared the sentiment analysis effects of the SLCABG model with the common sentiment analysis models (NB, SVM, CNN, and BiGRU) on the dataset. The comparison results are shown in Table 8 and Figure 5. The experimental results show that the classification performance of the deep learning model (CNN and BiGRU) is significantly better than the machine learning model (NB and SVM). Adding the attention mechanism based on the deep learning model can improve the classification performance of the model. The classification performance of the SLCABG model proposed by our comprehensive sentiment dictionary, CNN, BIGRU and Attention are also improved compared with the commonly used deep learning model.

V. DISCUSSION

This paper presents a new sentiment analysis model (SLCABG). Before inputting the word vector matrix of the text into the network model, the sentiment dictionary is

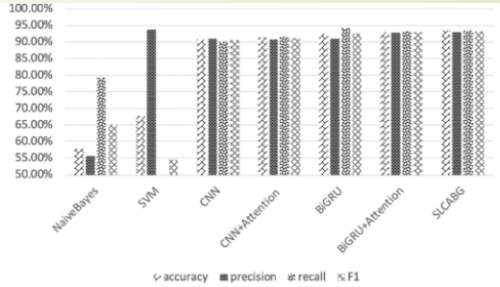


FIGURE 5. Model performance comparison.

used to weight the word vector of the sentiment words in the text to enhance the sentiment features in the text. Then use CNN to extract the important features in the input matrix, then use BiGRU to consider the order information of the input text, extract the text context features, and then use the attention mechanism to assign different weights to different input features, highlight the sentiment features of the text, and finally use Fully connected to classify sentiment features. Compared with other methods, our method enhances the sentiment features of the input text, and integrates the text context features and main features to enhance the classification performance of the sentiment analysis model.

In addition, we explored the impact of the length of the input text statement on the performance of the model. We selected the maximum sentence length and the average sentence length in the data set as the fixed length of the input sentence. We found that the performance of the model is better than the average sentence length when the input length

DISCUSSION

- Discuss your findings and carefully and explicitly articulate your theory/ new insight of understanding.
- Discuss how the data and findings advance the literature or our understanding of the phenomenon. Tie your discussion to the literature in terms of theoretical contribution, methodological contribution and practice contribution.
- Articulate why or how your contributions are important for researchers (theoretical implications) and practitioners (practical implications). (Note: choose research question wisely. Look for important contribution)

EXAMPLE OF DISCUSSION

6. Discussion

Cloud computing is a new technology paradigm that requires a careful and thorough examination when considering firm-level adoption. This empirical research, with 200 respondents, systematically examined cloud computing adoption, pricing mechanisms, and deployment models through the lens of the TOE framework. The results indicate that when talking about cloud adoption intention, three factors significantly influence the final decision: "Perceived Benefits" and "IT capability" are positively related, while "Business Concerns" is negatively related to cloud computing adoption. Among the three significant determinants, "perceived benefits" has the strongest effect, and this result provides empirical evidence to support previous qualitative cloud adoption studies: early cloud adopters appear to place more emphasis on the perceived benefits of technology (Lin & Chen, 2012).

Our study also found that it is not firm size but firms' IT capability that significantly affects their cloud adoption intention. Our results indicated that firms with higher IT capability (i.e. more IT employees and greater IT budget) prefer cloud computing, perhaps because these firms are more familiar with the latest information technology, and keep up with dynamic IT trends. Also, greater familiarity with information technology infers a higher level of knowledge to use in the operation of newer information technology. Thus, greater IT capability might allow for better management of, unpredicted turbulence brought by cloud, without undue economic impact.

Table 16
Classification results.

Deployment model			Predicted group membership		Total
			Public	Private	
Original	Count	Public	1	11	12
		Private	1	167	168

- Examining cloud computing adoption intention, pricing mechanism, and deployment model (Hsu, Ray, & Li-Hsieh , 2014).

EXAMPLE OF DISCUSSION

Recent qualitative studies investigating cloud adoption (e.g. Lin & Chen, 2012; Brender, and Markov) yielded similar findings. A firm's IT capabilities, such as existing knowledge and skills among personnel and the company's experiences, are the keys when considering cloud computing adoption (Lin & Chen, 2012). However, we should note that though firm size does not directly affect cloud adoption intention, firm size affects how firms perceive cloud's benefits, and their importance on affecting cloud adoption. Also, firm size affects IT capability's importance on cloud adoption intention. It is very likely that size is an antecedent of TOE factors.

As for Pricing Mechanism, the strongest determinant is IT Capability, and the results indicate that firms with greater IT capability, show a greater probability of choosing the Pay-as-you-go pricing mechanism. Lastly, the deployment model is mainly determined by the Business Concerns factor, and the results illustrate that firms with higher levels of Business Concerns tend to choose private cloud over public cloud.

6.1. Theoretical contribution

To study adoption of general technological innovations, Tornatzky and Fleischer (1990) developed the technology–organization–environment (TOE) framework, which identified three aspects of a firm's context that influence the process. As a generic theory of technology diffusion, the TOE framework can be used for studying the adoption of IS innovations. Cloud computing is being enabled by technology development, requires organizational enablers and entails necessary business reconfiguration, and may shape (and be shaped by) industry environments. Thus, upon theoretically examining adoption contexts, and cloud computing features, we believe that the three contexts in the TOE framework are well suited for studying cloud adoption. However, while the TOE framework has been examined by a number of empirical studies on various IS domains and has consistent empirical support, specific measures identified within the three contexts vary across different studies or settings.

Thus, this study provides a theoretical contribution to the IT adoption literature by showing that when applying the well-developed TOE framework to examine mature technologies vs. immature technologies (such as cloud computing), there are noteworthy differences. For example, External Pressure is considered as a critical factor in adoption of many mature technologies (Chwelos et al., 2001; Tornatzky & Fleischer, 1990; Zhu, Kraemer, Gurbaxani, et al., 2006; Zhu, Kraemer, & Xu, 2006), but it is regarded as an insignificant factor when examining adoption of immature technologies (Lin & Chen, 2012). Our study also suggests that firms may have different considerations in different stages of commitment by choosing different adoption modalities (pricing and deployment). This is very different from previous enterprise IT adoption. Our study advances the enterprise IT adoption literature by exploring this multi-modal approach to viewing adoption. We use the TOE framework, which has been extensively used to explain enterprise IT adoption, and ask whether it can appropriately explain not only the adoption decision but also the modalities of adoption (pricing mechanisms and deployment model) offered by cloud platforms.

6.2. Managerial insights

According to the above findings, this research also provides some managerial insights. First, we suggest cloud service providers focus more on promoting and validating cloud benefits when marketing their services to potential early adopters, since perceived benefits is the most influential determinant of cloud adoption at this time. Second, we found that current cloud adopters are not SMEs with limited IT capability as most vendors and practitioners predicted. Instead, current cloud adopters have strong IT capability. If cloud vendors can attract more innovators that have strong IT capability to use cloud service and generate successful stories, these innovators' experiences may have a network effect on other firms later on. Innovators, or early adopters, frequently serve as opinion leaders who persuade others to adopt the innovation by providing evaluative information (Rogers, 1995). As noted by many IT professionals in Lin and Chen's (2012) interviews, "*most businesses won't invest in something where its benefits are not apparent (from other firms' using experience),*" and "*our firm would only consider adopting cloud when others are happy with it.*" These may explain why cloud computing is still not taking off even it has been discussed intensively over the years. Other than examining the adoption issue, this research contributes to practitioners by further testing the relationships between firms' characteristics and their choice of Pricing Mechanism and Deployment Model. Firms with more IT capability prefer a pay-as-you-go pricing mechanism and firms with more business concerns tend to adopt the private cloud. Our results provide cloud service vendors strategic insights, such as choosing target costumers and designing promotion strategies.

6.3. Limitation and future research

Our study has some limitations and, therefore, we suggest some directions for future research. First, our data collection was conducted at the very initial stage of cloud computing; many firms

Implikasi praktis

Implikasi teori

Examining cloud computing adoption intention, pricing mechanism, and deployment model (Hsu, Ray, & Li-Hsieh , 2014).

Conclusion

- Conclude your research findings in brief according to your research results
  - Do not extend your conclusions beyond what is directly supported by your results - avoid undue speculation
- You could include the limitations (boundary, methodological etc.) and future research sections in this section. Including the limitation helps the readers to interpret the findings more appropriately.

Example of Conclusion

work has shown that negatively valanced media are remembered better than positive, this line of research could be conceptually strengthened by testing the impact of different types of mood meters on different types of memory (e.g. recall).

There are several limitations to this study that constrain the generalizability of its findings regarding the influence of mood meters. First, all of the conditions in the study utilized the same news story, with generally uplifting human-interest content of little relevance to current issues or policies. Therefore, future work should employ multiple examples of human-interest stories in order to better ensure the results apply to the genre as a whole. Second, participants did not vote on actual mood meter. Instead, half of the participants reported their emotional reactions first (to simulate voting on a mood meter) prior to responding to the remaining items in the questionnaire. Future work could test functional mood meters to improve the ecological validity of this manipulation. Third, only slightly more than half of the participants who saw stimuli with a mood meter consciously recalled seeing it. Future work could employ eye-tracking software to get a better idea of how much attention news audiences pay to mood meters.

Another limitation of this study is that the uplifting tone of the story may have provided a floor effect to some of the dependent measures. The examination of how mood meters interact with other types of news content may yield important interactions between the content valence or type and the valence of the mood displayed on the meter. The role of congruity between collective mood meter valence and the user's expectations or own emotional response may be substantial, but additional scholarship is needed. The mood meter conditions in this study examined three distributions of mood valence, but it is possible that more extreme distributions (i.e. 100% angry) would have a greater impact on readers' responses.

Future research should address the limitations itemized above by varying story content and tone and deliberately juxtaposing the stories with tone-congruent and tone-incongruent mood meter distributions. Additionally, previous work has found audience moods influence the consumption of good versus bad news (Biswas et al., 1994). However, that study, as with other research on selective exposure and mood management (Zillmann and Bryant, 1985), did not examine the influence of explicit representations of others' mood-ratings of content on users. Future research could explore how online news consumers selectively expose themselves to news stories in the presence of explicit

Limitation

Future research direction

Moody news: The impact of collective emotion ratings on online news consumers' attitudes, memory, and behavioral intentions (Myrick & Wojdynski, 2016).

References

- Whenever you draw upon previously published work, you **must** acknowledge the source
- Any information not from your experiment and not ‘common knowledge’ should be recognized by a citation
- How references are presented varies considerably - refer to notes for authors for the specific journal
- Avoid references that are difficult to find
- Avoid listing related references that were not important to the study

Final Notes (Daft, 1995)

- Various parts of the paper must fit together.
- Introduction, theory, method, results and discussion sections must be in alignment.
- Must show theory skill, design skill, writing skill.

Thank you.
Any questions?