

[Look Up Full Text](#)
[Full Text from Publisher](#)
[Find PDF](#)
[Export...](#)
[Add to Marked List](#)

Validating Technology-Organization-Environment (TOE) Framework in Web 2.0 Adoption in Supply Chain Management

By: [Tarofder, AK](#) (Tarofder, Arun Kumar)^[1]; [Jawabri, A](#) (Jawabri, Adnan)^[2]; [Haque, A](#) (Haque, Ahasanul)^[3]; [Sherief, SR](#) (Sherief, Sultan Rehman)^[1]

INDUSTRIAL ENGINEERING AND MANAGEMENT SYSTEMS

Volume: 18 Issue: 3 Pages: 482-494

DOI: 10.7232/iems.2019.18.3.482

Published: SEP 2019

Document Type: Article

Abstract

The second stage of Internet revolution has started with Web 2.0, which allows users to generate and develop the content without code. Web 2.0 not only change the way individual use internet but also tremendously transformed business activities. The primary aims of this study are (a) to validate the TOE framework in understanding Web 2.0 adoption in an organizational context, and (b) measuring the importance of each variable from the different industry perspective. This study developed a conceptual model based on the Technology-Organization-Environment (TOE) framework. A Web-based structured questionnaire was developed to collect primary data. With three months effort, this study managed to get 205 respondents from Malaysian manufacturing and service industry. Multiple regression and Dominance analysis were applied to understand the effect of the TOE framework on Web 2.0 adoption and predicting the importance of each factor form different industries perspective respectively. Multiple regression results confirmed that all the factors are important for Web 2.0 adoption, however, the technological characteristic is the most important determinant for Web 2.0 adoption. Moreover, dominance analysis showed very interesting results that relative advantage is not important for the service industry but top management support is the utmost importance. Similarly, results also indicated that top management support plays important role in Web 2.0 adoption for the fewer experience companies pertaining to internet usage. This study is one of the very few that provides insightful information regarding the effect of the TOE on Web 2.0 adoption in the supply chain management system. This study would be the guideline for the managers of both the manufacturing and service industry in order to implement the Web 2.0 in their supply chain system.

Keywords

Author Keywords: Web 2.0; Adoption; TOE Framework; Perceived Ease of Use; Perceived Usefulness; Competitive Pressure

KeyWords Plus: BIG DATA ANALYTICS; RELATIVE IMPORTANCE; INTERNET; PERFORMANCE; THINGS; DETERMINANTS; INFORMATION; MODEL; INTEGRATION; PREDICTORS

Author Information

Reprint Address: Tarofder, AK (reprint author)

Management & Sci Univ, Fac Business Management & Profess Studies, Shah Alam, Malaysia.

Addresses:

[1] Management & Sci Univ, Fac Business Management & Profess Studies, Shah Alam, Malaysia

[2] Al Khawarizmi Int Coll, Abu Dhabi, U Arab Emirates

[3] Int Islamic Univ, Dept Business Adm, Islamabad, Pakistan

E-mail Addresses: arun_kumar@msu.edu.my

Publisher

KOREAN INST INDUSTRIAL ENGINEERS, VICTORIA BLDG RM 509, 705-1 YEOKSAM-DONG, KANGNAM-GU, SEOUL, 135-080, SOUTH KOREA

Categories / Classification

Research Areas: Engineering

Web of Science Categories: Engineering, Industrial

See more data fields

Cited References: 104

Showing 30 of 104 [View All in Cited References page](#)

- Change, customer satisfaction and competition: Issues from the strategic management context**
 By: Adewale, A. A.
 International Journal of Economics, Business and Management Studies Volume: 3 Issue: 2 Pages: 55-66 Published: 2016
- Study of Relation between Business Model and Sensemaking Decisions**
 By: Ahmadi, F; Rahimi, M; Rezaei, A.

Citation Network

In Web of Science Core Collection

0

Times Cited

[Create Citation Alert](#)

104

Cited References

[View Related Records](#)

Use in Web of Science

Web of Science Usage Count

1

Last 180 Days

1

Since 2013

[Learn more](#)

This record is from:
Web of Science Core Collection
 - Emerging Sources Citation Index

Suggest a correction

If you would like to improve the quality of the data in this record, please [suggest a correction](#).

What is the most important thing WoS helps you accomplish (what can you not live without)?

1 of 1

- Find potential jobs (lab of interest, Key PI's in my field)
- Find new articles in my field
- Set up an alert for new articles in my field
- Look for articles all from the same institution
- Prepare a dataset for export to InCites

Next

<p>3. ICT adoption in Malaysian SMEs from services sectors: Preliminary findings By: Ahsan, M. N.; Shah Alam, S. Journal of Internet Banking and Commerce Volume: 12 Issue: 3 Pages: 1-11 Published: 2007</p>	<p>Times Cited: 15</p>
<p>4. Title: [not available] By: Ajzen, I. From intentions to actions: A theory of planned behavior Action control Pages: 11-39 Published: 1985 Publisher: Springer, Berlin, Germany</p>	<p>Times Cited: 4,997</p>
<p>5. THE THEORY OF PLANNED BEHAVIOR By: AJZEN, I ORGANIZATIONAL BEHAVIOR AND HUMAN DECISION PROCESSES Volume: 50 Issue: 2 Pages: 179-211 Published: DEC 1991</p>	<p>Times Cited: 24,643</p>
<p>6. Relevance of Stakeholders Theory, Organizational Identity Theory and Social Exchange Theory to Corporate Social Responsibility and Employees Performance in the Commercial Banks in Nigeria By: Albasu, J; Nyameh, J. International Journal of Business, Economics and Management Volume: 4 Issue: 5 Pages: 95-105 Published: 2017</p>	<p>Times Cited: 3</p>
<p>7. Radio frequency identification (RFID) technology as a strategic tool towards higher performance of supply chain operations in textile and apparel industry of Malaysia By: Ali, A; Haseeb, M. Uncertain Supply Chain Management Volume: 7 Issue: 2 Pages: 215-226 Published: 2019</p>	<p>Times Cited: 8</p>
<p>8. Risk Assessment of Ex-Post Transaction Cost in Construction Projects Using Structural Equation Modeling By: Ali, Zaigham; Zhu, Fangwei; Hussain, Shahid SUSTAINABILITY Volume: 10 Issue: 11 Article Number: 4017 Published: NOV 2018</p>	<p>Times Cited: 2</p>
<p>9. The Impact of Training and Development on Workers Performance in Imo State By: Anyanwu, JO; Okoroji, LI; Ezewoko, OF; et al. Global Journal of Social Sciences Studies Volume: 2 Issue: 2 Pages: 51-71 Published: 2016 [Show additional data]</p>	<p>Times Cited: 3</p>
<p>10. An exploratory study on supply chain analytics applied to spare parts supply chain By: Arya, Vedpal; Sharma, Pankaj; Singh, Ashwani; et al. BENCHMARKING-AN INTERNATIONAL JOURNAL Volume: 24 Issue: 6 Pages: 1571-1580 Published: 2017</p>	<p>Times Cited: 6</p>
<p>11. B2B technology adoption in customer driven supply chains By: Asare, Anthony K.; Brashear-Alejandros, Thomas G.; Kang, Jun JOURNAL OF BUSINESS & INDUSTRIAL MARKETING Volume: 31 Issue: 1 Pages: 1-12 Published: 2016</p>	<p>Times Cited: 13</p>
<p>12. Integrated technology-organization-environment (T-O-E) taxonomies for technology adoption By: Awa, Hart O.; Ojiabo, Ojiabo Ukoha; Orokor, Longlife E. JOURNAL OF ENTERPRISE INFORMATION MANAGEMENT Volume: 30 Issue: 6 Pages: 893-921 Published: 2017</p>	<p>Times Cited: 8</p>
<p>13. Integrating TAM, TPB and TOE frameworks and expanding their characteristic constructs for e-commerce adoption by SMEs By: Awa, Hart Okorie; Ojiabo, Ojiabo Ukoha; Emecheta, Bartholomew Chinweuba JOURNAL OF SCIENCE AND TECHNOLOGY POLICY MANAGEMENT Volume: 6 Issue: 1 Pages: 76-94 Published: 2015</p>	<p>Times Cited: 36</p>
<p>14. Analysis of technological, individual and community factors influencing the use of popular Web 2.0 tools in LIS education By: Barhoumi, Chokri ELECTRONIC LIBRARY Volume: 35 Issue: 5 Pages: 977-993 Published: 2017</p>	<p>Times Cited: 2</p>
<p>15. Second-life retailing: a reverse supply chain perspective By: Beh, Loo-See; Ghobadian, Abby; He, Qile; et al. SUPPLY CHAIN MANAGEMENT-AN INTERNATIONAL JOURNAL Volume: 21 Issue: 2 Pages: 259-272 Published: 2016</p>	<p>Times Cited: 18</p>
<p>16. Coping with family-to-work conflict: the role of informal work accommodations to family. By: Behson, Scott J Journal of occupational health psychology Volume: 7 Issue: 4 Pages: 324-41 Published: 2002-Oct</p>	<p>Times Cited: 87</p>
<p>17. Beyond global measures of relative importance: Some insights from dominance analysis By: Budescu, DV; Azen, R ORGANIZATIONAL RESEARCH METHODS Volume: 7 Issue: 3 Pages: 341-350 Published: JUL 2004</p>	<p>Times Cited: 56</p>
<p>18. DOMINANCE ANALYSIS - A NEW APPROACH TO THE PROBLEM OF RELATIVE IMPORTANCE OF PREDICTORS IN MULTIPLE-REG By: BUDESCU, DV PSYCHOLOGICAL BULLETIN Volume: 114 Issue: 3 Pages: 542-551 Published: NOV 1993</p>	<p>Times Cited: 405</p>

What is the most important thing WoS helps you accomplish (what can you not live without)?

- Find potential jobs (lab of interest, Key PI's in my field) 18
- Find new articles in my field 87
- Set up an alert for new articles in my field 56
- Look for articles all from the same institution 56
- Prepare a dataset for export to InCites 405

[Next](#)

19. **E-grocery supply chain management enabled by mobile tools** Times Cited: 7
 By: Cagliano, Anna Corinna; De Marco, Alberto; Rafele, Carlo
 BUSINESS PROCESS MANAGEMENT JOURNAL Volume: 23 Issue: 1 Pages: 47-70 Published: 2017
20. **An Eye-gaze Tracking System for Teleoperation of a Mobile Robot.** Times Cited: 3
 By: Carreto, C.; Gego, D.; Figueiredo, L.
 Journal of Information Systems Engineering & Management Volume: 3 Issue: 2 Pages: 16 Published: 2018
21. **The influence of information technology and communication supply chain management performance for greater SME manufacturing in aguascalientes** Times Cited: 3
 By: Castorena, O. H.; Enriquez, L. A.; Adame, M. G.
 International Journal of Business, Economics and Management Volume: 1 Issue: 12 Pages: 382-396 Published: 2014
22. **eReadiness of public university libraries in Malawi to use mobile phones in the provision of library and information services** Times Cited: 1
 By: Chaputula, Aubrey Harvey; Mutula, Stephen
 LIBRARY HI TECH Volume: 36 Issue: 2 Pages: 270-288 Published: 2018
23. **Factors affecting e-business adoption in SMEs: an empirical research** Times Cited: 10
 By: Chatzoglou, Prodromos; Chatzoudes, Dimitrios
 JOURNAL OF ENTERPRISE INFORMATION MANAGEMENT Volume: 29 Issue: 3 Pages: 327-358 Published: 2016
24. **Impact of operational risk toward the efficiency of banking-evidence from Taiwans banking industry** Times Cited: 2
 By: Cheng, C. P.; Phung, M. T.; Hsiao, C. L.; et al.
 Asian Economic and Financial Review Volume: 8 Issue: 6 Pages: 815-831 Published: 2018
[\[Show additional data\]](#)
25. **m-commerce technology adoption: Thematic and citation analysis of scholarly research during (2008-2017)** Times Cited: 2
 By: Chhonker, Mayanka Singh; Verma, Deepak; Kar, Arpan Kumar; et al.
 BOTTOM LINE Volume: 31 Issue: 3-4 Pages: 208-233 Published: 2018
26. **Oguamalam Masquerade Performance beyond Aesthetics** Times Cited: 3
 By: Chielotam, AN.
 Humanities and Social Sciences Letters Volume: 3 Issue: 2 Pages: 63-71 Published: 2015
27. **Risk and return analysis of closed-end mutual fund in Bangladesh** Times Cited: 2
 By: Chowdhury, T. S.; Habibullah, M.; Nahar, N.
 Journal of Accounting, Business and Finance Research Volume: 3 Issue: 2 Pages: 83-92 Published: 2018
28. **User acceptance of computer technology: A comparison of two theoretical models** Times Cited: 3
 By: Davis, F. D.; Bagozzi, R. P.; Warshaw, P. R.
 Management Science Volume: 35 Pages: 982-1003 Published: 1986
29. **RFID in US hospitals: an exploratory investigation of technology adoption** Times Cited: 10
 By: Dey, Asoke; Vijayaraman, B. S.; Choi, Jeong Hoon
 MANAGEMENT RESEARCH REVIEW Volume: 39 Issue: 4 Pages: 399-424 Published: 2016
30. **Strategic supply chain framework as an effective approach to procurement of public construction projects in Nigeria** Times Cited: 4
 By: Dim, N. U.; Ezebasili, A. C. C.
 International Journal of Management and Sustainability. Volume: 4 Issue: 7 Pages: 163-172 Published: 2015

Showing 30 of 104 [View All in Cited References page](#)

What is the most important thing WoS helps you accomplish (what can you not live without)?

- Find potential jobs (lab of interest, Key PI's in my field)
- Find new articles in my field
- Set up an alert for new articles in my field
- Look for articles all from the same institution
- Prepare a dataset for export to InCites

Next

