



< Back to results | 1 of 1

Download Print Save to PDF Save to list Create bibliography

Science and Technology Indonesia • Open Access • Volume 6, Issue 4, Pages 337 - 343 • October 2021

Document type

Article • Gold Open Access

Source type

Journal

ISSN

25804405

DOI

10.26554/sti.2021.6.4.337-343

View more

Analysis of Information Service Pricing Scheme Model Based on Customer Self-Selection

Indrawati; Puspita, Fitri Maya; Resmadona; Yuliza, Evi; Dwipurwani, Oki; Octarina, Sisca

Save all to author list

^a Mathematics Department, Faculty of Mathematics and Natural Sciences, Sriwijaya University, Palembang, 30662, Indonesia



View PDF Full text options Export

Abstract

Author keywords

Sustainable Development Goals 2023

SciVal Topics

Metrics

Funding details

Abstract

This study attempts to analyze pricing schemes with monitoring cost and marginal cost for perfect substitute and quasi-linear utility functions for achieving Internet service Provider (ISP) in gaining benefit. Two types of customers analyzed, namely customers who are heterogeneous (both high-end and low-end) as well as heterogeneous customers (high-demand and low-demand) based on Flat-fee, usage-based, and two-part tariff are the three types of pricing methods employed. The results show that usage-based pricing schemes gain maximum profit optimal for heterogeneous customers (high-end and low-end), while for heterogeneous customers (high-demand and low-demand) type of pricing scheme two-part tariff obtains maximum profit optimal. The results of this study are more directed to the lemma of the perfect substitute utility function which compares the lemma of heterogeneous customers. This model was solved using LINGO 13.0 software and ISP to get maximum profit. © 2021 The Authors.

Author keywords

Heterogeneous Customers; Marginal Cost; Monitoring Cost; Perfect Substitute; Pricing Schemes;

Cited by 3 documents

Information Services Financing Scheme Model with Marginal Costs and Supervisory Costs for Modified Cobb-Douglas and Linear Utility Functions

Indrawati, Puspita, F.M., Yuliza, E.

(2022) 2022 5th International Seminar on Research of Information Technology and Intelligent Systems, ISRITI 2022

Mathematical Model of Traffic Management-Perfect Substitute-Selfish User Scheme

Puspita, F.M., Indriani, P.E., Yuliza, E.

(2022) 2022 5th International Seminar on Research of Information Technology and Intelligent Systems, ISRITI 2022

Validation of Improved Dynamic Spectrum and Traffic Management Models of Internet Pricing of Fair DSL-LTE Multiple QoS Network

Puspita, F.M., Arda, S., Sitepu, R. (2022) Science and Technology Indonesia

View all 3 citing documents

Inform me when this document is cited in Scopus:

Set citation alert >

Related documents

Validate proof of information service financing scheme model by using the customer self-selection bundling strategy based on quasi-linear utility function

Indrawati, I., Puspita, F.M., Nurhayati, L.

(2023) AIP Conference Proceedings

Improved Incentive Pricing Wireless Multi-service Single Link with Bandwidth Attribute

Hussein, N., Seman, K., Puspita, F.M.

(2021) International Journal of Advanced Computer Science and Applications

Utility function based-mixed integer nonlinear programming (MINLP) problem model of information service pricing schemes

Sitepu, R., Puspita, F.M., Apriliyani, S.

(2017) Proceedings of 2017 International Conference on Data and Software Engineering,

Sustainable Development Goals 2023 ⓘ New

View all related documents based on references

SciVal Topics ⓘ

Find more related documents in Scopus based on:

Metrics

Authors > Keywords >

Funding details

References (30)

View in search results format >

 All

CSV export ▾



Print



E-mail



Save to PDF

Create bibliography

 1 Barrios, P.S.C., Cruz, D.E.

A mixed integer programming optimization of bundling and pricing strategies for multiple product components with inventory allocation considerations

(2017) *IEEE International Conference on Industrial Engineering and Engineering Management*, 2017-December, pp. 16-20. Cited 2 times.

<http://ieeexplore.ieee.org/xpl/conferences.jsp>

ISBN: 978-153860948-4

doi: 10.1109/IEEM.2017.8289842

[View at Publisher](#)

 2 Caiati, V., Rasouli, S., Timmermans, H.

Bundling, pricing schemes and extra features preferences for mobility as a service: Sequential portfolio choice experiment

(2020) *Transportation Research Part A: Policy and Practice*, 131, pp. 123-148. Cited 112 times.

www.elsevier.com/inca/publications/store/5/4/7/

doi: 10.1016/j.tra.2019.09.029

[View at Publisher](#)

 3 Cunningham, K., Schrage, L.

(2004) *The LINGO Algebraic Modeling Language*. Cited 12 times.
Springer

 4 Giraldo, O. D. M.

Solución de un problema de optimización clásico usando el paquete optimizador GAMS: implementación del problema de despacho económico (2017) *Ingeniería y Ciencia*, 13 (26), pp. 39-64.

 5 Gizelis, C.A., Vergados, D.D.

A survey of pricing schemes in wireless networks

(2011) *IEEE Communications Surveys and Tutorials*, 13 (1), art. no. 5522469, pp. 126-145. Cited 85 times.

doi: 10.1109/SURV.2011.060710.00028

[View at Publisher](#)

- 6 Gu, C., Zhuang, S., Sun, Y.
Pricing incentive mechanism based on multistages traffic classification methodology for QoS-enabled networks
(2011) *Journal of Networks*, 6 (1), pp. 163-171. Cited 11 times.
<http://ojs.academypublisher.com/index.php/jnw/article/view/0601163171/2561>
doi: 10.4304/jnw.6.1.163-171
View at Publisher
-
- 7 Guan, Y., Yang, W., Owen, H., Blough, D.M.
A pricing approach for bandwidth allocation in differentiated service networks (Open Access)
(2008) *Computers and Operations Research*, 35 (12), pp. 3769-3786. Cited 16 times.
doi: 10.1016/j.cor.2007.02.003
View at Publisher
-
- 8 Hitt, L.M., Chen, P.-Y.
Bundling with customer self-selection: A simple approach to bundling low-marginal-cost goods
(2005) *Management Science*, 51 (10), pp. 1481-1493. Cited 107 times.
<http://www.extenza-eps.com/INF/doi/pdf/10.1287/mnsc.1050.0403>
doi: 10.1287/mnsc.1050.0403
View at Publisher
-
- 9 Indrawati, Irmeilyana, Puspita, F.M., Sanjaya, O.
Internet pricing on bandwidth function diminished with increasing bandwidth utility function (Open Access)
(2015) *Telkomnika (Telecommunication Computing Electronics and Control)*, 13 (1), pp. 299-304. Cited 4 times.
http://journal.uad.ac.id/index.php/TELKOMNIKA/article/download/117/pdf_157
doi: 10.12928/TELKOMNIKA.v13i1.117
View at Publisher
-
- 10 Indrawati, Irmeilyana, Puspita, F.M., Lestari, M.P.
Cobb-Douglass utility function in optimizing the internet pricing scheme model (Open Access)
(2014) *Telkomnika (Telecommunication Computing Electronics and Control)*, 12 (1), pp. 227-240. Cited 13 times.
http://journal.uad.ac.id/index.php/TELKOMNIKA/article/download/18/pdf_75
doi: 10.12928/TELKOMNIKA.v12i1.1800
View at Publisher
-
- 11 Koczewski, T., Sobolewski, M., Miernik, I.
Bundling or unbundling? Integrated simulation model of optimal pricing strategies (Open Access)
(2018) *International Journal of Production Economics*, 204, pp. 328-345. Cited 19 times.
doi: 10.1016/j.ijpe.2018.08.017
View at Publisher
-
- 12 Kuo, W.-H.
Utility-based resource allocation in wireless networks
(2007) *IEEE Transactions on Wireless Communications*, 6 (10), pp. 3600-3606. Cited 83 times.
doi: 10.1109/TWC.2007.05942
View at Publisher

- 13 Li, M., Feng, H., Chen, F., Kou, J.
Numerical investigation on mixed bundling and pricing of information products ([Open Access](#))

(2013) *International Journal of Production Economics*, 144 (2), pp. 560-571. Cited 28 times.
doi: 10.1016/j.ijpe.2013.04.015

[View at Publisher](#)
-
- 14 Merayo, N., Pavon-Marino, P., Aguado, J.C., Durán, R.J., Burrull, F., Bueno-Delgado, V.
Fair bandwidth allocation algorithm for PONS based on network utility maximization

(2017) *Journal of Optical Communications and Networking*, 9 (1), art. no. 7830276, pp. 75-86. Cited 29 times.
<http://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=7331118&punumber=4563700><http://www.opticsinfobase.org/jocn/journal/jon/about.cfm>
doi: 10.1364/JOCN.9.000075

[View at Publisher](#)
-
- 15 Moriya, T., Ohnishi, H., Ogawa, T., Ito, T.
Method of improving bandwidth and connectivity with multiple links in nomadic network environment

(2005) *6th Asia-Pacific Symposium on Information and Telecommunication Technologies, APSITT 2005 - Proceedings*, 2005, art. no. 1593435, pp. 41-46. Cited 3 times.
ISBN: 4885522161; 978-488552216-1
doi: 10.1109/apsitt.2005.203628

[View at Publisher](#)
-
- 16 Puspita, F.M., Wulandari, A., Yuliza, E., Sitepu, R., Yunita
End-to-end delay qos attribute-based bundling strategy of wireless improved reverse charging network pricing model ([Open Access](#))

(2021) *Science and Technology Indonesia*, 6 (1), pp. 30-38. Cited 4 times.
<http://sciencetechindonesia.com/index.php/jsti/article/view/265/163>
doi: 10.26554/sti.2021.6.1.30-38

[View at Publisher](#)
-
- 17 Puspita, F.M., Wulandari, A., Yuliza, E., Sitepu, R., Yunita
Modification of Wireless Reverse Charging Scheme with Bundling Optimization Issues

(2020) *2020 3rd International Seminar on Research of Information Technology and Intelligent Systems, ISRITI 2020*, art. no. 9315348, pp. 556-561.
<http://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=9315288>
ISBN: 978-172818406-7
doi: 10.1109/ISRITI51436.2020.9315348

[View at Publisher](#)
-
- 18 Puspita, F.M., Yuliza, E., Herlina, W., Yunita, Rohania
Improved Multi-Service-Reverse Charging Models for the Multi-link Internet wireless Using Bit Error Rate QoS Attribute ([Open Access](#))

(2020) *Science and Technology Indonesia*, 5 (1), pp. 6-13. Cited 5 times.
<https://sciencetechindonesia.com/index.php/jsti/article/view/206>
doi: 10.26554/sti.2020.5.1.6-13

[View at Publisher](#)
-

- 19 Rabbani, M., Salehi, R., Farshbaf-Geranmayeh, A.
Integrating assortment selection, pricing and mixed-bundling problems for multiple retail categories under cross-selling
(Open Access)

(2017) *Uncertain Supply Chain Management*, 5 (4), pp. 315-326. Cited 6 times.
http://www.growingscience.com/uscm/Vol5/uscm_2017_10.pdf
doi: 10.5267/j.uscm.2017.5.001

View at Publisher
-
- 20 Schrage, L.
(2009) *Optimization Modeling with LINGO (6th ed.)*. Cited 431 times.
LINDO Systems, Inc
-
- 21 Sitepu, R., Puspita, F.M., Apriliyani, S.
Utility function based-mixed integer nonlinear programming (MINLP) problem model of information service pricing schemes

(2017) *Proceedings of 2017 International Conference on Data and Software Engineering, ICoDSE 2017*, 2018-January, art. no. 8285892, pp. 1-6. Cited 7 times.
ISBN: 978-153861449-5
doi: 10.1109/ICODSE.2017.8285892

View at Publisher
-
- 22 Sitepu, R., Puspita, F.M., Pratiwi, A.N., Novyasti, I.P.
Utility function-based pricing strategies in maximizing the information service provider's revenue with marginal and monitoring costs

(2017) *International Journal of Electrical and Computer Engineering*, 7 (2), pp. 877-887. Cited 12 times.
<http://www.iaescore.com/journals/index.php/IJECE/article/view/6436/6290>
doi: 10.11591/ijece.v7i2.pp877-887

View at Publisher
-
- 23 Sitepu, R., Puspita, F. M., Tanuji, H., Novyasti, I. P.
Cobb-Douglas Utility Function Of Information Service Pricing Scheme Based On Monitoring And Marginal Costs
(2016) *2nd International Conference on Education, Technology and Science*, p. 602. Cited 4 times.
-
- 24 Varadarajan, R.
Customer information resources advantage, marketing strategy and business performance: A market resources based view (Open Access)

(2020) *Industrial Marketing Management*, 89, pp. 89-97. Cited 95 times.
<http://www.elsevier.com/locate/indmarman>
doi: 10.1016/j.indmarman.2020.03.003

View at Publisher
-
- 25 Wu, S.-Y., Banker, R.D.
Best pricing strategy for information services

(2010) *Journal of the Association for Information Systems*, 11 (6), pp. 339-366. Cited 53 times.
<http://aisel.aisnet.org/cgi/viewcontent.cgi?article=1541&context=jais>
doi: 10.17705/1jais.00229

View at Publisher

- 26 Yassine, N., AlSagheer, A., Azzam, N.
A bundling strategy for items with different quality based on functions involving the minimum of two random variables

(2018) *International Journal of Engineering Business Management*, 10. Cited 12 times.
<http://enb.sagepub.com/content/by/year>
doi: 10.1177/1847979018778919

View at Publisher
-
- 27 Ye, L., Xie, H., Wu, W., Lui, J.C.S.
Mining customer valuations to optimize product bundling strategy (Open Access)

(2017) *Proceedings - IEEE International Conference on Data Mining, ICDM, 2017-November*, pp. 555-564. Cited 3 times.
ISBN: 978-153863834-7
doi: 10.1109/ICDM.2017.65

View at Publisher
-
- 28 Zhang, Z., Luo, X., Kwong, C.K., Tang, J., Yu, Y.
Impacts of service uncertainty in bundling strategies on heterogeneous consumers

(2018) *Electronic Commerce Research and Applications*, 28, pp. 230-243. Cited 4 times.
<http://www.elsevier.com/>
doi: 10.1016/j.elerap.2018.02.003

View at Publisher
-
- 29 Zhou, Y., Zhang, T., Mo, Y., Huang, G.
Willingness to pay for economy class seat selection: From a Chinese air consumer perspective

(2020) *Research in Transportation Business and Management*, 37, art. no. 100486. Cited 8 times.
http://www.elsevier.com/wps/find/journaldescription.cws_home/724503/description#description
doi: 10.1016/j.rtbm.2020.100486

View at Publisher
-
- 30 Li, Z.-X., Wang, W.-L., Cheng, X.-M.
Optimal bandwidth scheduling for resource-constrained networks

(2009) *Zidonghua Xuebao/Acta Automatica Sinica*, 35 (4), pp. 443-448. Cited 12 times.
doi: 10.3724/SP.J.1004.2009.00443

View at Publisher

✎ Puspita, F.M.; Mathematics Department, Faculty of Mathematics and Natural Sciences, Sriwijaya University, Palembang, Indonesia; email:fitrimayapuspita@unsri.ac.id
© Copyright 2021 Elsevier B.V., All rights reserved.

About Scopus

[What is Scopus](#)

[Content coverage](#)

[Scopus blog](#)

[Scopus API](#)

[Privacy matters](#)

Language

[日本語版を表示する](#)

[查看简体中文版本](#)

[查看繁體中文版本](#)

[Просмотр версии на русском языке](#)

Customer Service

[Help](#)

[Tutorials](#)

[Contact us](#)

ELSEVIER

[Terms and conditions](#) ↗ [Privacy policy](#) ↗

All content on this site: Copyright © 2024 Elsevier B.V. ↗, its licensors, and contributors. All rights are reserved, including those for text and data mining, AI training, and similar technologies. For all open access content, the Creative Commons licensing terms apply.

We use cookies to help provide and enhance our service and tailor content. By continuing, you agree to the use of cookies ↗.

