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# Incorporating Servqual-QFD with Taguchi Design for optimizing service quality design

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# Incorporating Servqual-QFD with Taguchi Design for optimizing service quality design

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Abstract. Deploying good service design in service companies has been updated issue in improving customer satisfaction, especially based on the level of service quality measured by Parasuraman's SERVQUAL. Many researchers have been proposing methods in designing the service, and some of them are based on engineering viewpoint, especially by implementing the QFD method or even using robust Taguchi method. The QFD method would found the qualitative solution by generating the "how's", while Taguchi method gives more quantitative calculation in optimizing best solution. However, incorporating both QFD and Taguchi has been done in this paper and yields better design process. The purposes of this research is to evaluate the incorporated methods by implemented it to a case study, then analyze the result and see the robustness of those methods to customer perception of service quality. Started by measuring service attributes using SERVQUAL and find the improvement with QFD, the deployment of QFD solution then generated by defining Taguchi factors levels and calculating the Signal-to-noise ratio in its orthogonal array, and optimized Taguchi response then found. A case study was given for designing service in local bank. Afterward, the service design obtained from previous analysis was then evaluated and shows that it was still meet the customer satisfaction. Incorporating QFD and Taguchi has performed well and can be adopted and developed for another research for evaluating the robustness of result.

# 1. Introduction

Since firstly proposed by [1], Service Quality (SERVQUAL) has been applied for evaluating the quality level of services, and as reference for improving the service design. Based on the 5 dimensional customer attributes, the SERVQUAL measures the 5 gaps, including the customer gap i.e. the difference between customer expectation and perception. Attributes with large negative gaps represents some dissatisfactions and lead to the opportunity for improving them. However, many researches evaluate the effectiveness of SERVQUAL related to large amount of variables in questionnaire, and also their likert scale that is considered difficult to interpret [2]. Some papers proposed modifications of SERVQUAL by developing similar procedures or dimensions for particular service, such as DINESERV [3] for evaluating restaurant service, SERVPERF [4] for omitting the customer expectation rather than calculate its different with the perception, and HEDPERF [5] for evaluating education service.

Considering the customer gaps in SERVQUAL, the improvement should accommodate all those negative gaps, especially the larger ones. The researchers often qualitatively generate the improvement plans according to the gaps and then implement them, see [6], and [7]. A well-known tool for

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generating those plans is Quality Function Deployment (QFD), as used by [8] and [9]. QFD would produce the "hows", i.e. solutions related to the negative gaps in SERVQUAL called "whats", then by subjectively weighting and associating between hows and whats, priority in implementing the improvement would be found.

Once the prioritized improvement plans implemented, they should fulfill and satisfy the customers, and reduce the negative SERVQUAL gaps. However, there's no guarantee that the prioritized plans produced by QFD would robustly satisfying the customers because the customer can only accept what the QFD hows determined, which has qualitatively generated and subjectively weighted. Customers don't have a chance to select which plans they prefer to implement, so those plans can't be reliably satisfying over time and fall to un-optimized deployment. [10] and [11] proposed the Taguchi method in selecting best combination in the QFD hows for designing the deployed service for customer by determining additional plans levels, similar to factors in experimental design method

Incoporating Taguchi with SERVQUAL and QFD has not been discussed before, this paper proposed new approach in increasing robustness of service design through Taguchi method. The framework is started from identifying the variables, calculating the gaps, generating the improvement plans through QFD, and then applying Taguchi method for optimizing the plans into service design. A case study has been conducted and the deployed service design is obtained, and related analysis is performed for evaluating this framework.

# 2. Literature review

# 2.1. SERVQUAL-QFD

The Parasuramans's SERVQUAL [1] has been popular method in evaluating the quality of service. There are 5 gaps as the main idea in this analysis, represent unsatisfactory of customer and inconvenience managed service, see figure 1. One of SERVQUAL advantage adopted in this research is the gap analysis for measuring the customer satisfaction, i.e. the difference between expectation and perception of customers. The negative gap shows the unsatisfactory of customers, and the positive ones represent fulfillment of their expectation. All negative gaps considered to be improved, with the scope of 5 dimensions, i.e. tangible, empathy, reliability, responsiveness, and assurance.

The incorporated QFD takes place to generate improvement plans due to negative gaps which called what, see [12] The improvement plan (hows) then associated with the whats followed by calculating weight of prioritized plan. Solutions for customer gaps refer to the highest priority represented by highest relative weight. All this analysis could be done in a tools called House of Quality, see figure 2.



Figure 1. SERVQUAL gaps (taken from [1])



Figure 2. House of Quality in QFD

# 2.2. Taguchi Method

The Taguchi method usually applied in hard engineering for finding the best experiment factor combinations that optimize the response, see [13] and [14], and its development as in [15], [16] and [17]. First step, researchers determine the factors to be optimized including their levels. Following by conducting experiment refer to orthogonal array design. By calculating averages for each factor level and rank the difference between each of them, Taguchi could find the optimal level combination that optimize the interested response transformed in term of signal-to-noise ratio (SNR), considering the objective of optimization as follows:

- Signal-to-noise ratio for larger the better
- Signal-to-noise ratio for nominal the best
- Signal-to-noise ratio for smaller the better

Only larger the better signal-to-noise ratio would be used in this paper, since the objective in Taguchi was maximized customer response. Formula of signal-to-noise ratio for larger the better shown in (1)

$$SNR = -10 \log\left[\frac{1}{n}\sum_{i=1}^{n}\frac{1}{y^2}\right] \tag{1}$$

3

In this research, the Taguchi method would be used for designing robust service determined before by SERVQUAL-QFD. [11] has successfully applied Taguchi in designing retail service, but the factors and also their levels was determined qualitatively by brainstorming the customers, so the subjective consideration still dominates them. One needs to conduct the Taguchi pre-determined process in selecting factors and levels especially for service analysis. In this research, the pre-process will be incorporated with the SERVQUAL-QFD analysis, so the factors should be more subjectively determined.

# 3. Framework and methodology

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As mentioned above, the SERVQUAL-QFD and Taguchi method need to be incorporated and then complemented by additional steps. This research framework is shown in figure 3. The SERVQUAL and Taguchi part of the framework needs customer feedback, while the QFD part still needs subjective weighting determination of prioritized plans. However, these subjective processes can be neutralized by customer response in Taguchi part. Steps in implementing the framework briefly explained below.

- 1. Generating questionnaire variables refer to SERVQUAL dimensions, then conducting survey
- 2. Once the feedbacks got, calculate the customer gaps for each variables
- 3. Selecting the variables with negative gaps to be whats component in QFD, and weighting them refer to those gaps value.
- 4. Subjectively generate QFD hows (the improvement plans), and associate them with whats by using relationship weighting, so the prioritized plans should be resulted from.
- 5. Prioritized plans as factors in Taguchi design. Determine the two levels of each factor, and then assign them in the orthogonal array.
- 6. Each run in orthogonal array represents the combination of prioritized plan, which should gain confirmation responses from customer.
- 7. Optimizing the response using Taguchi technique, then the optimal combination of plans should be obtained. This results the robust service design.

Robust service design has accommodated almost all parts of customer responses. So, it should decrease the number of complaints and has longer timeframe implementation. One should maintain this design and periodically evaluate it. Someday, there's a chance where customer responses for this design will be decreased and needs to be re-improved.

| no | Variables                                    | Expectation<br>(E) | Perception<br>(P) | customer<br>gaps (P-E) |
|----|--|--------------------|-------------------|------------------------|
| 1  | comfort waiting room                         | 4.85               | 4.03              | -0.82                  |
| 2  | variations of bank service                   | 4.83               | 4.25              | -0.58                  |
| 3  | responsiveness of customer service           | 4.71               | 4.22              | -0.49                  |
| 4  | responsiveness of teller                     | 4.74               | 4.22              | -0.52                  |
| 5  | competency of customer service and teller    | 4.63               | 3.91              | -0.72                  |
| 6  | willingness to answer customer questions     | 4.79               | 4.14              | -0.65                  |
| 7  | friendly and polite service                  | 4.69               | 4.23              | -0.46                  |
| 8  | simplicity in conveying complaints           | 4.9                | 4.31              | -0.59                  |
| 9  | full attention from bank officer to customer | 4.9                | 4.35              | -0.55                  |
| 10 | no discrimination in servicing customer      | 4.68               | 4.23              | -0.45                  |

| Table 1. | Variables  | with    | negative | gaps |
|----------|------------|---------|----------|------|
| Lable L. | v un uoneo | ** 1011 | negutive | Sups |



Figure 3. Incorporating SERVQUAL-QFD-Taguchi framework

# 4. **Results and discussion**

A case study was taken from [18], which has evaluated the service quality of local bank in Indonesia, with 22 variables generated considering 5 dimensions in SERVQUAL. The customer gaps had calculated, and 10 variables with negative gaps (unsatisfactory) were found, list of those variables shown in table 1. All negative gaps would be the whats components in QFD, and their gaps value as weights. The improvement plan (hows component) then determined subjectively related to the whats. There were 6 hows generated, and the associate weight with whats component also put in QFD, this result could be seen in figure 4. The prioritized plans were then obtained by calculating relative weight for each improvement plan, see table 2. Without incorporating Taguchi, these prioritized plans were the final solution for improving bank service design.

However, there were no such confirmation process form customers so those solutions had no guarantee to survive over a long periodic evaluation. One should make sure that the solution would robust and reliable at longer time. The incorporated Taguchi then take place for increasing the service design robustness. The prioritized plans in table 2 then converted as factor in Taguchi experimental

| Rov * | Max Relationship Value in Row | Relative Weight | Weight / Importance | Quality<br>Characteristics<br>(a.k.a. "Functional<br>Requirements" or<br>"Hows")<br>Demanded Quality<br>(a.k.a. "Customer<br>Requirements" or<br>"Whats") | standad for customer handling | smile and greet | idea mining from employee | training for employee | room facilities | updating jobdesc |
|-------|-------------------------------|-----------------|---------------------|---|-------------------------------|-----------------|---------------------------|-----------------------|-----------------|------------------|
| 1     | 9                             | 14.1            | 0.8                 | comfort waiting room  |                               |                 |                           |                       | Θ               |                  |
| 2     | 9                             | 9.9             | 0.6                 | variations of bank service  |                               | 0               | Θ                         |                       |                 |                  |
| 3     | 9                             | 8.4             | 0.5                 | responsiveness of customer service  | Θ                             |                 |                           | Θ                     |                 | 0                |
| 4     | 9                             | 8.9             | 0.5                 | responsiveness of teller  | Θ                             |                 |                           |                       |                 | 0                |
| 5     | 9                             | 12.3            | 0.7                 | competency of customer service and teller   |                               |                 | 0                         | Θ                     |                 |                  |
| 6     | 9                             | 11.1            | 0.7                 | willingness to answer customer questions  | Θ                             | Θ               |                           |                       |                 |                  |
| 7     | 9                             | 7.9             | 0.5                 | friendly and polite service   |                               | Θ               |                           | 0                     |                 |                  |
| 8     | 9                             | 10.1            | 0.6                 | simplicity in conveying complaints  |                               |                 | Θ                         |                       |                 | 0                |
| 9     | 9                             | 9.4             | 0.6                 | full attention from bank officer to customer  | Θ                             |                 | 0                         | 0                     |                 |                  |
| 10    | 9                             | 7.7             | 0.5                 | no discrimination in servicing customer   | 0                             | Θ               | 0                         | 0                     |                 |                  |

design. Levels from each factor then determined considering the high level and low level as in Taguchi. Table 3 shows these levels.

**Figure 4**. Association between whats (negative gaps) and hows (improvement plan) in QFD. Symbols represent association level.

| Lable 2. prioritized plan      |                        |                  |  |  |  |  |
|--------------------------------|------------------------|------------------|--|--|--|--|
| the hows in QFD                | QFD relative<br>weight | prioritized plan |  |  |  |  |
| standard for customer handling | 25.9                   | YES              |  |  |  |  |
| smile and greet                | 20.9                   | YES              |  |  |  |  |
| idea mining from employee      | 19.7                   | YES              |  |  |  |  |
| training for employee          | 18.6                   | YES              |  |  |  |  |
| room facilities                | 9.0                    | NO               |  |  |  |  |
| updating jobdesc               | 5.9                    | NO               |  |  |  |  |

Only 4 factors selected into Taguchi analysis, omitting prioritized plans with low QFD relative weight as they didn't gives significant influence to customer. All these 4 factors and their levels then assigned into  $L_8$  orthogonal array experiment design, selected design refer to the number of factors [13] with no assumption of interaction between factors.

| Taguchi<br>factors | Prioritized plan<br>(the hows in QFD) | level 1   | level 2   |
|--------------------|---------------------------------------|---|---|
| А                  | standard for customer<br>handling     | create SOP then publish it to customer                        | create SOP without publish it,<br>as it's confidential  |
| В                  | smile and greet                       | mandatory for any level of employee, including the securities | mandatory only for customer<br>service and teller, as they are<br>directly communicate with<br>customer |
| С                  | idea mining from<br>employee          | employee periodic meeting for idea mining                     | directly idea conveying with reward   |
| D                  | training for employee                 | employee periodic training                                    | employee training as needed   |

# Table 3. Taguchi factors and level

Combinations of levels in  $L_8$  had assumed to be experiment runs in Taguchi, responses taken from customer were their perceptions for each level combination. For example in first run, customers were asked to gives their perception if the bank deploying this service designs:

- a. create SOP then publish it to customer
- b. mandatory for any level of employee, including the securities
- c. employee periodic meeting for idea mining
- d. employee periodic training

Customers fill a likert scale questionnaire represent how high they perception about this first run service design. This technique was similar to [10] and [11].

| Table 4. Customer responses in Taguein L <sub>8</sub> |   |   |   |                  |                |   |      |           |           |
|---|---|---|---|------------------|----------------|---|------|-----------|-----------|
| factors   |   |   |   | avana a austaman |                |   |      |           |           |
| run   | А | В | С | D                | unused columns |   | umns | responses | S/N ratio |
| 1   | 1 | 1 | 1 | 1                | 1              | 1 | 1    | 2.2       | 6.848454  |
| 2   | 1 | 1 | 1 | 2                | 2              | 2 | 2    | 4         | 12.0412   |
| 3   | 1 | 2 | 2 | 1                | 1              | 2 | 2    | 3.3       | 10.37028  |
| 4   | 1 | 2 | 2 | 2                | 2              | 1 | 1    | 2.1       | 6.444386  |
| 5   | 2 | 1 | 2 | 1                | 2              | 1 | 2    | 2         | 6.0206    |
| 6   | 2 | 1 | 2 | 2                | 1              | 2 | 1    | 1.2       | 1.583625  |
| 7   | 2 | 2 | 1 | 1                | 2              | 2 | 1    | 2.1       | 6.444386  |
| 8   | 2 | 2 | 1 | 2                | 1              | 1 | 2    | 3.1       | 9.827234  |

| Table 4. Customer | responses | in | Taguchi | $L_8$ |
|-------------------|-----------|----|---------|-------|
|-------------------|-----------|----|---------|-------|

Perceptions of customers for this first  $L_8$  run would be the experiment responses, another experiment runs then treated in same way as well. Final responses from customers forming a completed Taguchi  $L_8$  orthogonal array are shown in Table 4. Transformation from responses to signal-to-noise also calculated as the objective of this experiment was maximizing customer responses

As standard Taguchi analysis, response table and graphic then created to find optimal responses. Table 5 and figure 5 shows optimal levels combination that had optimized customer responses. Final optimized service design was:

a. factor D level 1 : employee periodic meeting for idea mining

- b. factor A level 1 : create SOP then publish it to customer
- c. factor B level 2 : mandatory only for customer service and teller, as they are directly communicate with customer
- d. factor C level 2 : directly idea conveying with reward

This final service design then could be deployed to customer and still need to evaluate periodically. It should be survives in a longer time until customer response decreased, if it be then the banks should re-improve the service design and find new one.

| Table 5. S/N Taguchi response table |       |       |       |       |  |  |
|-------------------------------------|-------|-------|-------|-------|--|--|
| Level                               |       | fac   | tors  |       |  |  |
|                                     | А     | В     | С     | D     |  |  |
| 1                                   | 8.926 | 6.623 | 7.421 | 5.33  |  |  |
| 2                                   | 5.969 | 8.272 | 7.474 | 9.565 |  |  |
| delta                               | 2.957 | 1.648 | 0.053 | 4.235 |  |  |
| rank                                | 2     | 3     | 4     | 1     |  |  |



Figure 5. S/N Taguchi response graph

# 5. Conclusion

The framework for incorporating SERVQUAL-QFD-Taguchi has successfully implemented in this research, optimal service design has founded. It should have more reliable positive responses from customer, since it was obtained by optimization process. Further, the development of this research should include the reliability estimation of service design that has deployed, so the service life cycle could be predicted.

# 6. References

- [1] Parasuraman A, Zeithaml V A, Berry L L 1988 SERVQUAL: a multi-item scale for measuring consumer perceptions of the service quality *J. of Retailing* **64** 12
- [2] Buttle F 1995 SERVQUAL: review, critique, research agenda, European J. of Marketing 30 8
- [3] Stevens P, Knutson B, Patton M 1995 DINESERV: A tool for measuring service quality in restaurants *The Cornell Hotel and Restaurant Administration Quarterly* **36** 56
- [4] Cronin J J and Taylor S A 1992 Measuring service quality: A re-examination and extension J. of Marketing 56 55
- [5] Abdullah F 2006 The development of HEdPERF: a new measuring instrument of service quality for the higher education sector *Int. J. of Consumer Studies* **30** 69
- [6] Anderson E A 1995 Measuring service quality in a university health clinic *Int. J. of Health Care Quality Assurance* **8** 32
- [7] Magi A and Julander C R 1996 Perceived service quality and customer satisfaction in a store performance framework: An empirical study of Swedish grocery retailers *J. of Retailing and Consumer Services* 3 33
- [8] Sahney S, Banwet D K, Karunes S 2004 A SERVQUAL and QFD approach to total quality education: A student perspective *Int. J. of Productivity and Performance Management* 53 143
- [9] Apriani D and Juliani Y D 2015 Integrating SERVQUAL and QFD framework for product and Service design case study: beehive café Bandung *J. of Business and Management* **4** 990
- [10] Kumar A, Motwani J, Otero L 1996 An application of Taguchi's robust experimental design technique to improve service performance *Int. J. of Quality & Reliability Management* **13** 85
- [11] Raajpoot N, Javed R, Koh K 2008 Application of Taguchi design to retail service Int. J. of Commerce and Management 18 184
- [12] Green P 2014 Measuring service quality in higher education: A South African case study J. of Int. Education Research 10 131
- [13] Belavendram N 1995 *Quality by Design: Taguchi Techniques for Industrial Experimentation* (Hertfordshire UK: Prentice-Hall) p 68
- [14] Roy R 2001 Design of experiments using the Taguchi approach (New York: Wiley-Interscience) p 78
- [15] Pontes F J, de Paiva A P, Belestrassi P P, Ferriera J R, de Silva MB 2012 Optimization of Radial Basis Function neural network employed for prediction of surface roughness in hard turning process using Taguchi's orthogonal arrays *Expert System with Applications* **39** 7776

- [16] Hadiyat M A and Wahyudi R D 2013 Integrating Steepest Ascent for the Taguchi Experiment: A Simulation Study *Int. J. of Technology* **4** 280
- [17] Hadiyat M A 2012 Penerapan Optimasi Multirespon Menggunakan Hybrid Principal Component Analysis - Taguchi pada Proses Turning Material Polyacetal Proc. of Seminar Nasional Teknologi Industri (Jakarta: Universitas Trisakti) p 100
- [18] Wiryawan I 2014 Penerapan Integrasi Kano, Kansei dan Servqual ke dalam QFD untuk Meningkatkan Kualitas Layanan di BCA KCP Wlingi Blitar (Surabaya: Undergraduate Thesis University of Surabaya)

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thank you very much for your comment, unfortunately we cannot help you with your request. We suggest you contact Scopus support: https://service.elsevier.com /app/answers/detail/a\_id/14883/kw/scimago/supporthub/scopus/ Best Regards, SCImago Team

SCImago Team

SCImago Team



# Melanie Ortiz 1 year ago

# Dear Haydar,

thank you very much for your comment, unfortunately we cannot help you with your request. We suggest you contact Scopus support: https://service.elsevier.com /app/answers/detail/a\_id/14883/kw/scimago/supporthub/scopus/ Best Regards, SCImago Team

A

AL-Kurdhani J. M. H. 1 year ago

# Hello

Dear Elena, I want to know what is the value of impact factor of 2019 for useful all MSC. or/and pH.D. students by publishing in these journals and my students need the Q1 or Q2 in SJR with Scopus Q-ranking to graduation. Thank you so much.

Best Regards,

reply



Melanie Ortiz 1 year ago

Dear AL-Kurdhani,

Thank you for contacting us. Could you please tell us which particular journal you are referring to?

Best Regards, SCImago Team

# V Virat Khanna 1 year ago

Can you please tell, how much time does IOP conference series take to publish the proceeding of the conference after the conference date.

reply



# Melanie Ortiz 1 year ago

Dear Virat, thank you for contacting us. Unfortunately, we cannot help you with your request, we suggest you contact the editorial staff , so they could inform you more deeply. Best Regards, SCImago Team

and the state of the

S

# syafriyudin 1 year ago

is The journal IOP Conference Series: Materials Science and Engineering in the scopus index

reply



Melanie Ortiz 1 year ago

SCImago Team

SCImago Team

9 of 16

# Dear Syafriyudin,

Thank you very much for your comment.

All the metadata have been provided by Scopus /Elsevier in their last update sent to SCImago, including the Coverage's period data. The SJR for 2019 was updated on June 2020, 11. We suggest you consult the Scopus database directly to see the current index status as SJR is a static image of Scopus, which is changing every day. Best Regards, SCImago Team

F I

# Fouad Fadhil Al-Qaim 1 year ago

# Dear Sir/Madam

May I know this Journal whether Q1, Q2,Q3 or Q4? Actually, there is no any quarter reported here. Thank you

reply



#### Melanie Ortiz 1 year ago

SCImago Team

Dear Fouad,

Thank you for contacting us. We calculate the SJR data for all the publication's types, but the Quartile's data are only calculated for Journals. Best regards, SCImago Team

Raj kamal 1 year ago

R

IOP is whether scopus indexed

reply



#### Melanie Ortiz 1 year ago

SCImago Team

SCImago Team

# Dear Raj,

Thank you very much for your comment.

All the metadata have been provided by Scopus /Elsevier in their last update sent to SCImago, including the Coverage's period data. The SJR for 2019 was updated on June 2020, 11. We suggest you consult the Scopus database directly to see the current index status as SJR is a static image of Scopus, which is changing every day. Best Regards, SCImago Team

#### R

# ramanathan venkatachalam 1 year ago

What is impact factor of IOP Conf. Series: Materials Science and Engineering

reply



# Melanie Ortiz 1 year ago

Dear Ramanathan, thank you very much for your comment.

SCImago Journal and Country Rank uses Scopus data, our impact indicator is the SJR. Check out our web to localize the journal. We suggest you consult the Journal Citation Report for other indicators (like Impact Factor) with a Web of Science data source. Best Regards, SCImago Team

| A Abbas Al-Hdab | i 2 years ago |
|-----------------|---------------|
|-----------------|---------------|

Dear Elena

I hope that you are very well and will be safe within Corona virus crises. Please let me know when you issue the new journal classification i.e. Q1, q2 ... and what is your strategy for your update. My query is a general one not regarding IOP publications.

Kind regards and stay safe

Abbas

reply



Melanie Ortiz 2 years ago

SCImago Team

Dear Abbas,

Thank you for contacting us. Our data come from Scopus, they annually send us an update of the data. This update is sent to us around April / May every year. Thus, the indicators for 2019 will be available in June 2020. Best Regards, SCImago Team

### Boumediene sadoun

# Hello

В

I want to know what is the value of impact factor of 2019. Also, is the nature of publishing in this journal considered as an article or a processing? In addition to this, can we take PhDs in this journal?

2 years ago

reply





#### Melanie Ortiz 2 years ago

SCImago Team

SCImago Team

Dear Boumediene, thank you very much for your comment. SCImago Journal and Country Rank uses Scopus data, our impact indicator is the SJR. Check out our web to localize the journal. We suggest you to consult the Journal Citation Report for other indicators (like Impact Factor) with a Web of Science data source. For

further information about this journal, please visit the journal's website. Best Regards, SCImago Team

P PARU 2 years ago

IOP CONFERENCE SERIES A BOOK OR JOURNAL.

reply



# Melanie Ortiz 2 years ago

Dear Paru,

Thank you for contacting us.

SJR is a portal with scientometric indicators of journals indexed in Scopus. All the data have been provided By Scopus /Elsevier and SCImago doesn't have the authority over this data which are property of Scopus/Elsevier. SCImago has a signed agreement that limits our performance to the generation of scientometric indicators derived from the metadata sent in the last update. Apparently, Scopus has categorized this publication in "Conference and Proceedings" section. We suggest you to contact with Scopus support

11 of 16

regarding this request:

https://service.elsevier.com/app/answers/detail/a\_id/14883/kw/scimago/supporthub /scopus/. Best Regards, SCImago Team



A

Hebatalrahman Hebatalrahman 2 years ago

please what is value can express impact factor for IOP conference series material science and engineering

reply



Melanie Ortiz 2 years ago

SCImago Team

SCImago Team

Dear Hebatalrahman, thank you very much for your comment. SCImago Journal and Country Rank uses Scopus data, our impact indicator is the SJR. Check out our web to localize the journal. We suggest you to consult the Journal Citation Report for other indicators (like Impact Factor) with a Web of Science data source, Best Regards, SCImago Team

Andrei 2 years ago

No me carga el cuartil, saben porqué se debe eso?

reply



Melanie Ortiz 2 years ago

Dear Andrei,

Thank you for contacting us. We calculate the SJR data for all the publication types, but the Quartile data are only calculated for Journal type's publications. Best regards, SCImago Team

K Kassim 2 years ago

Hello

I want know that is Elsevier a publisher of this journal?

reply

M

# MADHU LATA BHARTI 2 years ago

please tell me if this journal is ugc listed, if it is, what is its ugc approval number?

reply

O Ondrej 2 years ago

Madhu means if the journal is approved and listed in University Grants Commission of India. It is possible to find it out here (after registration): https://ugccare.unipune.ac.in/site/website/index.aspx However, IOP Conference Series: Materials Science and Engineering, is not, in fact, journal,

but it collects proceedings from conferences, not journal articles. Still, the good thing is that

IOP CS is WOS, Scopus (SJR) indexed. Generally, IOP publishing house is fair and reilable institution.

10

Melanie Ortiz 2 years ago

SCImago Team

Dear user, thanks for your participation! Best Regards, SCImago Team

Melanie Ortiz 2 years ago

SCImago Team

Dear Madhu, could you please expand your comment? Best Regards, SCImago Team

osamah raad 2 years ago

0

K

please how can I know the dates future conferences of IOP? are there any website for that purpose? Regards

reply

Kabiru 2 years ago

Dear Elena,

If IOP is a conference, then papers published in it are Scopus journal articles or just conference papers?

I was told that the papers published in IOP: material science and engineering are Scopus indexed journal papers with Scopus Q-ranking.

We need this for our Ph.D. graduation requirement.

THANK YOU

reply



Elena Corera 2 years ago

SCImago Team

Dear Kabiru, thank you very much for your comment, unfortunately we cannot help you with your request. We suggest you consult the Scopus database directly. Remember that the SJR is a static image of a database (Scopus) which is changing every day. Best regards, SCImago Team

A Asha Rajiv 3 years ago

Wanted to know whether the journal is scopus indexed?

reply



Elena Corera 3 years ago

Dear Asha,

please, check comments below.

SCImago Team

| Best regards, |  |
|---------------|--|
| SCImago Team  |  |

a ridwan 3 years ago

if this conference and proceeding indexed by scopus how could I find my id author in scopus ?

reply

Salam Jabr 2 years ago

https://www.eetc-pec19.org /?fbclid=IwAR2I0rbhvf6gtCwmddESpBVea7\_p9MCW\_bw3WUrzzZV1IB5BMgI6d5FA1mA



S

Elena Corera 3 years ago

SCImago Team

thank you very much for your comment, unfortunately we cannot help you with your

request. We suggest you contact Scopus https://service.elsevier.com/app/answers/detail /a\_id/14883/kw/scimago/supporthub/scopus/

Best Regards, SCImago Team

Dear A Ridwan,

T Thanikasalam 3 years ago

Hi, is this Scopus indexed?

reply



Elena Corera 3 years ago

SCImago Team

Dear Thanikasalam,

thank you for your request, all the journals included in SJR are indexed in Scopus. Elsevier / Scopus is our data provider. Best Regards, SCImago Team



Dr.Ellahi 3 years ago

Dear Mam,

Just i want to ask you it is SCI,SCIE,OR EI or other journal? know it is conference proceeding journal. Thanks.

reply



Elena Corera 3 years ago

SCImago Team

Dear Dr Ellahi, SCImago Journal and Country Rank uses Scopus data, our impact indicator is the SJR. Check our page to locate the journal. We suggest you consult the Journal Citation Report for other indicators (like Impact Factor) with a Web of Science data source. Best Regards, SCImago Team

Nikhil jain 3 years ago

Madam icame 2018 conference papers not published yet can you tell me status

reply



N

Elena Corera 3 years ago

SCImago Team

Dear Nikhil,

articles publicated in 2018 are not over yet (we are in September). 2018 indicators will not be available until June 2019. We can not see what will happen in the future with this journal. SCImago receives the data from Scopus / Elsevier annually and does not have the authority to include, exclude or modify the data provided by Scopus.

Best Regards, SCImago Team

M

# Moisés Toapanta 3 years ago

The IOP Conference is considered a research journal or only remains in conference proceedings. What is the difference of the SJR impact between a conference journal and a scientific journal

reply



#### Elena Corera 3 years ago

SCImago Team

# Dear Moisés,

thank you very much for your comment. This journal is a conference proceedings. We only do an SJR calculation, it is the same for any type of publication Best Regards, SCImago Team



Dears, colleagues!

The journal IOP Conference Series: Materials Science and Engineering is it Q3 or Q4?

# Best Regards

reply



ahmad fauzi 1 year ago

why journal of physics (IOP conferences has Q3? but the journal don't have. Both of them are conferences



Elena Corera 3 years ago

SCImago Team

Dear friend, It's a conference, it does not have a quartile.

https://www.scimagojr.com/journalsearch.php?q=19700200831&tip=sid&cleari=0 Best Regards, SRG

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# IOP Conference Series: Materials Science and Engineering

# Table of contents

| Volume                         | 316                                    |  |        |
|--------------------------------|--|--|--------|
| 2018                           |  |  |        |
| <ul> <li>Previous</li> </ul>   | issue Next is:                         | ue >   |        |
| Quality in I<br>July 2017,     | Research: Interna<br>Bali, Indonesia   | ational Symposium on Materials, Metallurgy, and Chemical Engineering 2       | 24–27  |
| Accepted p<br>Published        | oapers received: 0<br>online: 27 March | 7 February 2018<br>2018  |        |
| One all shares to              |  |  |        |
| Open all abstracts             |  |  |        |
| Preface                        |  |  |        |
| OPEN ACCESS<br>Quality in Rese | earch: Internatio                      | nal Symposium on Materials, Metallurgy, and Chemical Engineering             | 011001 |
| + Open abstract                | View article                           | 🔁 PDF  |        |
| OPEN ACCESS<br>Conference Or   | rganizer                               |  | 011002 |
| + Open abstract                | View article                           | 1 PDF  |        |
| OPENACCESS                     |  |  | 011003 |
| Acknowledger                   | ment                                   | 10 and   |        |
| + Open abstract                | View article                           | ™ PDF  |        |
| OPEN ACCESS                    |  |  | 011004 |
| + Open abstract                | Tiew article                           | 1 PDF  |        |
| Papers                         |  |  |        |
| Intl. Conf. on S               | Saving Energy in                       | Refrigeration and Air Conditioning (ICSERA)                                  |        |
| OPEN ACCESS                    |  |  | 012001 |
| Studies of the                 | water adsorptio                        | n on Lampung's natural zeolite of Indonesia for cooling application          |        |
| D A Wulandari, Nas             | sruddin and Lemingto                   | 1  |        |
| + Open abstract                | View article                           | 🔁 PDF  |        |
|                                |  |  | 012001 |
| Characteristics                |  | - Chamber Test Deficiency to University of Freedom Comparison with Intel Fig | 012002 |

Characteristics Air Flow in Room Chamber Test Refrigerator Household Energy Consumption with Inlet Flow Variation Edy Susanto, M. Idrus Alhamid, Nasruddin and Budihardjo

+ Open abstract 🛛 🔄 View article 🛛 🔁 PDF

Intl. Conf.on Dwelling Form (IDWELL) 2017 OPEN ACCESS 012003 The floating houses of Sintang City: space, resources and political nexus M S Lubis, T Y Harjoko and D Susanto + Open abstract 🛛 📰 View article 🏸 PDF Intl. Conf.on Dwelling Form (IDWELL) 2017 Intl. Symp. on Architecture 012004 OPEN ACCESS The concept of sustainable prefab modular housing made of natural fiber reinforced polymer (NFRP) E Setyowati and E E Pandelaki + Open abstract 📰 View article 🔊 PDF Intl. Symp. on Architecture OPEN ACCESS 012005 Thermal Effectiveness of Wall Indoor Fountain in Warm Humid Climate J A P Seputra + Open abstract 🛛 🗐 View article 🔁 PDF 012006 OPEN ACCESS The Crux of Minimalist Architecture: A Local Strategy of Housing Design in Jakarta or a Break Free from Traditions? Yulia Nurliani Lukito and Bella Previta Handoko + Open abstract View article 🔊 PDF Intl. Symp. on Chemical Eng. OPEN ACCESS 012007 Degradation Behaviour of Gamma Irradiated Poly(Acrylic Acid)-graft-Chitosan Superabsorbent Hydrogel Dhena Ria Barleany, Alpin Ilhami, Dea Yusuf Yudanto and Erizal + Open abstract 📰 View article 🏸 PDF OPEN ACCESS 012008 The Use of Multi-Reactor Cascade Plasma Electrolysis for Linear Alkylbenzene Sulfonate Degradation Nelson Saksono, Ibrahim, Zainah and Trisutanti Budikania + Open abstract 📰 View article 🔁 PDF 012009 OPEN ACCESS Carbon nanotubes shynthesis in fluidized bed reactor equipped with a cyclone P Setyopratomo, M Sudibandriyo and P P D K Wulan + Open abstract View article 🔁 PDF OPEN ACCESS 012010 The effect of heating temperature on cytotoxicity and  $\alpha$ -mangostin yield: Mangosteen pericarp juice and mangosteen extract Kamarza Mulia, Fitria Hasanah and Elsa A Krisanti

+ Open abstract 📰 View article 📂 PDF

| OPEN ACCESS  |                                   |  | 012011          |
|--|-----------------------------------|--|-----------------|
| Hydrogen Gen                                       | eration by Koh-E                  | thanol Plasma Electrolysis Using Double Compartement Reactor                   |                 |
| Nelson Saksono, Jol                                | hannes Sasiang, Chan              | dra Dewi Rosalina and Trisutanti Budikania                                     |                 |
| + Open abstract                                    | View article                      | 🔁 PDF  |                 |
| OPEN ACCESS  |                                   |  | 012012          |
| Effect of Feed                                     | Gas Flow Rate or                  | CO2 Absorption through Super Hydrophobic Hollow Fiber membrane Contact         | or              |
| Sutrasno Kartohard                                 | jono, Kevin Alexander,            | Annisa Larasati and Ivander Christian Sihombing                                |                 |
| + Open abstract                                    | View article                      | 🔁 PDF  |                 |
| OPEN ACCESS<br>The effect of hy<br>covalent functi | ydrochloric acid a<br>onalization | ddition to increase carbon nanotubes dispersibility as drug delivery system by | 012013          |
| P P D K Wulan, S H U                               | Jlwani, H Wulandari, W            | / W Purwanto and K Mulia   |                 |
| + Open abstract                                    | View article                      | 🔁 PDF  |                 |
| OPEN ACCESS<br>CFD study of m                      | iixing miscible liq               | uid with high viscosity difference in a stirred tank                           | 012014          |
| S Madhania, A B Ca                                 | hyani, T Nurtono, Y M             | uharam, S Winardi and W W Purwanto   |                 |
| + Open abstract                                    | Tiew article                      | 🔁 PDF  |                 |
| OPEN ACCESS<br>CFD Modelling<br>Carbon             | of Adsorption B                   | ehaviour in AGN Tank with Polyethylene Terephthalate Plastic Waste Based Activ | 012015<br>vated |
| Yuliusman, M K Afd                                 | hol, Alristo Sanal and N          | Nasruddin  |                 |
| + Open abstract                                    | View article                      | PDF  |                 |
| OPEN ACCESS<br>Carbon monox<br>biosorbent          | ide and methane                   | adsorption of crude oil refinery using activated carbon from palm shells as    | 012016          |
| Yuliusman, M K Afd                                 | hol and Alristo Sanal             |  |                 |
| + Open abstract                                    | View article                      | 2 PDF  |                 |
| OPEN ACCESS<br>Synthesis and o                     | characterization (                | of methyltrihydroxysilane water repellent                                      | 012017          |
| A 2 Abidin, M IN Har                               | jandi, v wirawan and              | s m sunamo   |                 |
| + Open abstract                                    | View article                      | 2 PDF  |                 |
| OPEN ACCESS<br>Preparation of                      | hollow mesopor                    | ous carbon spheres and their performances for electrochemical applications     | 012018          |
| T Ariyanto, G R Zhar                               | ng, A Kern and B J M Et           | zold   |                 |
| + Open abstract                                    | View article                      | 2 PDF  |                 |
| OPEN ACCESS  |                                   |  | 012019          |
| Reaction produ                                     | uct of pyrogallol                 | with methyl linoleate and its antioxidant potential for biodiesel              |                 |
| H Sutanto, L Ainny, I                              | Lukman, B H Susanto a             | and M Nasikin  |                 |
| + Open abstract                                    | View article                      | 🔁 PDF  |                 |

| OPEN ACCESS                          | sis of Waste Play                     | tic Mixture   | 012020 |
|--------------------------------------|---------------------------------------|---|--------|
| Ferdianta Sembiring                  | Chandra Wahvu Pu                      | momo and Survo Purwono  |        |
| + Open abstract                      | View article                          | S PDF   |        |
| , open abstract                      |                                       |   |        |
| OPEN ACCESS                          |                                       |   | 012021 |
| Studies of Carb<br>Palm Shells       | onization Proce                       | ss on the Production of Durian Peel Biobriquettes with Mixed Biomass Coconut              | and    |
| Ellyta Sari, Pasymi, I               | Jmar Khatab, Reni De                  | smiarti, Rian Ariansyah, Hariadi and Sutra  |        |
| + Open abstract                      | 📰 View article                        | 🔁 PDF   |        |
| OPEN ACCESS                          |                                       |   | 012022 |
| Determination<br>Puluh Kota Dist     | of Extraction Pro<br>trict – West Sum | ocess Conditions of Gambier Catechin (Uncaria Gambier Roxb) from Solok Bio Bio<br>atera   | o Lima |
| Elly Desni Rahman,                   | Ellyta Sari, Burmawi, F               | rizka and Endah   |        |
| + Open abstract                      | View article                          | 🔁 PDF   |        |
| OPEN ACCESS                          |                                       |   | 012023 |
| Monoglyceride                        | contents in bio                       | diesel from various plants oil and the effect to low temperature properties               |        |
| L Aisyah, C S Wibow                  | o, S A Bethari, D Ufidi               | ian and R Anggarani   |        |
| + Open abstract                      | View article                          | 1 PDF   |        |
| OPEN ACCESS                          |                                       |   | 012024 |
| Synthesis of Bi                      | odiesel from Cru                      | de Palm Oil by Using Contact Glow Discharge Electrolysis                                  |        |
| Nelson Saksono, Da                   | nar Aditya Siswosoel                  | brotho, Jeremia J. C. Pranata and Setijo Bismo  |        |
| + Open abstract                      | View article                          | PDF   |        |
| OPEN ACCESS                          |                                       |   | 012025 |
| Effect of Mecha<br>Grade Bauxite     | anochemical and                       | I Roasting Techniques for Extraction of Rare Earth Elements from Indonesian Lov           | V-     |
| E Kusrini, S Harjanto                | , F Herdino, EA Prase                 | tyanto and A Rahman   |        |
| + Open abstract                      | View article                          | 1 PDF   |        |
| OPEN ACCESS                          |                                       |   | 012026 |
| Performance St                       | udy of Fluidized                      | Bed Dryer with Immersed Heater for Paddy Drying   |        |
| S Suherman, N F Az                   | aria and S Karami                     |   |        |
| + Open abstract                      | 📰 View article                        | 🟝 PDF   |        |
| OPEN ACCESS                          |                                       |   | 012027 |
| Modeling of a                        | Reaction-Distilla                     | tion-Recycle System to Produce Dimethyl Ether through Methanol Dehydration                |        |
| Y Muharam, L M Zu                    | karnain and A S Wiry                  | 3   |        |
| + Open abstract                      | View article                          | 🔁 PDF   |        |
| OPEN ACCESS                          |                                       |   | 012028 |
| Effect of sodium<br>paracetamol from | m tripolyphosph<br>om chitosan mici   | ate concentration and simulated gastrointestinal fluids on release profile of<br>rosphere |        |
| Kamarza Mulia, And                   | frie and Elsa A Krisan                | ti  |        |
| + Open abstract                      | View article                          | 🔁 PDF   |        |

| OPEN ACCESS<br>Textile Dye Rem           | oval from Aqueo          | us Solution using Modified Graphite Waste/Lanthanum/Chitosan Composite         | 012029       |
|--|--------------------------|--|--------------|
| E Kusrini. B Wicakso                     | no. Y Yulizar. EA Praset | tvanto and C Gunawan   |              |
| + Open abstract                          | T View article           | PDF  |              |
|  | E                        |  |              |
| Intl. Symp. on                           | Chemical Eng. Ir         | ntl. Symp. on Mechanical and Maritime Eng.                                     |              |
| OPEN ACCESS                              |                          |  | 012030       |
| Preparation an                           | d Characterizatio        | on of Graphite Waste/CeO <sub>2</sub> Composites                               |              |
| E Kusrini, C S Utami,                    | Nasruddin, E A Prase     | tyanto and Aji A Bawono  |              |
| + Open abstract                          | View article             | 1 PDF  |              |
| Intl. Symp. on                           | Chemical Eng. T          | he 3rd Biannual Meeting on Bioprocess Engineering                              |              |
| OPEN ACCESS                              |                          |  | 012031       |
| Improvement o                            | f cement plant d         | ust emission by bag filter system  |              |
| Chandra Wahyu Pur                        | momo, Wiratni Budhija    | anto, Muziibu Alfisyah and Triyono   |              |
| + Open abstract                          | Tiew article             | 🔁 PDF  |              |
| Intl. Symp. on                           | Civil and Env. En        | g.   |              |
| OPEN ACCESS                              |                          |  | 012032       |
| Numerical and                            | analytical investi       | gation of steel beam subjected to four-point bending                           |              |
| F. M. Farida, A Surah                    | man and A Sofwan         |  |              |
| + Open abstract                          | View article             | 1 PDF  |              |
| OPEN ACCESS<br>STUDY GRADAT              | ION AND MOIST            | JRE CONTENT OF SAND EMBANKMENT ON PEAT SUBJECTED VIBRATION POTENTI             | 012033<br>AL |
| Soewignjo Agus Nu                        | groho, Agus Ika Putra    | and Muhamad Yusa   |              |
| + Open abstract                          | View article             | 🔊 PDF  |              |
| OPEN ACCESS<br>Paper for Publi<br>Models | cation in IOP: Co        | nference Series Leachate Treatment using three Years Aged Lysimetric Bioreacto | 012034<br>r  |
| Djoko M. Hartono, G                      | abriel Andari Kristant   | o, Irma Gusniani Sofian, Ahmad Fauzan and Ghanis Mahdiana                      |              |
| + Open abstract                          | 🗊 View article           | 🔁 PDF  |              |
| OPEN ACCESS<br>Bearing capacit           | ty of helical pile f     | foundation in peat soil from different, diameter and spacing of helical plates | 012035       |
| + Open abstract                          | View article             | 🔁 PDF  |              |
|  |                          |  | 012036       |
| Deformation of                           | f high performan         | ce concrete plate under humid tropical weather                                 | 012050       |
| C Niken, T Elly, FX Su                   | upartono and I Laksmi    |  |              |
| + Open abstract                          | View article             | 🔁 PDF  |              |

| OPEN ACCESS<br>Performance of a | Asphalt Concret        | e Wearing Course (AC-WC) Utilizing Reclaimed Asphalt Pavement from Cold Mill   | 012037<br>ling |
|---------------------------------|------------------------|--|----------------|
| Bound with 80/1                 | LOO Pen Asphalt        |  | -              |
| I N.A. Thanya, I W. Su          | weda and G.K. Putra    |  |                |
| + Open abstract                 | View article           | ▶ PDF  |                |
| OPEN ACCESS                     |                        |  | 012038         |
| THE INFLUENCE                   | OF SAND's GRA          | DATION AND CLAY CONTENT OF DIRECT SHEART TEST ON CLAYEY SAND                   |                |
| Gunawan Wibisono, S             | Soewignjo Agus Nugi    | roho and Khairul Umam  |                |
| + Open abstract                 | View article           | <sup>™</sup> PDF   |                |
| OPEN ACCESS                     |                        |  | 012039         |
| Using Cementiti<br>Hot Weather  | ous Materials Su       | uch as Fly Ash to Replace a Part of Cement in Producing High Strength Concrete | in             |
| Gidion Turuallo and H           | arun Mallisa           |  |                |
| + Open abstract                 | View article           | PDF  |                |
| OPENACCESS                      |                        |  | 012040         |
| Ductility of poly               | styrene waste pa       | anel   |                |
| Dewi Sulistyorini and           | Iskandar Yasin         |  |                |
| + Open abstract                 | View article           | DF PDF   |                |
| OPEN ACCESS                     |                        |  | 012041         |
| The drag forces                 | exerted by lahar       | flows on a cylindrical pier: case study of post Mount Merapi eruptions         |                |
| Zainul Faizien Haza             |                        | _  |                |
| + Open abstract                 | View article           | <sup>™</sup> PDF   |                |
| OPEN ACCESS                     | an file and an edition | C DAC and all in a second for first description. Deleter second the            | 012042         |
| Estimating desig                | In flood and HE        | C-RAS modelling approach for flood analysis in Bojonegoro city                 |                |
| R M S Prastica, C Mar           | tri, A Hermawan, P C   | Nugroho, D Sutjiningsih and E Anggraheni                                       |                |
| + Open abstract                 | View article           | 24 PDF   |                |
| OPEN ACCESS                     |                        |  | 012043         |
| Comparative and                 | alysis layers meth     | hod of t-beam reinforcement  |                |
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