# THE IMPORTANCE-PERFORMANCE ANALYSIS (IPA) ON ACADEMIC AND NON-ACADEMIC SERVICES TO ENHANCE STUDENT MOTIVATION

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**ABSTRACT**

Student motivation has long been an important factor to learner's success. In Open and Distance Learning (ODL) System particularly, student motivation plays a vital role in student persistence and hence to their study completion. The learner's motivation may derive from both institutional and personal factors. This study focuses on the institutional factors by contrasting the student's perceptions of the importance of the university services and student's satisfaction to those provided services. The Importance-Performance Analysis (IPA) of Student-Faculty of Teacher Training and Education of the Indonesia Open University was conducted on both university's services related to academic and non-academic services. The sample of students was drawn from the active student in online learning, Questionaire was distributed online. The research was analyzed using Importance-Performance Analysis method. The research showed that 98% positively overlap between student perceptions of the importance of services and their satisfaction. It means that the provided academic and non-academic services are being in conformity between student needs and expectation. However, based on the quadrant analysis the learning materials are located in Quadrant II that is quite distinct from the student's perception of the importance and their satisfaction. That means UT needs to improve its learning material related academic services, especially the services offered by UT's Online Book Store.

**Keywords**: Academic and Non-academic Services, Satisfaction, Importance-Performance Analysis

## INTRODUCTION

In Open and Distance Learning (ODL) system student support services both academic and non-academic serve a pivotal role in student success as student relies entirely on those support services. Without adequate student support services, student independent learning may not be assured (Holmberg, 1989). Those practices are also adopted by Universitas Terbuka, Indonesia (UT). Considering the importance of student support services to their success. It is important to research on how importance and satisfaction of those services to the student. By contrasting those student perceptions of the level of importance and satisfaction it may reveal the level of priority support services needed by the student. Therefore, UT may focus on the required support services.

  

Open university services aim at meeting student's expectation with the provided service. The "satisfaction" comes from Latin "satis" (which means good enough, to content) and "facio" (do or make). Students' satisfaction is a situation when all the wishes, expectation, and importance of students are fulfilled (Srinadi, 2008). Students' satisfaction is students' positive response to a higher education's services because of the suitability between expected service and perceived service (Sopiatin, 2010). Thus, in higher education, student satisfaction occurs when perceived performance meets or exceeds the students' expectations (Mark, 2013; Sopiatin, 2010; Supranto, 2011; Kotler, 2000). As students evaluate the quality of the service, they used to compare their experienced performance with their expected performance (Wright, 2002). Sweney (2016) identifies a number of factors that influence student satisfaction, those are the financial anxiety, the quality of lecturers and teaching performance, student involvement, learning resources, facilities, and social life.

According to Musahadi (2014), the criterion of student's satisfaction includes: (1) If the performance is under-expectation, students' will be dissatisfied, (2) if the performance happens as expected, students will be satisfied, (3) if the performance is beyond expectation, students will be very satisfied. This feeling of dissatisfaction, satisfaction, and great satisfaction will affect the next performance. Students who are satisfied will describe respond positively to the services that they used/perceived.

In addition, as a consumer of educational services, students have an expectation to succeed. It is followed by their expectations for the learning process, such as services, facilities, lecturer's quality, and leadership. Based on that expectation, every student has different perception one to another. There is the high-standard perception that cannot be fulfilled by the institution while there are also medium and low perceptions.

Every university who puts its great effort to increase high expectation for their students and support them to achieve those expectations will attain successful academic. The students' expectations, as the main consumer, our expectations regarding hardware (non-human element), software (human element), hardware and software quality as well as additional value from learning process (Sopiatin, 2010). The expectations of students may be influenced by their individual needs, communication with the institution, mouth-to-mouth (direct) communication, etc. (Sweeney, 2015).

By considering two-dimensional student's perception of the importance of services and their expectation, the Importance-Performance Analysis (IPA) method will be used. The IPA is firstly introduced by Martilla and James (1977) to measure the relationship between consumer perception and priority of product/ service quality improvement. IPA is used to map the relationship between expectations and the performance of each offered statement and the gap between performance and expectations of the statement. The target is evaluating certain attributes of the facility or services about the importance of the evaluator and the organization's features performance. The research will explore and examine the Importance-Performance Analysis of UT's students towards the provided services related to academic and non-academic services. This research is important to

  

discover the gap of the students' perception of the importance and expectation of services.

## RESEARCH METHOD

The sample of this research was the students of Faculty of Teacher Training and Education (FKIP) that had the highest number of students in Open University. The respondent was FKIP students who purposively fill the online questionnaire in 2015. The instrument was developed based on five services provided by UT. Below are instruments' indicators of students' satisfaction (UT, 2015).

| Components of the Program | Indicators |
|---|---|
| General Services | 1. Distinct Information about UT. |
| | 2. The students' tuition fee compared to the provided services. |
| | 3. The ease of contacting UT Staff |
| | 4. The ease of contacting the lecturers |
| | 5. The hospitality of UT staff in serving students |
| | 6. Efectiveness in handling complaint |
| Registration Services | 7. Service of processing Registration file |
| | 8. Service of payment in UT's partner banks |
| | 9. Service of registration case settlement |
| Tutorial Services | 11. Tutor's mastery of the Materials |
| | 12. Tutor's role in helping students to understand the course materials. |
| | 13. Tutor's feedback towards tasks and practices. |
| | 14. Suitability of the tutorial activity and the schedule |
| | 15. Quality of tutorial facility |
| | 16. Ease of accessing the tutor |
| Practical Services | 17. Instructor's mastery of the material |
| | 18. Instructor' role in helping the implementation of practice / lab course |
| | 19. Instructor's feedback during the practice/lab course. |
| | 20. Ease of getting the practice/lab course schedule |
| | 21. Suitability of the practice/lab course with the schedule |
| | 22. Completeness of practical/ lab course equipment |
| Learning Material | 23. Ease of accessing learning material |
| | 24. Quickness in understanding the learning material |
| | 25. Ease of understanding the learning materials |
| | 26. Quality of the learning material's packaging |
| | 27. Ease of using TBO application |
| | 28. Avalaibility of learning material in the TBO |
| | 29. Suitability of the given material and the ordered material |
| Examination Services | 30. Ease of getting examination's information |
| | 31. Availibity of the test script |
| | 32. Discipline implementation of the exam |
| | 33. Quality of the exam location's facility |
| | 34. Quickness in scoring case settlement |

This research was analyzed using the method of Importance-Performance Analysis which consists of two stages:

### 1. Searching for the Suitability Level

  

Suitability level is a comparative result of satisfaction score and expected the score. This satisfaction level would be determined the priority order of the service that was provided by Open University (UT). If the performance (perception) is under-expectation/importance, the customer will be disappointed and dissatisfied (Supranto, 2006).

**2. Cartecius Diagram**

Cartesius Diagram is an object divided into four parts and limited by two lines in perpendicular intersection in point (X,Y) in which X is the average value of customers' performance or satisfaction level of all factors or attributes, while Y is the average score of importance/ expectation level of all factors that affected the students' satisfaction. The Cartecius Diagram is divided into four quadrants.

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**The diagram consists of four quadrants (Supranto, 2001):**

**Quadrant I (Concentrate Here)**

This quadrant contains the statement that is considered to be important by the students, but in fact, the statement has not been suitable for the students' expectations. The performance level of the statement is lower than the students' expectation level of the statement. The statements contained in this quadrant should be further enhanced in order to satisfy the students.

**Quadrant II (Maintain Quality)**

This statement has high expectation and satisfaction level. It implies that the statement is important and has high performance. It must be maintained for the next time as it is considered to be very importance/expected and the result is satisfying.

**Quadrant III (Low Priority)**

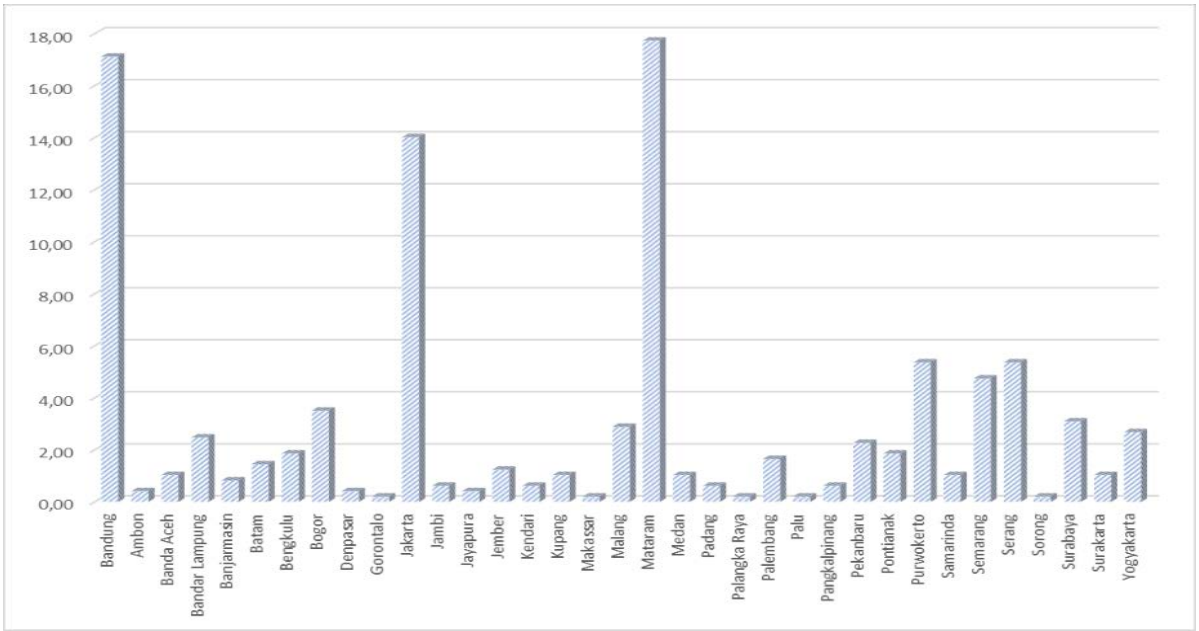
The statement in this quadrant is considered to be less important by the students and in fact, the performance is common or not special

**Quadrant IV (Possible Overkill)**

The statement in this quadrant has low expectation level according to the students, even though it has good performance, so the students considered it to be excessive. They consider it is not important or less important although its implementation is done very well.

**RESULT**

The respondents of this research consisted of 485 people distributed over 35 of 40 UT Regional Offices (UT-ROs) in Indonesia; the distribution is in Graph 1. Distribution Percentage of the Respondents. Due to the online questionnaire, it was indicated that the respondents who answered were FKIP students who were in the city and able to access the internet. Therefore, based on the distribution of data, some respondents came from Java which was indicated to have better internet access than other regions.



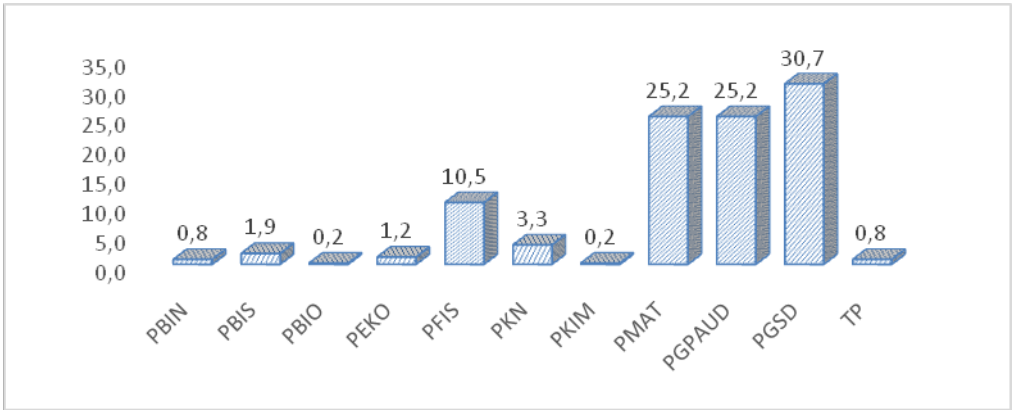

Graph 1. Distribution Percentage of the Respondents.

As explained in Research Method, the questionnaire was distributed by online on the official website of the faculty. All the students were welcomed to fill the questionnaire. Every study programs must socialize the filling procedures of the questionnaire. The percentage of respondents per study program is presented in "Graph 2. Distribution of Respondents of Study Program."

Besides, based on the obtained questionnaire, 30,7% were students of Primary Teacher Education (PGSD) study program, followed by Mathematics Education (PMAT) and Early Childhood Teacher Education (PGPAUD) got 25,2%, Physic Education (PFIS) got 10,5% and the rest study program got less than 5%.

One of the factors that affected the distribution of respondents was the number of students. PGSD and PGPAUD study program was the one with the highest number of students in UT. In addition, the socialization of the questionnaire from the study program became another factor affected the distribution of respondents.




Graph 2. Distribution of Respondents of Study Program.

**A. General Services**

The General Services was services related to the general information provided by UT, but it did not include services of the study program. The following table is Table 2. The Result of Public Service Gap Analysis.

Table 2. The Gap Analysis Result of Public Services.

| Aspects of Service | Importance | Satisfaction | Gap |
|---|---|---|---|
| A1. Distinct Information about UT. | 3,38 | 3,50 | 0,12 |
| A2. The students' tuition fee compared to the provided services. | 3,33 | 3,42 | 0,09 |
| A3. The ease of contacting UT Staff | 3,29 | 3,41 | 0,12 |
| A4. The ease of contacting the lecturers | 3,12 | 3,19 | 0,07 |
| A5. The Hospitality of UT staff in serving students | 3,41 | 3,50 | 0,09 |
| A6. Efectiveness in handling complaint | 3,03 | 3,38 | 0,35 |

**B. Registration Services**

The information system used for academic administration service was an application called Student Record System (SRS). The SRS application was used to access students' database in the settlement of academic administration cases, such as students' registration case, students' scores that had not come out, or any other administration cases.

Table 3. The Gap Analysis Result of Regisration Services

| Aspects of Service | Importance | Satisfaction | Gap |
|---|---|---|---|
| B7. Service of processing registration file | 3,53 | 3,58 | 0,05 |
| B8. Service of payment in UT's partner banks | 3,50 | 3,60 | 0,10 |
| B9. Service of registration case settlement | 3,32 | 3,48 | 0,16 |

**C. Tutorial Services**

UT provided face-to-face and online tutorial. The following is the result of tutorial service gap analysis

Table 4. The Gap Analysis Result of Tutorial Service

| Aspects of Serice | Importance | Satisfaction | Gap |
|---|---|---|---|
| C10. Tutor's mastery of the material | 3,34 | 3,50 | 0,16 |
| C11. Tutors' role in helping students to understand the course material | 3,18 | 3,47 | 0,29 |
| C12. Tutors' feedback toward assignment/ tasks | 3,18 | 3,34 | 0,16 |
| C13. The suitability of tutorial activity and the schedule | 3,36 | 3,51 | 0,15 |
| C14. The quality of tutorial facilities | 3,20 | 3,30 | 0,09 |
| C15. The Ease of acessing the tutor | 3,42 | 3,58 | 0,16 |

**D. Practical Services**

UT provided practice/ practicum services which supported the practical course correspond to the curricullum. The following are the result of its services.

Table 5. The Gap Analysis Result of Practice/ Lab Course Services

| Aspects of Service | Importance | Satisfaction | Gap |
|---|---|---|---|
| D16. Instructor's mastery of the material | 3,44 | 3,48 | 0,05 |
| D17. Instructor' role in helping the implementation of practice / lab work | 3,39 | 3,48 | 0,08 |
| D18. Instructor's feedback during the practice/practicum. | 3,36 | 3,41 | 0,05 |
| D19. Ease of getting the practice/lab work schedule | 3,41 | 3,42 | -0,01 |
| D20. Suitability of the practice/lab course activity and the schedule | 3,45 | 3,46 | 0,01 |
| D21. Completeness of practice/lab work equipments | 3,34 | 3,49 | 0,14 |

**E. Material Services**

In the long distance learning system, material was the main learning source for students. The UT's materials were specially designed for students to learn independently.

Table 6. The Gap Analysis Result of Material Services

| | | | |
|---|---|---|---|
| E22. Ease of accessing learning material | 3,34 | 3,58 | 0,24 |
| E23. Quickness in understanding the learning material | 3,17 | 3,42 | 0,24 |
| E24. Ease of understanding the learning material | 3,04 | 3,39 | 0,35 |
| E25. Quality of the learning material's packaging | 3,27 | 3,49 | 0,21 |
| E26. Ease of using TBO application | 3,41 | 3,47 | 0,05 |
| E27. Availabiity of learning material in TBO | 3,32 | 3,42 | 0,11 |
| E28. Suitability of the given learning material and the ordered learning material | 3,34 | 3,48 | 0,14 |

### F. Exam Material Services

Table 7. The Gap Analysis Result of Exam Material Services

| Aspects of Service | Importance | Satisfaction | Gap |
|---|---|---|---|
| F30. Ease of getting examination's information | 3,66 | 3,71 | 0,05 |
| F31. Availabiity of the test script | 3,63 | 3,67 | 0,05 |
| F32. Discipline implementation of the exam | 3,57 | 3,59 | 0,02 |
| F33. Quality of the exam location's facility | 3,35 | 3,52 | 0,17 |
| F34. Quickness in scoring case settlement | 3,17 | 3,48 | 0,31 |

### G. Quadrant Analysis of All Service Aspects

The quadrant analysis was used to know the consumers' response toward the plotted aspects based on importance and satisfaction level of each aspect.

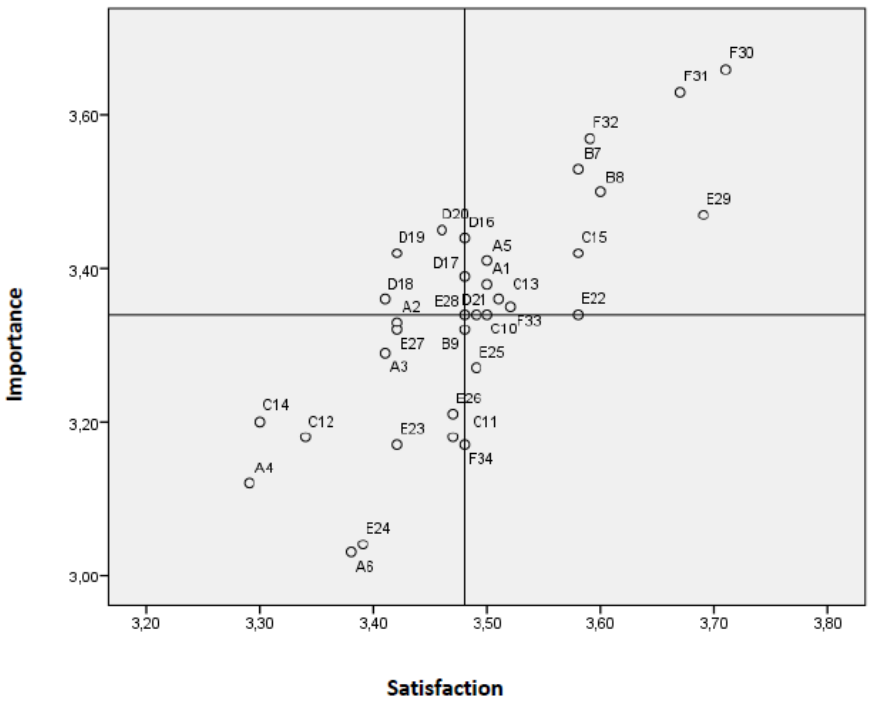



Figure 1. Quadrant Analysis of All Service Aspects

On quadrant I, there are service aspects: The students' tuition fee compared to the provided services.; Instructor' role in helping the implementation of practice/lab course; Instructor's feedback during the practice/lab course; Ease of getting practice/lab work schedule; Suitability of the practice activity and the schedule; Suitability of the received material and the ordered material; Quickness in scoring case settlement.

Distinct information about UT; Service of processing Registration file; Ease of getting examination's information; Availability of test script; Discipline implementation of the exam; Service of payment in UT's partner banks; Teaching material accepted before the first tutorial meeting; Ease of acessing the tutor; Ease of getting the learning material; The hospitality of UT staff in serving students; Suitability of the tutorial activity and the schedule; Quality of exam location's facility; Tutors' mastery of the material; Instructor's mastery of the material, are aspects of services that exist in the quadrant II.

In the quadrant III, there are aspects: The ease of contacting UT Staff;, Service of processing registration file; Availability of learning material in the TBO; Ease of accessing the tutor; Effectiveness in handling complaint; Tutor's feedback towards tasks and practices; Quality of tutorial facility; Quickness in understanding the learning material; Ease of understanding the learning materials; Ease of using TBO application. Whereas the quadrant IV consists of Tutor's role in helping students to understand the course materials and Quality of the learning material's packaging.

**DISCUSSION**

At the general service, "Easiness to contact tutors" was the service which got the lowest satisfaction result, that was 0.07 gap. This condition was understandable because UT was a long distance education, so for students who did not do the face-to-face tutorials, the students could not meet the tutor directly. For the students who attended the online tutorial, they were only able to communicate with the tutor through discussion and email. Therefore, the study program should coordinate the tutor to keep in touch with the students, so that all students' complaints about the material or other cases could be handled immediately. The highest gap result of these services was the "Speed of handling complaints" aspect. UT had provided several facilities that could be utilized by students. Students' complaints could be submitted through the UT page at http://www.ut.ac.id/, or consult with the lecturers at the UT-ROs. In addition, students could take advantage of UT contact center service. One of the respondents stated that "public service, I think is already good when I visited Central UT to manage the problem of program transfer, the related staff received it friendly and worked quickly. My problem was solved in one day at FKIP".

In the tutorial service aspect "The tutors' role in helping students to understand course materials" was the aspect that got the best results. The role of tutors in online tutorials and face-to-face tutorials was a facilitator in helping

students to understand the material. Tutors could discuss with students about the materials or solutions from the study cases. In addition, the tutor had attended a training which was suitable to his / her qualifications.

In a long distance learning system, the teaching materials were the main learning resource for the students. UT teaching materials were specially designed for a student to study independently. Related to the development of printed materials, currently, study program had worked with UT's outside lecturers. Broto (2016) stated that the Model of Instructional Design Development (MPI) that had been applied in UT in the BMP writing had met the requirement of the long-distance learning process. In its implementation, The Model of Instructional Design Development had met the standards of the approach system in instructional technology. Nevertheless, the aspect of teaching materials was an aspect that got low satisfaction value. Particularly the aspect of "easiness to understand the teaching materials", each study program should improve the quality of the teaching materials by conducting a learning resource evaluation, the tighter author selection, the equations of perception with authors, the more competent reviewer's selection and should revise the five-year-old modules soon.

Aside from the printed materials, UT also provided a Virtual Reading Space (RBV) which became difficult if there were no internet access because without internet students could not order the material and UT did not provide selling material service offline. This was in line with Lestari's (2016) research which states that some obstacles in accessing online teaching materials, such as the lack of students' information technology, the high cost of access, and time limitation

The discipline aspect of the examination discipline got the less satisfaction value and there were respondents stated that the implementation of the test was not satisfying. "In my location, as far as I have been experiencing, it is very bad. Some students do various ways to cheat. With these conditions, UT should make a better strategy, so that exam discipline and implementation could run well.

The quadrant analysis was used to determine the consumer response to the plotted aspects based on the level of importance and satisfaction of each aspect. Based on this quadrant analysis, it could be seen that the location of each variable was in a different quadrant, so the variables need to be improved and get more attention would be known.

There were seven aspects in the quadrant I. In this case, FKIP should improve its services especially related to practice/lab work service. For example about the readiness of supervisors. One of the supervisor's job was guiding students in tutorial class and/or guiding them through email. FKIP should work with local managers to provide socialization about supervisors' jobs on the briefing. The aspects related to material were the most common aspects in quadrant II. In this case, UT had been implementing good service of teaching materials. In Quadrant III there were seven aspects. While in quadrant IV, there was Tutors' role in helping the student to

understand the material, and Quality of material's packaging. Although in this service, the students considered it not so important but UT must improve its services.

## CONCLUSIONS

The research showed 98% gap between importance and satisfaction was positive. The "Easiness to contact tutor" aspect was the general service aspect which got the lowest satisfaction, that was 0,07. The aspect of "Tutors' role in helping students to understand the material" was the aspect with the best result. This showed that tutors' role was very important related to the provided academic services and so was the practice/ practice services. Supervisors' readiness was important for students. Therefore, FKIP should cooperate with the local manager to give socialization about the supervisors' job during the practice/ practicum activity.

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