The impact of information technology on the awareness of parents and high school students to pursue the higher education

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Abstract. This research was motivated by the importance of uncovering the question of how the impact of information technology on the awareness of parents and high school students to pursue the higher education, because of the education is an important thing that needs to be fought. Every Indonesian citizen has the right to get education until a high level. Now the acquisition of information about the higher education is supported by information technology. People are getting education information easier, but does the information technology have an impact on awareness of parents and high school students to pursue the higher education? The method used in this study is a survey. Data obtained from questionnaires distributed to 482 high school students and parents in several cities in West Java, Indonesia. From this research, it was found that the impact of information technology on awareness of parents and high school students to pursue the higher education: 1) most parents have the desire of their children to pursue the higher education and the level of education that is most chosen is undergraduate 2) the reason most parents choose to pursue their children to tertiary education is to pursue their dreams. Thus it can be concluded that the information technology has an impact on most parents and the high school students on the awareness to pursue the higher education.

1. Introduction
The information technology has a positive impact on society [1]. Communities are getting easier to get various types of information [2], no exception information about education. Information technology in education is needed to disseminate information about education [3]. Education is important in human life [4,5], because without education, humans will not get knowledge for the betterment of their lives, and through education the condition of society can change [6]. Education is the right of every citizen. Even the acquisition of educational rights for Indonesian citizens is guaranteed in the constitution.

Education is not enough to reach the basic level, but it must be pursued to the middle, upper and higher levels, even the education continues throughout life which is known as long life education [7]. Public awareness of the importance about the higher education can be supported by information technology. Obtaining information about higher education can now be obtained through the media. Now information media can be obtained through the internet, either through social media (Facebook, WhatsApp, Twitter) or through the web on the internet.
The information technology makes the information easier to disseminate, but does the ease of this information also increase public awareness of pursue higher education? Through information technology, the information can be received by humans and processed in the brain. This process can be illustrated in the following figure.

**Figure 1.** An example of information on higher education through information technology media.

This study reveals how the impact of information technology on the awareness of parents and high school students to pursue the higher education.

The research problem is formulated into the question point: 1) how is the awareness of parents and high school students to pursue higher education? a) how is the awareness of parents to pursue the higher education for their children? b) how is the awareness of high school students to pursue the higher education? 2) what are the reasons of parents and high school students to pursue the higher education? a) what is the parent’s reason to pursue the higher education for their children? b) what is the high school student’s reason to pursue the higher education?
2. Methods
This research used a survey method with descriptive data analysis. Data sources were obtained from a questionnaire involving 482 participants from parents and high school students in the West Java, Indonesia. The proportion of participants are 262 participants of high school students and 220 participants of parents.

![Figure 3. Proportion of research participants.](image)

Data processing is done by calculating the answer "Yes" on the questionnaire, then it is percentage by the following formula.

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\text{Respondent's answer} \times \frac{\text{Number of respondents}}{100}
\]

The percentages generated are interpreted with the following guidelines.

| %           | Interpretation      |
|-------------|---------------------|
| x = 0       | No one              |
| 0 < x < 25  | Fraction            |
| 25 < x < 50 | Almost half         |
| x = 50      | Half                |
| 50 < x < 75 | Most of the        |
| 75 < x < 100| Almost entirely     |
| x = 100     | All of it           |

Whereas to measure the level of awareness used the formula.

| %       | Conclusion   |
|---------|--------------|
| 0-20%   | Very low     |
| 21-40%  | Low          |
| 41-60%  | Medium       |
| 61-80%  | High         |
| 81-100% | Lofty        |

To measure the level of awareness used the questionnaire with statements submitted to participants in the form of:
- to pursue the first diploma education
- to pursue the second diploma education
- to pursue the third diploma education
- to pursue the undergraduate education
- to pursue the master’s education
- to pursue the doctoral education

Likewise, to find out the reason of pursuing the higher education used the questionnaire instrument with the statement submitted to participants in the form of:
- because of pursuing ideals
- because it fulfills the wishes of parents
- because of getting a job
- because of improving the social status
- because of raising the dignity of the family (parents)
- because I don't want to have a family (married)
- because of thirst for knowledge
- because of the encouragement of the teachers
- because I want to give a good example for family

3. Result and discussion

3.1. The awareness of pursuing the higher education

The awareness of pursuing higher education is owned by parents and high school students. The following are the results of the questionnaire processing by calculating ”Yes” answers from parents and students.

![Bar chart showing comparison of parents and high school students' awareness to pursue higher education.](chart.png)

**Figure 4.** Comparison chart of parents and high school students' awareness to pursue the higher education.

Based on the figure 4, the data obtained shows that in statement number 1 (to pursue the diploma education) the choice of students (45%) is greater than that of parents (38%). Likewise students' answers were greater than parents for the choice of the second diploma, the second diploma, the third diploma, undergraduate, dan doctoral. Whereas for the master level the student’s choice is smaller than the parent’s
choice (79% vs. 81%). From the data, it is concluded that most parents and students (62%) have the awareness to continue their higher education with a high level of awareness, and the level most widely chosen by parents and students is the undergraduate level. The higher education can be defined as education at the university level that offers a variety of qualifications ranging from diploma, undergraduate to post graduate, namely master and doctoral [8]. The high awareness of parents and students towards the higher education, because at this time education is a very important thing that cannot be separated from human life, both men and women must both get the highest education [9]. The level of awareness of tertiary education also occurs in parents, even though in reality they do not have a high enough education but they still have the desire to pursue their higher education. Their awareness arises because they get information through their senses and are processed by the brain, according to Atkinson and Shiffrin's information processing theory [10].

![Figure 5. Information processing theory Atkinson and Shiffrin.](image)

3.2. The reasons for pursuing the higher education
The Parents and high school students have a reason for having a desire to pursue the higher education. They expressed these reasons through the answer "Yes" to the statement submitted in the questionnaire. The results of data processing are presented in the following graphic to show the comparison of results between parents and students.

![Figure 6. Comparison chart of reasons for parents and high school students to pursue the higher education.](image)
When looking at Figure 2 it can be observed that the choice of high school students for the reasons to pursue the higher education is proportionally greater than the choice of parents for statement "because of parents' desire (55% vs. 50%), because they want to improve social status (81% vs. 80), because they want to raise the family's dignity (parents) (91% vs. 85%), because they don't want to have a family (married) (77% vs. 62%), because they are hungry for knowledge (78% vs. 72%), because encouragement of teachers (37% vs. 34%), because they want to be a good example for family (91% vs. 90%), while for statements pursuing goals, students' choices are smaller than parents (93% vs. 95%). But for the statement “because they want to get a job”, the answers of parents and students are equal (90% vs. 90). However, through education can change the condition of the community, one of the reasons for pursuing the higher education is to get a job, because armed with higher education the respondents believe they will be able to get a decent job with a decent income as well. Education is not only to develop knowledge and skills but is the most important factor for economic growth [11].

Based on the data, it can be concluded that the majority of parents (73%) gave positive reasons for pursuing the higher education, while for high school students, almost all (77%) gave positive reasons for pursuing the higher education with the most chosen reason both parents and students are "pursuing their dreams".

4. Conclusion
Through this research, it can be concluded that the information technology has a positive impact on the awareness to pursue the higher education, in the form of:

- The level of awareness of parents and students is high to pursue the higher education, with details:
  - most parents have the awareness to pursue the higher education for their children
  - most high school students have the awareness to pursue the higher education
- Parents and students have positive reasons for pursuing their higher education, with details:
  - Most parents have a positive reason for pursue the higher education for their children
  - Almost all high school students have a positive reason for pursue higher education.

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