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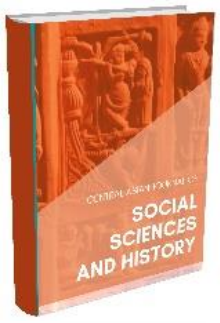

The Information System's Needs Evaluation of the Student Creativity Program as an Effort to Increase Student Participation and Achievements of PKM UPN Veteran Yogyakarta

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Abstract:
UPN Veteran Yogyakarta students have a new website; the site also accommodates the Student Creativity Program. However, the page's content is still minimal and cannot provide information or as a medium of communication between lecturers, students, and the PKM Center. Therefore, this study will try to develop the quality of the PKM website using the webqual method and Importance Performance Analysis. Researchers have used this method to evaluate various information systems. Several variables need to be considered based on research that has been carried out using webqual 4.0 and the Importance Performance Analysis (IPA) method. They are included in the Concentrate Here category.

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These variables are the website providing timely information (INFO3), the website providing relevant information (INFO5), the website providing easy-to-understand information (INFO6), The interaction

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between the website and users being straightforward and easy to understand (USAB2), the website creates a positive experience for users (USAB8). These five variables must be handled in developing the PKM UPN Veteran Yogyakarta website.

1. Introduction

The National Education System Law number 20 of 2003, article 20 paragraph 2, states that universities are obliged to provide education, research, and community service [1]. These three activities are better known as the Tridharma of Higher Education related. According to Lian [2], the dharma of education and research must concretely support the dharma of community service.

The Student Creativity Program (PKM) is a form of implementation of the Tridharma of Higher Education launched by the Directorate General of Higher Education in 2022 under the management of the Directorate of Learning and Student Affairs (Belmawa). This program is an effort to grow, accommodate, and realize creative and innovative ideas from students. PKM has an impact on increasing student and university achievement in the ranking of the Ministry of Education and Culture.

PKM at UPN Veteran Yogyakarta received a positive response from students, with increased student participation from year to year. However, this participation number is still below the quota from the cluster obtained by UPN Veteran Yogyakarta. PKM at UPN Veteran Yogyakarta needs support and synergy from the leaders, lecturers, and students. With this synergy, PKM participation and achievements in universities can increase.

PKM is a program whose duration is quite long. Starting from submitting proposals to PIMNAS took almost a year. It requires a clear and smooth flow of information and processes in all these PKM activities. Therefore, a website is needed to provide transparent information and as a forum for communication between students, lecturers, PKM Supervisors, leaders, and the PKM Center.

UPN Veteran Yogyakarta students have a new website; the site also accommodates the Student Creativity Program. However, the page is still minimal and cannot provide information or as a medium of communication between lecturers, students, and the PKM Center. Therefore, this study will try to develop the quality of the PKM website using the webqual method and Importance Performance Analysis. Researchers have used this method to evaluate various information systems [3–12].

2. Method

2.1. Objects of research and data retrieval

The research was conducted on students and lecturers in the UPN Veteran Yogyakarta environment who already understand PKM. Data was collected using a webqual 4.0 questionnaire[13–17]. The data retrieved is on each variable's level of importance and need.

2.2. Data processing and analysis

Data processing is carried out using the Importance Performance Analysis (IPA) method [18–22]. The steps performed in this method are as follows:

1. Calculate the satisfaction and needs of the value for each attribute

Each attribute's satisfaction and needs data is calculated to obtain average satisfaction and average needs. The division between average satisfaction and average needs results in a suitability percentage

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value. Meanwhile, the average of this overall suitability is decision scores. The suitability value is compared to the decision scores value, to determine the hold or action. Action means that an action of improvement or improvement is required on that attribute. Meanwhile, hold means that the condition of the attribute has been met, so there is no need for any action to be taken.

2. Enter satisfaction and needs data on the IPA diagram

The data used in the IPA diagram comes from the calculations in the previous stage. The x-axis is the value of performance or satisfaction, and the y-axis is the value of importance or needs. Mapping each variable in the IPA diagram is crucial in conducting category analysis at the next stage.

3. Analyze variables according to IPA categories

After mapping in the IPA diagram, the next stage is to divide it into IPA categories: concentrate here, keep up the good work, low priority and mostly overkill. Each of the categories has different characteristics to analyze.

3. Results and Discussion

3.1. Data Demographics

Data collection using questionnaires was performed against respondents with the characteristics shown in Figures 1-4 as follows:

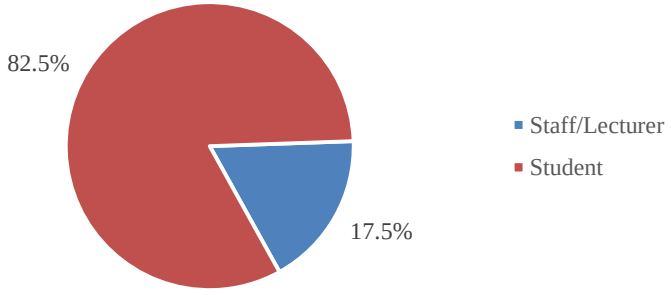

Fig. 1. Percentage chart of the number of respondents

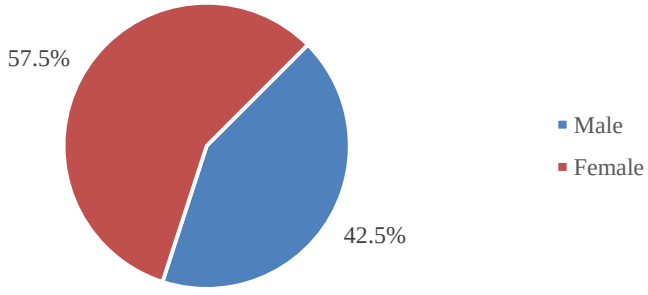

Fig. 2. Percentage of respondents' gender diagram

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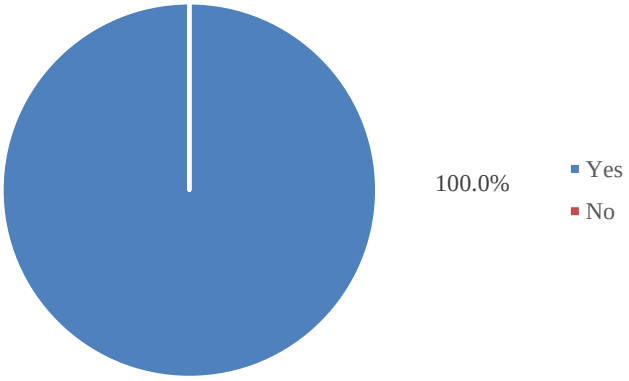

Fig. 3. Percentage of the number of respondents who are familiar with PKM

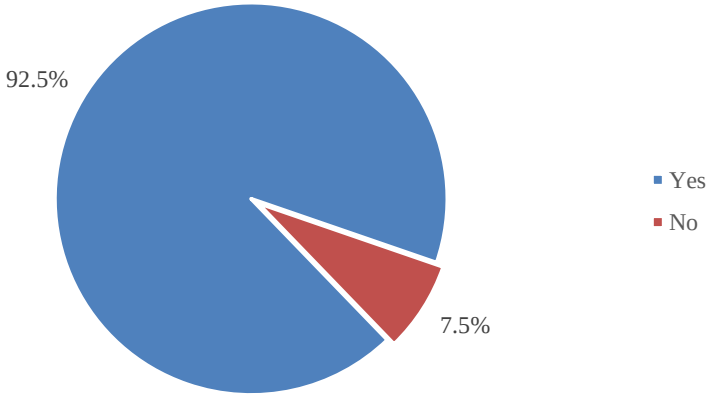

Fig. 4. Percentage of the number of respondents who have participated in PKM socialization

In **Figure 1**, we can see that the percentage of respondents from students is 82.5%, and the rest comes from lecturers. In **Figure 2**, we can see that the number of male and female respondents is almost balanced, namely 42.5% and 57.5%. All (100%) respondents have known PKM (**Figure 3**), and 92.5% of all respondents have participated in PKM socialization (**Figure 4**). The rest know PKM from other sources.

3.2. Importance Performance Analysis (IPA)

The first step in conducting an Importance Performance Analysis (IPA) is determining the level of importance and satisfaction for each variable in Webqual 4.0. The results of the level of importance and satisfaction are averaged and calculated the suitability value by dividing the satisfaction value by the need value. This value is then averaged and used as a decision score to determine hold or action. The hold is when a variable's data requires no effort, while action means that the variable requires further action and is executed properly. These data are included in the IPA Table, which can be viewed in **Table 1**.

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Table 1. Importance Performance Analysis

No.	Attribute		Avg Importance	Avg Performance	Suitability	Decision scores	Hold or Action
1	Usability	(USAB1)	3.725	3.475	93.29%	92.29%	H
2		(USAB2)	3.725	3.375	90.60%	92.29%	A
3		(USAB3)	3.625	3.325	91.72%	92.29%	A
4		(USAB4)	3.75	3.45	92.00%	92.29%	A
5		(USAB5)	3.65	3.275	89.73%	92.29%	A
6		(USAB6)	3.6	3.325	92.36%	92.29%	H
7		(USAB7)	3.525	3.35	95.04%	92.29%	H
8		(USAB8)	3.675	3.35	91.16%	92.29%	A
9	Information	(INFO1)	3.8	3.5	92.11%	92.29%	A
10		(INFO2)	3.85	3.575	92.86%	92.29%	H
11		(INFO3)	3.75	3.325	88.67%	92.29%	A
12		(INFO4)	3.75	3.425	91.33%	92.29%	A
13		(INFO5)	3.75	3.375	90.00%	92.29%	A
14		(INFO6)	3.725	3.325	89.26%	92.29%	A
15		(INFO7)	3.75	3.4	90.67%	92.29%	A
16	Interaction	(INTE1)	3.425	3.4	99.27%	92.29%	H
17		(INTE2)	3.675	3.4	92.52%	92.29%	H
18		(INTE3)	3.875	3.45	89.03%	92.29%	A
19		(INTE4)	3.4	3.175	93.38%	92.29%	H
20		(INTE5)	3.375	3.275	97.04%	92.29%	H
21		(INTE6)	3.5	3.325	95.00%	92.29%	H
22		(INTE7)	3.725	3.475	93.29%	92.29%	H

The results of these values of importance and need are then included in the IPA diagram (**Figure 5**) as follows:

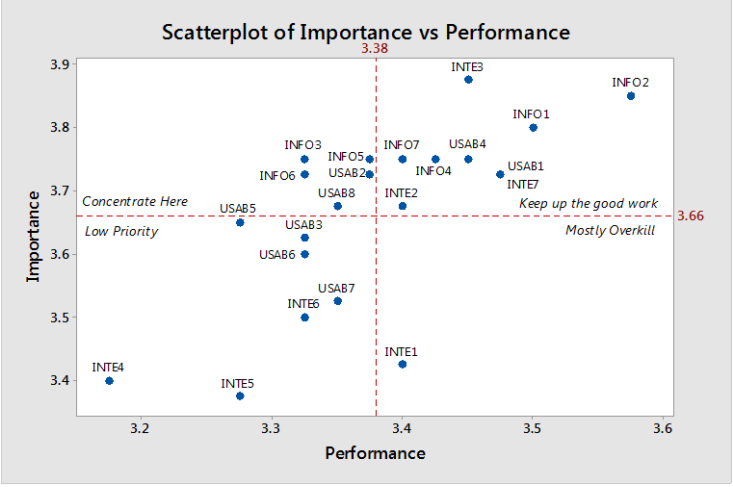

Fig. 5. IPA Diagram

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After entering each variable into the IPA Diagram, the next step is to analyze the needs of the PKM website based on the categories in the IPA

1. Concentrate here

The variables in this section are crucial to pay attention to in making a PKM website at UPN Veteran Yogyakarta. Variables in this category are INFO3, INFO5, INFO6, USAB2, and USAB8.

2. Keep up the good work

The variables included in this section already have high performance and needs but still, need to be maintained in quality. Variables in this category are USAB1, USAB4, INFO1, INFO2, INFO4, INFO7, INTE2, INTE3, and INTE7.

3. Low priority

Variables that fall into this category have a minor priority to be developed on the PKM UPN Veteran Yogyakarta website. Variables in this category include USAB3, USAB6, USAB7, INTE4, INTE5, and INTE6.

4. Mostly overkill

Variables that fall into this category are almost unnecessary to develop. The variable that falls into this category is INTE1.

4. Conclusions and Suggestions

Several variables need to be considered based on research that has been carried out using webqual 4.0 and the Importance Performance Analysis (IPA) method. They are included in the Concentrate Here category. These variables are the website providing timely information (INFO3), the website providing relevant information (INFO5), the website providing easy-to-understand information (INFO6), The interaction between the website and users being straightforward and easy to understand (USAB2), the website creates a positive experience for users (USAB8). These five variables must be handled in developing the PKM UPN Veteran Yogyakarta website.

This research is still limited to the variables in webqual 4.0; many variables can still be explored to improve the quality of the website to be developed. Further research can also use other methods to obtain a lot of input on developing this website.

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