

Critical Factors in Determining the Success of Government Self-Management Projects: A Case Study Irrigation Water Use Acceleration Program/P3-TGAI

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ABSTRACT

This research is motivated by the importance of predicting the implementation of a project in the construction field to achieve a success where a project is said to be successful if the project can be completed at a competitive cost, can be completed on time or even faster than the scheduled time, and the quality is achieved. The aim of this study is to determine the critical success factor of government self-management projects (Acceleration Program for Irrigation Water Use Improvement/P3TGAI), so that undesirable things such as cost swells, time delays and others can be predicted as early as possible. This research uses a descriptive method where the populations are community assistance staff (TPM) and Center Management Consultants (KMB) in the program of Acceleration Program for Irrigation Water Use Improvement (P3-TGAI) in the Sumatra V River Basin Center and questionnaires are used as data collection techniques. The results showed that there are 5 determinants of the success of the self-management project for P3-TGAI, such as good communication between parties involved in the project (95.95); appropriate/appropriate work planning (91.89); monitoring of the project by the parties involved (89.19); ability to solve project problems by the parties involved (83.78); proper cost management by the parties involved (83.78). Then, there are 10 aspects that determine the success of P3-TGAI self-management projects, these factors are formed from the highest index in each aspect surveyed.

Keywords: Critical Factors; Self-managed Projects; Case Studies; Acceleration Programs. Copyright © Vero Gusri Vernando, Taufika Ophiyandri, Benny Hidayat, Micky Fetriani This is an open-access article under the: https://creativecommons.org/licenses/by/4.0/ **DOI**: https://doi.org/10.24036/cived.v12i1.569

INTRODUCTION

The Irrigation Water Utilization Improvement Acceleration Program (P3-TGAI) is one of the activities of the Community-Based Infrastructure Program (IBM). P3-TGAI is a continuation of the P4-ISDA IK Program which has been implemented since 2013-2015 and from 2016 until now has changed its name to P3-TGAI, although the intent and implementation are almost the same, namely to foster the participation of the Water User Farmer community (P3A) in repair, rehabilitation and improvement activities for irrigation networks according to the needs and principles of independence [1].

The Irrigation Water Utilization Improvement Acceleration Program hereinafter abbreviated as P3-TGAI is a program for repair, rehabilitation or improvement of irrigation networks based on the participation of the farming community implemented by the Water User Farmer Association, the Association of Water User Farmer Associations or the Parent Association of Water User Farmers.

P3-TGAI is implemented to support national food sovereignty as a manifestation of economic



independence by mobilizing the strategic domestic economic sector as stated in the seventh Nawa Cita program through empowering farming communities in improving irrigation networks, rehabilitating irrigation networks, and increasing irrigation networks in a participatory manner in rural areas [2].

Irrigation network improvement, irrigation network rehabilitation, and increasing irrigation networks are part of the planned and systematic empowerment of farming communities to improve the performance of irrigation network management, the empowerment process starts from planning, construction implementation, supervision and management of irrigation networks by involving the role of the community as the implementer of activities.

P3-TGAI is an activity that aims to improve the performance of village irrigation for the welfare of farmers, improving the economy of the surrounding community, and contributing to food security. This activity aims to foster farmer participation in improving and increasing irrigation networks based on needs where the community is involved in the construction of small irrigation under 150 ha by directly involving P3A.

In its implementation, P3-TGAI activities are accompanied by Community Assistance Personnel (TPM). In addition, the P3-TGAI activity is also a cash-intensive labor program, the benefits for rural communities are quite large because it can increase the money circulating in the community so that it is hoped that the community's purchasing power will also increase [3].

The funds provided to the farmer groups can be used to rehabilitate irrigation networks or improve irrigation networks such as repairing embankments, repairing equipment buildings, repairing irrigation roads and others to improve the performance of the irrigation including community empowerment.

The success of a project is the main target for project implementers engaged in the construction sector. A project is said to be successful if the project is able to be completed at a competitive cost, can be completed on time or even faster than the scheduled time, and with the achievement of quality. If one of them is not met, the project is not yet fully said to be successful.

Therefore, it is necessary to conduct research on the critical success factors (Critical Success Factor) of government self-managed projects (acceleration program for improving irrigation water use/P3-TGAI), so that undesirable things such as cost overruns, time delays and others can be predicted as early as possible.

METHOD

The research methodology used is a descriptive method with a quantitative and qualitative approach. Where the descriptive method is a method in examining the status of a group of people, an object, a set of conditions, a system of thought, or a class of events at present.

The population in this study were community assistance workers (TPM) and Management Consultants of the Center (KMB) in the irrigation water utilization acceleration program (P3-TGAI) at the Sumatra River Region Center V [4].

Questionnaires were used as a data collection technique carried out by providing a set of questions or statements to other people who were used as respondents to be answered. The questionnaires are divided into open questionnaires and closed questionnaires. In this study, a



closed questionnaire was used where the answers were already available so that respondents only had to choose the answer that matched their characteristics [5].

To determine the ranking of the success factors of the identified government self-managed projects, a closed questionnaire model was compiled with a Likert scale. The Likert scale is a scale that measures attitudes by stating agreement or disagreement with a particular subject, object, or event (Sofro, 2004) in Hearsa 2013, which in this thesis research is operationalized using 4 (four) alternative scales of answer choices "Very Influential (SB), influential (B), less influential (KB) and no influence (TB)" [6].

The questionnaire was distributed after determining who would be the respondents in this study. In the questionnaire there are several questions to find the Critical Success Factor of the government self-managed project (P3-TGAI Program) which can later be a reference for the implementation of the program in the future which is even better.

After distributing the questionnaire to several TPM and KMB, some data will be obtained in the form of a questionnaire. Furthermore, the data is processed to obtain what are the dominant factors that underlie the success of the P3-TGAI program during implementation in the field. Furthermore, rating these factors according to the highest dominant percentage.

The analysis formula used to compile the index ranking can be seen in the following example (Proboyo, 2006) in Hearsa 2013 [6]:

Indeks (Xm) =
$$\frac{\sum_{i=1}^{i=4} (n_1 x \text{ quality}_i)}{n}$$
 (1)
Varian (Xm) =
$$\frac{1}{n-1} \sum_{i=1}^{i=4} [n_1 x (\text{quality}_i - I_{(xm)i}) 2]$$
 (2)

Varian (Xm) =
$$\frac{1}{n-1} \sum_{i=1}^{i=4} [n_1 x(quality_i - I_{(xm)i})2]$$
 (2)

RESULTS AND DISCUSSION

From the results of the research conducted on 37 respondents consisting of 4 KMB people and 33 TPM people who carried out work on the P3-TGAI program of the Sumatra V river basin center, an assessment of the answers to the critical factors determining the success of the government's self-managed project (P3-TGAI Program) was obtained.

Based on the data analysis above, the ranking of critical factors determining the success of government self-managed projects as a whole is obtained in the table below. The combination of index values (combined index values) in each aspect of the review will produce a ranking arrangement in each aspect. The ranking and combined index values can be seen in Table 2. After conducting a ranking analysis in each aspect of the review, in line with the objectives of this study, the main factors were determined as critical factors in determining the success of the government's self-managed project (irrigation water utilization acceleration program/P3-TGAI). Of the 50 items used, these items were combined into 10 main factors for each aspect of the review.

From the responses of the questionnaire respondents on the critical factors determining the success of the government's self-managed project: a case study of the irrigation water utilization acceleration improvement program/P3-TGAI, 5 indicators were obtained as determining factors for the success of the self-managed project of the irrigation water utilization acceleration improvement program/P3-TGAI. These factors are formed from the highest percentage index values of all statements of success determinants used in the research questionnaire.



- 1. Good communication between parties involved in the project (95.95)
- 2. Proper/appropriate job planning (91.89)
- 3. Monitoring of the project by the parties involved (89.19)
- 4. Ability to resolve project issues by parties involved (83.78)
- 5. Proper cost management by the parties involved (83.78)



Figure 1. Aspect Ratings

From the results above, there are 5 determining factors for the success of the government's self-managed project in the irrigation water utilization acceleration program/P3-TGAI, so from the results above it can be concluded that for the success of the P3-TGAI program in the future, during implementation it is necessary to pay attention to the five factors above, so for officials involved in the program can study these five things for the success of the P3-TGAI program in the future.

Control is an integral part of the project management process that forms a cycle. Basically, the cycle is a continuous activity along with the ongoing construction engineering process. Every work operation always begins with making a work plan schedule, and during the implementation of the work, the results achieved are measured to be compared to the original plan.

Meanwhile, from the responses of the questionnaire respondents to the determining factors for the success of the government's self-managed project, a case study of the irrigation water utilization acceleration improvement program/P3-TGAI, there were 10 factors at the highest ranking for project success, these factors were formed from the highest index values from each aspect of the research, namely:

1. Project Management Aspects

Good communication between the parties involved in the 95.95 index project, communication is very important in the success of a project, especially projects that are community-based, in projects involving local communities and farmers, there are many things that need to be considered in managing the project, one of which is communication which plays a very important role in the success of this project.





Figure 2. Project Management Aspects

2. Project Management Aspects

Proper cost management by the parties involved index 83.78, costs are the target and goal of the project, mistakes in managing project finances can cause the project to be unable to be completed or fail according to the planned costs, especially since the P3-TGAI project involves farmers in managing finances, so TPM plays a very important role in the success of this activity by providing or participating in managing the costs managed by farmers in this program.

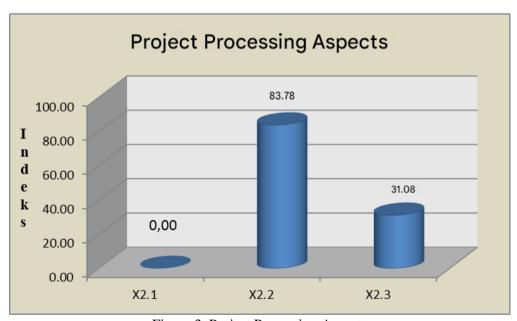


Figure 3. Project Processing Aspects

3. Labor Aspects

The expertise of the workforce based on the experience index of 72.97, the expertise of the workforce is very much needed in this job, concerning work in the field is a job that requires the skills of reliable craftsmen and workers, if the craftsmen and workers are inexperienced in the sense that they have never worked before, then it could be that the productivity of the craftsmen and workers planned does not match the target plan, so that it can be detrimental to the implementers of activities in the field, and cause the project to fail.

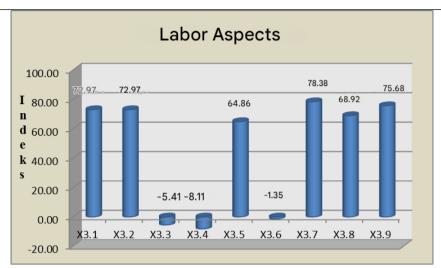


Figure 4. Labor Aspects

4. Material Aspect

Planning of needs and schedule of use of index material 68.92, planning of material needs in the field greatly determines the success of a project, delays in the arrival of materials can also affect the productivity of craftsmen and workers in the field, and also if too much material is brought in, it results in limited material storage locations, so material needs planning greatly influences the success of self-managed projects.

The quality check of materials in the field has an index of 68.92. Quality is also the goal of the project, so checking the quality of materials in the field is very necessary. If the incoming materials do not match the planned quality, it can cause problems or project failure because they do not match the planned quality.

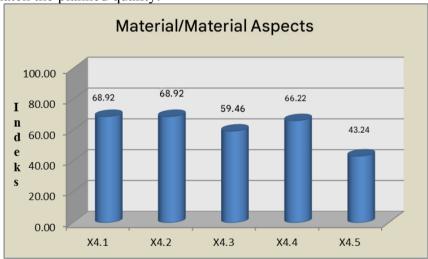


Figure 5. Material Aspects

5. Equipment Aspects

Planning of equipment needs in the field index 56.76, planning of equipment needs is also very much needed, most of the equipment commonly used to deliver materials is in the form of wheelbarrows, so for the success of a project, the activity implementer must plan the amount of equipment that will be used to support the achievement of project success according to the work plan.



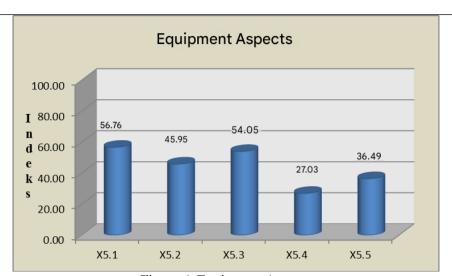


Figure 6. Equipment Aspects

6. External Factor Aspects

Land acquisition at the project location index 66.22, land acquisition at the project location is very important because the government's self-managed project work does not have an item of land and plant compensation, because the project is a program for farmers, so land acquisition plays a very important role, if the land is not free automatically the Activity Implementing Officer (PPK) will stop the work and move it to another possible location.

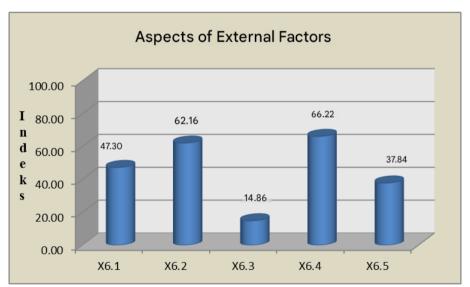


Figure 7. Aspects of External Factors

7. Weather Factor Aspects

High rainfall intensity at the project location and material collection location index 70.27, rainfall intensity greatly affects the success of a project, the higher the rainfall intensity can slow down work in the field, because the craftsmen and workers cannot work, work in the field is a natural control job or is in a long location, so for the work there must be good weather.

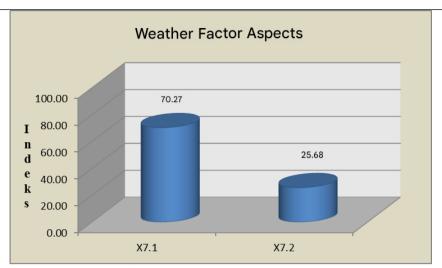


Figure 8. Weather Factor Aspects

8. Project Location Aspects

The distance of the project location from the material storage area index 72.97, distance is an important thing to consider before planning, the further the distance of the material shunt, the higher the shunt wages, in this program most of the shunts are self-supporting to farmers, while many farmers must get fair wages in shunts, so here I conclude that the average project that is near the road means that the material distance is close, it is easy to complete and vice versa.

Land conditions (Soft , Hard, swamp, etc.) index 72.97, land conditions also play an important role in success, most friends do not check the overall land conditions resulting in errors in planning and causing losses in work. And also the land here concerns the location taken to launch the material.



Figure 9. Project Location Aspects

9. Community Participation Level Aspect

Socialization and discussion with the community about the 79.73 index project, is the same as communication between the parties involved, in this program before the work is carried out in the field, there must be socialization with the community first, so that there is no misunderstanding about this program, most of the problems that arise at the project location

are misunderstandings between farmers as implementers and the community.

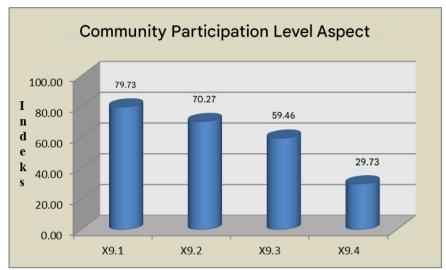


Figure 10. Community Participation Level Aspect

10. Force Majeure Aspect

The occurrence of flooding at the project location index 78.38, flooding at the project location can cause damage to irrigation structures under construction and wash away materials that have accumulated at the project location, so losses due to flooding at the project location can be overcome by planning materials according to field needs if the potential for flooding at the project location is high.



Figure 11. Aspect of Force Majure

From the responses of the research respondents addressed to KMB and TPM as many as 37 people, it was found that the highest indicator of the critical factor determining the success of the government's self-managed project in the irrigation water utilization acceleration improvement program/P3-TGAI was good communication between the parties involved in the project with an index value of 95.95 and a variance of 191.44.



CONCLUSION

Based on the research results, it can be concluded that there are 5 determining factors for the success of the self-managed project for the acceleration program for improving irrigation water use/P3-TGAI, these factors were selected as the five highest factors out of the 50 indicators surveyed.

Then there are 10 main indicators in each aspect of determining the success of the self-managed project of the irrigation water utilization acceleration program/P3-TGAI, this factor is formed from the highest index in each aspect surveyed. Furthermore, the highest indicator of the critical factor determining the success of the government's self-managed project in the irrigation water utilization acceleration program/P3-TGAI is Good communication between the parties involved in the project with an index value of 95.95 and a variance of 191.44.

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