

The Influence of Organizational, Process and Individual Factors on Software Development Success

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Abstract: Formulating and determining a methodology in project management in the field of information technology is not easy because it will determine the quality of the product to be developed. A company for about two years has been implementing the agile management methodology in its software development projects. The results of the interviews in terms of time duration, this method is very effective to apply. However, it takes an adaptation process for each employee involved to understand and apply the method. Because this method allows users to change requirements, each member of the development team is required to be adaptive to the changes that will occur in the application development process. Related to this phenomenon, this study aims to measure the success of software development in companies that apply new methodologies to their software development projects. In this study, three factors were used - Organizational Factors, Process Factors, and Individual Factors - which based on previous studies have proven to be a measure of the success of software development. In this study, data analysis used the Partial Least Square (PLS) approach using Smart PLS software. Of the three factors used, the three factors influence the success of software development. Organizational Factors and Individual Factors have a significant positive effect on the success of software development, and Process Factors have a negative effect on the success of software development. The results of this study are expected to be used as evaluation material by paying attention to Process Factors that have a negative effect, and also to maintain and continue to improve Organizational Factors and Individual Factors which have been proven to have a significant positive influence.

Keywords: Organizational Factors, Process Factors, Individual Factors, Software Development Success.

INTRODUCTION

Every company has a target to create value and benefits in every project it has. To achieve this goal, each company must have the right management method (Project Management Institute, 2017) .

PT. X is a consulting company engaged in the field of informatics services, based in Surabaya. PT. X is now focusing on providing *software* consulting services that make it easier for each customer's business.

The method of project management is an important factor in achieving the objectives of developing the *software* effectively and efficiently. Project management also varies, it can be in the form of construction project management, research projects, manufacturing production projects, information technology projects, and others. In project management, it is also necessary to apply it in terms of HR management, namely the process of organizing and managing or placing the people involved in the project, so that each individual in the company can be utilized according to their respective potentials effectively and efficiently. (Fachrial, 2020)

Over the past few years, project management at PT. X applies an Agile management method. Where the Agile management methodology has two core elements: teamwork and time. Agile values and prioritizes teamwork. Teams should continually evaluate how they can become more

effective and adapt Agile projects. Information Technology Project Management using Agile only works well when the whole team is committed to the project for the duration of software development.

In order to create a team that is fully committed to implementing Agile, it is necessary to control and supervise every detail needed for the success of Agile. It is the responsibility of companies that adhere to the Agile method to continue to motivate their employees to have a strong commitment to continue to carry out every process in the Agile method well, so that the projects produced are maximized. Especially for managers who are responsible for projects, these managers need to supervise and control down to the smallest things so that the goals on the project can be achieved. (Lees, 2021)

The results of interviews with all Project Managers and several team members who are intensely involved in software development, based on the duration required for software development, the Agile management methodology has both advantages and disadvantages. In terms of time duration, the Agile management methodology is very effective to implement. However, the drawback is that individuals who are still not used to and adapt to the methodology will experience a little overwhelmed.

Apart from the aspect of duration (Time), there are other factors, namely the Quality factor and the Scope factor which can be used as a reference in the success of a project. With supporting factors used as benchmarks in determining project success, namely Organizational factors, Individual factors and Process factors. (Chow, T. and Cao, 2008)

Agile is an iterative iterative approach to project management and software development that helps teams deliver value to their customers faster and with less stress. Instead of risking everything on a "big bang" launch or all at once and in a big way, Agile teams do the job in incremental increments. Needs, plans and results are continually evaluated so that the team has a natural mechanism to respond quickly to changes.

Agile is great for collaborative cross-functional teams. Open communication, collaboration, adaptation and trust among team members is at the heart of Agile. While the project manager or Product Owner generally prioritizes the work to be done, the team takes the lead in deciding how the work will be done, self-organizing around detailed tasks and assignments.

Agile is not defined by a particular set of inauguration or development techniques. In contrast, Agile is a group of methodologies that demonstrate a commitment to rigorous feedback cycles and continuous improvement.

The team chose Agile so they could quickly respond to changes in the market or customer feedback without derailing agreed plans. The planning and process delivers "simply" in small increments and allows the team to gather feedback on any changes and integrate it into plans for the future at minimal cost.

But it's not just a numbers game—first and foremost, it's about every individual involved. As the Agile Manifesto makes clear, authentic human interaction is more important than rigidly executed processes. Collaborating with customers and teammates is more important than predefined rules. And providing effective and efficient solutions to customer problems is more important than very detailed documentation.

Agile teams come together under a common vision, then realizing it in a way that is mutually agreed upon is the best method. Each team sets their own standards for quality, benefits and completeness. While it may be stressful at first,

company leaders note that when they place their trust in an Agile team, the team feels a greater sense of ownership and rises to meet (if not exceed) management's expectations. (Atlassian, 2022)

In 2008, Tsun Chow and Dac-Buu Cao conducted research on the topic "A Survey Study of Critical Success Factors in Agile Software Projects". The research resulted in 10 hypotheses that were accepted or had a significant influence on the project categories that were considered successful (quality, scope, time and cost). The ten hypotheses accepted include team environment on quality, team capability on time and cost, customer involvement on scope, project management process on quality, agile software engineering on quality and scope and delivery strategy on scope, time and cost.

Then in 2013 a study was also carried out on a similar topic by Sui Lun Lam, *et al.*, In this study, it was found that strong management commitment has a significant effect on cost, strong customer involvement has a significant effect on time, clear project definition process has a significant effect on scope, time and cost, and good project management process has a significant effect on quality and scope.

Scrum is one of the many types of Agile frameworks. Chow and Cao (2008) use the model to identify Critical Success Factors for projects that implement an Agile framework. They collaborate to identify the key factors that are likely to influence the success or failure of an Agile software project. Organizational factors which include management commitment, organizational culture, resource management, and supervision. Then Process Factors ie includes project scope, project planning, *software progress monitoring mechanism*, and client involvement. Then the third factor, namely Individual Factors includes the required expertise, project management competence, quality of team work, and relationships with clients.

Furthermore, effectiveness can be measured through three dimensions that will describe success in a project management, namely *Quality, Scope, and Timeliness*.

Research by Muhamad Yusnorizam Ma'arif, et al., (2018) with the title *The Challenges of Implementing Agile Scrum in the Information System's Project*. The case study was conducted by interviewing a consulting firm in Malaysia in the

Information Technology sector, namely the first interview with the director of ICT Infrastructure Shared Services who has served the Malaysian Public Sector for more than twenty (20) years. Then a second interview was conducted with an ICT consultant at the Malaysian government who has experience in ICT projects for twenty (20) years. Data was collected using a qualitative research method which was conducted in one session of interviews with the finance team leader to see the impact of Agile Scrum and to identify the advantages and disadvantages of implementing Agile Scrum methods. Qualitative analysis is also used to find out the challenges faced by the organization if the Agile Scrum methodology is applied. (Ma'arif, *et al.*, 2018)

Azkaa Agdaviswan's research (2021) which discusses the Analysis of the Application of Agile Management at PT Telekomunikasi Indonesia Digital Service Division. In his research the author aims to analyze the factors that influence the implementation of post-movement management methods from traditional management methods (Waterfall) and after the application of agile management methods. Researchers used the Fuzzy-Analytic Hierarchy Process (F-AHP) as a research method and hypothesis testing was carried out using MATLAB. Then the data was collected by distributing questionnaires. The results of the study show that the HR category is a category that is very influential in the implementation of each management method, both traditional management methods (Waterfall) and agile management methods. The variables used in this study include coordination, human resources, technology, project management, and software methodology. The results of this study finally found what factors influenced the implementation of the management method chosen by PT Telkom Indonesia, and when this research was carried out still using agile management methods, that the human resource category was always top ranking both when implementing traditional management (waterfall) or after the transition to the application of agile management. (Agdaviswan, *et al.*, 2021)

Shandy's research (2018), which contains a discussion of Scrum Effectiveness in Information Technology Project Management at PT. Bank Central Asia Tbk. Data analysis in this study was carried out using multiple linear regression analysis. From this study the researchers aimed to determine the effectiveness of Scrum in IT project management at PT Bank Central Asia Tbk (BCA). This study uses 12 variables namely Management

Commitment, Organizational Environment, Team Environment, Team Capability, Customer Involvement, Project Management Process, Project Definition Process, Project Definition Process, Delivery Strategy, Project Nature, Project Type, and Project Schedule. The results of this study are only five that have a significant influence on the key to the success of IT projects. The five independent variables include management commitment, project management process, project definition process, project type and project schedule. (Shandy, 2019)

Linkage between Organizational Factors and Software Development Success

Organizational factors are commitments that come from within each individual employee regarding the desired expectations from work. It takes thought, energy, skills and expertise that employees will contribute to the organization.

One of the factors that impact on commitment is interest in work. For this reason, the organization must provide full support to employees, and provide awards that are equivalent to the dedication given by employees (Aini, 2019) . Based on interviews with several employees at the company, when the Agile management methodology is applied, it requires an organization that consistently provides support and appreciation for employees. Because the Agile methodology is not an easy method to implement, it requires a combination of effort between the organization and also the employees involved.

The following are some indicators that can influence organizational factors in software development:

- a) Management Commitment, strong support from management is needed in achieving common targets, including managers who are committed to managing and monitoring the *software* development team intensely.
- b) Organizational Culture, companies that apply *Agile management methodologies* should adopt a cooperative rather than hierarchical organizational culture. Wherever the position is, if there are other employees who have difficulties, every other position can help without the label of seniority and individualism in it. Organizational culture has a significant impact on the social structure of an organization, which ultimately influences the behavior and actions of people. Organizational values, norms, and assumptions

are stabilized and strengthened over time, and are reflected in policies that are embodied in organizational routines.

- c) Resource management, the number of resources involved in the team must also be calculated and measured. Too much or too little will affect team productivity. This also includes the division of tasks to resources.
- d) Supervision, companies also need to have management and supervision standards when it comes to *Agile management methodology* run. And once the standards have been created, there needs to be consistency from management and the *software development* team. (Nerur, et al., 2005)

Organizational factors include a variety of contextual factors with a potential impact on the success or failure of a software development project. (Lavallée & Robillard, 2015)

As explained above, based on interviews with several employees at the company, when the Agile management methodology is applied, it requires an organization that consistently provides support and appreciation for employees. Because the Agile methodology is not an easy method to implement, a combination of efforts is needed between the organization and also the employees involved to achieve success in software development. The following is a hypothesis based on indicators that influence organizational factors on the success of software development:

H1: Organizational factors have a significant influence on the influence of organizational, individual and process factors on the success of *software development*

Linkage between Process Factors and Software Development Success

The process in software development is also one of the important factors in the success of software development. Where the Agile management methodology is more concerned with how the process works rather than the results of the process itself. By maximizing the process, successful results can follow. Several indicators that affect the process factor:

- a) Project scope, the scope of the project should be described when the initial agreement is made between the company and the client. With a clear scope of the project, the company can measure everything such as the risks that

can occur, the amount of *effort* that must be made by the team, and so on.

- b) Project planning, the clarity of project planning can be obtained from a clear project scope. Project planning can be in the form of measuring and preventing risks that can occur when *software development* is running, then creating a team solid *development*, and designing the goals of the project.
- c) *Software* progress monitoring mechanism, one of the things that is the key to the success of *software development* that applies the *Agile management methodology is the software* progress monitoring mechanism. Generally done by holding *daily meeting* with a duration of 15 minutes every day at the same time and place. However, each company can implement a monitoring mechanism that is in accordance with the corporate culture and the character of its employees.
- d) Client involvement, in *software development* that is aimed at and tailored to client needs, client involvement is needed. At meetings to discuss client needs related to *software* or at meetings when *reviewing* application results and quality, and on other agendas that require client involvement.

The research conducted by Kondo in 2016 proved that the process factor is one of the most influential factors in the success of software development. (Litchmore, 2016)

Where the Agile project management methodology prioritizes how the process works rather than the results of the process itself. The following is a hypothesis based on indicators that influence individual factors on the success of software development:

H2: Process factors have a significant influence on the influence of organizational, individual and process factors on the success of *software development*.

Linkage between Individual Factors and Software Development Success

It takes a long process to make each individual employee have commitment and loyalty to the company. There are several factors that determine individual commitment to the organization. (Aini, 2019)

Employee commitment to the organization does not just happen, but through a long and gradual

process. Employee commitment to the organization is also determined by a number of factors. There are several factors that affect employee commitment to organizations that apply Agile management methodologies, which include:

- a) Required expertise, the meaning of expertise here is the expertise required of each individual employee in each position.
- b) Project management competency. In IT companies implementing *Agile methodologies*, the development team is given the flexibility to manage their own workload to achieve targets that have been determined together. Therefore, the competence to manage projects is quite important for each individual employee. Where if these competencies meet, it will be easier to achieve common goals.
- c) Teamwork quality. One of the main keys to the success of *software development* is the quality of the team 's work. *Agile* management methodology has added enough pressure for employees, where the team must understand and be sensitive to market changes that can occur at any time. It takes the quality of strong teamwork to make *Software development* maximally successful. In an environment that employs *agile* project management methods, the development team consisting of the software developers as well as the client makes most of the decisions. This creates a two-way decision-making environment in which the backgrounds, attitudes, and goals of team members vary. Decision making in this environment is more difficult than in the traditional approach where the project manager is responsible for

most of the decisions. It may take an enormous amount of effort, time, and patience for an organization to build a culture of trust and respect among its employees to facilitate such collaborative decision-making. (Nerur, *et al.*, 2005)

- d) Relationship with clients. Although not all individuals are directly involved with clients, at least 40% of team members are involved in intense communication with clients. Therefore the relationship with the client needs to be well established and professional. Relationships that are well established will make it easier for the team to achieve common goals (Lam, *et al.*, nd) .

In research conducted by Vikash, *et al.*, in 2012, it was proven that the human factor is the most important success factor for the development team. There is sufficient evidence from previous research in software team psychology to suggest that the human factor has a direct influence on the success of software development. (Lalsing, *et al.*, 2012)

To achieve a shared vision in a software development team, solid and structured teamwork is needed. Solid and structured teamwork can be formed from every individual who is committed and has consistency to achieve this vision. The following is a hypothesis based on indicators that influence individual factors on the success of software development:

H3: Individual Factors have a significant influence on the Influence of Organizational, Individual and Process Factors on the Success of *Software Development*.

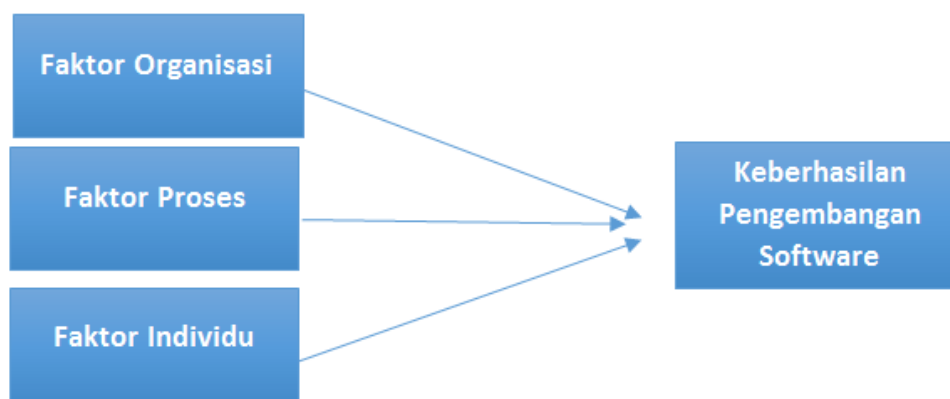


Figure 1 Research Model

RESEARCH METHODOLOGY

Research Type and Time

This type of research is included in the category of quantitative research. Where it aims to develop a mathematical model, where this research does not only use theory taken from literature or theory studies, but is also used to build hypotheses that have a connection with the phenomenon to be studied. (Salmaa, 2021) This research was conducted at PT. X which is on Jalan Manyar Indah Raya Menur Pumpungan, Sukolilo District, Surabaya City. The research time period starts from April 2022 to January 2023.

Population and Sample

The population in this study are employees of PT. X which amounted to 76 people. The sample in this study was taken from all populations, namely as many as 50 people.

Operational and Measurement Definitions

Based on the several studies mentioned above, there are independent (independent) variables used in this study, as well as dependent (dependent) variables. The following is the classification of these variables:

- Organizational factor (FO) variables with indicators of organizational commitment, organizational culture, resource management, and supervision
- Process factor variable (FP) with indicators of project scope, project planning, *software progress monitoring mechanism*, client involvement
- Individual factor variables (FI) with indicators required skills, project management competence, teamwork quality, client relations
- *Software development success factor variable (Y)* with indicators of *quality, scope, time* (Chow, T. and Cao, 2008) .

Table 1: Research Variables and Indicators

No	Variable	Indicator
1	Organizational Factors	1. Management commitment 2. Organizational culture 3. Resource management 4. Supervision
2	Process Factor	1. Project scope 2. Project planning 3. <i>Software progress monitoring mechanism</i> 4. Client engagement
3	Individual Factors	1. Required expertise 2. Project management competency 3. Team work quality 4. Relationship with clients
4	Software Development Success	1. <i>Quality</i> 2. <i>Scopes</i> 3. <i>time</i>

Analysis Method

In this study, data analysis used the Partial Least Square (PLS) approach using Smart PLS software. According to Ghazali (2006) PLS is an alternative approach that shifts from a covariance-based SEM approach to a variant-based one. SEM which is based on covariance generally tests causality/theory while PLS is more of a predictive model. Because PLS does not assume a certain distribution for parameter estimation, parametric techniques to test the significance of parameters are not needed (Chin, 1998) . Test the validity and reliability of the research instruments carried out include:

1. *Convergent Validity*. The *convergent validity* value is the factor *loading value* on the latent variable with its indicators. Expected value >0.7.
2. *Cronbach Alpha*. Reliability test is strengthened by *Cronbach Alpha*. Expected value >0.6 for all constructs.

While the test on the structural model was carried out to examine the relationship between latent constructs. There are several tests for the structural model, namely:

1. *R Square* on endogenous constructs. The *R Square value* is the coefficient of determination in the endogenous construct.

According to Chin (1998), the *R square value* is 0.67 (strong), 0.33 (moderate) and 0.19 (weak).

2. *Estimate for Path Coefficients*, is the value of the path coefficient or the magnitude of the relationship/influence of the latent construct. Done with *Bootstrapping procedure*.

RESEARCH RESULT

Characteristics of Respondents

The following is data on the characteristics of the respondents in this study, with a total of 50 participating employees.

Table 2: Gender of Respondents

Gender	Frequency	Percentage
Man	35	70%
Woman	15	30%

Source: Research Processed Data (2023)

Table 3: Age of Respondents

Age	Frequency	Percentage
20-29 years	36	72%
30-40 years	14	28%

Source: Research Processed Data (2023)

Table 4: Respondent's Last Education

Education	Frequency	Percentage
SMK	6	12%
D3	3	6%
S1	38	76%
S2	3	6%

Source: Research Processed Data (2023)

Table 1: Respondent's Working Period

Years of service	Frequency	Percentage
< 1 year	7	14%
13 years old	6	12%
36 years old	37	74%

Source: Research Processed Data (2023)

Measurement Model Testing (Outer Model)

Table 6: Testing the Measurement Model (Outer Model)

	Individual Factors	Organizational Factors	Process Factor	Success
FI1	0917			
FI2	0.895			
FI3	0.882			
FI4	0891			
FO1		0.919		
FO2		0.952		
FO3		0962		
FO4		0.949		
FP1			0.945	
FP2			0.951	
FP3			0931	
FP4			0.929	
Y1				0.895
Y2				0896
Y3				0.955

Source: Research Processed Data (2023)

The outer model is a model that specifies the relationship between latent variables and their indicators or it can be said that the outer model defines how each indicator relates to its latent variables (Ghozali, 2006) . Based on the outer model, all loading factor values are more than 0.6.

so that it meets the validity criteria. Another method to see the value of discriminant validity is to assess the validity of the construct based on the AVE value, where a good model is required if the AVE of each construct is greater than 0.5.

Table 2: Average Variance Extracted (AVE)

Variables	AVE
Individual Factors	0.803
Organizational Factors	0.894
Process Factor	0.882
Success	0.838

Source: Research Processed Data (2023)

Based on the output results, the AVE value for each construct is greater than 0.5, so it can be concluded that all constructs are good models, so

that all constructs in the estimated model meet the discriminant validity criteria.

Construct Reliability

Table 8: Construct Reliability

Variables	Cronbach's Alpha
Individual Factors	0.919
Organizational Factors	0.960
Process Factor	0.955
Success	0.903

Source: Research Processed Data (2023)

Construct reliability based on Cronbach's alpha value is good if the value is above 0.70. Based on the table above, it can be seen that all the constructs in the model are all greater than 0.70. Thus it can be said that all variables have high construct reliability, with a very strong level of reliability. So that the model in this study has fulfilled the Construct Reliability.

Goodness of fit Structural Model (Inner Model)
Model evaluation uses R-square (R²) for the dependent construct. The R-square value reflects the predictive power of the entire model (Falk & Miller, 1992; Pirouz, 2006) with the limitation that the R-square value is greater than 0.10 or greater than 10 percent (or the goodness-fit of the model). Based on data processing with PLS, the value of the coefficient of determination (R-square) is generated as follows:

Table 9: R- square value

	R Square
Success	0.928

Source: Research Processed Data (2023)

The goodness of fit in PLS can be seen from the Q² value. The Q² value has the same meaning as the coefficient of determination (R - square / R²) in the regression analysis. The higher R², the model can be said to be more fit with the data. R Square value greater than 0 (zero) indicates that the model has predictive relevance, (Ghozali, 2006) . From the table it can be seen that the value of R² is =

0.928. In this research model, the R - square value generated in the overall model equation is 92.8%, this means that the structural model has a very high predictive relevance, the model is getting better and more feasible to use in predictions.

Hypothesis Test

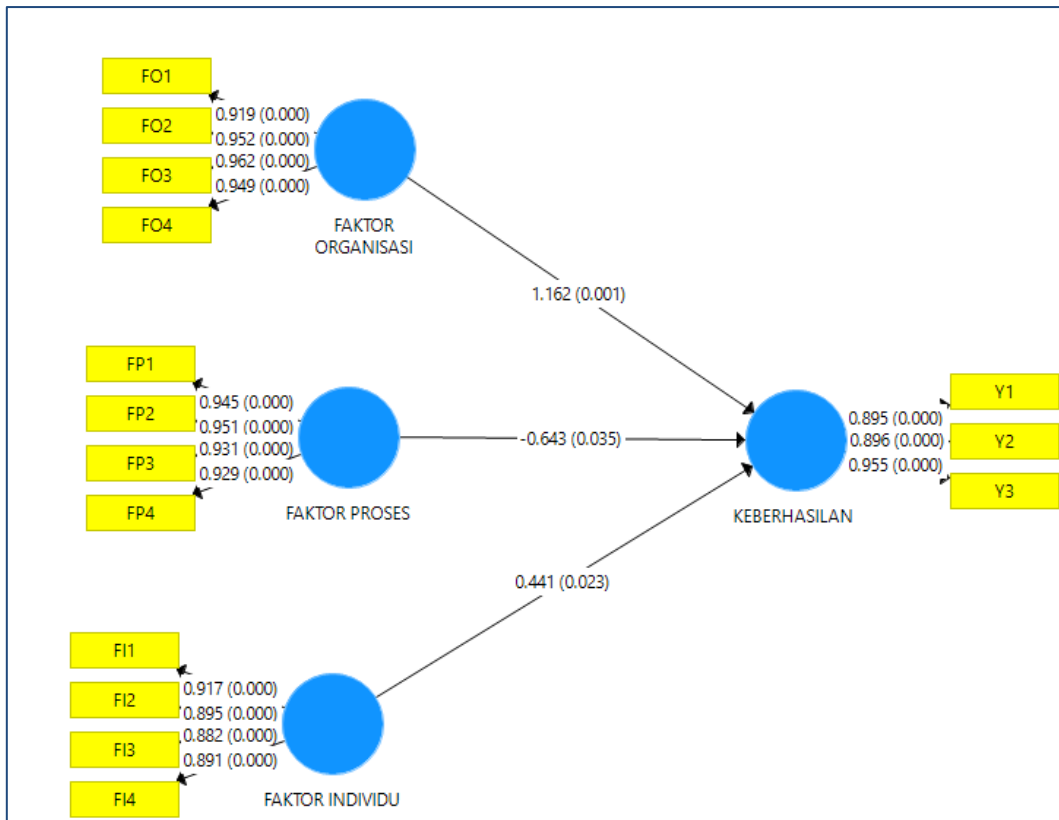


Figure 2 Overall Bootstrapping Model

The Influence of Organizational Factors on the Success of the System

The inner model estimation results for the direct influence of organizational factors on the success of the system shows a path coefficient value of 1.162 with a P value smaller than $\alpha = 5\%$, this shows that the direct influence of organizational factors on system success is significant. The resulting influence is positive, which means that the better the organizational factors, the success will also increase. Thus the hypothesis is accepted.

Effect of Process Factors on the Success of the System

The estimation results of the inner model for the direct effect of process factors on the success of the system show a path coefficient value of -0.643 (negative) with a P value smaller than $\alpha = 5\%$, this

shows that the direct effect of process factors on system success is negative, meaning complexity in space The scope on the system that the client wants can have a negative impact on the success of the system. Thus the hypothesis is accepted.

The Influence of Individual Factors on the Success of the System

The estimation results of the inner model for the direct influence of individual factors on the success of the system show a path coefficient value of 0.441 with a P value smaller than $\alpha = 5\%$, this shows that the direct influence of individual factors on the success of the system is significantly positive. This means that the better the individual factors in this case including competence and experience, the better the success of the system. Thus the hypothesis is accepted.

Table 10: Summary of Hypothesis Testing Results

	Original Sample (O)	Sample Means (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Individual Factors → Success	0.441	0.434	0.194	2,276	0.023
Organizational Factors → Success	1.162	1.165	0.336	3,461	0.001
Process Factors → Success	-0.643	-0.640	0.304	2.113	0.035

p value < 0.05: significant and accept the proposed hypothesis.

DISCUSSION

The Influence of Organizational Factors on Software Success

Factors such as organizational structure and organizational culture have a great influence on organizational effectiveness. Organizational factors can influence how an organization determines and achieves its goals. Organizational factors are one of the influential variables in project management. (Lavallée & Robillard, 2015)

Based on research conducted by Hareton, he found the fact that organizational culture is important in implementing project management. Found the identification of the relationship between organizational culture and professional culture of Information Technology. From this research it can also be concluded that the most important investment in Information Technology companies is human resources. Where human resources can be a determinant of the quality of the product that will be produced by the company. It was also stated that support from top management is an indicator that influences the organizational framework. Managers must adjust in planning, organizing, leading, and controlling work for the sake of balance and achieving goals in the organization which includes success in product development, namely the company's software. (Leung, 2001)

In direct proportion to the results of the first hypothesis in this study proves that Organizational Factors have a significant positive influence on the success of software development. From the results that have been obtained to prove that there is a positive influence of Organizational Factors on the success of the software, the hypothesis is accepted. It has a significant effect because the stronger the management commitment, the more cooperative and adaptive the organizational culture, and the better the management of resources by the company to maximize the resources it has, the more it will have a positive effect on the success of software development.

This is supported by analysis conducted from interviews with several key employees involved in the software development process, the development team received support from the company to achieve success in project management using agile project management, such as providing several special rooms for daily meetings which are the core of supervising the progress of software development, conducting training to continue to develop the skills possessed

by employees, being open to input provided by employees and continuing to evaluate the management patterns that have been implemented. Through these things, the success of software development can meet the expectations and needs of users according to the agreement that has been made.

Effect of Process Factors on Software Success

In research conducted by Kondo in 2016, it has been analyzed that many previous researchers have used process factors as a measure of software development success. It has also been proven that process factors have a significant positive effect on the success of software development. (Litchmore, 2016)

The Agile management method is a unique management process that allows for fast small incremental deployments. The fast, small and incremental distribution process allows customers to see fast results and update requirements to suit their needs. Agile management methods enforce iteratively by means of which customers can interact with the development team quickly and easily – with each company's terms of interaction requirements. (Inayat, *et al.*, 2015) This makes it easier for the development team to understand customer needs, so that the software development process can run more effectively and increase customer satisfaction.

In direct proportion to the results of this study, which proved that process factors influence the success of software development. But in this study distinguished by the direct influence of process factors on the success of software development is negative. Where the level of complexity of the software development process will negatively affect the success of software development. This means that the higher the level of complexity in the development process-the increasingly complex scope and planning of software, as well as the client's involvement that is too intense- the lower the success rate of software development. Based on the researcher's analysis obtained from interviews conducted with several development teams, this is because many individuals in the development team are still adapting to the agile management method that has just been implemented for about 2 years. Where agile allows changes in requirements to occur when the development process has been carried out-with the applicable provisions. These changes are possible if various conditions occur, one of which often occurs is miscommunication between the user and

the development team. That is, there is a misinterpretation between the understanding of the development team and the needs conveyed by the customer. It can also happen if the customer's team carries out a restructuring, where there is a change in the customer who is responsible for the project. This condition often occurs due to the understanding of different needs between old and new customers who have been restructured. Therefore the complexity of the process factors will negatively affect the success of software development.

Influence of Individual Factors on Software Success

In order to maximize the software development process, quality performance and cooperation from a good team are needed. This can be achieved if each individual in the team can contribute fully, and is supported by the expertise they have. In research conducted by Vikash, *et al.*, in 2012 it was stated that there are several factors that can affect the performance of team members in a software development team. Some of them are the skills or expertise of team members, team collaboration, project management behavior / competencies, and others. (Lalsing, *et al.*, 2012)

If a software development team has a team with quality performance and good coordination, with each individual having the appropriate expertise and being led by competent leaders and managers, then this can make the software development process run smoothly and produce the appropriate results. user expectations based on prior agreements.

This study proves that individual factors have a significant positive influence on the success of software development, so it can be stated that the second hypothesis is accepted. The better the expertise possessed by each individual, the better the quality and coordination of the team, the more competent the manager on the team, and the better the relationship with clients/users, the higher the success rate in software development. From the results of the analysis based on interviews conducted by researchers with several employees on the software development team, the good quality of team performance is supported by managers who are competent in solving problems, managing their teams, and continuing to communicate reciprocally with users/clients. According to the researcher's analysis, the good quality of the team is also supported by a team dominated by relatively young employees where

employees still have the will to continuously develop their skills, also supported by training provided by the company. Based on these several things, it has an impact on team coordination which continues to improve and increases success in software development.

CONCLUSION

The results of this study indicate that the three factors have an influence on the success of software development. These three factors are Organizational Factors, Process Factors, and Individual Factors. Organizational Factors and Individual Factors have a significant positive effect, which means that the better the Organizational Factors and Individual Factors, the higher the success rate of software development. While Process Factors have a negative effect on the success of software development, where the higher the level of complexity in the Process Factors, the lower the success rate of software development. From the results of this study it can be concluded that the management method used is quite suitable for the company, because all of the three factors have an influence on the success of software development.

However, what needs to be considered is the need for skills and experience that must be continuously honed by employees involved in software development and the need for employees to understand the management methods used on existing projects in the company, so that it is hoped that Process Factors that have a negative effect can gradually become a positive influence on software development success. This will improve the success rate of software development in the company.

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