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ENHANCED PERFORMANCE ON SOFTWARE DEVELOPMENT PROJECT THROUGH PROJECT PLANNING, TECHNICAL FACTORS, TEAM CAPABILITY, AND PROJECT SCOPE (CASE STUDY: IT AND PRODUCT DEVELOPMENT DIVISION AT PT. X)

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Abstract: The research was conducted in a company who engaged in the Fintech field which is inseparable from project management activities. On its implementation there is a project completion time that exceed the specified schedule due to the limited number of human resources and also those bugs in the application generated in the project being run. This research has purposes to revealed the amount of impact from project planning to technical factors, team capabilities and project scopes also to find out the amount of impact which caused by technical factors, team capabilities and project scopes towards the performance of software development project. These research data were obtained through questionnaires that involving 63 respondents. The data analysis technique used PLS-SEM. The results from this research found that project planning had a positive and significant affect on technical factors by 60.1%, team capability by 45.5% while project scope by 57.3%. Technical factors, team capability and project scope had a positive and significant affect towards the performance of software development projects with each amount of influence, namely 39.3%, 25.6% and 31%, respectively.

Keywords: Fintech, Project Performance, PLS-SEM, Software Development Project.

INTRODUCTION

PT X is one of startup company that engaged in financial technology (fintech) which offered various applications for easy payments and communication between customers and sellers. In performed its operational activities, PT X is inseparable from the project management activities. In order to continue to survive in the fintech field and become a company that provides solutions for every electronic payment in Indonesia, PT X has a commitment to continue to improve its latest technology and features which relevant to this now and would be able to meet the demands of every customer/client as well as stakeholders who patnered with PT X. The company need to have an effective project management performance and ensure project success,

In order to produce quality products or software, because the higher the quality of software or the products earned the higher performance of product or software will be and it will have an impact on customer satisfaction (Kottler, 1999). During 2017 until 2020, PT X has a total of 29 ongoing projects. However, from all these existing projects, there are lots of interference/defects which resulting from all software development projects that have been carried out by PT X as much as 55% from the total tasks which have been done and 45% still have not been completed were left in the backlog or work queues. There was a delay in the completion of the application development project (software) that carried out by PT X as evidenced by the total backlog that was completed only by 87.27% fro the total existing projects. This indicates the decrease in project performance because the bugs which earned in each project was indicate the quality of the software produced by the project team that is not good enough, so the function of the software produced would not 100% based on requests or requirements from the users or clients. With the increase in bugs/defects, it will also directly causes to the delays in the delivery to production process. Companies were often get issues in terms of project performance because of its completion time which exceed the planned time when using PERT it is often not according to its actual conditions. The design and planning of the project schedule that only takes 2 weeks, causing the software not prime. An ineffective planning process will result in time delays, cost overruns and owner dissatisfaction (Wang, Y., 2010). This likely have a negative impact on the company's performance, including worsening the image of the company which seems unable to complete the project according to the agreed timeline. Delays can be anticipated when the project plan can be implemented effectively (DA Larasati, 2020). The number of overloaded projects does not match to the number of available employees (HR), causing the employees have to work overtime with an average rate of 181.7 hours or 57.35% for the entire project. Beside that, the company will incur more operational costs with inaccurate project completion times. Some of other impacts which occur are the increasing technical debt, the gap between products and projects which getting bigger. According to the identification of these problems, it is necessary to analyze the factors which have impact to the performance of software development projects at PT X by the project performance dimensions, namely in terms of cost, time and quality (M Jørgensen, 2019) that could be reveal from project planning factors, technical factors, project team performance and project scopes (Shandy, 2019), Thus it can be seen from the amount of influence from each of these factors on the performance of software development projects at PT X.

LITERATURE REVIEW

Financial Technology (FinTech)

According to Dorfleitner, Hornuf, Schmitt & Weber (2017), Financial Technology (FinTech) is rapid and dynamic industry where there are many different business models. Meanwhile, according to Hsueh (2017), Financial Technology, were also referred as an FinTech,that is a new financial service model which developed through information technology innovation.

The Performance of Software Development Project

Software is an physical abstraction that allows us to talk to hardware machines (Langer, 2008). Without software, the hardware that has been created will not be useful or function optimally. To produce quality software, in its development it is necessary to have project management that following the SDLC (Software Development Life Cycle) pattern. The Standish Group International (2013) argues, the project success usually refers to the extent to which the project team can complete the system efficiently and effectively, where it is includes achieving the project purposes, cost-effectively and according to its initially schedule. Previous research could be identified by several factors which have impact to the performance of information systems projects, namely top management support, a detailed and clear project plan, precisely defining project requirements, good communication with clients and stakeholders, including the ability from the project team to handle the problems and changes that occur. unexpectedly (Anantatmula, 2015).

Project Management

Project management according to PMBOK (2000) is the application of knowledge, skills, tools and techniques in project activities to meet the project needs. Through processes stages such as: initiating, planning, executing, controlling and closing. Usually involves: scope, time, cost, risk and quality. Management of a project is an function of project management, one of the most important parts in working on an information system project to make decisions needed in planning, organizing and controlling projects. As well as using the right techniques and applications (tools) that are used consistently and could increase the success of project development (Milosevic & Patanakul, 2005).

Project Planning

According to Chatzoglou & Macaulay (1996), planning means revealing what work is could done, who will complete it and when it will be done. Specifically, project planning that involves an estimating the effort, time, cost and resources required to carry out the project. Without good planning, the effective project implementation may be impossible without considering the variation of planning factors, the failure of the project may be imminent (Ubani et al., 2010).

Project Team Capabilities

An element which is no less important in one of project is the project implementer or project execution team, the success of a project were also depends on the team that carrying out the project, when the team who perform the project did not have ability to match the project, then the project would find it hard such as a late project or the quality of the result project that did not meet the expectations from the project owner. Belout & Gauvreau (2004) argues that the other previous research have been proved if the communication between team members is one of the

significant supporting factors to lead the success of a project. Project teams that have the required skills and abilities greatly affect the team performance (White & Leifer, 1986).

Project's Technical Factors

In running a software development project, a company need to use technology. Technology includes all the tools that used by HR in developing the software. If one of these dimensions did not have a good proportion then the project is likely to experience issues such as project delays or increased costs beyond the initial allocation. One of the technical factors in a software development project is the software development method that used in a project (M Jørgensen, 2019). The software development methods that widely used are the Waterfall and Agile methods.

Project Scope

Project scope includes all the processes involved in defining and regulating what is or what is not included in the project (Schwalbe, 2004). Based on PMBOK sixth edition (2017), Project scope is the work done to deliver a product, service, or result with specified features and functions. The term of "project scope" is sometimes seen as including product scope. Project Scope Management are the necessary processes to ensure that the project includes all the work required and only the work required, to complete the project successfully. Managing project scope is primarily concerned by defining and controlling which what and not included in the project.

Conceptual Framework

The conceptual framework model that describes this research problem could be define as follows:

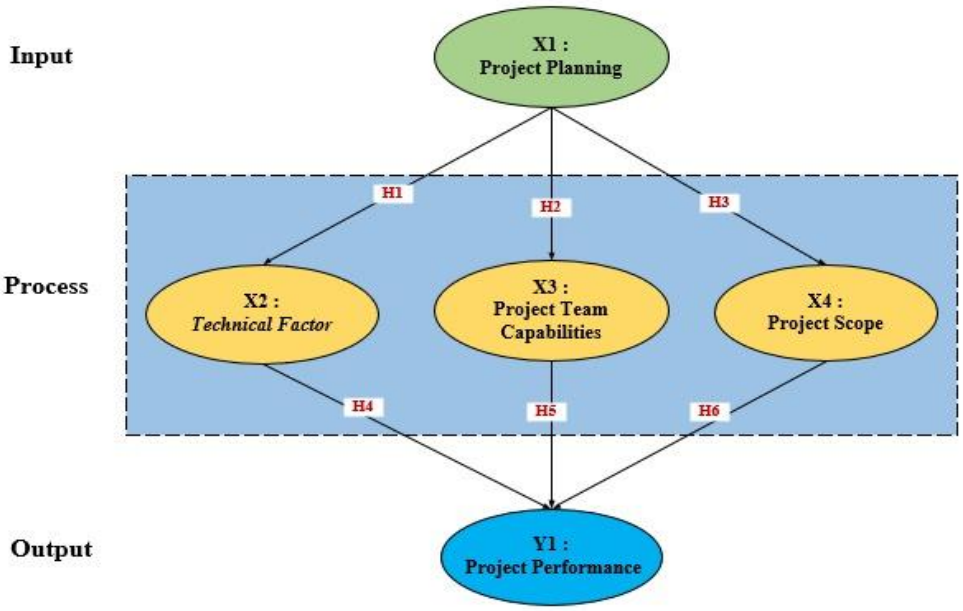

Figure 1. Conceptual Framework

According to the problem formulation and conceptual framework above, the hypothesis in this research could be defined as follows:

H1: Project planning affects the technical project (technical factor)

H2: Project planning affects the project team capabilities.

H3: Project planning affects the project scope (project scope)

H4: Technical factors affect the performance of software development projects at PT X in terms of (a) Quality, (b) Timeliness and (c) Cost.

H5: The project team's capability affects the performance of software development projects at PT X in terms of (a) Quality, (b) Timeliness and (c) Cost.

H6: Project scope affects the performance of software development projects at PT X in terms of (a) Quality, (b) Timeliness and (c) Cost.

RESEARCH METHODS

This research will describe the causal correlation between the variables through hypothesis test, namely the hypothesis test which according to the theory that has been formulated previously then the data obtained will calculated with quantitative method (Sugiyono, 2011). The research object was the employees of PT X with a total population that will be examined which is whole employees of the Company who are part of the IT & Product Development division. The sampling technique used was non-probability sampling - purposive sampling or judgmental sampling and obtained a total sample of 63 employees to fill out the research questionnaires. The analytical technique used in this research was PLS-SEM analysis method through the SmartPLS version 3.3 software.

FINDINGS AND DISUCUSSION

Descriptive Statistics

According to the results of the variable description, it shows that the project planning variable (X1) on the X1.2.4 indicator has the highest mean value of 4.46 or it could be said that 89.2% of respondents agree that making a complete and detailed planning document is an important on the planning stage in developing software project. Technical Factor variable (X2) in the X2.2.3 indicator has the highest mean value of 4.27 or in other word that 85.40% from respondents were agreed if the frequent design changes would have an impact to the technical factors of software development projects. The project team capability variable (X3) on the X3.1.2 indicator has the highest mean value of 4.44 or in other word stated if the 88.89% of respondents were agreed that the project team ability to solve problems (problem solving) has a huge impact to the project team capability. The Project Scope Variable (X4) in the X4.2.5 indicator has the highest mean value of 4.27 or it said that 85.40% of respondents were agreed if the unclear project scope could be reason in the changes of work scope during its implementation period. The Project Performance Variable (Y) on the Y1.2.3 indicator has the highest mean value of 4.10 or could be said that 81.90% of respondents were agreed that the procurement of

resources which is based on the initial project plan will determines the performance of software development projects (software).

Outer Model Evaluation

The outer model evaluation has purposes to view the value of validity and reliability of a model. The measurement validity test consists of convergent validity and discriminant validity. Convergent Validity could be measuring the validity of reflexive indicators as a measure of variables that could be seen from the outer loading of each variable indicator. The Measurements could be categorized as having convergent validity if the loading factor value > 0.7 and the AVE value > 0.5 (Jogiyanto, 2009). And it could be categorized as having discriminant validity if it has a cross loading value of 0.7 (Jogiyanto, 2009).

Table 1. Convergent validity before revision

	X1	X2	X3	X4	Y1
Indicator	Project Planning	Technical Factors	Project Teams capabilities	Project Scope	Project Performance
X1.1.1	0.726				
X1.1.2	0.781				
X1.1.3	0.395				
X1.1.4	0.760				
X1.1.5	0.734				
X1.1.6	0.601				
X1.2.1	0.711				
X1.2.2	0.784				
X1.2.3	0.734				
X1.2.4	0.749				
X1.2.5	0.556				
X1.2.6	0.560				
X2.1.1		0.724			
X2.1.2		0.559			
X2.1.3		0.748			
X2.1.4		0.561			
X2.1.5		0.745			
X2.2.1		0.759			
X2.2.2		0.800			
X2.2.3		0.412			
X2.2.4		0.645			
X2.2.5		0.734			
X3.1.1			0.591		
X3.1.2			0.755		
X3.1.3			0.774		
X3.1.4			0.559		
X3.1.5			0.803		
X3.1.6			0.559		

	X1	X2	X3	X4	Y1
Indicator	Project Planning	Technical Factors	Project Teams capabilities	Project Scope	Project Performance
X3.2.1			0.784		
X3.2.2			0.748		
X3.2.3			0.736		
X3.2.4			0.597		
X3.2.5			0.530		
X3.2.6			0.417		
X4.1.1				0.758	
X4.1.2				0.774	
X4.1.3				0.620	
X4.1.4				0.583	
X4.1.5				0.598	
X4.2.1				0.692	
X4.2.2				0.685	
X4.2.3				0.747	
X4.2.4				0.781	
X4.2.5				0.773	
Y1.1.1					0.738
Y1.1.2					0.767
Y1.1.3					0.730
Y1.1.4					0.297
Y1.1.5					0.406
Y1.2.1					0.766
Y1.2.2					0.762
Y1.2.3					0.367
Y1.2.4					0.744
Y1.3.1					0.505
Y1.3.2					0.756
Y1.3.3					0.796

From the total of 56 indicators in this research, there are 23 indicators which have an outer loading value of less than 0.7. After deleting the invalid variable indicators in the model, then its re-calculated so it produces a new outer loading value which could be seen like in table 2 below:

Table 2. Convergent validity after revision

Indicator	X1 Project Planning	X2 Technical Factors	X3 Project Teams capabilities	X4 Project Scope	Y1 Project Performance
X1.1.1	0.740				
X1.1.2	0.806				
X1.1.4	0.793				
X1.1.5	0.750				
X1.2.1	0.741				
X1.2.2	0.827				
X1.2.3	0.778				
X1.2.4	0.759				
X2.1.1		0.722			
X2.1.3		0.797			
X2.1.5		0.745			
X2.2.1		0.803			
X2.2.2		0.816			
X2.2.5		0.717			
X3.1.2			0.764		
X3.1.3			0.828		
X3.1.5			0.803		
X3.2.1			0.823		
X3.2.2			0.763		
X3.2.3			0.802		

Indicator	X1 Project Planning	X2 Technical Factors	X3 Project Teams capabilities	X4 Project Scope	Y1 Project Performance
X4.1.1				0.800	
X4.1.2				0.801	
X4.2.3				0.821	
X4.2.4				0.865	
X4.2.5				0.762	
Y1.1.1					0.768
Y1.1.2					0.798
Y1.1.3					0.733
Y1.2.1					0.774
Y1.2.2					0.787
Y1.2.4					0.743
Y1.3.2					0.786
Y1.3.3					0.853

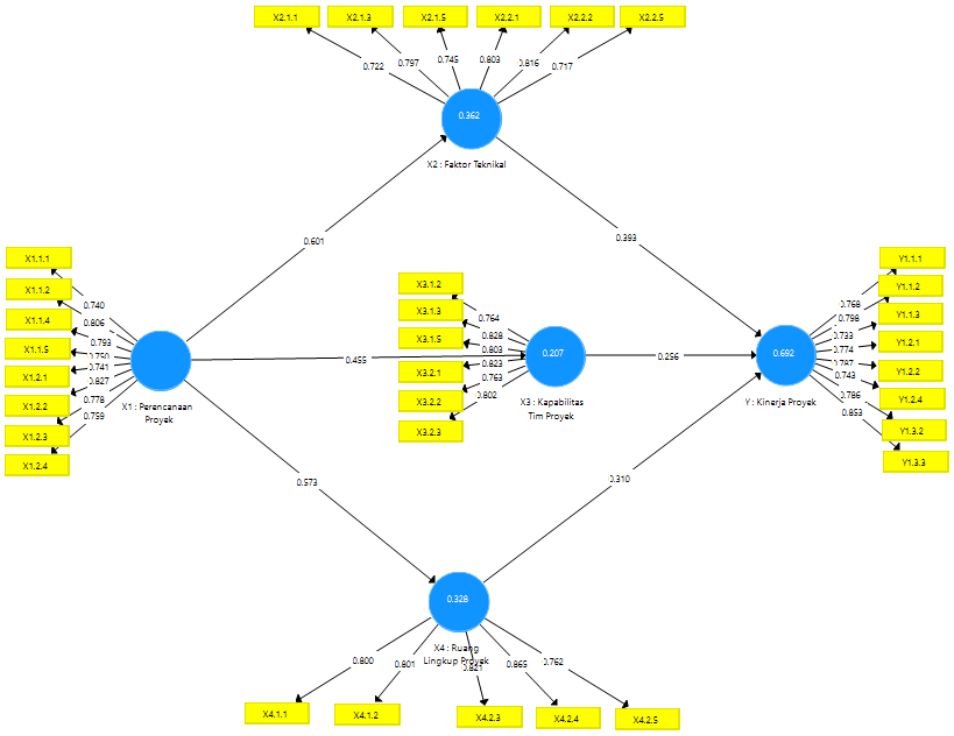

Figure 2. Final path diagram based on factor loading

A measurement could be categorized as having discriminant validity if it has a cross loading value of 0.7 (Jogiyanto, 2009).

Table 3. Cross loading value

Indicators	X1 Project Planning	X2 Technical Factors	X3 Project Teams capabilities	X4 Project Scope	Y Project Performance
X1.1.1	**0.740**	0.461	0.439	0.407	0.460
X1.1.2	**0.806**	0.521	0.389	0.496	0.445
X1.1.4	**0.793**	0.436	0.409	0.417	0.487
X1.1.5	**0.750**	0.423	0.306	0.375	0.445
X1.2.1	**0.741**	0.233	0.299	0.485	0.381
X1.2.2	**0.827**	0.585	0.368	0.567	0.592
X1.2.3	**0.778**	0.417	0.312	0.405	0.456
X1.2.4	**0.759**	0.576	0.280	0.374	0.477
X2.1.1	0.423	**0.722**	0.413	0.485	0.487
X2.1.3	0.484	**0.797**	0.463	0.423	0.554
X2.1.5	0.475	**0.745**	0.435	0.599	0.557
X2.2.1	0.539	**0.803**	0.476	0.476	0.585
X2.2.2	0.402	**0.816**	0.436	0.540	0.636
X2.2.5	0.438	**0.717**	0.328	0.399	0.540
X3.1.2	0.358	0.488	**0.764**	0.524	0.516
X3.1.3	0.408	0.423	**0.828**	0.583	0.518
X3.1.5	0.462	0.535	**0.803**	0.638	0.609
X3.2.1	0.386	0.502	**0.823**	0.506	0.619
X3.2.2	0.152	0.268	**0.763**	0.460	0.481
X3.2.3	0.344	0.380	**0.802**	0.606	0.530

Indicators	X1 Project Planning	X2 Technical Factors	X3 Project Teams capabilities	X4 Project Scope	Y Project Performance
X4.1.1	0.507	0.538	0.555	**0.800**	0.617
X4.1.2	0.489	0.628	0.588	**0.801**	0.654
X4.2.3	0.394	0.503	0.585	**0.821**	0.659
X4.2.4	0.534	0.508	0.598	**0.865**	0.612
X4.2.5	0.366	0.338	0.485	**0.762**	0.385
Y1.1.1	0.449	0.518	0.557	0.621	**0.768**
Y1.1.2	0.481	0.489	0.444	0.594	**0.798**
Y1.1.3	0.529	0.536	0.444	0.482	**0.733**
Y1.2.1	0.505	0.675	0.476	0.501	**0.774**
Y1.2.2	0.487	0.634	0.614	0.518	**0.787**
Y1.2.4	0.343	0.608	0.628	0.537	**0.743**
Y1.3.2	0.521	0.525	0.487	0.644	**0.786**
Y1.3.3	0.503	0.569	0.626	0.697	**0.853**

The value of cross loading > 0.7 which ranges from 0.717 to 0.865. So it can be concluded that all indicators have met the criteria and said to be good. The Discriminant validity is also be known by looking at the average variant extracted (AVE) value for each indicator, the required value should be > 0.5 for a good model. From the table below it could be seen that all indicators used for variables were declared valid because the AVE value is above 0.5. Thus it could be stated that each variable has good discriminant validity.

Table 4. Average Variance Extracted (AVE) Value

Variable	AVE
X1: Project Planning	0.601
X2: Technical Factor	0.590
X3: Project Team Capability	0.636
X4: Project Scope	0.657
Y: Project Performance	0.610

Table 5. Composite Reliability and Cronbach's Alpha Value

Variable	Composite Reliability	Cronbach's Alpha
X1: Project Planning	0.923	0.905
X2: Technical Factor	0.896	0.860
X3: Project Team Capability	0.913	0.886
X4: Project Scope	0.905	0.870
Y: Project Performance	0.926	0.908

A latent variable can be said to have good reliability if the composite reliability value is

greater than 0.7 (Sarwono & Narimawati 2015). A variable can be declared reliable or fulfills cronbach's alpha if it has a cronbach alpha value > 0.7 (Sarwono & Narimawati 2015). Based on table 5 above, the composite reliability and Cronbach's alpha values have been obtained for all values > 0.7 so that it can be stated that each indicator of each variable is declared reliable, accurate, consistent, and appropriate for measuring variables.

Inner Model Evaluation

The Evaluation from the Coefficient of Determination (R^2) used to show the amount of impact or influence from the independent variable to dependent variable. The R-Square value in the model could be seen from table 4.10 below.

Table 6. R-Square Value

Variable	R Square
Y: Project Performance	**0.692**

In the Project Performance response variable (Y), the R-Square value was 0.692. In the goodness of fit assessment, it could be viewed through the value of Q^2. The value of Q^2 has the same meaning as the coefficient of determination (R-Square) in regression analysis, where the higher the R-Square, the more fit the model can be with the data. The estimation from the value of Q^2 as follows (Hair et al., 2011):

$Q^2 = 1 – (1 – R^2)$

$Q^2 = 1 - (1-0.692^2) = 1 – 0.306$

$= 0.692$

The estimation result from the Q^2 value was 0.692, which means that the diversity of the research data could be explained through the structural model which developed in this research, that is 69.2%. According to these results, the structural model from this research has an excellent goodness of fit.

Hypothesis Test

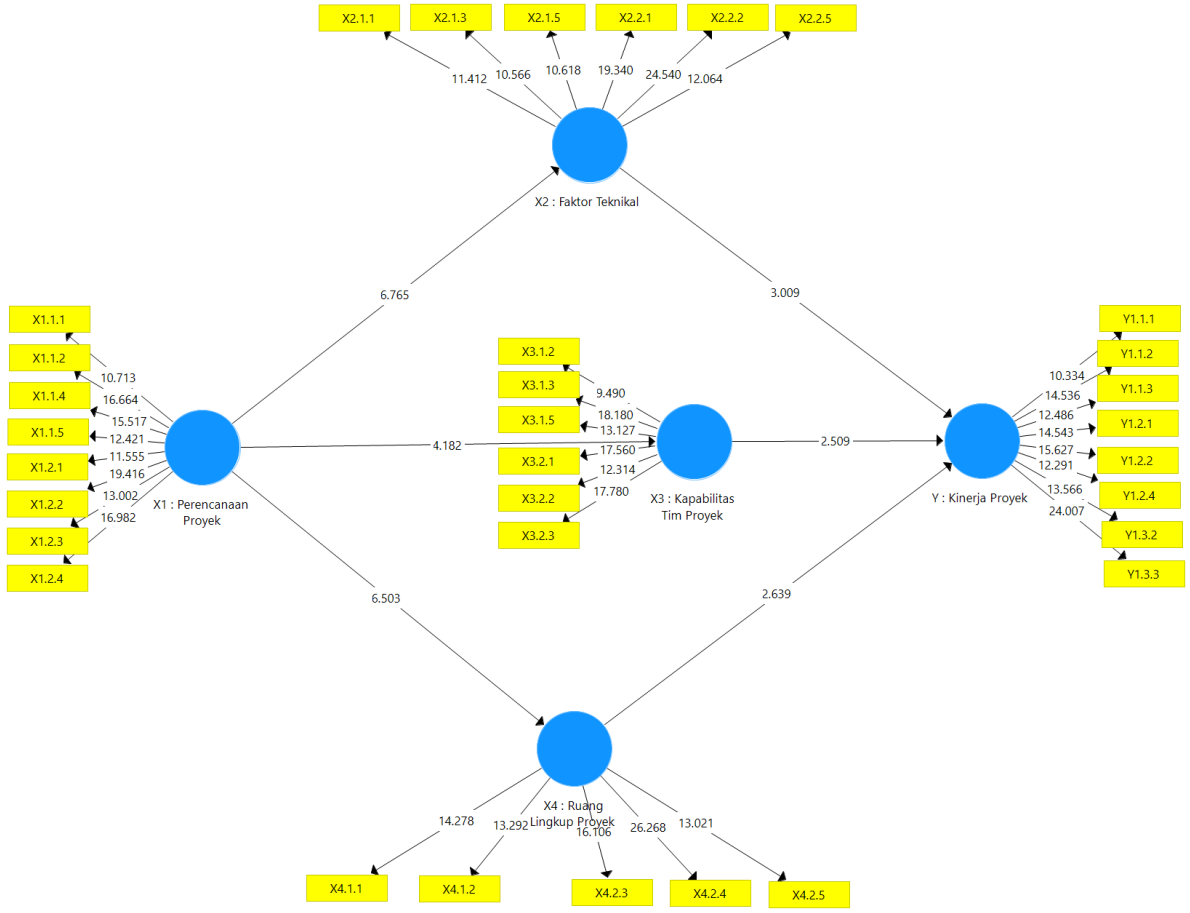

Figure 2. Path diagram from bootstrapping results

Table 7. Hypothesis test results

Hypothesis	Path	Path Coefficient	T Statistics	Information	Conclusion
H1	X1: Project Planning -> X2: Technical Factor	0.601	6.765	Has a positive and significant effect	Hypothesis Accepted
H2	X1: Project Planning -> X3: Project Team Capability	0.455	4.182	Has a positive and significant effect	Hypothesis Accepted
H3	X1: Project Planning -> X4: Project Scope	0.573	6.503	Has a positive and significant effect	Hypothesis Accepted
H4	X2: Technical Factor -> Y: Project Performance	0.393	3.009	Has a positive and significant effect	Hypothesis Accepted
H5	X3: Project Team Capability -> Y: Project Performance	0.256	2.509	Has a positive and significant effect	Hypothesis Accepted
H6	X4 : Project Scope -> Y: Project Performance	0.310	2.639	Has a positive and significant effect	Hypothesis Accepted

The affect of project planning on technical factors

To reach a good project performance, the project team should be more attentive to the technical factors which consisting of tools and methods which applied in the project particularly in the planning stuff, so in this research, the hypothesis test was performed in order to reveal the amount of impact which occurs from project planning to technical factors. After done with test

then it was found that project planning had a positive and significant affect to Technical Factors. The coefficient value shows the direct effect meaning that the other variables are constant, the technical factor (X2) was influenced by project planning (X1) by 60.1%.

This illustrates that the better the project planning, the better or increase the value of technical factors will be and conversely if the Project Planning is getting lower then the Technical Factors will be lower or decreased aswell. This in line to the research which conducted by Nguyen, QM (2006) which suggests that in preparing project planning, technical factors had a insignificant influence.

The affect of project planning on project team capability

When you planning a project, it is necessary to consider the capacities or capabilities from the entire project team involved, because the project team is the one who knows the actual situation which occurs in the field when creating a software. Planning to gain lots of profits and good planning are the keys to success, so through this research, the hypothesis test was conducted to reveal the amount of impact which cause by project planning to the project team capability. After done with test, so it was found that project planning had a positive and significant affect on the Project Team Capability. The coefficient value shows a direct effect, which is, if the other variables are constant, then the project team capability (X3) was determined by project planning (X1) of 45.5%. This means that the higher the Project Planning value, the higher the Project Team Capability would be. In the other hand, if the value of the Project Planning is lower, the Project Team Capability will be lower or decreased aswell. These results are in line with research by Abadiyah (2013) which states that there is a positive correlation between planning and project team performance.

The affect from project planning to project scope

In the project planning stage, it is also necessary to identify the boundaries of the project scope in order to obtaining steady and excellent work guidelines, because the projects which have a good guidelines will make it process would be more focused and structured. In this research, the hypothesis test was conducted to determine the magnitude of the effect of project planning on the Project Team Capability. After done with test, it was found that project planning had a positive and significant impact on the Project Team Capability. The coefficient value shows a direct effect namely if the other variables are constants, therefore the project scope (X4) was affected by project planning (X1) of 57.3%. Which means that the higher the Project Planning value, the higher the Project Scope value will be. And conversely if the value of the Project Planning is lower, then the value of the Project Scope will be lower or decreasing aswell. This is in line with the research from Alias (2014) which stated that good project planning should be provide clear guidelines to sharpen the strategies for integrating those project fundamentals as a whole.

The impact of technical factors towards the performance of software development projects (software)

In the actual conditions of working on software development projects (software) technical factors are one of the keys in determining project performance, technical factors play an important role in influencing the project, especially during the software design process, during this process the project team should be able to describe the entire software structure which implemented, the data model and structure used by the system, the interface between the system components and the algorithm used to facilitate project work so the good project performance would be obtained. Based on the hypothesis test conducted, it was found that technical factors had a positive and significant impact on project performance which measured in terms of time, cost and quality. The coefficient value shows a direct effect namely, if the other variables are constant, then the Project Performance (Y) is influenced by technical factors (X2) of 39.3%.

This explains that the higher the value of the Technical Factor, the higher the Project Performance will be. Conversely if the value of Technical Factors is lower, then the Project Performance will be lower or decreased. These results are in line with research by M.Jørgensen (2019) which stated that technical factors which have an impact towards the software development projects.

The affect of project team capability on software development project performance (software)

The project team capability to solve problems (problem solving) in actual conditions will also has an impact towards project performance. The Project Manager or Project leader needs to ensure that the entire project team really understands the roles and responsibilities of their respective jobs, so there will be no mistakes in doing the work. According to the hypothesis test which conducted previously, it was found that the Project Team Capability has a positive and significant impact on Project Performance as its measured in terms of time, cost and quality. The coefficient value shows a direct effect, namely, if the other variables are constant, then the Project Performance (Y) was influenced by the project team capability (X3) of 25.6%. This explains that the higher the value of the Project Team Capability the higher Project Performance will be. In the other hand, if the value of the Project Team Capability is lower then the Project Performance will be lower or decreased. This is in line with research conducted by Wallace & Keil (2004) which defined that the project team capability is one who has affects towards the project performance.

The affect from project scope to the performance of software development projects (software)

In running the project, it is necessary to pay attention to the scope of the project that carried out so the type of project and the limitations which appears on the project that could be obtained because this will have an impact to other project factors, especially relates to the cost and time of project work. According to the hypothesis test that conducted, it was found that

Project Scope had a positive and significant impact on Project Performance which measured in terms of time, cost and quality. The coefficient value shows direct effect, namely if the other variables are constant then the Project Performance (Y) was influenced by the project scope (X4) of 31.0%. This will explains that the higher the value of the Project Scope, the higher the Project Performance will be. Conversely if the value of the Project Scope is lower, then the Project Performance will be lower or decreased. This is in line with the guidelines for carrying out the project in PMBOK 2013 which stated that a good planning process should be included a clear scope.

CONCLUSION AND RECOMMENDATION

Project planning had a positive and significant impact on technical factors, team capability and project scope. This explains that the higher the value of project planning, so the value of Technical Factors, Team Capability and project scope will also be higher or increase and conversely so if the value of project planning is in lower, then the space for Technical Factors, Team Capability and project scope will be lower or decreased. Technical factors had a positive and significant impact on project performance in terms of time, cost and quality by 39.3%. This explains that the higher the technical factor value, the higher the value of project performance or increase and conversely if the value of technical factor is lower, so likewise with the project performance. The project team capability had a positive and significant impact on project performance in terms of time, cost and quality by 25.6%. This explains that the higher the value of the project team capability, the higher the project performance will be and conversely if the value of the project team capability is lower, then the project performance will be lower or decreased aswell. Project Scope had a positive and significant impact on project performance in terms of time, cost and quality by 31.0%. This explains that the higher the value of the project scope, then the higher of the project performance would be or increase and conversely if the value of the project scope is lower, then the project performance will be lower or decreased.

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