International Journal of Economics, Commerce and Management
United Kingdom ISSN 2348 0386 Vol. VII, Issue 7, July 2019

http://ijecm.co.uk/

SUCCESS RATE ANALYSIS OF ONLINE TEST IMPLEMENTATION WITH HOT-FIT MODEL APPROACH TOWARD TIME EFFICIENCY OF EMPLOYEE SELECTION PROCESS

Utami Pratiwi, SKom., MMSI.
Department of Accounting Information System,
School of Management Information System, Gunadarma University, Indonesia
tamibiran@gmail.com

Untara, SE., MM.
Department of Accounting Information System,
School of Management Information System, Gunadarma University, Indonesia
untoro@staff.gunadarma.ac.id

Abstract

The use of technology in employee recruitment process has become the reason of e-recruitment implementation. With e-recruitment, the company have the ability to find more relevant applicant more than 1000 applicant in short period of time. Hopefully, online test implementation can be the answer for time efficiency of employee recruitment process. On its role, online test is an additional process from the employee recruitment process. In employee recruitment process, online test was scheduled right before psychology test. This cause the online test become the crucial step and needed by the company to have an easy & relevant way to get potential applicant. The HOT-Fit Model can extract the weak point of online test implementation on employee recruitment process so that it can be improve and optimize. The recent research shows that there is significant influence between organizational structure and net benefit, and between information quality variable and user satisfaction. On the basis of that research and the time efficiency of employee recruitment process implementation then the

success rate of online test must be carefully watch because it can be a big consideration to add online test variable to the guideline for recruitment of employees.

Keywords: System Implementation, HOT-FIT Model, Online Test, Success Rate Analysis, Tools SmartPLS

INTRODUCTION

The First step to get human resource in some company is recruitment and selection process. The internet has become the implementation of advance technology that can make recruitment process easier to get potential human resources for the company. The use of technology is the main reason of e-recruitment implementation.

After recruitment process, the next step is selection process. In the selection process, internet is very needed to ensure the quality of recruitment implementation. Base on the data from e-recruitment on the TIC company website, the number of applicant has reach 17540 applicant within 27 days for 28 positions in the company.

The administration process will select more or less 840 applicants. To handle that number of applicant who passed the administration process, TIC Company should implement the psychology test suitable to the guideline for recruitment of employees. The psychology test can expend Rp. 250.000 for one applicant. Beside of that, it takes a lot of time because on its implementation, the psychology test can only have maximum 50 applicants in one day. This has become the main reason of Online Test application. On its role, Online test is an additional process from the guideline for employee recruitment and online test was scheduled right before psychology test.

After that to shows success rate of the online test implementation then it must be evaluated and need to be done in user point of view so that the online test can help Human Resource Department on the TIC Company in the employee recruitment. Therefore the success rate measurement of the application of Online Tests using Human, Organization, Technology (HOT) Fit models is need to be done.

With this research, the weak point of online test can be measured and it can be improved and optimized in the online test on the employee recruitment in the TIC Company so that can be a good consideration to add online test variable to the guideline for recruitment of employees.

LITERATURE REVIEW

The main reason of human resource procurement is to get the relevant number and type of human resource. Therefore human resource procurement includes applicants withdrawals, applicants selection and employment. The step of TIC Company recruitment process that has been poured out on guideline for recruitment of employees is like the picture below:

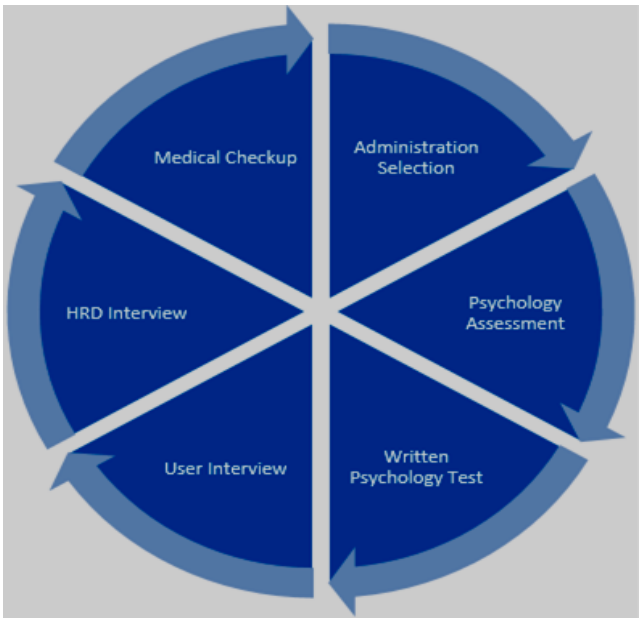

Figure 1 Employee recruitment flow chart

The presence of technology in human life means the presence of the possibility of increasing production and delivery capabilities to improve living standards in the community in order to maintain life and life. Application of Information Technology in Human Resource Management field greatly facilitates the work of Personnel Management to manage all matters related to HR.

Online Test

Online Test is the innovation, efficient and cheaper step from recruitment process which usually using paper like answer sheet and a bunch of exam paper that cost a lot for each step. In online test there are 3 steps which is:

- Perseptual and Preference Inventory Test (PAPI) Kostick: Papi Kostick used to measure psycho dynamics which carefully watch the connection between surrounding environment which includes company behavior and company values. This behavior and values is implemented in some company or work situation in simple need/motif shape and behavior

style standardization according to applicant perception which recorded in psychological test. PAPI Kostick is self report inventory which consists of 90 pair of short answer which connected with work situation. This pair of answer concerns 20 personality aspects which grouped in 7 fields consists of leadership, work direction, work activity, social nature, work style, temperament, followership.

- Academic Potential Test: Academic Potential Academic (TPA) is psychology test that can reveal someone achievements intellectually. Because of its intellectual quality, hence the value of TPA often connected to intelligence level. The real Indonesia version of TPA was came from Graduate Record Examination (GRE).
- English Proficiency Test: English Proficiency Test is English proficiency capability test to test the applicant about how good their foreign language which country where its parent language isn't English language.

Human Organization and Technology FIT Model

Yusof et al (2006) gives new framework that can be used to evaluate the information system which is called Human Organization and Technology FIT Model (HOT-Fit Model). At the beginning HOT-Fit framework was developed by merging of two frameworks. This two frameworks are IS Success Model (DeLone and McLean, 2003) and IT Organization Fit Model (Scott -Morton 1991) as framework to evaluate Health Information System (HIS). IS Success Model was used to identify dimentional factor and measurement indicator. On the other hand IT-Organization Fit Model identify the connectivity and concept suitability between human, technology and organization.

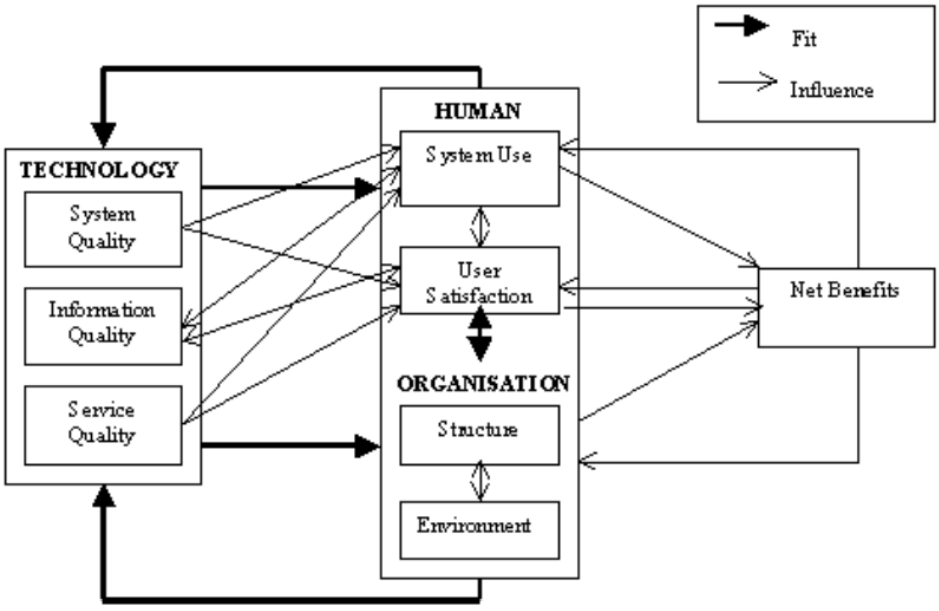

Figure 2 Human-Organizational-Technology (HOT) Fit Framework. Source: Yusof

As seen in figure 2, HOT-Fit Framework consists of several reciprocal connection. As explained by Yusof et al. (2006) as follows “Some of these relationships are two ways : System Use and User Satisfaction are direct antecedents of Net Benefits. Net Benefits subsequently affect System Use and User Satisfaction. Similarly, Organizational Structure and Environment are direct antecedents of Net Benefits. Net Benefits subsequently have impact on organizational Structure and Environment”. According to Yusof et al. (2006), the factors which build HOT-Fit framework are system quality, information quality, service quality, system usage, user satisfaction, organizational structure and net benefit.

- Human

Human Component assess information system from system usage point of view and user satisfaction.

- Organization

Organization component assess system from organizational structure and organizational environment point of view. Yusof et al. (2008), in his research confirms that the reciprocal connection between organization and net benefits which is obtained from the system.

- Technology

Technology component assess information system from the quality system, information system and service quality point of view.

SmartPLS (Partial Least Square)

SmartPLS is an software application for path modelling with Latent Variable Partial. Apart from SmartPLS, Statistical for the Social Sciences (SPSS) also an application for data processing that often to be used. In SPSS, path analysis can be analyzed gradually with linear regression. While in SmartPLS path analysis can be done in one test because of its capability to analyze graphical path at once. PLS is a powerful analysis method and often to be called as a soft modelling because of its capability to nullify Ordinary Least Squares (OLS) regression assumptions. such data must be normally distributed multivariate and there is no multicolonity problem between exogenous variables (Wold 1985, dalam Ghozali 2012).

The purpose of PLS is to help researcher to get the Latent Variable value for prediction purpose. Latent Variable is aggregate linear from its indicators. Weight estimate to create Latent score component variable which obtained based on how the inner model (structural model which connect between Latent Variable) and outlier model (measurement model which is connection between indicator with its constructs) is specified. The result is minimized residual variance from independent variable (both are Latent Variable and indicator).

PLS can analyze more than one dependent variable. Generally regression equation can be written as follows:

$Y = a + b^1X^1 + b^2X^2 + b^nX^n + e$

That Regression equation shows that :

Y = dependent variable

X = independent variable

As its shown on the equation above, there is only one dependent variable and many independent variable. The big question is how to doing analysis if there's more than one dependent variable. SmartPLS path approach will gives analysis if there's more than one dependent variable.

PLS gives direct and indirect influence illustration. In multivariate analysis as well as multiple linear regression or ANOVA Multivariate (MANOVA), testing can only be done in direct methods. Those methods can only gives the analysis result about the influence of independent variable to dependent variable.

$Y = a + b^1X^1 + b^2X^2 + b^nX^n + e$

The equation above gives information about independent variable X which have influence to Y. but in theoretical testing, there is an estimation which stated that the influence of some construct/variable mediated by a mediating variable.

- PLS Work Flow

First Step produce weight estimate, second step produce estimation for inner model and outlier model, and the third step produce means estimation and location (constants)

- PLS Evaluation Model

PLS Evaluation Model evaluate outer and inner model. Outer evaluation model called as measurement evaluation model which done to evaluate model validity and model reliability. Outer model with reflexive indicator evaluated through convergent validity and discriminant for Latent formative construct indicator, and also through composite reliability and Cronbach alpha to block its indicator. While outer model with formative indicator was evaluated through substantive of its content which is to compare relative weight and significance of its construct indicator.

Convergent Validity connected with principal which state that manifest variable from some construct should be in high correlated. Reflexive convergent indicator validity testing can be seen from the loading factor value for every construct which its recommended must be higher than 0.7 for confirmatory research and 0.6 - 0.7 exploratory research. And Average Variance Extracted (AVE) must be higher than 0.5.

Discriminant Validity connected with principal which state that different construct manifest variable shouldn't correlated in high value. The only way to test discriminant validity is with reflexive indicator which is to evaluate cross loading value for every variable must be higher than 0.70. the other way to test discriminant validity is to compare between square root of AVE for every construct with correlation value between construct in model.

A good discriminant validity is shown by square root of AVE is bigger than construct from its correlation between construct in model (Fornell and Larcker 1981, Ghozali 2012).

Table 1 Summary Rule of Thumb Convergent Validity and Discriminant Validity

Validity	Parameter	Rule of Thumb
Convergent validity	Loading Factor	> 0,70 for confirmatory research > 0,60 for exploratory research
	Communality	> 0,50 for confirmatory and exploratory research
	AVE (Average Variance Extracted)	> 0,50 for confirmatory and exploratory research
Discriminant Validity	Cross Loading	> 0,70 for every variable
	Square root AVE and correlation between latent construct	Square root AVE > correlation between latent construct

In addition to validity test, measurement model was done to test the reliability of a construct. Reliability testing is done to prove accuracy, consistency and instrument provisions in construct measurement. Reliability testing of a construct with reflexive indicator that can be done with two ways which is composite reliability and Cronbach's Alpha. The use Cronbach's Alpha for construct reliability testing will gives a lower/underestimate value so it's recommended to use composite reliability to testing reliability of a construct.

Table 2 Summary Rule of Thumb Construct Reliability

Parameter	Rule of Thumb
Composite Reliability	> 0,70 for confirmatory research 0,60 – 0,70 still accepted for exploratory research
Cronbach's Alpha	> 0,70 for confirmatory research >0,60 still accepted for exploratory research

To assess structural model with PLS structural can be seen from R-Squares value for every Endogen latent variable as a predictive power from structural model. R-Squares values is a

goodness fit model testing. The change of R-Squares values is used to explain the influence of certain exogenous latent variable to endogen latent variable, is it have substantive influence or not. R-Squares value is 0.67, 0.33, and 0.19 for endogen latent variable in structural model shows strong moderate model and weak (Chin, 1998 in Ghozali, 2006). The result of PLS R-Squares represent the number of variance from the construct which explain by the model. Besides seeing the R-Squares values, evaluation of PLS Structural model can be done with Q2 relevance predictive or usually called as predictive sample reuse which developed by Stone (1974) and Geisser (1975) inside Ghozali (2012).

After that, model evaluation will seeing significance values to know the influence between variable through bootstrapping procedure or jackknifing. Bootstrap approach represent non parametric for precision from PLS estimation. Bootstrap procedure use all real sample for resampling. Hair et al, (2011) and Henseler et al (2009) provide recommendations for the number of sample from bootstrap which is 5000 with notes it must be higher than the original sample.

Table 3 Summary Rule of Thumb Structural Model Evaluation

Criteria	Rule of Thumb
R-Square	0,67; 0,33; for 0,19 shows strong, moderate and weak model (Chin 1998 inside Ghozali 2012). 0,75; 0,50; and 0,25 shows strong, moderate and weak model (Hair et al. 2011)
Effect Size f2	0,02; 0,15; and 0,35 shows small, intermediate and big influence
Q2 predictive relevance	Q2 > 0 shows that model have predictive relevance and if Q2 < 0 shows that model have less predictive relevance
Q2 predictive relevance	0,02; 0,15; and 0,35 (weak, moderate and strong)
Signifikansi (two-tailed)	t-value 1,65 (significance level 10%); t-value 1,96 (significance level 5%), and t-value 2,58 (significance level 1%)

Apart from bootstrap, other alternatives resampling methods is jackknifing which use sub-sample from the real sample for another resampling. Jackknifing methods is not efficient as bootstrap methods because its ignore confidence intervals (Efron et al. 2004 in Ghozali 2012).

Framework and Hypothesis

First of all, the system will see from its usefulness and from user satisfaction which connected to the usefulness perception and user satisfaction against information system which influenced by the personal characterization. Secondly, seen from the organization point of view which

evaluate system from organizational structure aspect and organizational environmental which is consist of management, communication and support.

Thirdly, seen from system quality. System should be easy to use, easy to learn, comfortable when it accessed and have quick response. Fourthly, seen from information system quality should produce accurate, complete, easy to understand and relevant information. Fifthly, seen from service system quality should meet the user needs and desire to compensate the user hope which includes definite attention and information to users. According to the information system evaluation framework above, can be known how online test implementation and gives recommendation which can maximize its application.

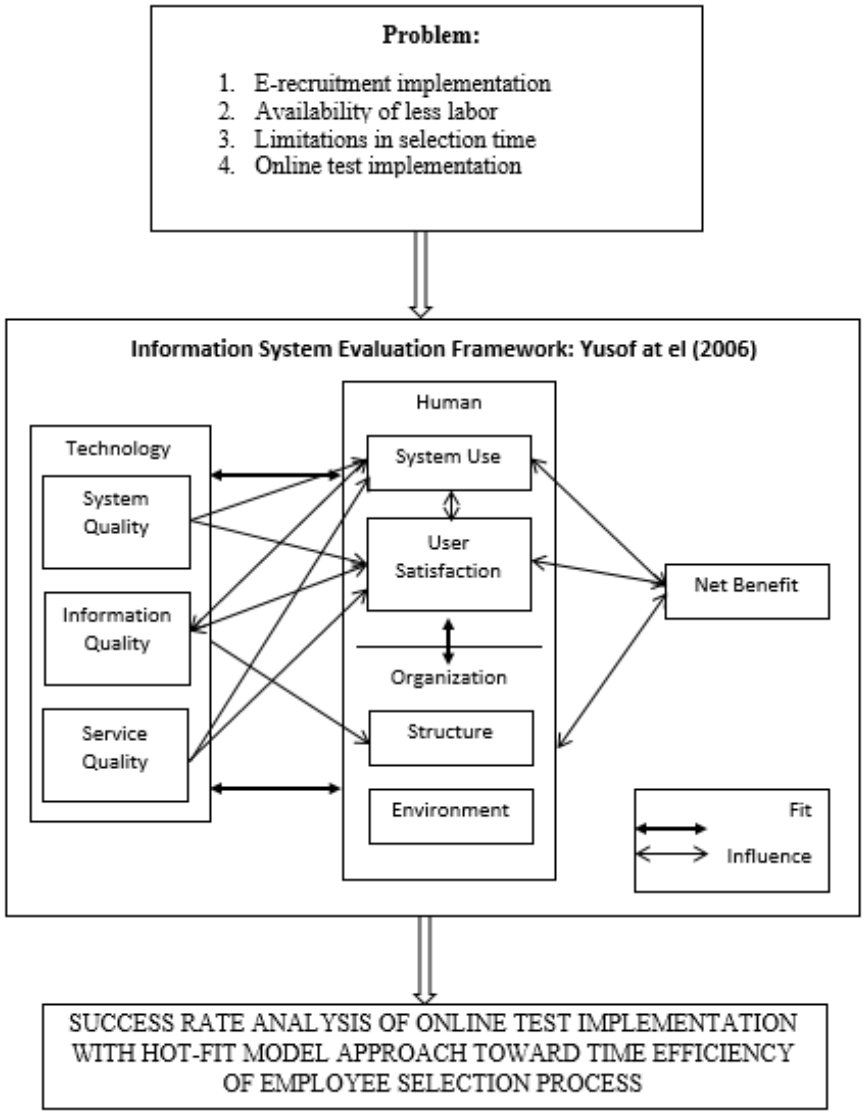

Figure 3 Framework flow

METHODOLOGY

In this research we are using data from the online test web application in TIC Company in Indonesia. The data was collected through interview with the user of the online test. This interview was conducted after they completed the online test. At first this data is just only a raw data. W e have to extract this data to variable that correspond with formula and method that we used in this research. Data is arranged into a framework which will be analyzed after that. The focus of this research is about success level of Online Test by considering several factors. These factors are system quality, information quality, services quality, system use, user satisfaction, structure organization, and net benefit. The following is an explanation of the research variable indicators.

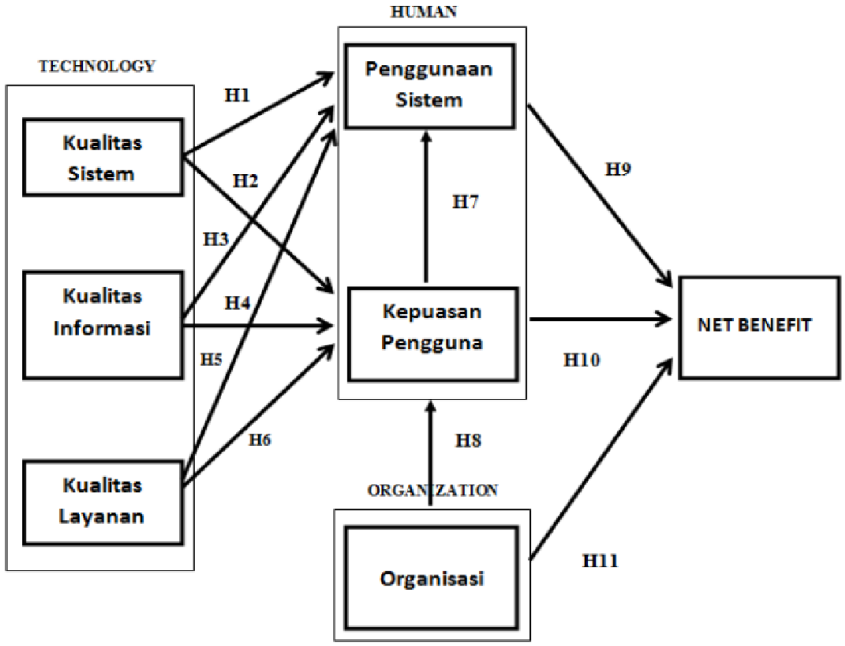

Figure 4 Online Test Evaluation Hypothesis Model

1. H1: System quality affects the use of the system use.
2. H2: System quality affects the use of the user satisfaction.
3. H3: Information quality affects the use of the system use.
4. H4: Information quality affects the use of the user satisfaction.
5. H5: Services quality affects the use of the system use.
6. H6: Services quality affects the use of the user satisfaction.
7. H7: User satisfaction affects the use of the system use.
8. H8: Structure organization affects the use of the user satisfaction.

9. H9: System use affects the use of the net benefit.
10. H10: User satisfaction affects the use of the net benefit.
11. H11: Structure organization affects the use of the net benefit.

Data Analysis Techniques using PLS

Outer Models Evaluation (Measurement Models)

Evaluation of the reflective indicator model includes: (1). individual item reliability, (2). internal consistency or construct reliability, dan (3). average variance extracted and (4). discriminant validity.

Convergent validity measures the amount of correlation between constructs and latent variables. In convergent validity evaluation from individual checks item reliability, can be seen the value of standardized loading factors. Standardized loading factors illustrate the magnitude of the correlation between each measurement item (indicator) and its construct. The value of loading factor> 0.7 is said to be ideal, meaning that the indicator is said to be valid in measuring the construct. In the empirical experience of research, the value of loading factor> 0.5 is still acceptable. Thus, the value of the loading factor <0.5 must be removed from the model (dropped).

The square value of the value of the loading factor is called communalities. This value shows the percentage of constructs able to explain the variations in the indicator.

After evaluate individual reliability items through standardized loading factor values, the next step is to see the internal consistency reliability from Cronbach's Alpha and Composite Reliability (CR) values. CR is better at measuring internal consistency than Cronbach's Alpha in SEM because CR does not assume boot similarity from each indicator. Cronbach's Alpha tends to estimate lower construct reliability than CR. Formula CR is:

CR = $(\sum \lambda i)\text{^}2/((\sum \lambda i)\text{^}2 + (\sum \varepsilon i))$

CR interpretation is the same as Cronbach's Alpha. The limit value> 0.7 is acceptable, and the value> 0.8 is very satisfying. Another measure of covergent validity is the value of Average Variance Extracted (AVE). The AVE value describes the size of the variance or the diversity of manifest variables that can be owned by the latent construct. Thus, the greater the variance or diversity of manifest variables that can be contained by latent contours, the greater the representation of the manifest variable on its latent construct.

Fornell and Larcker (1981) in Ghozali (2014: 45) and Yamin and Kurniawan (2011: 18) recommend the use of AVE for a criterion in assessing convergent validity. A minimum AVE value of 0.5 indicates a good size of convergent validity. That is, latent variables can explain the

average of more than half the variants of the indicators. The AVE value is obtained from the sum of squared loading factors divided by error. Formula AVE is:

$$\text{AVE} = \frac{\sum_{\lambda i}{}^2}{\sum_{\lambda i}{}^2 + \sum_{\varepsilon_i}}$$

The AVE size can also be used to measure the reliability of component latent variable scores and the results are more conservative compared to CR. If all indicators are standardized, then the AVE value will be the same as the average value of block communalities. Discriminant validity of the reflective model was evaluated through cross loading, then compared the AVE value with the square of the correlation value between constructs (or comparing the square root AVE with the correlation between constructs). The size of the cross loading is to compare the correlation of the indicator with its constructs and constructs from other blocks. If the correlation between the indicator and the construct is higher than the correlation with the other block constructs, this indicates that the constructs are better at the size of their blocks than other blocks. Another measure of discriminant validity is that the AVE root value must be higher than the correlation between the construct and other constructs or the AVE value is higher than the square of the correlation between constructs.

In relation to the formative measurement model, construct reliability is no longer relevant in testing the quality of measurement. The thing to do is to use a rational theoretical basis and opinions of experts. At least there are five critical issues to determine the quality of formative models, namely: (1). Content specification, related to the scope of latent constructs to be measured.

This means that if you want to research, researchers must often discuss and guarantee the specifications of the contents of the construct correctly. (2). Specification indicator, must clearly identify and define these indicators. Defining indicators must go through clear literature and have discussed with experts and validated with several pre-tests. (3). Reliability indicators, related to the scale of indicator interests that form the construct. Two recommendations for assessing reliability indicators are to see the indicator mark in accordance with the hypothesis and the weight indicator is at least 0.2 or significant. (4). Collinearity indicator, states that the indicators formed are not interconnected (very high) or that there is no multicollinearity problem can be measured by Variance Inflated Factor (VIF). VIF values > 10 indicated a problem with multicollinearity, and (5). External validity, guarantees that all formed indicators are included in the model.

Inner Model Evaluation (Structural Model)

After evaluating the construct/variable measurement model, the next step is evaluating the structural model or inner model. First, evaluate the structural model is to see the significance of the relationship between constructs/variables. It can be seen from the path coefficient (path coefficient) which describes the strength of the relationship between constructs. The sign or direction in the path (path coefficient) must be in accordance with the hypothesized theory, its significance can be seen in t test or p value (critical ratio) obtained from the bootstrapping process (resampling method).

Second, evaluate the value of R^2. Interpretation of the R^2 value is the same as the interpretation of R^2 linear regression, namely the magnitude of the variability of endogenous variables that can be explained by exogenous variables. According to Chin (1998) in Yamin and Kurniawan (2011: 21) criteria consist of three classifications, namely: the values of R2 0.67, 0.33 and 0.19 as substantial, moderate and weak. Changes in the value of R2 can be used to see whether the effect of exogenous latent variables on endogenous latent variables has a substantive effect. This can be measured by the effect size f2. The f2 effect size formulation is:

Effect Size f^2 = R^2 Included – R^2 Excluded

1 - R^2 Included

Where, R included and R excluded are R2 of endogenous latent variables obtained when the exogenous variables are entered or excluded in the model. According to Cohen (1988) in Yamin and Kurniawan (2011: 21) the suggested Effect Size f2 is 0.02, 0.15 and 0.35 with exogenous latent variables having a small, moderate and large influence at the structural level.

To validate the overall structural model, Goodness of Fit (GoF) is used. GoF index is a single measure to validate the combined performance of measurement models and structural models. This GoF value is obtained from the average communalities index multiplied by the value of the R2 model. GoF Formula index:

GoF = $\sqrt{\overline{Com}\ x\ \overline{R^2}}$

Where, the Com line above is average communialities and R2 with the above line is the average value of the R2 model. GoF values range from 0 to 1 with interpretations of values: 0.1 (small Gof), 0.25 (GoF moderate), and 0.36 (large GoF).

Another test in structural measurement is predictive relevance Q2 which serves to validate the model. This measurement is suitable if the endogenous latin variable has a reflective measurement model. The results of Q2 predictive relevance are said to be good if the value is > which indicates a good (appropriate) exogenous latent variable as an explanatory variable capable of predicting its endogenous variables.

Hypothesis Testing (Resampling Bootstraping)

Hypothesis testing (β, γ, and λ) is done by Bootstrap resampling method developed by Geisser & Stone. The statistics test used t statistics or t tests. The application of the resampling method, allows the application of free distribution data doesn't require the assumption of a normal distribution, and doesn't require large samples (minimum sample recommended is 30). Testing is done by t-test, when obtained p-value <>. To test the hypothesis using statistical values, for alpha 5% the t-statistical value used is 1.96. So the acceptance / rejection criteria of the hypothesis are Ha accepted and H0 rejected when t-statistics > 1.96. To reject / accept the hypothesis using probability then Ha is accepted if the value is $p < 0.05$.

ANALYSIS AND RESULTS

The study uses two data types. There are primary and secondary. Primary data is about mechanism of online test management process carried out in the Human Capital Division, obtained through interviews with Employee Procurement staff and Online Test system designers. Secondary data is about user data to determine the success rate of Online Tests obtained from questionnaire data distributed to 100 respondents. Questionnaires were designed according to the HOT-Fit Model whose indicators were formulated from interviews and data on the mechanism of the Online Test management process.

The preparation of the evaluation framework begins by interpreting each aspect of the HOT-Fit Model into one measurable statement, which consists of the following indicators:

KS1 = The Online Test System can be done in conjunction with the Company's operational hours

KS2 = Receive well that the Online Test system is in accordance with the needs of the Company

KS3 = Online Test System is very easy to learn and use in all computer operating systems (Linux, Windows, Ubuntu, Mac)

KS4 = The Online Test System has usage instructions and is a reliable system

KS5 = With the existence of the Online Test system, making the work quickly completed (time efficiency)

KS6 = Online Test System has an attractive appearance to see

KI1 = The menu available on the Online Test system is quite complete and correct

KI2 = The information generated on the Online Test instruction page is in accordance with the biodata

KI3 = Questions on Online Tests are easy to understand

KI4 = Online Test Material is easy to answer

KI5 = Announcement of clear and informative Online Test selection
KI6 = Access to get information about Online Tests is easy to obtain
KL1 = Quick Administrator Response in responding to Applicants questions on Social Media
KL2 = Administrator Response on target in answering Applicants' questions
KL3 = Online Test Committee is easy to contact if there are obstacles
KL4 = Response in email response is to fast and informative
KL5 = Response in response to whatsapp chat is fast and informative
KL6 = The committee is easily contacted via office telephone
KL7 = The committee is easy to contact if there are things that need to be confirmed and there are obstacles in the recruitment and selection process
PS1 = Applicants believe Online Tests make it easier for the Selection Process for Employees
PS2 = In the implementation of Online Tests there are no network constraints when accessing / carrying out tests
PS3 = The implementation of the Online Test that I did went smoothly
PS4 = The time for conducting an online test is sufficient (no less and no excess)
KP1 = Notification to take the online test I received in sufficient time
KP2 = When the online test is conducted at a reasonable time (not too early or not too late at night)
KP3 = Overall I am satisfied with the recruitment and selection process held by TIC Company
SO1 = Online Test System makes it easy for organizations to choose applicants
SO2 = Online Test System is able to give consideration to educational background
SO3 = Online Test System is able to provide objective results to applicants
NB1 = Online tests greatly facilitate the process associated with employee recruitment
NB2 = Online tests help the process to be more effective and efficient
NB3 = Online tests can reduce error rates
NB4 = Online tests can improve organizational performance in the face of current competition
NB5 = Online tests can support the organization's vision and mission

Validity Test

Data is processed using SMARTPLS software. The step in completing the equation model with this path approach is to calculate the outer model and the inner model which consists of Convergent Validity; Validity of Discrimination, Average (ave); Composite Reliability, Croncbach Alpha; and path coefficient and t-value. Using the PLS path approach will be able to provide analysis if more than one dependent variable.

1. Convergent validity has a requirement that the measuring device (indicator) precisely measures the intended construct. In SMARTPLS software, convergent validity is the same as the outer loading / loading factor whose value is said to be high if it is greater than 0.7.

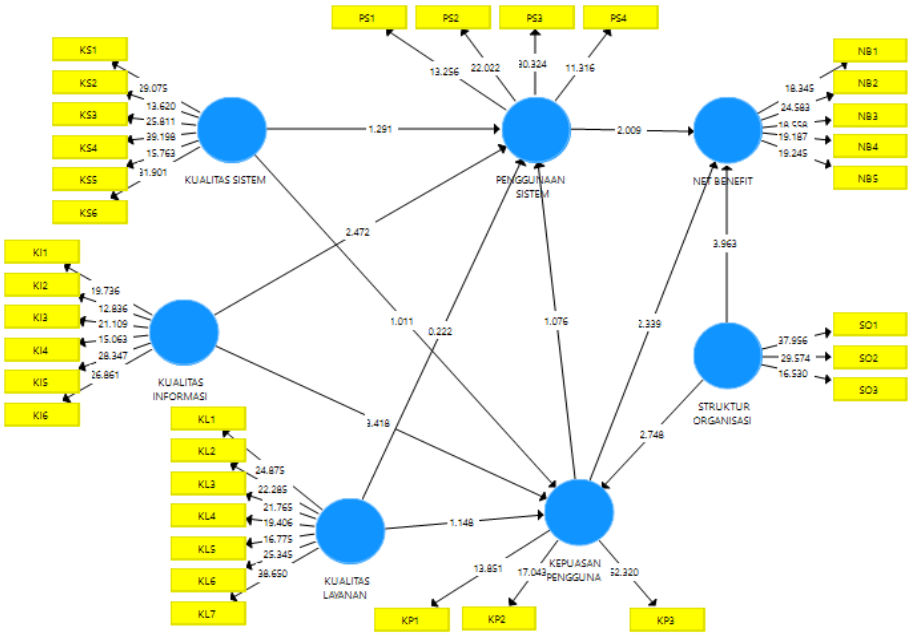

Figure 5 Indicator Loading Results

The results of these calculations indicate that the value of the loading factor is above 0.70, so that all indicators have met convergent validity and are declared sufficient. The results of these calculations indicate that the value of the loading factor is above 0.70, so that all indicators have met convergent validity and are declared sufficient. Besides being seen from the value of the loading factor, convergent validity can also be seen from the value of AVE.

Table 4 AVE Value

	AVE
Services Quality	0.714
System Quality	0.703
Information Quality	0.655
Net Benefit	0.690
Organization Structure	0.771
User Satisfaction	0.719
System Use	0.642

After analyzing the value, the results of the questionnaire obtained show a tendency that the fewer respondents who choose low numbers (disagree or strongly disagree) will produce higher mean values, this can be seen with the average value produced by the high SO and KP variables. The highest AVE value is indicated by the object structure indicator of organizational structure of 0.771 and the lowest is indicated by indicators of system usage constructs of 0.642.

2. Discriminant validity is tested with a reflexive indicator, which is to see the cross loading value for each variable must be> 0.70. The cross loading value can be seen in the Discriminant Validity in the Quality Criteria menu.

Table 5 Cross Loading Result

	Kepuasan Pengguna	Kualitas Informasi	Kualitas Layanan	Kualitas Sistem	Net Benefit	Penggunaan Sistem	Struktur Organisasi
KI1	0.578	0.805	0.678	0.737	0.625	0.622	0.521
KI2	0.727	0.764	0.611	0.703	0.513	0.530	0.671
KI3	0.687	0.816	0.561	0.717	0.636	0.672	0.631
KI4	0.596	0.776	0.563	0.570	0.556	0.609	0.466
KI5	0.727	0.856	0.628	0.770	0.655	0.672	0.691
KI6	0.697	0.834	0.686	0.768	0.641	0.591	0.680
KL1	0.517	0.558	0.835	0.508	0.400	0.444	0.442
KL2	0.568	0.607	0.838	0.572	0.538	0.478	0.553
KL3	0.619	0.660	0.829	0.581	0.601	0.610	0.534
KL4	0.686	0.775	0.828	0.723	0.643	0.612	0.674
KL5	0.408	0.491	0.839	0.390	0.411	0.398	0.423
KL6	0.618	0.686	0.852	0.663	0.525	0.487	0.589
KL7	0.683	0.674	0.892	0.675	0.631	0.516	0.639
KP1	0.824	0.612	0.657	0.609	0.483	0.516	0.643
KP2	0.814	0.703	0.527	0.702	0.657	0.588	0.609
KP3	0.902	0.701	0.701	0.714	0.703	0.630	0.711
KS1	0.613	0.743	0.689	0.826	0.651	0.644	0.645
KS2	0.669	0.659	0.591	0.742	0.555	0.526	0.670
KS3	0.711	0.791	0.579	0.849	0.646	0.636	0.622
KS4	0.679	0.760	0.586	0.910	0.760	0.659	0.701
KS5	0.613	0.684	0.486	0.814	0.757	0.598	0.660
KS6	0.729	0.799	0.647	0.879	0.743	0.597	0.695
NB1	0.614	0.667	0.524	0.745	0.841	0.568	0.667
NB2	0.556	0.542	0.524	0.591	0.841	0.504	0.558
NB3	0.637	0.606	0.608	0.647	0.812	0.623	0.656
NB4	0.545	0.615	0.540	0.657	0.833	0.552	0.595
NB5	0.679	0.663	0.496	0.742	0.827	0.568	0.710
PS1	0.475	0.542	0.423	0.630	0.498	0.745	0.514
PS2	0.525	0.586	0.454	0.518	0.459	0.834	0.446
PS3	0.616	0.638	0.519	0.585	0.586	0.873	0.509
PS4	0.562	0.659	0.542	0.594	0.613	0.746	0.554
SO1	0.736	0.678	0.607	0.685	0.607	0.526	0.893
SO2	0.658	0.627	0.588	0.645	0.662	0.477	0.892
SO3	0.641	0.688	0.555	0.756	0.759	0.665	0.848

Can be seen in table 5, all cross loading values (pink) each indicator above 0.7 can then be seen from the value of cross loading indicators a construct greater than the value of cross loading other contract indicators, the discriminant validity of each indicator against the variable has been fulfilled.

3. Reliability The construct is measured by two criteria, namely composite reliability and cronbach alpha from the indicator block that measures the construct. Constructions are

declared reliable if the composite reliability value is greater than 0.7 while Cronbach Alpha is greater than 0.6.

Table 6 Construct Reability Result

	Cronbach's Alpha	rho_A	Composite Reliability
Services Quality	0.933	0.940	0.946
System Quality	0.914	0.917	0.934
Information Quality	0.894	0.896	0.919
Net Benefit	0.888	0.890	0.918
Organization Structure	0.851	0.851	0.910
User Satisfaction	0.804	0.816	0.884
System Use	0.812	0.815	0.877

4. Inner Model Analysis evaluates the relationship between latent constructs as has been hypothesized in this study. Inner model wants to see the relationship between constructs and significance values and R-Square values.

Table 7 R-Square Value

	R Square	R Square Adjusted
User Satisfaction	0.744	0.734
Net Benefit	0.674	0.663
System Use	0.600	0.584

Testing of the structural model is done by looking at the R-Square value which is a goodness-fit model test. According to Falk and Miller the value of R-Square reflects the predictive power of the entire model with the limit that the value of R-Square is greater than 0.1 or greater than 10%. It can be said that all constructs are adequate or good. By using bootstrap in PLS, you will get path coefficients and t-values. Significance of influence between variables is seen by looking at the value of the parameter coefficient and its t-statistical significance value.

Table 8 Inner Weight Hypothesis Result

H (n)	JALUR		Path Coefficeints (β)	T-Value (t)	Hasil pengujian α = 0,05
	DARI	KE			
H1	KS	PS	0.209	1.227	Ditolak
H2	KS	KP	0.129	1.026	Ditolak
H3	KI	PS	0.460	2.333	Diterima
H4	KI	KP	0.420	3.504	Diterima
H5	KL	PS	0.026	0.211	Ditolak
H6	KL	KP	0.108	1.261	Ditolak
H7	KP	PS	0.118	1.072	Ditolak
H8	SO	KP	0.280	2.823	Diterima
H9	PS	NB	0.246	2.071	Diterima
H10	KP	NB	0.223	2.438	Diterima
H11	SO	NB	0.443	4.158	Diterima

From Table 8, it can be seen that the hypothesis is rejected or accepted by looking at the value of T statistics and its path coefficient. In testing the hypothesis the level of significance used was 95% (α = 0.05). The value of t table with a significance level of 95% is 1.96.

Hypothesis Testing

System Quality has no significant effect on System Use and User Satisfaction. Viewed from the t-statistic value of 1.227 which is smaller than the value of the confidence level 1.96 while the path coefficient is 0.209 that there is a very small correlation and almost no between the quality of the system and user satisfaction. System Quality has no significant effect on user satisfaction. Judging from the t-statistic value of 1.026 which is smaller than the value of the confidence level 1.96 while the path coefficient is 0.129 shows a very small coefficient value and almost none of the constructs of system quality with the construct of user satisfaction. Information Quality affects the System Use. Judging from the t-statistic value of 2.333 which is greater than the value of the confidence level 1.96 while the path coefficient is 0.460 proves that there is a positive correlation between the information quality and user satisfaction.

System Use affects User Satisfaction. Judging from the t-statistic value of 3.504 which is greater than the value of the level of confidence 1.96 while the path coefficient is 0.420 proves that there is a very small correlation even almost no information quality with user satisfaction. Services Quality has no significant effect on System Use. Judging from the t-statistic value of 0.211 which is smaller than the value of the level of confidence 1.96 while the path coefficient is 0.026 proves that there is a very small correlation even almost no Service Quality and user satisfaction. Service quality has no significant effect on user satisfaction. Viewed from the t-statistic value of 1,261 which is smaller than the value of the level of confidence 1.96 while the path coefficient of 0.108 proves that there is a positive correlation between service quality and user satisfaction. User satisfaction has no significant effect on system use. Judging from the t-statistic value of 1.072 which is smaller than the value of the confidence level 1.96 while the path coefficient is 0.118 proves that there is a very small correlation that is almost nonexistent between user satisfaction and system use. Organization structure affects user satisfaction. Viewed from the t-statistic value of 2.823 which is greater than the value of the confidence level 1.96 while the path coefficient is 0.280 proves that there is a positive correlation between organization structure and user satisfaction. System use affects the net benefit. Judging from the t-statistic value of 2.071 which is greater than the value of the level of confidence 1.96 while the path coefficient is 0.246 proves that there is a very small correlation and almost no between the system use and the net benefit. User satisfaction affects the net benefit. Viewed from the t-statistic value of 2.438 which is greater than the value of the confidence level 1.96 while the

path coefficient is 0.223 that there is a positive correlation between user satisfaction and the net benefit. Organization structure affects the net benefit. Judging from the t-statistic value of 4.158 which is greater than the value of the level of confidence 1.96 while the path coefficient is 0.443 proves that there is a very small correlation that there is even almost no organization structure with net benefits.

Online Test Succession Measurement

The concept of information system success is a concept used in various research as the basic criteria for evaluating information systems. Variables used include system quality, information quality, service quality, system use, user satisfaction, organizational structure and net benefit.

Based on the results of the tests have been carried out, the most significant results are obtained, namely between the indicators on organizational structure variables and net benefits with the largest t-value of 4,158. Indicators used in the organization structure include the easy of the organization in selecting candidates, helping to give consideration to educational background (academy), and being able to provide objective results. These indicators are very significantly related to the net benefit variable. The net benefit variable contains indicators related to time efficiency. Considering the existence of PT SUCOFINDO (PERSERO), in the matter of recruitment that must be considered is the prospective employee selection process.

The concept of convenience offered by Online Tests is one form of technological development. The following is the details of the selection of prospective employees before the Online Test is implemented with 28 position positions being launched:

Table 9 Recruitment Activities Schedule Before Online Test Implementation

No	Activity	Time	The Number of Applicant
1	Job Vacancy on Website	27 day	17540
2	Administration Selection	7 day	840
3	Psychology Assessment	17 day	840
4	Psychology Test	9 day	420
5	User Interview	9 day	84
6	Human Capital Interview	3 day	28
7	Medical Checkup	1 day	28
Total		73 day	28

Succession of implementation Online Tests is one of the concerns because there are many benefits obtained in implementing Online Tests. Following are the details of prospective employee selection after the Online Test has been implemented with the conditions of 28 positions being launched:

Table 10 Recruitment Activities Schedule After Online Test Implementation

No	Activity	Time	The Number of Applicant
1	Job Vacancy on Website	27 day	17540
2	Administration Selection	7 day	840
3	Online Test	1 day	840
4	Psychology Assessment	5 day	248
5	Psychology Test	3 day	124
6	User Interview	5 day	56
7	Human Capital Interview	3 day	28
8	Medical Checkup	1 day	28
Total		52 day	28

The results of the study show that there is a significant effect of organizational structure variables on net benefits. Based on the results of the research and the level of time efficiency in the implementation of the prospective employee selection process, the success rate of Online Tests must be considered because it can be a consideration to add the Online Test selection component to the Human Capital Division's strategic plan as the leading sector of personnel services so the online test can run as expected.

CONCLUSION

Based on the research it was found that service quality had no significant effect on system usage. Judging from the t-statistic value of 0.211 which is smaller than the value of the level of confidence 1.96 while the path coefficient is 0.026 proves that there is a very small correlation even almost no quality between service and user satisfaction. While the organizational structure affects the net benefit. Judging from the t-statistic value of 4.158 which is greater than the value of the level of confidence 1.96 while the path coefficient is 0.443 proves that there is a very small correlation that there is even almost no organizational structure with net benefits.

On the basis of the results of the research and the level of time efficiency in the implementation of the prospective employee selection process, the success rate of Online Tests must be highly considered because it can be a consideration to add the Online Test selection component to the employee procurement guidelines.

Based on the time efficiency of the implementation of the Online Test it is recommended to add written psychological test material to the online test with the note that the drawing test material is replaced by a file upload system in online tests or can be replaced by adding drawing test material at the user interview or before.

This research focusing only to find the weak point of the online test in the TIC Company. With this research, the weak point of online test can be measured. It's measured by focusing this research to several factors. These factors are system quality, information quality, services quality, system use, user satisfaction, structure organization, and net benefit. The following is an explanation of the research variable indicators. In the future research, we hope the weak point of this research can be improved and optimized in the online test on the employee recruitment in the TIC Company.

REFERENCES

Ananda Sabil Hussein, SE., M.Com., Ph.D. 2015. Penelitian Bisnis dan Manajemen Menggunakan Partial Least Squares (PLS) dengan smartPLS 3.0. Malang: Fakultas Ekonomi dan Bisnis.

Christine Hui Li Chin. 1990. The Effects Of Computer-Based Tests On The Achievement, Anxiety And Attitudes Of Grade 10 Science Students. Tesis S2. The University Of British Columbia, Canada.

Ghozali, Imam dan Hengky Latan. 2012. Partial Least Squares. Konsep, Teknik dan Aplikasi. Semarang. Badan Penerbit: Undip.

Ghozali, Imam. 2011. Structural Equation Modeling, Metode Alternatif Dengan Partial Least Square. Semarang. Badan Penerbit: Undip.

Haryono, S. & Wardoyo, P. 2013. Structural Equation Modeling (SEM) untuk Penelitian Manajemen. Jakarta: PT Intermedia Personalia Utama Jakarta.

John Mulvaney. 2011. Computer-based Assessment and the Effects it has on Middle School Aged Students. Tesis S2. University of Wisconsin-Stout, America.

Olafare Festus Oladimeji and Boor Charity Mwuese H. 2018. Computer based test: panacea to undergraduate students' performance in Olabisi Onabanjo University, Ogun State, Nigeria. University of Lagos, Nigeria.

Suci Lestari. 2014. Penerapan Sistem Computer Assisted Test (CAT) Dalam Proses Seleksi Calon Pegawi Negeri Sipil Dari Pelamar Umum Di Badan Kepegawaian Negara Tahun 2013. Serang: Universitas Sultan Ageng Tirtayasa.

Yan Piaw Chua, Zuraidah Mohd Don. 2013. Effects of computer-based educational achievement test on test performance and test takers' motivation. University of Malaya, Malaysia.

Zainal A. Hasibuan, PhD. 2007. Metodologi Penelitian Pada Bidang Ilmu Komputer Dan Teknologi Informasi. Depok: Fakultas Ilmu Komputer Universitas Indonesia.