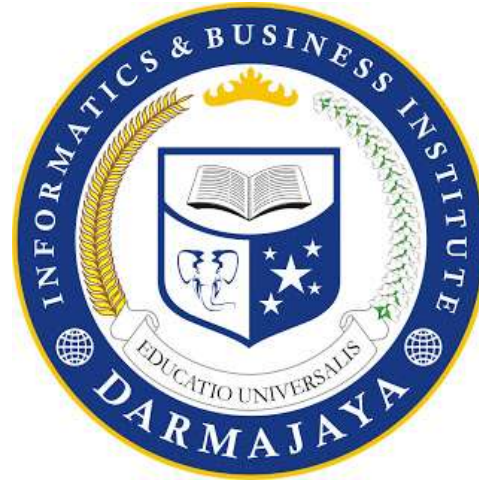


# Seri Pelatihan Metode Penelitian Introductory to SmartPLS



**FAKULTAS EKONOMI DAN BISNIS  
INSTITUT INFORMATIKA DAN BISNIS DARMAJAYA**

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# Menggambar Model

Kalkulasi Data

The screenshot displays the SmartPLS software interface. The main window shows a path model diagram with the following structure:

- Perceived ease of Use** (Latent Variable) is measured by indicators **EOU1**, **EOU2**, **EOU3**, and **EOU4**.
- Perceived Usefulness** (Latent Variable) is measured by indicators **PU1**, **PU2**, **PU3**, and **PU4**.
- Trust** (Latent Variable) is measured by indicators **TRS1**, **TRS2**, **TRS3**, and **TRS4**.
- Attitude** (Latent Variable) is measured by indicators **ATT1**, **ATT2**, and **ATT3**.
- Path relationships: **Perceived ease of Use** and **Perceived Usefulness** both influence **Trust**. **Trust** influences **Attitude**.

The interface includes a menu bar (File, Edit, View, Themes, Calculate, Info, Language), a toolbar with icons for Select, Latent Variable, Connect, Quadratic Effect, Moderating Effect, Comment, and Calculate (highlighted with a red box and an arrow from the text 'Kalkulasi Data'). A Project Explorer on the left shows a tree view of project files, with 'Technology Acceptance Model DANAKU [100 records]' selected. An Indicators table is visible at the bottom left, listing indicators 1 through 9, with **EOU1** and **EOU2** highlighted in yellow.

No.	Indicator
1	TL1
2	TL2
3	TL3
4	TL4
5	PSP1
6	PSP2
7	PSP3
8	<b>EOU1</b>
9	<b>EOU2</b>


The Windows taskbar at the bottom shows the system tray with the date and time: 23:22, 31/07/2019.

# UJI Measurement (Outer) Model

## UJI VALIDITAS CONVERGENT

1. Click **Calculate**
2. Pilih **PLS Algorihtm**

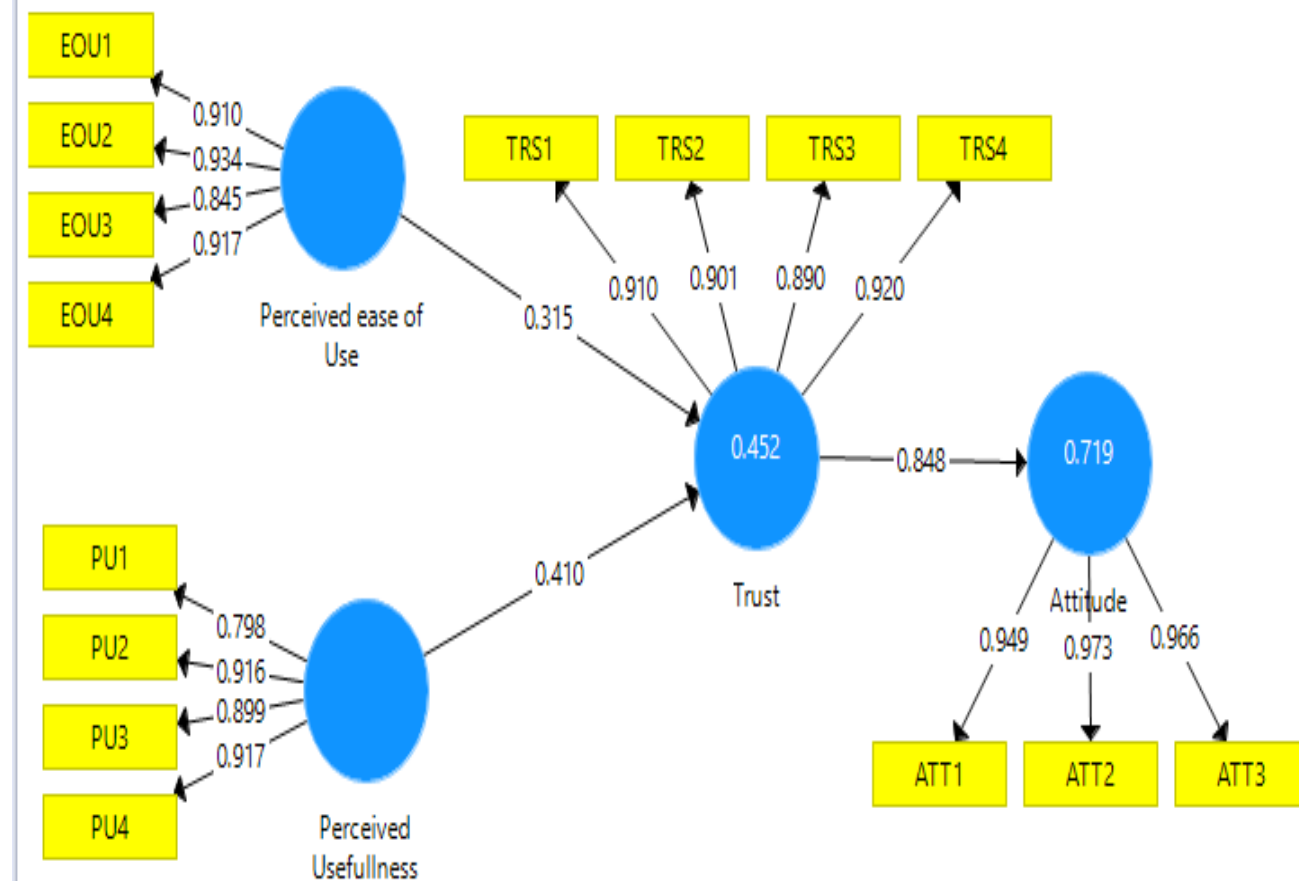
Evaluasi dari measurement model dapat dilihat dari korelasi antara score item/indicator dengan score konstraknya . Indikator individu dianggap reliable jika memiliki nilai korelasi diatas 0,70. Namun demikian pada riset pengembangan skala, outer loading 0.50 sampai 0.60 masih dapat **diterima (Imam Ghozali, 2015)**



The screenshot shows the 'Outer Loadings' matrix in SmartPLS. The matrix displays the correlation between indicators and their respective latent variables. The indicators are ATT1, ATT2, ATT3, EOU1, EOU2, EOU3, EOU4, PU1, PU2, PU3, and PU4. The latent variables are Attitude, Perceived Usefulness, Perceived ease of Use, and Trust. The loadings are as follows:

	Attitude	Perceived Usef...	Perceived ease...	Trust
ATT1	0.949			
ATT2	0.973			
ATT3	0.966			
EOU1			0.910	
EOU2			0.934	
EOU3			0.845	
EOU4			0.917	
PU1		0.798		
PU2		0.916		
PU3		0.899		
PU4		0.917		

Below the matrix, there are sections for 'Final Results', 'Quality Criteria', 'Interim Results', and 'Base Data'. The 'Quality Criteria' section includes R Square, f Squares, Construct Reliability and Validity, Discriminant Validity, Collinearity Statistics (VIF), and Model Fit.



# UJI Measurement (Outer) Model

Uji Measurement juga bisa dievaluasi dari Discriminant Validity dengan melihat **Fornell-Larckell Criteria** dan **Cross Loading**. Yang dilihat dari evaluasi ini adalah korelasi antara Variabel-Variabelnya (Untuk **Fornell-Larckell**) dan Korelasi antara indicator suatu variable apabila dibandingkan dengan korelasi variable lainnya (Cross Loading).

Model Sederhana.splsm PLS Algorithm (Run No. 1)

### Discriminant Validity

Fornell-Larcker Criteri... Cross Loadings Heterotrait-Monotrait R... Heterotrait-Monotr

	Attitude	Perceived Usef...	Perceived ease...	Trust
Attitude	0.963			
Perceived Usef...	0.671	0.884		
Perceived ease ...	0.739	0.717	0.902	
Trust	0.848	0.636	0.609	0.905

Final Results	Quality Criteria	Interim Results	Base Data
<a href="#">Path Coefficients</a>	<a href="#">R Square</a>	<a href="#">Stop Criterion Changes</a>	<a href="#">Setting</a>
<a href="#">Indirect Effects</a>	<a href="#">f Square</a>		<a href="#">Inner Model</a>
<a href="#">Total Effects</a>	<a href="#">Construct Reliability and Validity</a>		<a href="#">Outer Model</a>
<a href="#">Outer Loadings</a>	<a href="#">Discriminant Validity</a>		<a href="#">Indicator Data (Original)</a>
<a href="#">Outer Weights</a>	<a href="#">Collinearity Statistics (VIF)</a>		<a href="#">Indicator Data (Standardized)</a>
<a href="#">Latent Variable</a>	<a href="#">Model Fit</a>		<a href="#">Indicator Data (Correlations)</a>
<a href="#">Residuals</a>			

Model Sederhana.splsm PLS Algorithm (Run No. 1)

### Discriminant Validity

Fornell-Larcker Criteri... Cross Loadings Heterotrait-Monotrait R... Heterotrait-Monotrait R... Copy to Cli

	Attitude	Perceived Usefulness	Perceived ease of Use	Trust
ATT1	0.949	0.652	0.759	0.818
ATT2	0.973	0.643	0.681	0.822
ATT3	0.966	0.644	0.695	0.809
EOU1	0.681	0.635	0.910	0.523
EOU2	0.667	0.673	0.934	0.561
EOU3	0.538	0.641	0.845	0.444
EOU4	0.753	0.645	0.917	0.639
PU1	0.723	0.798	0.792	0.652
PU2	0.526	0.916	0.558	0.500
PU3	0.513	0.899	0.549	0.480
PU4	0.556	0.917	0.573	0.567

Final Results	Quality Criteria	Interim Results	Base Data
<a href="#">Path Coefficients</a>	<a href="#">R Square</a>	<a href="#">Stop Criterion Changes</a>	<a href="#">Setting</a>
<a href="#">Indirect Effects</a>	<a href="#">f Square</a>		<a href="#">Inner Model</a>
<a href="#">Total Effects</a>	<a href="#">Construct Reliability and Validity</a>		<a href="#">Outer Model</a>
<a href="#">Outer Loadings</a>	<a href="#">Discriminant Validity</a>		<a href="#">Indicator Data (Original)</a>
<a href="#">Outer Weights</a>	<a href="#">Collinearity Statistics (VIF)</a>		<a href="#">Indicator Data (Standardized)</a>
<a href="#">Latent Variable</a>	<a href="#">Model Fit</a>		<a href="#">Indicator Data (Correlations)</a>
<a href="#">Residuals</a>			

# UJI Measurement (Outer) Model

## UJI REABILITAS

Reabilitas Outer Model dapat dilihat dari nilai AVE, Cronbach Alpha dan Composite Reability:

Nilai AVE  $\geq 0,50$

Nilai Composite Reability  $\geq 0,70$

Nilai Cronbach Alpha  $\geq 0,70$

Note:

Biasanya nilai **Cronbach Alpha** yang dihasilkan PLS sedikit Underestimate sehingga lebih disarankan untuk menggunakan **composite reability**

Model Sederhana.splsm

PLS Algorithm (Run No. 1)

### Construct Reliability and Validity

Matrix

Cronbach's Alpha

rho\_A

Composite Reliability

Average Variance Extracted (...)

Copy to Clipboard:

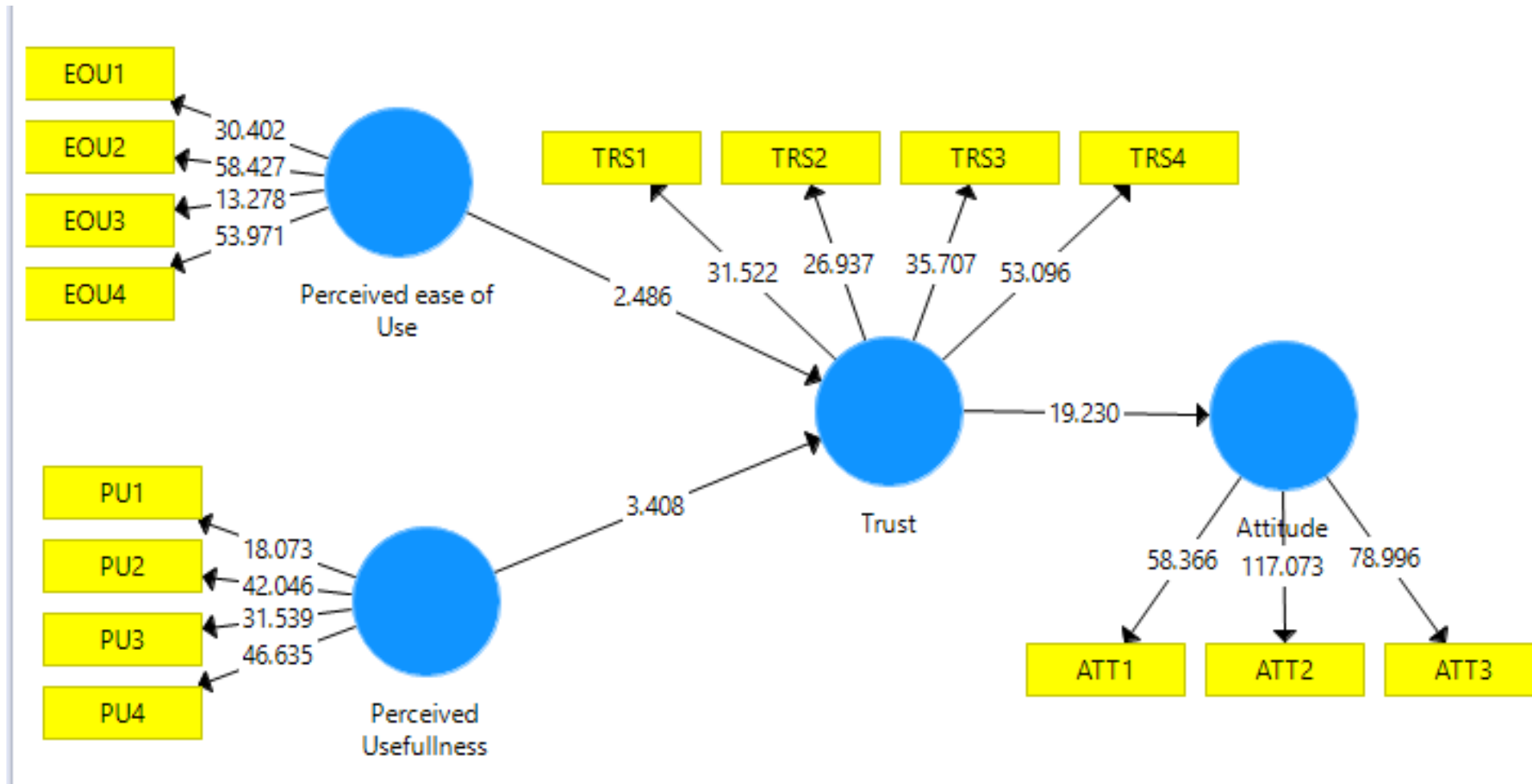
Excel Format

R Format

	Cronbach's Al...	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Attitude	0.960	0.961	0.974	0.927
Perceived Usefulness	0.906	0.913	0.934	0.781
Perceived ease of Use	0.924	0.940	0.946	0.814
Trust	0.927	0.936	0.948	0.819

# UJI Struktural (Inner) Model

1. Click **Calculate**
2. Pilih **Bootstrapping**



# UJI Struktural (Inner) Model

Model Sederhana.splsm Bootstrapping (Run No. 2)

### Outer Weights

	Original Sample (O)	Sample Mean (M)	Standard Deviation (...)	T Statistics ( O /STDE...)	P Values
ATT1 <- Attitude	0.347	0.349	0.011	32.728	0.000
ATT2 <- Attitude	0.349	0.350	0.010	34.557	0.000
ATT3 <- Attitude	0.343	0.342	0.011	31.798	0.000
EOU1 <- Perceived ease of Use	0.267	0.265	0.022	12.253	0.000
EOU2 <- Perceived ease of Use	0.286	0.287	0.020	14.028	0.000
EOU3 <- Perceived ease of Use	0.226	0.225	0.033	6.941	0.000
EOU4 <- Perceived ease of Use	0.326	0.329	0.028	11.507	0.000
PU1 <- Perceived Usefulness	0.338	0.344	0.046	7.423	0.000
PU2 <- Perceived Usefulness	0.259	0.258	0.019	13.798	0.000
PU3 <- Perceived Usefulness	0.249	0.247	0.021	12.025	0.000
PU4 <- Perceived Usefulness	0.294	0.293	0.023	12.735	0.000
TRS1 <- Trust	0.260	0.261	0.010	24.996	0.000
TRS2 <- Trust	0.249	0.249	0.013	19.644	0.000
TRS3 <- Trust	0.275	0.275	0.016	17.070	0.000
TRS4 <- Trust	0.320	0.321	0.021	15.397	0.000

### R Square

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O /STDEV)	P Values
Attitude	0.719	0.720	0.074	9.779	0.000
Trust	0.452	0.472	0.098	4.620	0.000

### R Square Adjusted

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O /STDEV)	P Values
Trust	0.441	0.461	0.100	4.414	0.000
Attitude	0.717	0.717	0.074	9.642	0.000

### Path Coefficients

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O /STDEV)	P Values
Perceived Usefulness -> Trust	0.410	0.416	0.120	3.408	0.001
Perceived ease of Use -> Trust	0.315	0.314	0.127	2.486	0.013
Trust -> Attitude	0.848	0.848	0.044	19.230	0.000

- Outer Weight memperlihatkan bahwa tiap indikator signifikan terhadap variabel latennya, karena t statistiknya > 1,96..
- Path Coefficient menunjukkan bahwa semua pengujian variabel antar variabel adalah signifikan. Dengan demikian dapat disimpulkan bahwa semua hipotesis dapat diterima.
- R Square dan Adj. R Square menunjukkan kemampuan variabel variabel eksogen dalam menjelaskan variabel endogen. Jadi kemampuan Variabel Perceived ease of use, Perceived Usefulness dan Trust kepada attitude adalah 71,9%