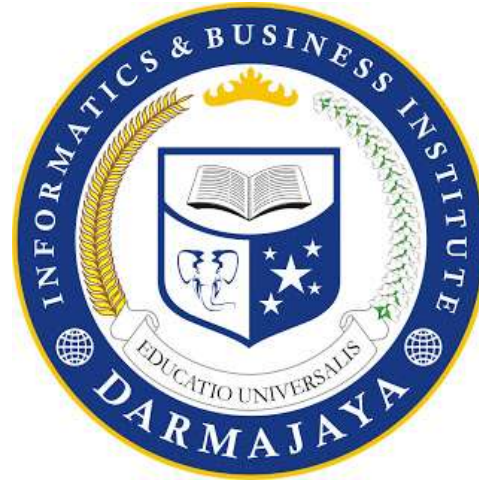


Uji Persyaratan Fit Model & Asumsi SEM-PLS



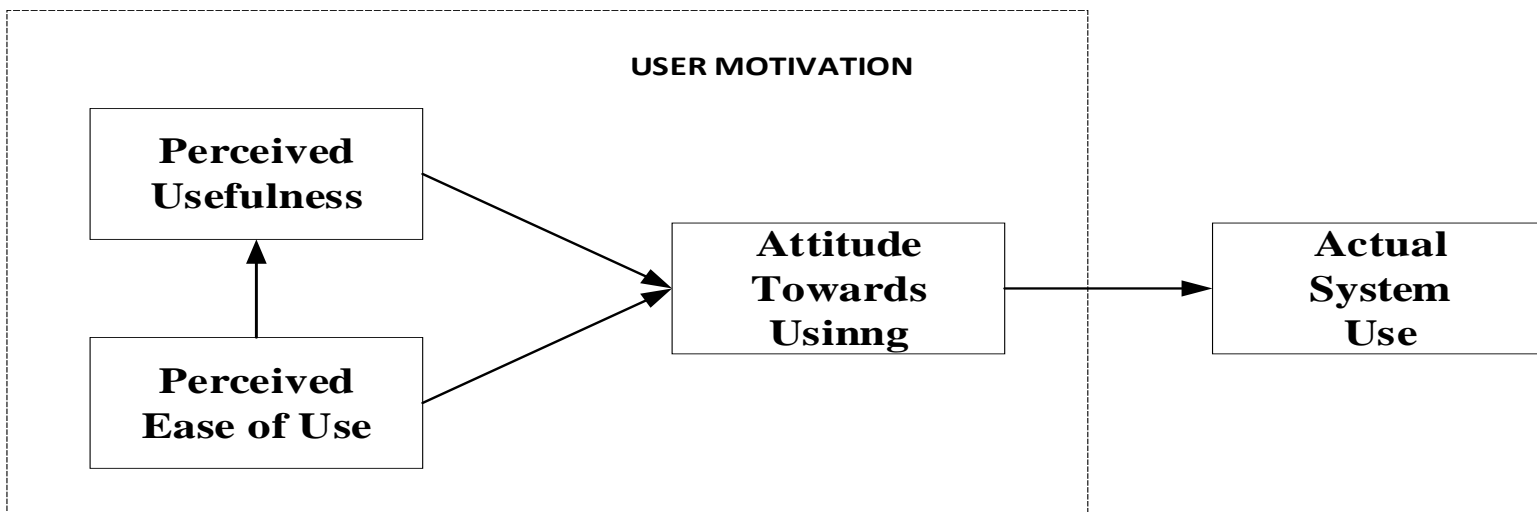
**FAKULTAS EKONOMI DAN BISNIS
INSTITUT INFORMATIKA DAN BISNIS DARMAJAYA**

OLEH :

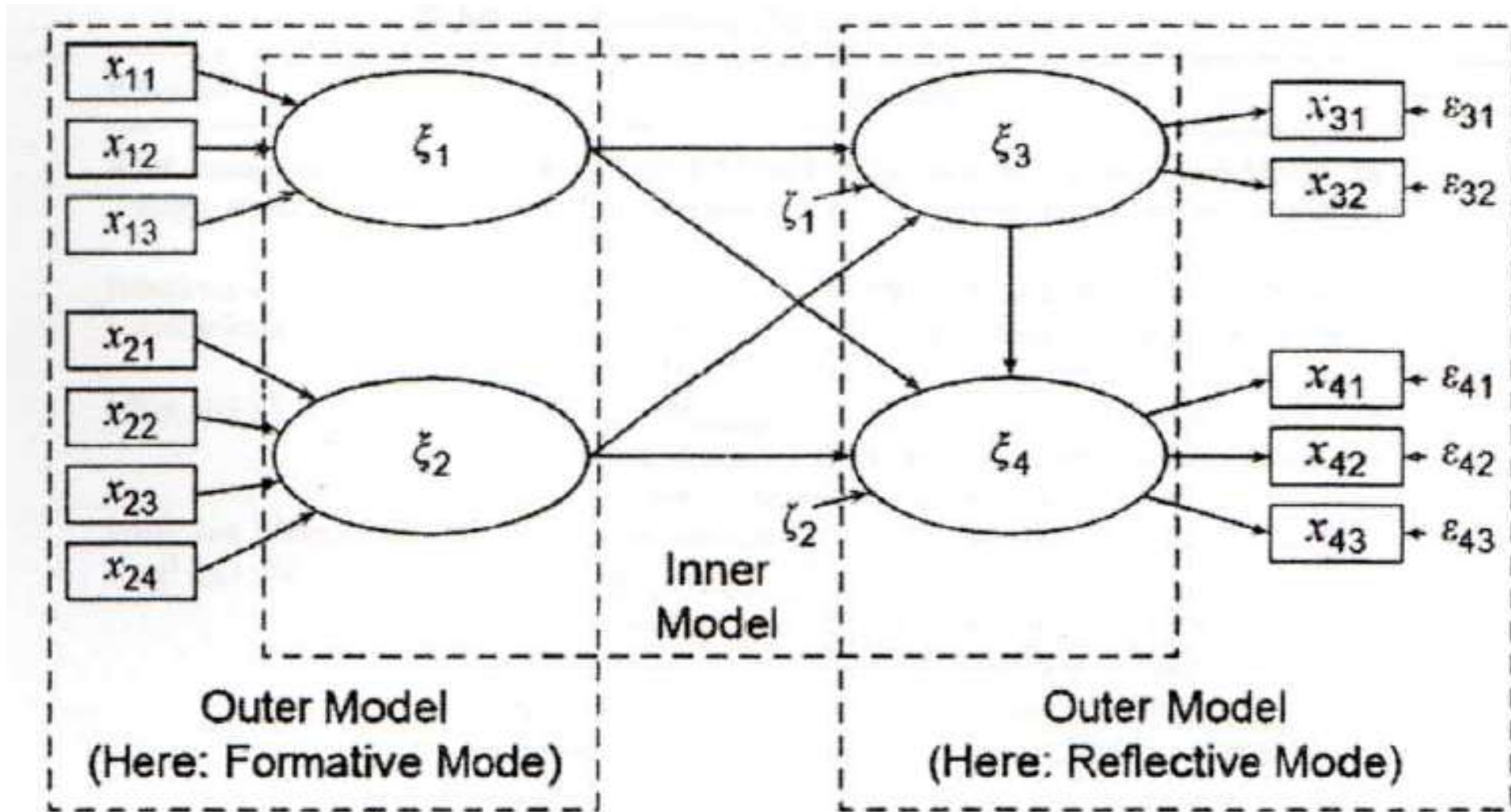
TRUFI MURDIANI, S.T., M.A.

Email : trufimurdiani@darmajaya.ac.id IG : @murdiani06
Website : <https://linktr.ee/murdianit> WA : 082184890458

Nama Theory	:	Technology Acceptance Model
Ilmuwan Pengembang Theory	:	Davis pada tahun 1986
Penjabaran Teori	:	<p>Technology Acceptance Model (TAM) digunakan untuk menerangkan mengapa sikap (attitude) dan kepercayaan (belief) konsumen dapat berpengaruh terhadap perilaku konsumen dalam menerima atau menolak suatu produk sistem informasi/teknologi. Dalam TAM, terdapat dua determinan utama sebagai dasar hubungan terkait penggunaan sistem, yaitu: Perceived Usefulness (Sejauh mana seseorang yakin bahwa penggunaan sistem/teknologi akan meningkatkan performansinya atau bermanfaat).”.</p> <p>Variabel Perceived Ease of Use diartikan sejauh mana seseorang yakin bahwa menggunakan sistem tertentu tidak memerlukan usaha yang keras atau dengan kata lain mudah penggunaannya.”.</p> <p>TAM menghipotesiskan bahwa Perceived Ease Of Use dan Percieved Usefulness merupakan determinan dari Attitude To Use The System. Attitude Toward Using merupakan varaibel mediasi dari pengaruh Perceived Ease Of Use dan Perceived Usefulness terhadap Actual System Use. Perceived Usefulness dipengaruhi secara langsung oleh Perceived Ease Of Use.</p> <p>TAM adalah salah satu teori adopsi teknologi yang paling banyak dipakai dan dirujuk untuk menjelaskan penerimaan induvidu terhadap sistem informasi atau teknologi</p>



Outer dan Inner Model SEM-PLS




UJI Measurement (Outer) Model

UJI VALIDITAS CONVERGENT

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

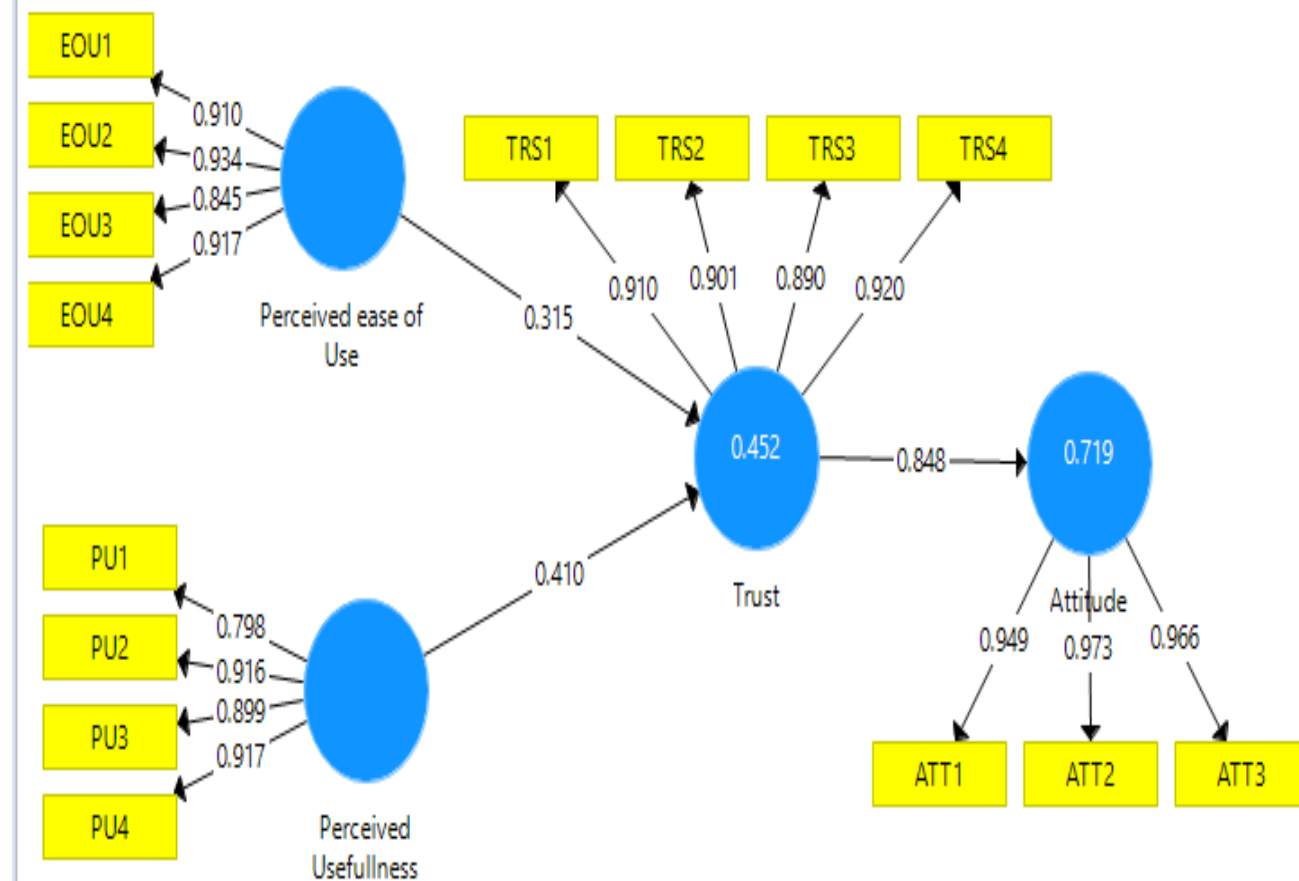
Evaluasi dari measurement model dapat dilihat dari korelasi antara score item/indicator dengan score konstraknya. Indikator individu dianggap reliabel jika memiliki nilai korelasi diatas 0,70. Namun demikian pada riset pengembangan skala, outer loading 0.50 sampai 0.60 masih dapat **diterima (Imam Ghozali, 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 values 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
Path Coefficients	R Square	Stop Criterion Changes	Setting
Indirect Effects	f Square		Inner Model
Total Effects	Construct Reliability and Validity		Outer Model
Outer Loadings	Discriminant Validity		Indicator Data (Original)
Outer Weights	Collinearity Statistics (VIF)		Indicator Data (Standardized)
Latent Variable	Model Fit		Indicator Data (Correlations)
Residuals			

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
Path Coefficients	R Square	Stop Criterion Changes	Setting
Indirect Effects	f Square		Inner Model
Total Effects	Construct Reliability and Validity		Outer Model
Outer Loadings	Discriminant Validity		Indicator Data (Original)
Outer Weights	Collinearity Statistics (VIF)		Indicator Data (Standardized)
Latent Variable	Model Fit		Indicator Data (Correlations)
Residuals			

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:

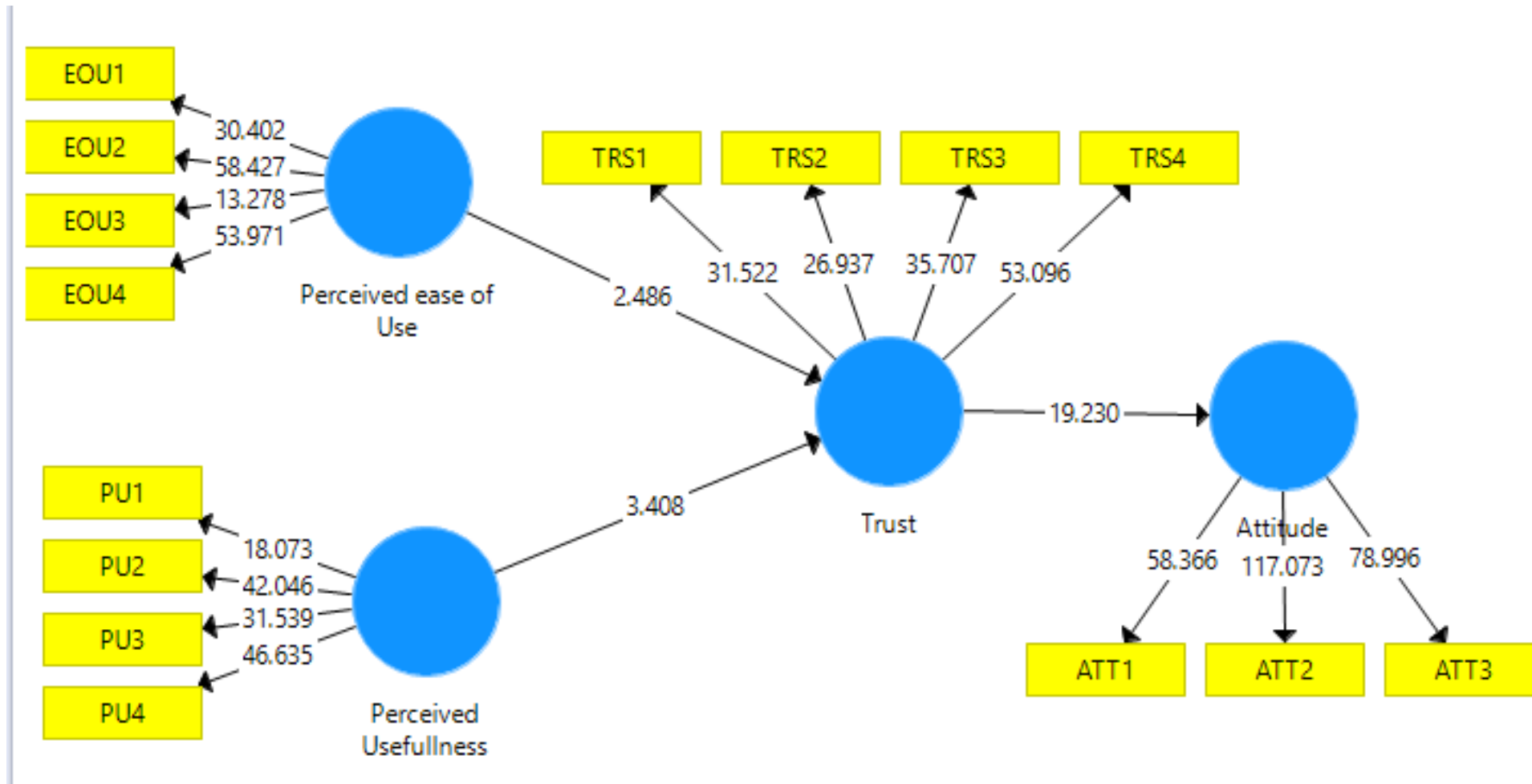
Excel Format

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 (STDEV)	T Statistics (O /STDEV)	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

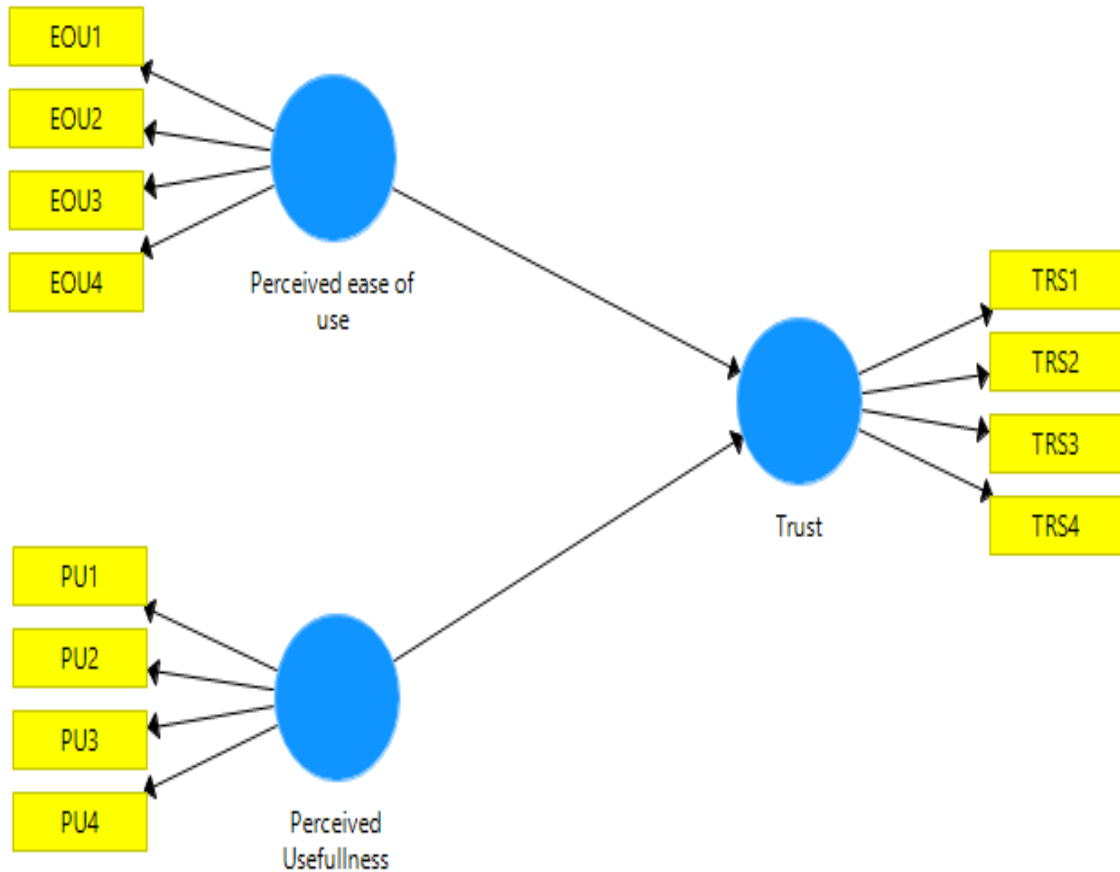
	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O /STDEV)	P Values
Trust	0.441	0.461	0.100	4.414	0.000
Attitude	0.717	0.717	0.074	9.642	0.000

Path Coefficients

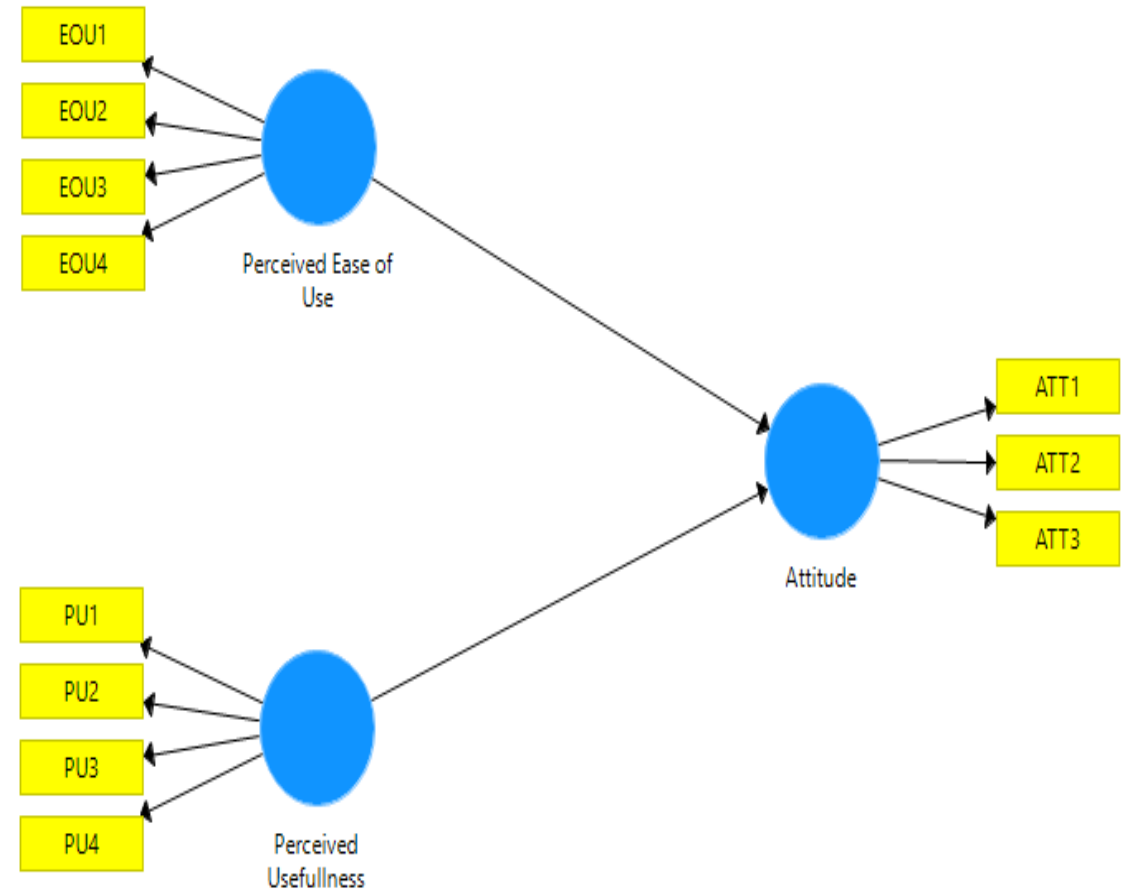
	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O /STDEV)	P Values
Perceived Usefulness -> Trust	0.410	0.416	0.120	3.408	0.001
Perceived ease of Use -> Trust	0.315	0.314	0.127	2.486	0.013
Trust -> Attitude	0.848	0.848	0.044	19.230	0.000

- 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%

Latihan 1. Menggambar Model & Analisis



(a) Regresi 01



(b) Regresi 02

Latihan 2. Menggambar Model & Analisis

SmartPLS: C:\Users\USER\smartpls_workspace
File Edit View Themes Calculate Info Language

Project Explorer

- ECSI
- Latihan SmartPLS Hari 1
 - Double-click to import data!
 - Latihan SmartPLS Hari 1
- Latihan SmartPLS MA
 - Latihan SmartPLS MA
 - Model Sederhana
 - Technology Acceptance Model DANAKU [100 records]
- PLS-SEM BOOK - Corporate Reputation Extended
- Archive

Indicators

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

Model Sederhana.splsm | Latihan SmartPLS MA.splsm

The diagram illustrates a PLS-SEM model with the following structure:

- Latent Variables (Blue Circles):**
 - Perceived ease of Use (EOU)
 - Perceived Usefulness (PU)
 - Perceived of Social Presence (PSP)
 - Trust (TRS)
 - Attitude (ATT)
 - Telepresence (TL)
 - Enjoyment (ENU)
- Indicators (Yellow Rectangles):**
 - EOU1, EOU2, EOU3, EOU4 (loading on EOU)
 - PU1, PU2, PU3, PU4 (loading on PU)
 - PSP1, PSP2, PSP3 (loading on PSP)
 - TR1, TR2, TR3, TR4 (loading on TRS)
 - ATT1, ATT2, ATT3 (loading on ATT)
 - TL1, TL2, TL3, TL4 (loading on TL)
 - ENU1, ENU2, ENU3, ENU4 (loading on ENU)
- Path Diagram:**
 - EOU → PU
 - PSP → PU
 - PU → TRS
 - PU → ATT
 - TR1 → TRS
 - TR2 → TRS
 - TR3 → TRS
 - TR4 → TRS
 - TR1 → TRS
 - TR2 → TRS
 - TR3 → TRS
 - TR4 → TRS
 - TL → ENU
 - TL1 → ENU
 - TL2 → ENU
 - TL3 → ENU
 - TL4 → ENU
 - ENU1 → ENU
 - ENU2 → ENU
 - ENU3 → ENU
 - ENU4 → ENU

Grid Snap
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Font Size: -1, -, +1
Bold, Italic
Border Size: -1, -, +1
Align