

PLS 分析之 Table 製作教學

※Table4(Scale properties of the measurement model)參考的影片：

<https://www.youtube.com/watch?v=Y54RnPh9FrM>

<https://www.youtube.com/watch?v=4RAjrDp5r7w>

| Construct | Item | Item mean | Standard deviation | Standardized item loading | T-statistic | Cronbach's alpha | Composite reliability | AVE |
|-------------------------------|------|-----------|--------------------|---------------------------|-------------|------------------|-----------------------|-------|
| Financial self-efficacy | FS1 | 5.83 | 1.028 | 0.690 | 20.428 | 0.776 | 0.848 | 0.528 |
| | FS2 | 5.46 | 1.014 | 0.805 | 49.851 | | | |
| | FS3 | 5.44 | 1.062 | 0.775 | 38.665 | | | |
| | FS4 | 5.56 | 1.041 | 0.664 | 24.339 | | | |
| | FS5 | 5.52 | 1.088 | 0.719 | 27.635 | | | |
| Confirmation | CON1 | 5.21 | 0.990 | 0.785 | 44.625 | 0.795 | 0.867 | 0.619 |
| | CON2 | 5.22 | 1.036 | 0.774 | 42.143 | | | |
| | CON3 | 5.25 | 1.033 | 0.821 | 57.104 | | | |
| | CON4 | 5.42 | 1.038 | 0.766 | 43.842 | | | |
| Fintech continuance intention | FCI1 | 5.73 | 0.913 | 0.729 | 27.180 | 0.802 | 0.864 | 0.561 |
| | FCI2 | 5.46 | 0.901 | 0.645 | 20.529 | | | |
| | FCI3 | 5.92 | 0.889 | 0.829 | 60.149 | | | |
| | FCI4 | 5.98 | 0.901 | 0.792 | 42.431 | | | |
| | FCI5 | 5.99 | 0.907 | 0.737 | 27.285 | | | |
| Satisfaction | SAT1 | 5.31 | 1.041 | 0.823 | 62.504 | 0.772 | 0.856 | 0.599 |
| | SAT2 | 5.22 | 1.039 | 0.801 | 49.875 | | | |
| | SAT3 | 5.14 | 1.080 | 0.813 | 53.086 | | | |
| | SAT4 | 5.88 | 1.004 | 0.646 | 20.082 | | | |
| Technological self-efficacy | TSE1 | 6.35 | 0.915 | 0.822 | 33.720 | 0.787 | 0.859 | 0.604 |
| | TSE2 | 6.49 | 0.832 | 0.816 | 29.376 | | | |
| | TSE3 | 6.36 | 0.783 | 0.729 | 19.599 | | | |
| | TSE4 | 6.05 | 0.909 | 0.735 | 18.607 | | | |
| Perceived usefulness | PU1 | 5.59 | 1.016 | 0.739 | 32.810 | 0.719 | 0.826 | 0.543 |
| | PU2 | 5.77 | 0.967 | 0.763 | 37.286 | | | |
| | PU3 | 5.71 | 0.948 | 0.745 | 34.348 | | | |
| | PU4 | 6.00 | 0.885 | 0.698 | 27.174 | | | |

Table 4. Scale properties of the measurement model


▲Table4 參考圖

| Construct | Item | Item Mean | Standard Deviation | Standardized item loading | Cronbach's Alpha | Composite Reliability | rho_A | AVE | VIF | |
|-----------------------------|---------------------------|-----------|--------------------|---------------------------|------------------|-----------------------|-------|------|------|------|
| USE | | | | | 0.96 | 0.96 | 0.96 | 0.67 | | |
| | Perceived usefulness(PEU) | PEU1 | 4.06 | 0.77 | 0.92 | 0.95 | 0.96 | 0.95 | 0.82 | 4.17 |
| | | PEU2 | 4.06 | 0.80 | 0.92 | | | | | 4.19 |
| | | PEU3 | 4.08 | 0.80 | 0.91 | | | | | 3.85 |
| | | PEU4 | 4.16 | 0.76 | 0.89 | | | | | 3.27 |
| PEU5 | | 4.06 | 0.83 | 0.90 | 3.47 | | | | | |
| Perceived ease of use(PEOU) | PEOU1 | 3.79 | 0.79 | 0.88 | 0.91 | 0.93 | 0.91 | 0.74 | 3.13 | |
| | PEOU2 | 3.79 | 0.84 | 0.87 | | | | | 2.86 | |
| | PEOU3 | 3.90 | 0.84 | 0.90 | | | | | 3.41 | |
| | PEOU4 | 4.13 | 0.75 | 0.83 | | | | | 2.17 | |
| | PEOU5 | 3.80 | 0.86 | 0.81 | | | | | 2.16 | |
| OPT | PT1 | 4.23 | 0.79 | 0.90 | 0.90 | 0.94 | 0.91 | 0.84 | 2.57 | |
| | PT2 | 4.12 | 0.76 | 0.92 | | | | | 2.97 | |
| | PT3 | 4.14 | 0.79 | 0.93 | | | | | 3.32 | |
| Attitude(ATT) | ATT1 | 4.08 | 0.76 | 0.82 | 0.93 | 0.94 | 0.93 | 0.77 | 2.23 | |
| | ATT2 | 3.82 | 0.80 | 0.90 | | | | | 3.60 | |
| | ATT3 | 3.97 | 0.74 | 0.88 | | | | | 2.90 | |
| | ATT4 | 3.92 | 0.78 | 0.90 | | | | | 3.54 | |
| | ATT5 | 4.04 | 0.75 | 0.89 | | | | | 3.13 | |
| Intention(INT) | INT1 | 4.06 | 0.76 | 0.90 | 0.89 | 0.93 | 0.89 | 0.82 | 2.34 | |
| | INT2 | 3.81 | 0.82 | 0.89 | | | | | 2.45 | |
| | INT3 | 3.86 | 0.88 | 0.92 | | | | | 3.11 | |
| USE Moderating Effect | | | | | 1.00 | 1.00 | 1.00 | 1.00 | | |
| | Nominal Theory | | | | | 0.94 | 0.95 | 0.94 | 0.72 | |
| | Maslow's Theory(ME) | | | | | 0.9 | 0.93 | 0.9 | 0.77 | |
| | ME1 | 2.57 | 0.99 | 0.91 | | | | | 3.75 | |
| ME2 | 2.53 | 1.02 | 0.92 | | | | | 3.76 | | |
| ME3 | 2.75 | 1.03 | 0.85 | | | | | 2.18 | | |
| ME4 | 2.57 | 1.11 | 0.82 | | | | | 2.01 | | |

▲Scale properties of the measurement model

Table4 需要用的數值

◆Item Mean、Standard Deviation：

直接點選  Grand Image [334 records] 最左邊的綠色圖標~

◆Standardized item loading：

跑 PLS→點下方的 Out Loading

◆Cronbach's Alpha、Composite Reliability、rho_A、AVE：

跑 PLS→點下方的 Construct Reliability and Validity

◆VIF：

跑 PLS→點下方的(VIF)

※Table5(Discriminant validity:Fornell-Larcker criterion)的製作方法：跑 PLS→點 Discriminant Validity

| | 1 | 2 | 3 | 4 | 5 | 6 |
|----------------------------------|-------|-------|-------|-------|-------|-------|
| 1. Perceived usefulness | 0.737 | | | | | |
| 2. Confirmation | 0.516 | 0.787 | | | | |
| 3. Fintech continuance intention | 0.520 | 0.449 | 0.749 | | | |
| 4. Financial self-efficacy | 0.416 | 0.392 | 0.358 | 0.727 | | |
| 5. Satisfaction | 0.490 | 0.659 | 0.493 | 0.409 | 0.774 | |
| 6. Technological self-efficacy | 0.269 | 0.142 | 0.246 | 0.157 | 0.118 | 0.777 |

▲Table5 參考圖

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|--|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|------|-------|-------|------|
| 1 ARCS | 0.82 | | | | | | | | | | | | | | |
| 2 ATTENTION | 0.94 | 0.88 | | | | | | | | | | | | | |
| 3 ATTITUDE | 0.84 | 0.79 | 0.88 | | | | | | | | | | | | |
| 4 CONFIDENCE | 0.91 | 0.76 | 0.77 | 0.88 | | | | | | | | | | | |
| 5 INTENTION | 0.88 | 0.85 | 0.60 | 0.80 | 0.90 | | | | | | | | | | |
| 6 Mental Effort | -0.25 | -0.22 | -0.26 | -0.27 | -0.19 | 0.88 | | | | | | | | | |
| 7 Mental Load | -0.24 | -0.21 | -0.30 | -0.26 | -0.20 | 0.85 | 0.90 | | | | | | | | |
| 8 Mental Theory | -0.25 | -0.22 | -0.28 | -0.28 | -0.20 | 0.97 | 0.95 | 0.85 | | | | | | | |
| 9 PEOU | 0.77 | 0.70 | 0.73 | 0.74 | 0.74 | -0.30 | -0.32 | -0.32 | 0.86 | | | | | | |
| 10 PT | 0.83 | 0.81 | 0.80 | 0.73 | 0.76 | -0.28 | -0.26 | -0.28 | 0.69 | 0.92 | | | | | |
| 11 PU | 0.83 | 0.77 | 0.78 | 0.76 | 0.78 | -0.26 | -0.27 | -0.28 | 0.74 | 0.84 | 0.91 | | | | |
| 12 RELEVENCE | 0.93 | 0.83 | 0.75 | 0.82 | 0.81 | -0.18 | -0.19 | -0.19 | 0.75 | 0.71 | 0.75 | 0.87 | | | |
| 13 SAT | 0.90 | 0.83 | 0.78 | 0.75 | 0.80 | -0.23 | -0.20 | -0.23 | 0.66 | 0.81 | 0.77 | 0.79 | 0.91 | | |
| 14 USE | 0.88 | 0.82 | 0.83 | 0.81 | 0.83 | -0.30 | -0.31 | -0.32 | 0.89 | 0.90 | 0.95 | 0.81 | 0.81 | 0.82 | |
| 15 USE Moderating Effect | 0.00 | -0.07 | -0.06 | 0.05 | 0.06 | 0.04 | 0.07 | 0.05 | 0.06 | -0.13 | -0.08 | 0.07 | -0.03 | -0.05 | 1.00 |
| Discriminant validity: Fornell-Larcker criterion | | | | | | | | | | | | | | | |

▲Discriminant validity: Fornell-Larcker criterion

※Table6(Discriminant validity:Heterotrsait - monotrait)的製作方法：跑 PLS→點 Discriminant Validity→點右上角的 HTMT

| | 1 | 2 | 3 | 4 | 5 |
|----------------------------------|-------|-------|-------|-------|-------|
| 1. Perceived usefulness | | | | | |
| 2. Confirmation | 0.678 | | | | |
| 3. Fintech continuance intention | 0.680 | 0.560 | | | |
| 4. Financial self-efficacy | 0.554 | 0.487 | 0.459 | | |
| 5. Satisfaction | 0.657 | 0.837 | 0.629 | 0.518 | |
| 6. Technological self-efficacy | 0.341 | 0.168 | 0.292 | 0.203 | 0.152 |

▲Table6 參考圖

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----|
| 1 ARCS | | | | | | | | | | | | | | | |
| 2 ATTENTION | 0.98 | | | | | | | | | | | | | | |
| 3 ATTITUDE | 0.89 | 0.86 | | | | | | | | | | | | | |
| 4 CONFIDENCE | 0.96 | 0.82 | 0.83 | | | | | | | | | | | | |
| 5 INTENTION | 0.95 | 0.93 | 0.87 | 0.88 | | | | | | | | | | | |
| 6 Mental Effort | 0.26 | 0.24 | 0.28 | 0.29 | 0.21 | | | | | | | | | | |
| 7 Mental Load | 0.26 | 0.23 | 0.33 | 0.29 | 0.23 | 0.96 | | | | | | | | | |
| 8 Mental Theory | 0.26 | 0.24 | 0.30 | 0.30 | 0.22 | 1.06 | 1.05 | | | | | | | | |
| 9 PEOU | 0.82 | 0.75 | 0.79 | 0.80 | 0.82 | 0.33 | 0.36 | 0.35 | | | | | | | |
| 10 PT | 0.88 | 0.88 | 0.87 | 0.79 | 0.85 | 0.31 | 0.29 | 0.31 | 0.76 | | | | | | |
| 11 PU | 0.87 | 0.82 | 0.83 | 0.81 | 0.85 | 0.28 | 0.30 | 0.29 | 0.80 | 0.91 | | | | | |
| 12 RELEVENCE | 1.00 | 0.91 | 0.82 | 0.90 | 0.90 | 0.20 | 0.22 | 0.21 | 0.83 | 0.78 | 0.82 | | | | |
| 13 SAT | 0.96 | 0.91 | 0.85 | 0.82 | 0.89 | 0.25 | 0.22 | 0.24 | 0.72 | 0.90 | 0.84 | 0.88 | | | |
| 14 USE | 0.91 | 0.87 | 0.89 | 0.86 | 0.90 | 0.32 | 0.34 | 0.34 | 0.96 | 0.96 | 0.99 | 0.87 | 0.87 | | |
| 15 USE Moderating Effec | 0.07 | 0.08 | 0.06 | 0.05 | 0.07 | 0.04 | 0.07 | 0.05 | 0.10 | 0.14 | 0.08 | 0.08 | 0.04 | 0.11 | |
| Discriminant validity: Heterotrsait - monotrait (HTMT) | | | | | | | | | | | | | | | |

▲Discriminant validity: Heterotrsait - monotrait(HTMT)

※結構模型評鑑鑑定表參考的影片：

<https://www.youtube.com/watch?v=CviVCjOZ0xE>

| | Path Coefficients | t | p-value | Outcome | R square | f square | q square | 95%CIUL | 95%CIUL | Model Fit |
|-----------------------|-------------------|------|---------|-----------|----------|----------|----------|---------|---------|----------------|
| H1:USE→ATTITUDE | 0.41 | 2.45 | 0.014 | Supported | 0.75 | 0.15 | 2.37 | 0.04 | 0.69 | SRMR=0.3 |
| H2:ARCS→ATTITUDE | 0.48 | 3.09 | 0.002 | Supported | 0.75 | 0.20 | 2.15 | 0.21 | 0.84 | NFI=na |
| H3:ATTITUDE→INTENTION | 0.34 | 3.54 | 0 | Supported | 0.74 | 0.14 | 2.30 | 0.15 | 0.53 | RMS theta=0.16 |
| H4:USE→INTENTION | 0.55 | 5.92 | 0 | Supported | 0.74 | 0.35 | 1.47 | 0.36 | 0.72 | |
| H5:Mental Theory→USE | -0.32 | 3.27 | 0.001 | Supported | 0.10 | 0.11 | -0.01 | -0.50 | -0.12 | |

▲結構模型評鑑鑑定表

結構模型鑑定表需要用的數值

◆Path Coefficients(路徑係數)：跑 PLS 之後，回頭看結構模型，箭頭上的數字就是路徑係數。

◆| t |：跑 Bootstrapping，回頭看結構模型，箭頭上的數字就是 t 值。

◆p value：跑 Bootstrapping 就可以看到了。

◆Outcome：若 | t | 大於 1.96 即成立！Supported！

◆R square：跑 PLS→看箭頭指向的藍色構面中的數字，就是該假設的 R square。

◆f square：跑 PLS→點選下方的 f square。

◆q square：

(1)included：跑 Blindfolding→回頭看結構模型，看箭頭指向的藍色構面中的數字，就是該假設的 included

(2)excluded：刪除構面→跑 Blindfolding→回頭看結構模型，看箭頭指向的藍色構面中的數字，就是該假設的 excluded

(3)q square=(included-excluded)/(1-included)

| | included | excluded | q square |
|----------------------|----------|----------|----------|
| H1:USE→ATTITUDE | 0.565 | 0.538 | 0.062069 |
| H2:ARCS→ATTITUDE | 0.565 | 0.526 | 0.089655 |
| H3:ATTITUDE→INTENTIO | 0.579 | 0.553 | 0.061758 |
| H4:USE→INTENTION | 0.579 | 0.506 | 0.173397 |
| H5:Mental Theory→USE | 0.066 | 0 | 0.070664 |

▲計算 q square 公式可參考=(B2-C2)/(1-B2)

◆95%CIUL、95%CIUL：跑 Bootstrapping→點下方的 Path Coefficients→點上方的 Confidence Intervals Bias Corrected→表格中的 2.50%即是 95%CIUL，表格中的 97.50%即是 95%CIUL

◆**Model Fit**：跑 PLS→點 Model Fit

(1)SRMR、NFI：在 Fit Summary

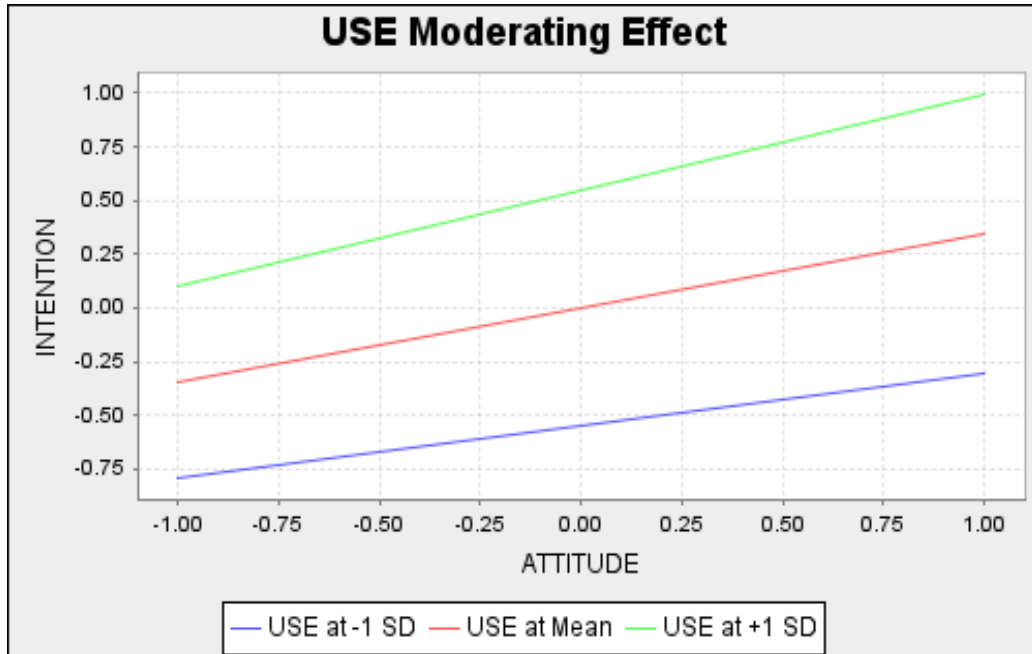
(2)RMS theta：在 rms Theta

※調節效果參考的影片：

<https://www.youtube.com/watch?v=PK4t7vmfLK8>

| | Original Sample | t | p-value | Outcome |
|-------------------|-----------------|------|---------|-----------|
| H6 : USExATT→INT | 0.101 | 2.87 | 0.049 | Supported |
| H7 : ARCSxUSE→ATT | 0.082 | 1.97 | 0.004 | Supported |

▲調節效果



▲調節效果圖形

點選構面按右鍵後→Add Moderating Effect→設定 MV 與 IV→跑 Bootstrapping→得到表格!!

跑 PLS→點 Simple Slope Analysis→得到圖形，觀察斜率

※中介效果鑑定表參考的影片：

<https://www.youtube.com/watch?v=dCcKiC097QU>

https://www.youtube.com/watch?v=MfUIIRDd_pg

表 16-4 中介效果檢定表

| 自變數 | 中介變數 | 依變數 | 直接效果 | 間接效果 | 整體效果 | VAF | 假設 |
|------------|------------|-----------|--------------------|--------------------|--------|--------|--------|
| 諧和式熱情 (HP) | 深層演出策略(DA) | 工作滿意度(JS) | 0.209* (3.932) | 0.034* (2.241) | 0.243 | 13.99% | H9 成立 |
| 諧和式熱情 (HP) | 表層演出策略(SA) | | 0.209* (3.932) | -0.005 (0.326) | 0.204 | 2.45% | 不顯著 |
| 強迫式熱情 (OP) | 深層演出策略(DA) | | -0.144* (2.527) | -0.023 (1.815) | -0.167 | 13.77% | 不顯著 |
| 強迫式熱情 (OP) | 表層演出策略(SA) | | -0.144* (2.527) | -0.057* (2.763) | -0.201 | 28.36% | H10 成立 |

註：1. 「*」表 P<0.05
2. ()內數值為 t 值

▲中介效果鑑定表參考圖

| independent variable | Intervening Variable | dependent variable | direct effect | Indirect effect | total effect | VAF | hypothesis |
|-----------------------|----------------------|--------------------|---------------|-----------------|--------------|--------|------------|
| Perceived Ease of Use | Perceived Usefulness | Intention | 0.16(2.443) | 0.069(2.298) | 0.26 | 0.26 | Supported |
| Perceived Usefulness | Security Risk | Intention | 0.263(3.274) | 負0.003(0.185) | 0.30 | (0.01) | Supported |
| Security Risk | Emotional Trust | Intention | 負0.011(0.192) | 0.057(1.904) | 0.24 | 0.23 | Supported |

▲中介效果鑑定表

中介效果鑑定表需要用的數值

◆直接效果：跑 Bootstrapping→點選下方的 Path Coefficieients

◆間接效果：

<法一>跑 Bootstrapping→點選下方的 Specific Indirect Effect

<法二>跑 PLS→點選下方的 Indirect Effect

◆整體效果：

<法一>跑 Bootstrapping→點選下方的 Total Effect

◆VAF：間接效果/整體效果=VAF

沒有中介效果：VAF<20%

部分中介效果：20%<VAF<80%

完全中介效果：VAF>80%

◆假設：

T 值大於 1.96 即顯著。