```
      name:  <unnamed>
       log:  /Users/HoZhang/Author_Response_Log.smcl
  log type:  smcl
 opened on:  20 May 2023, 00:08:28

 1 . /*
   > The code generates the "Replication Study (Second Wave)" panel of the table
   > on page 5 of "Author Response to Replication of Ho and Zhang (2008)"
   >
   > Content of the code file:
   > (A) Data Description
   > (B) Data Preparation
   > (C) Data Analysis
   > */
 2 .
 3 . *************************
 4 . ** (A) Data Description **
 5 . *************************
 6 . /*
   > The replication team collected data in two waves:
   > the first wave was collected prior to the original submission
   > of the replication-summary paper to Management Science;
   > the second wave was collected thereafter.
   >
   > The table on page 2 of the author response compares data from
   > the original study with data from the first wave of replication
   > shared by the replication team upon collection.
   >
   > The table on page 5 of the author response compares data from
   > the original study with data from the second wave of replication
   > subsequently shared by the replication team upon collection.
   > */
 7 .
 8 . *************************
 9 . ** (B) Data Preparation **
10 . *************************
```

```
11 .
12 . ** Import second-wave data from UTD
13 . import delimited dataAll_UTD_update_Fall2022.csv, clear
   (encoding automatically selected: UTF-8)
   (18 vars, 2,882 obs)

14 .
15 . * Select second-wave observations, those with "Fall" in the date variable
16 . keep if strpos(date, "Fall") > 0
   (2,090 observations deleted)

17 .
18 . * Save second-wave data from UTD
19 . save UTD.dta, replace
   file UTD.dta saved

20 .
21 . ** Import second-wave data from UM
22 . import delimited dataAll_UM.csv, clear
   (encoding automatically selected: UTF-8)
   (18 vars, 1,320 obs)

23 .
24 . * All UM data were collected in the second wave, hence no need for selection
25 .
26 . * Change variable p to string type to be consistent with the UTD data
27 . tostring p, replace
   p was byte now str2

28 .
29 . * Save second-wave data from UM
30 . save UM.dta, replace
   file UM.dta saved

31 .
32 . ** Concatenate second-wave data from UTD and second-wave data from UM
33 . use UTD.dta, clear
```

```
34 . append using UM.dta
   (variable date was str14, now str17 to accommodate using data's values)

35 .
36 . ** Generate variables, use percentage format for acceptance and efficiency
37 . gen AcceptCode = (accept=="Accept")*100

38 . gen TotalProfit = rprofit+sprofit

39 . gen Efficiency = TotalProfit/16*100

40 . gen RetailPrice = 10-q
   (44 missing values generated)

41 .
42 . ** Label the TPT (two-part tariff) indicator
43 . label define tpt_label 0 "QD" 1 "TPT"

44 . label values tpt tpt_label

45 .
46 . ** Save second-wave data
47 . save data_second_wave.dta, replace
   file data_second_wave.dta saved

48 .
49 .
50 . ***********************
51 . ** (C) Data Analysis **
52 . ***********************
53 . /*
   > Variable definition:
   > w: Wholesale price
   > f: Fixed fee
   > RetailPrice: Retail price
   > AcceptCode: Acceptance (%)
   > Efficiency: Efficiency (%)
   >
   > Note:
   > Subjects play in pairs, as Player A (manufacturer) or Player B (retailer).
   > Using the observations for Player A (or Player B) alone suffices to
   > capture observations of players in both roles in the following analysis.
   > */
```

```
54 .
55 . ** Compare variable means between the TPT and QD conditions
56 . use data_second_wave.dta, clear

57 .
58 . * Wholesale price
59 . ttest w if myname == "Player A", by(tpt)

Two-sample t test with equal variances
```

Group	Obs	Mean	Std. err.	Std. dev.	[95% conf. interval]	
QD	**517**	**4.321083**	**.0650458**	**1.478987**	**4.193296**	**4.44887**
TPT	**508**	**4.559055**	**.0627836**	**1.41507**	**4.435707**	**4.682403**
Combined	**1,025**	**4.439024**	**.045348**	**1.451844**	**4.350039**	**4.52801**
diff		**-.2379719**	**.0904382**		**-.4154376**	**-.0605063**

```
    diff = mean(QD) - mean(TPT)                                   t =  -2.6313
H0: diff = 0                                     Degrees of freedom =     1023

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.0043         Pr(|T| > |t|) = 0.0086          Pr(T > t) = 0.9957
```

```
60 .
61 . * Fixed fee
62 . ttest f if myname == "Player A", by(tpt)

Two-sample t test with equal variances
```

Group	Obs	Mean	Std. err.	Std. dev.	[95% conf. interval]	
QD	**517**	**5.176015**	**.1211111**	**2.753779**	**4.938084**	**5.413947**
TPT	**508**	**4.173228**	**.1131378**	**2.549996**	**3.950952**	**4.395505**
Combined	**1,025**	**4.679024**	**.0843476**	**2.700441**	**4.51351**	**4.844538**
diff		**1.002787**	**.1658467**		**.6773486**	**1.328226**

```
    diff = mean(QD) - mean(TPT)                                   t =   6.0465
H0: diff = 0                                     Degrees of freedom =     1023

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 1.0000         Pr(|T| > |t|) = 0.0000          Pr(T > t) = 0.0000
```

```
63 .
64 . * Retail price (if accept)
65 . ttest RetailPrice if myname == "Player A" & AcceptCode == 100, by(tpt)
```

Two-sample t test with equal variances

Group	Obs	Mean	Std. err.	Std. dev.	[95% conf.	interval]
QD	**415**	**6.978313**	**.0450575**	**.9178909**	**6.889743**	**7.066883**
TPT	**397**	**7.161209**	**.0507984**	**1.012152**	**7.061341**	**7.261077**
Combined	**812**	**7.067734**	**.0340003**	**.9688583**	**7.000995**	**7.134473**
diff		**-.1828958**	**.0677551**		**-.3158922**	**-.0498995**

diff = mean(**QD**) - mean(**TPT**) t = **-2.6994**
H0: diff = 0 Degrees of freedom = **810**

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0
Pr(T < t) = **0.0035** Pr(|T| > |t|) = **0.0071** Pr(T > t) = **0.9965**

```
66 .
67 . * Acceptance (%)
68 . ttest AcceptCode if myname == "Player A", by(tpt)
```

Two-sample t test with equal variances

Group	Obs	Mean	Std. err.	Std. dev.	[95% conf.	interval]
QD	**517**	**80.27079**	**1.751898**	**39.83401**	**76.82906**	**83.71252**
TPT	**508**	**78.14961**	**1.835224**	**41.36385**	**74.54403**	**81.75519**
Combined	**1,025**	**79.21951**	**1.267926**	**40.59344**	**76.73148**	**81.70754**
diff		**2.121187**	**2.536322**		**-2.855802**	**7.098176**

diff = mean(**QD**) - mean(**TPT**) t = **0.8363**
H0: diff = 0 Degrees of freedom = **1023**

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0
Pr(T < t) = **0.7984** Pr(|T| > |t|) = **0.4032** Pr(T > t) = **0.2016**

```
69 .
70 . * Efficiency (%)
71 . ttest Efficiency if myname == "Player A", by(tpt)

Two-sample t test with equal variances
```

Group	Obs	Mean	Std. err.	Std. dev.	[95% conf.	interval]
QD	**517**	**71.25242**	**1.617338**	**36.77443**	**68.07504**	**74.42979**
TPT	**508**	**66.32628**	**1.756497**	**39.58944**	**62.87537**	**69.77719**
Combined	**1,025**	**68.81098**	**1.194925**	**38.25628**	**66.46619**	**71.15576**
diff		**4.926138**	**2.386145**		**.2438394**	**9.608437**

```
    diff = mean(QD) - mean(TPT)                                   t =   2.0645
H0: diff = 0                                     Degrees of freedom =     1023

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.9804         Pr(|T| > |t|) = 0.0392          Pr(T > t) = 0.0196

74 .
75 . log close
      name:  <unnamed>
       log:  /Users/HoZhang/Author_Response_Log.smcl
  log type:  smcl
 closed on:  20 May 2023, 00:08:28
```