

Chp65-1.Is there a difference in the profit comparison of the four types of e-commerce website design A/B/C/D? (Analyzed using SPSS software).

(1). [Question]: What are the x and y variables of this analysis question?

	A	B	C		A	B	C
1	ID	設計樣式	消費金額	1274	1273	設計4	1540
2	1	設計1	481	1275	1274	設計4	1410
3	2	設計1	1476	1276	1275	設計4	1043
4	3	設計1	854	1277	1276	設計4	1602
5	4	設計1	617	1278	1277	設計4	1338
6	5	設計1	1199	1279	1278	設計4	812
7	6	設計1	1324	1280	1279	設計4	842
8	7	設計1	1372	1281	1280	設計4	1172
9	8	設計1	1448	1282	1281	設計4	1676
10	9	設計1	1072	1283	1282	設計4	1042
11	10	設計1	1689	1284	1283	設計4	851
12	11	設計1	700	1285	1284	設計4	1538
13	12	設計1	897	1286	1285	設計4	991
14	13	設計1	800	1287	1286	設計4	2122
15	14	設計1	1149	1288	1287	設計4	1476
16	15	設計1	1360	1289	1288	設計4	706
17	16	設計1	1700	1290	1289	設計4	1245
18	17	設計1	739	1291	1290	設計4	1730
19	18	設計1	1189	1292	1291	設計4	1316
20	19	設計1	1690	1293	1292	設計4	1373
21	20	設計1	1316	1294	1293	設計4	1015
22	21	設計1	1094	1295	1294	設計4	924

(1).[Question]: What kind of [statistical verification] should be

used for such data?

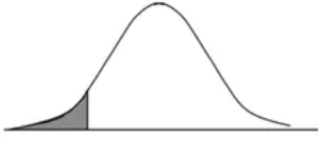
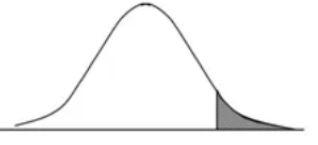
Application: **???** Accreditation

Because x is **???** and y is **???**

(Note: There is only one x-factor, so it is called "single factor").



(2).[Question]: Is this [double-tailed test, or right tail test, or left tail test]?

單尾檢定 (左尾)	雙尾檢定	單尾檢定 (右尾)
$H_0 : \mu = \mu_0$ $H_1 : \mu < \mu_0$	$H_0 : \mu = \mu_0$ $H_1 : \mu \neq \mu_0$	$H_0 : \mu = \mu_0$ $H_1 : \mu > \mu_0$
		

[Is there a difference in the average purchase amount and the design ABCD?]], which belongs to ??? Accreditation

(3).[How to set statistical hypotheses]: [Is there a difference in the profit comparison of the four types of website design A/B/C/D]?

→ Question proposition: **Is there a difference between the profit comparison of the four types of website design A/B/C/D**

→ Convert to: Statistical Hypothesis:

- 1. **H0虛無假設** (否定命題的假設)
 - **??????????**
- 2. **H1 Opposing Hypothesis** (Hypothesis of Affirmative Proposition) →
 - **????????????**

→ [Note]: **H0 nihilistic hypothesis/negative hypothesis**: is the opposite of the proposition

→ [Note]: **H1 Opposing Hypothesis/Affirmative Hypothesis**: is the affirmation of a proposition

(4).[Question]: [Is there a difference in the profit comparison of the four types of website design A/B/C/D]?

敘述統計

消費金額

	N	平均值	標準差	標準誤	平均值的 95% 信賴區間		最小值	最大值
					下限	上限		
設計樣式1	323	1236.93	345.433	19.338	1199.12	1274.75	171	2253
設計樣式2	325	1240.51	349.757	19.401	1202.34	1278.68	326	2388
設計樣式3	330	1330.21	347.091	19.107	1292.62	1367.79	305	2357
設計樣式4	325	1256.54	342.418	18.994	1219.17	1293.91	219	2139
總計	1303	1266.34	347.865	9.637	1247.43	1285.24	171	2388

變異數分析

消費金額	平方和	自由度	均方	F	顯著性
群組之間	1873468.605	3	624489.535	5.211	.001
群組內	155681522.5	1299	119847.207		
總計	157554991.1	1302			

Step 1: Look at the p-value of the obviousness:

Significance p-value ??? 0.05 trust level 0.05,

→ So in line with ??? Assumptions

→ H1 對立假設 : ? ? ? ? ? ? ? ? ? ? ? ? ?

→ H1 對立假設 : ? ? ? ? ? ? ? ? ? ? ? ? ?

(5). [Conclusion]:

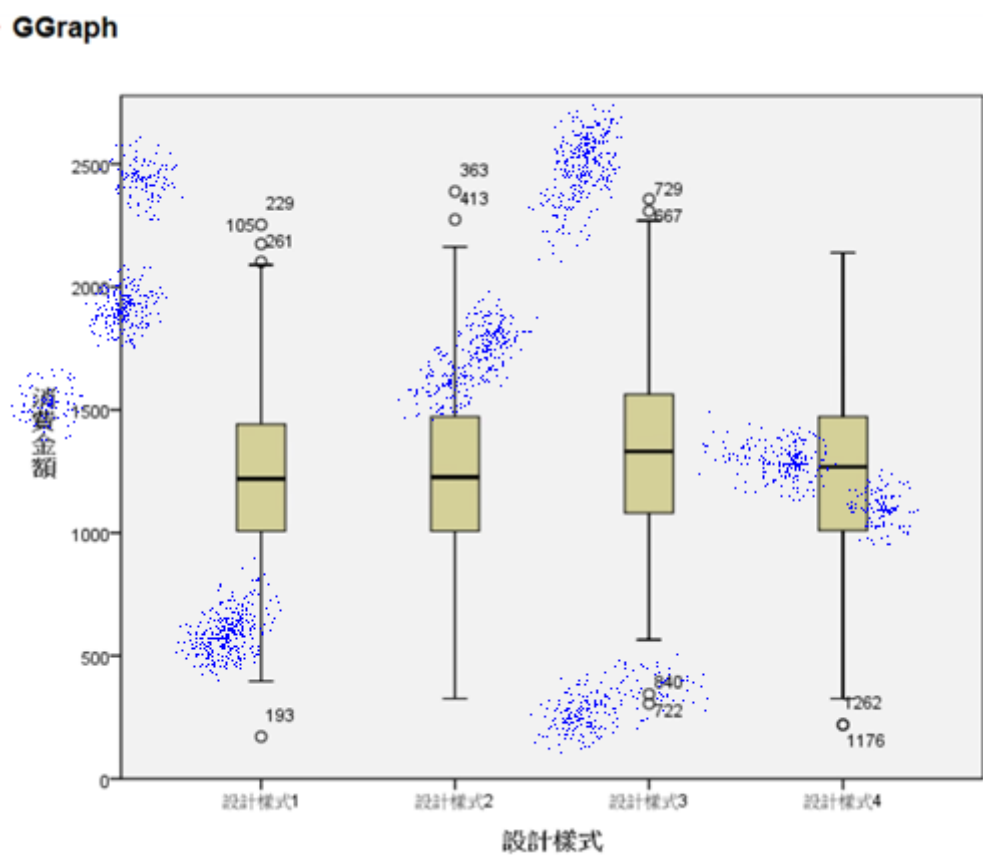
1. [Conclusion 1]: The impact of these 4 website design methods on the sales amount ???

2. [Conclusion 2]: At present, I only know that there is a significant difference in the sales effect of at least 2 designs between these 4 website design methods, but I don't know who and whom? (I don't know the relationship between the 4 influences on each other)

3. [Conclusion 3]: Make a [recommendation form for A/B/C/D schemes].

網站設計種類	平均銷售金額	建議採用順序
設計3	1330	1
設計4	1256	2
設計2	1240	3
設計1(原本設計)	1236	4

(6). [Drawing]: box drawing



(7). [Drawing]: Line drawing

平均值圖形

