

10.12 CASE STUDY

Your directors are interested in how owners of the different types of existing food outlets feel about the future.

Carry out chi-square to see if there is any association between business outlook and:

- Type of outlet
- Type of ownership
- Size of establishment

Type of outlet

			Type of Outlet			Total
			Takeaway	Cafeteria	Restaurant	
Business Outlook	Hopeless	Count	15	9	8	32
		Expected Count	13.6	9.3	9.1	32.0
	Very poor	Count	11	15	12	38
		Expected Count	16.2	11.1	10.8	38.0
	Poor	Count	27	18	17	62
		Expected Count	26.4	18.1	17.6	62.0
	Good	Count	31	18	17	66
		Expected Count	28.1	19.2	18.7	66.0
	Very good	Count	19	9	16	44
		Expected Count	18.7	12.8	12.5	44.0
	Excellent	Count	5	5	2	12
		Expected Count	5.1	3.5	3.4	12.0
Total		Count	108	74	72	254
		Expected Count	108.0	74.0	72.0	254.0

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.404 ^a	10	.687
Likelihood Ratio	7.541	10	.674
Linear-by-Linear Association	.037	1	.847
N of Valid Cases	254		

a. 2 cells (11.1%) have expected count less than 5. The minimum expected count is 3.40.

No significant association between business outlook and type of food outlet.

Type of ownership

Business Outlook * Type of owner Crosstabulation						
			Type of owner			Total
			Sole owner	Partnership	Company	
Business Outlook	Hopeless	Count	17	1	14	32
		Expected Count	12.8	2.7	16.5	32.0
	Very poor	Count	16	1	20	37
		Expected Count	14.8	3.1	19.1	37.0
	Poor	Count	24	6	31	61
		Expected Count	24.4	5.1	31.5	61.0
	Good	Count	28	9	28	65
		Expected Count	26.0	5.5	33.5	65.0
	Very good	Count	12	2	30	44
		Expected Count	17.6	3.7	22.7	44.0
	Excellent	Count	3	2	6	11
		Expected Count	4.4	.9	5.7	11.0
Total		Count	100	21	129	250
		Expected Count	100.0	21.0	129.0	250.0

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.540 ^a	10	.150
Likelihood Ratio	14.855	10	.137
Linear-by-Linear Association	3.197	1	.074
N of Valid Cases	250		

a. 5 cells (27.8%) have expected count less than 5. The minimum expected count is .92.

No significant association between business outlook and type of ownership.

Size of establishment

Business Outlook * Size of establishment Crosstabulation						
			Size of establishment			Total
			1-9.9 FTE	10-20 FTE	> 20 FTE	
Business Outlook	Hopeless	Count	21	3	8	32
		Expected Count	16.8	8.2	7.0	32.0
	Very poor	Count	22	6	8	36
		Expected Count	18.9	9.2	7.9	36.0
	Poor	Count	33	16	11	60
		Expected Count	31.5	15.4	13.2	60.0
	Good	Count	28	20	14	62
		Expected Count	32.5	15.9	13.6	62.0
	Very good	Count	21	13	10	44
		Expected Count	23.1	11.3	9.7	44.0
	Excellent	Count	4	5	3	12
		Expected Count	6.3	3.1	2.6	12.0
Total		Count	129	63	54	246
		Expected Count	129.0	63.0	54.0	246.0

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.857 ^a	10	.369
Likelihood Ratio	11.863	10	.294
Linear-by-Linear Association	2.362	1	.124
N of Valid Cases	246		

a. 2 cells (11.1%) have expected count less than 5. The minimum expected count is 2.63.

No significant association between business outlook and size of establishment.