

## MANOVA: X5 -- SINGLE FACTOR 2 LEVEL

### General Linear Model

#### Between-Subjects Factors

		Value Label	N
X5 - Distribution System	0	Indirect through broker	108
	1	Direct to customer	92

#### Descriptive Statistics

X5 - Distribution System		Mean	Std. Deviation	N
X19 - Satisfaction	Indirect through broker	6.325	1.0328	108
	Direct to customer	7.688	1.0488	92
	Total	6.952	1.2411	200
X20 - Likely to Recommend	Indirect through broker	6.488	.9859	108
	Direct to customer	7.498	.9300	92
	Total	6.953	1.0829	200
X21 - Likely to Purchase	Indirect through broker	7.336	.8802	108
	Direct to customer	8.051	.7449	92
	Total	7.665	.8932	200

#### Box's Test of Equality of Covariance Matrices<sup>a</sup>

Box's M	4.597
F	.753
df1	6
df2	265275.8
Sig.	.607

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept+X5

## **MANOVA: X5 -- SINGLE FACTOR 2 LEVEL**

### **Bartlett's Test of Sphericity<sup>a</sup>**

Likelihood Ratio	.000
Approx. Chi-Square	260.055
df	5
Sig.	.000

Tests the null hypothesis that the residual covariance matrix is proportional to an identity matrix.

a. Design: Intercept+x5

### **Multivariate Tests<sup>c</sup>**

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.989	6094.102 <sup>b</sup>	3.000	196.000	.000	.989
	Wilks' Lambda	.011	6094.102 <sup>b</sup>	3.000	196.000	.000	.989
	Hotelling's Trace	93.277	6094.102 <sup>b</sup>	3.000	196.000	.000	.989
	Roy's Largest Root	93.277	6094.102 <sup>b</sup>	3.000	196.000	.000	.989
x5	Pillai's Trace	.307	28.923 <sup>b</sup>	3.000	196.000	.000	.307
	Wilks' Lambda	.693	28.923 <sup>b</sup>	3.000	196.000	.000	.307
	Hotelling's Trace	.443	28.923 <sup>b</sup>	3.000	196.000	.000	.307
	Roy's Largest Root	.443	28.923 <sup>b</sup>	3.000	196.000	.000	.307

## **MANOVA: X5 -- SINGLE FACTOR 2 LEVEL**

**Multivariate Tests<sup>c</sup>**

Effect		Noncent. Parameter	Observed Power <sup>a</sup>
Intercept	Pillai's Trace	18282.307	1.000
	Wilks' Lambda	18282.307	1.000
	Hotelling's Trace	18282.307	1.000
	Roy's Largest Root	18282.307	1.000
x5	Pillai's Trace	86.769	1.000
	Wilks' Lambda	86.769	1.000
	Hotelling's Trace	86.769	1.000
	Roy's Largest Root	86.769	1.000

a. Computed using alpha = .05

b. Exact statistic

c. Design: Intercept+x5

**Levene's Test of Equality of Error Variances<sup>a</sup>**

	F	df1	df2	Sig.
X19 - Satisfaction	.001	1	198	.978
X20 - Likely to Recommend	.643	1	198	.424
X21 - Likely to Purchase	2.832	1	198	.094

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept+x5

## MANOVA: X5 -- SINGLE FACTOR 2 LEVEL

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	X19 - Satisfaction	92.300 <sup>b</sup>	1	92.300	85.304	.000
	X20 - Likely to Recommend	50.665 <sup>c</sup>	1	50.665	54.910	.000
	X21 - Likely to Purchase	25.396 <sup>d</sup>	1	25.396	37.700	.000
Intercept	X19 - Satisfaction	9755.432	1	9755.432	9015.970	.000
	X20 - Likely to Recommend	9717.522	1	9717.522	10531.655	.000
	X21 - Likely to Purchase	11762.528	1	11762.528	17461.366	.000
x5	X19 - Satisfaction	92.300	1	92.300	85.304	.000
	X20 - Likely to Recommend	50.665	1	50.665	54.910	.000
	X21 - Likely to Purchase	25.396	1	25.396	37.700	.000
Error	X19 - Satisfaction	214.239	198	1.082		
	X20 - Likely to Recommend	182.694	198	.923		
	X21 - Likely to Purchase	133.379	198	.674		
Total	X19 - Satisfaction	9972.600	200			
	X20 - Likely to Recommend	9900.810	200			
	X21 - Likely to Purchase	11909.220	200			
Corrected Total	X19 - Satisfaction	306.539	199			
	X20 - Likely to Recommend	233.359	199			
	X21 - Likely to Purchase	158.775	199			

## MANOVA: X5 -- SINGLE FACTOR 2 LEVEL

Tests of Between-Subjects Effects

Source	Dependent Variable	Partial Eta Squared	Noncent. Parameter	Observed Power <sup>a</sup>
Corrected Model	X19 - Satisfaction	.301	85.304	1.000
	X20 - Likely to Recommend	.217	54.910	1.000
	X21 - Likely to Purchase	.160	37.700	1.000
Intercept	X19 - Satisfaction	.979	9015.970	1.000
	X20 - Likely to Recommend	.982	10531.655	1.000
	X21 - Likely to Purchase	.989	17461.366	1.000
x5	X19 - Satisfaction	.301	85.304	1.000
	X20 - Likely to Recommend	.217	54.910	1.000
	X21 - Likely to Purchase	.160	37.700	1.000
Error	X19 - Satisfaction			
	X20 - Likely to Recommend			
	X21 - Likely to Purchase			
Total	X19 - Satisfaction			
	X20 - Likely to Recommend			
	X21 - Likely to Purchase			
Corrected Total	X19 - Satisfaction			
	X20 - Likely to Recommend			
	X21 - Likely to Purchase			

- a. Computed using alpha = .05  
b. R Squared = .301 (Adjusted R Squared = .298)  
c. R Squared = .217 (Adjusted R Squared = .213)  
d. R Squared = .160 (Adjusted R Squared = .156)

Residual SSCP Matrix

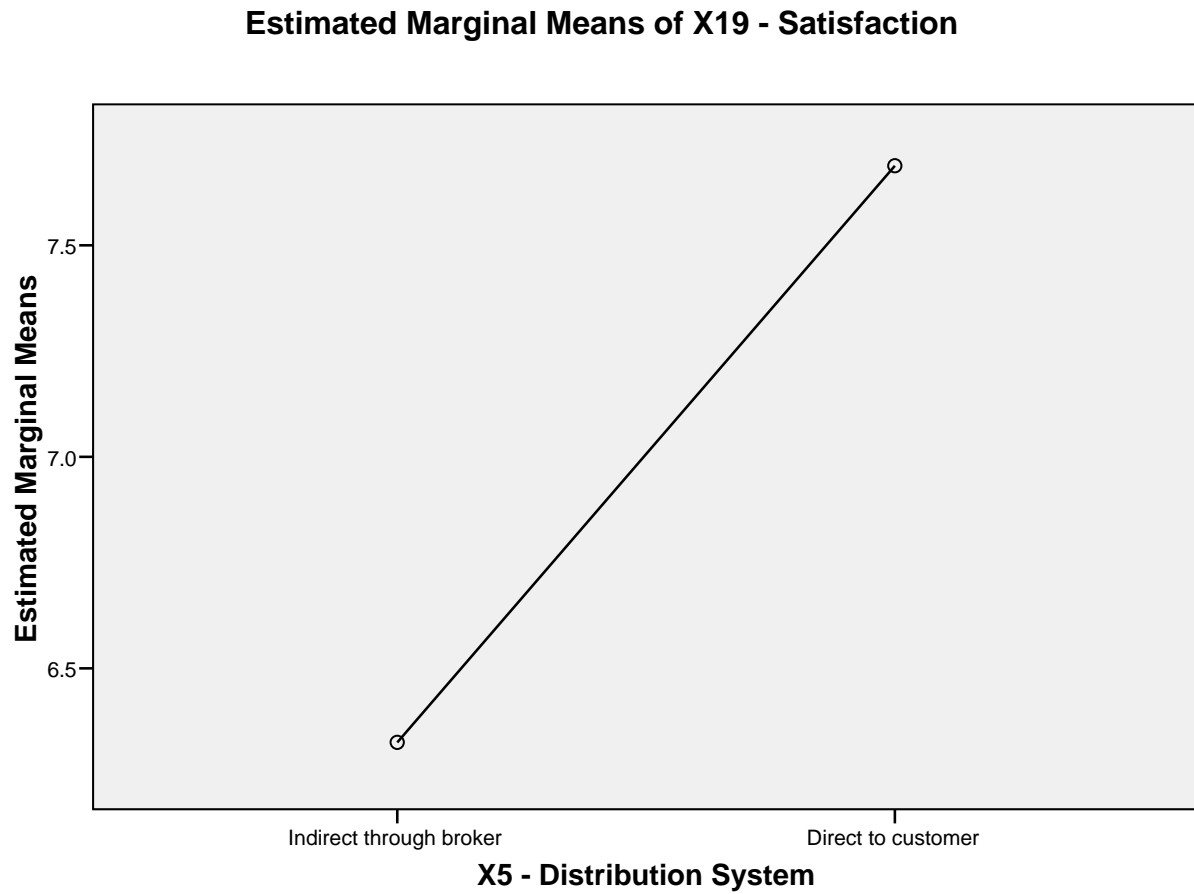
		X19 - Satisfaction	X20 - Likely to Recommend	X21 - Likely to Purchase
Sum-of-Squares and Cross-Products	X19 - Satisfaction	214.239	135.310	111.699
	X20 - Likely to Recommend	135.310	182.694	91.337
	X21 - Likely to Purchase	111.699	91.337	133.379
Covariance	X19 - Satisfaction	1.082	.683	.564
	X20 - Likely to Recommend	.683	.923	.461
	X21 - Likely to Purchase	.564	.461	.674
Correlation	X19 - Satisfaction	1.000	.684	.661
	X20 - Likely to Recommend	.684	1.000	.585
	X21 - Likely to Purchase	.661	.585	1.000

Based on Type III Sum of Squares

## Profile Plots

## MANOVA: X5 -- SINGLE FACTOR 2 LEVEL

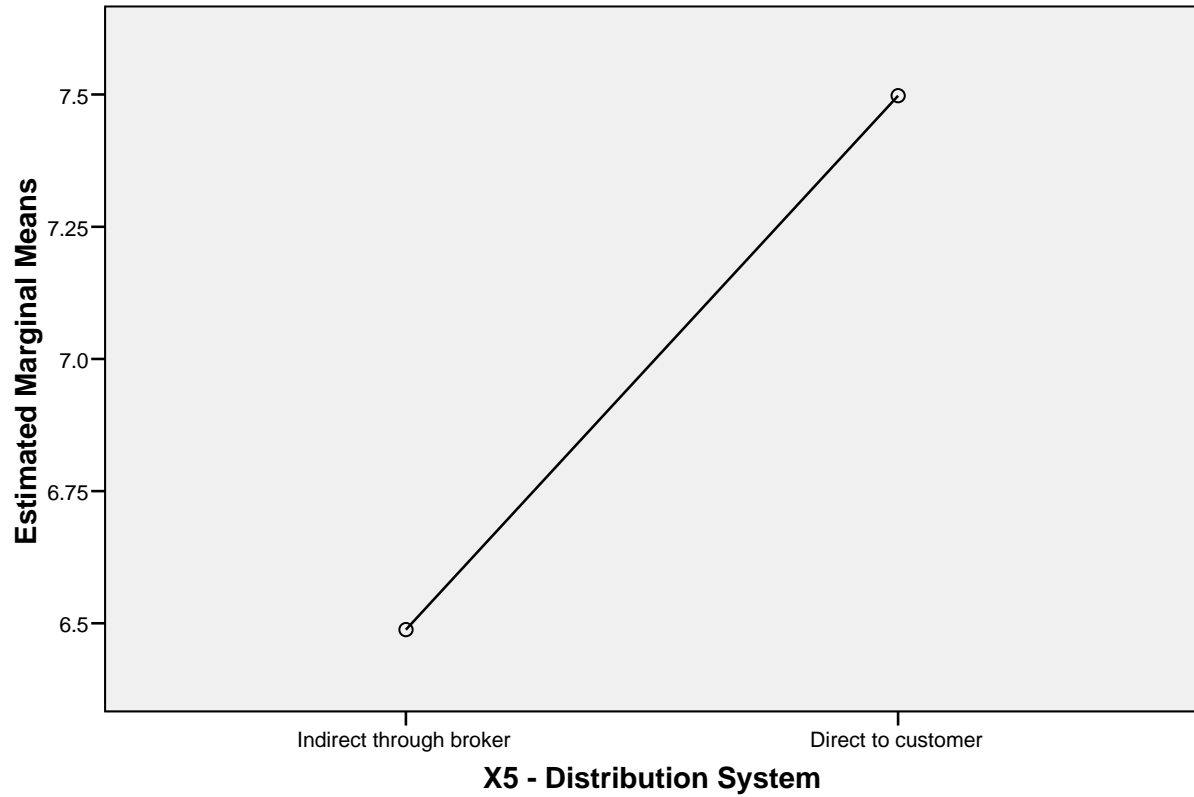
### X19 - Satisfaction



### X20 - Likely to Recommend

## MANOVA: X5 -- SINGLE FACTOR 2 LEVEL

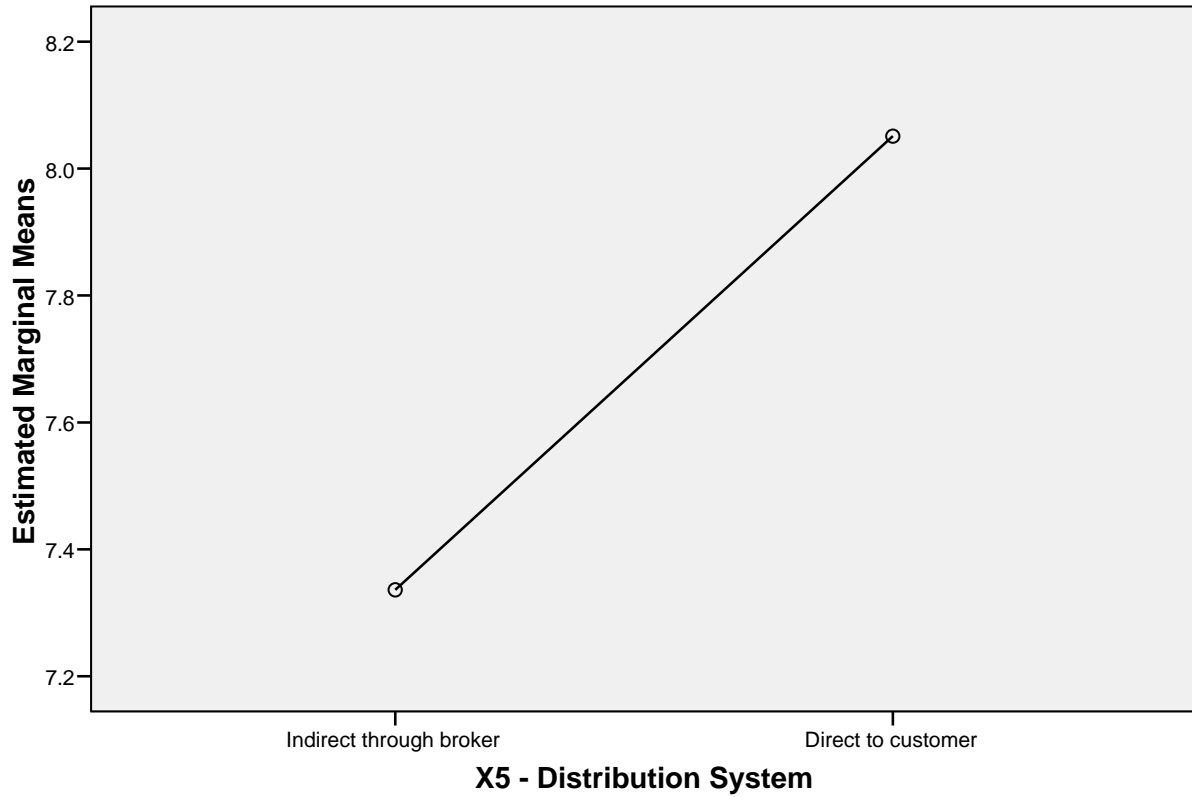
**Estimated Marginal Means of X20 - Likely to Recommend**



**X21 - Likely to Purchase**

## MANOVA: X5 -- SINGLE FACTOR 2 LEVEL

**Estimated Marginal Means of X21 - Likely to Purchase**





## MANOVA: X1 -- SINGLE FACTOR 3 LEVEL

### General Linear Model

#### Between-Subjects Factors

		Value Label	N
X1 - Customer Type	1	Less than 1 year	68
	2	1 to 5 years	64
	3	Over 5 years	68

#### Descriptive Statistics

X1 - Customer Type		Mean	Std. Deviation	N
X19 - Satisfaction	Less than 1 year	5.729	.7643	68
	1 to 5 years	7.294	.7078	64
	Over 5 years	7.853	1.0332	68
	Total	6.952	1.2411	200
X20 - Likely to Recommend	Less than 1 year	6.141	.9949	68
	1 to 5 years	7.209	.7144	64
	Over 5 years	7.522	.9761	68
	Total	6.953	1.0829	200
X21 - Likely to Purchase	Less than 1 year	6.962	.7598	68
	1 to 5 years	7.883	.6430	64
	Over 5 years	8.163	.7775	68
	Total	7.665	.8932	200

#### Box's Test of Equality of Covariance Matrices<sup>a</sup>

Box's M	20.363
F	1.659
df1	12
df2	186673.6
Sig.	.069

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept+X1

## **MANOVA: X1 -- SINGLE FACTOR 3 LEVEL**

### **Bartlett's Test of Sphericity<sup>a</sup>**

Likelihood Ratio	.000
Approx. Chi-Square	188.659
df	5
Sig.	.000

Tests the null hypothesis that the residual covariance matrix is proportional to an identity matrix.

a. Design: Intercept+x1

### **Multivariate Tests<sup>d</sup>**

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.992	7993.265 <sup>b</sup>	3.000	195.000	.000	.992
	Wilks' Lambda	.008	7993.265 <sup>b</sup>	3.000	195.000	.000	.992
	Hotelling's Trace	122.973	7993.265 <sup>b</sup>	3.000	195.000	.000	.992
	Roy's Largest Root	122.973	7993.265 <sup>b</sup>	3.000	195.000	.000	.992
x1	Pillai's Trace	.543	24.368	6.000	392.000	.000	.272
	Wilks' Lambda	.457	31.103 <sup>b</sup>	6.000	390.000	.000	.324
	Hotelling's Trace	1.184	38.292	6.000	388.000	.000	.372
	Roy's Largest Root	1.183	77.280 <sup>c</sup>	3.000	196.000	.000	.542

## **MANOVA: X1 -- SINGLE FACTOR 3 LEVEL**

**Multivariate Tests<sup>d</sup>**

Effect		Noncent. Parameter	Observed Power <sup>a</sup>
Intercept	Pillai's Trace	23979.796	1.000
	Wilks' Lambda	23979.796	1.000
	Hotelling's Trace	23979.796	1.000
	Roy's Largest Root	23979.796	1.000
x1	Pillai's Trace	146.210	1.000
	Wilks' Lambda	186.619	1.000
	Hotelling's Trace	229.752	1.000
	Roy's Largest Root	231.839	1.000

- a. Computed using alpha = .05
- b. Exact statistic
- c. The statistic is an upper bound on F that yields a lower bound on the significance level.
- d. Design: Intercept+x1

**Levene's Test of Equality of Error Variances<sup>a</sup>**

	F	df1	df2	Sig.
X19 - Satisfaction	6.871	2	197	.001
X20 - Likely to Recommend	2.951	2	197	.055
X21 - Likely to Purchase	.800	2	197	.451

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

- a. Design: Intercept+x1

## MANOVA: X1 -- SINGLE FACTOR 3 LEVEL

**Tests of Between-Subjects Effects**

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	X19 - Satisfaction	164.311 <sup>b</sup>	2	82.156	113.794	.000
	X20 - Likely to Recommend	71.043 <sup>c</sup>	2	35.521	43.112	.000
	X21 - Likely to Purchase	53.545 <sup>d</sup>	2	26.773	50.121	.000
Intercept	X19 - Satisfaction	9676.798	1	9676.798	13403.324	.000
	X20 - Likely to Recommend	9673.560	1	9673.560	11740.626	.000
	X21 - Likely to Purchase	11753.940	1	11753.940	22004.478	.000
x1	X19 - Satisfaction	164.311	2	82.156	113.794	.000
	X20 - Likely to Recommend	71.043	2	35.521	43.112	.000
	X21 - Likely to Purchase	53.545	2	26.773	50.121	.000
Error	X19 - Satisfaction	142.228	197	.722		
	X20 - Likely to Recommend	162.316	197	.824		
	X21 - Likely to Purchase	105.230	197	.534		
Total	X19 - Satisfaction	9972.600	200			
	X20 - Likely to Recommend	9900.810	200			
	X21 - Likely to Purchase	11909.220	200			
Corrected Total	X19 - Satisfaction	306.539	199			
	X20 - Likely to Recommend	233.359	199			
	X21 - Likely to Purchase	158.775	199			

## **MANOVA: X1 -- SINGLE FACTOR 3 LEVEL**

**Tests of Between-Subjects Effects**

Source	Dependent Variable	Partial Eta Squared	Noncent. Parameter	Observed Power <sup>a</sup>
Corrected Model	X19 - Satisfaction	.536	227.587	1.000
	X20 - Likely to Recommend	.304	86.223	1.000
	X21 - Likely to Purchase	.337	100.242	1.000
Intercept	X19 - Satisfaction	.986	13403.324	1.000
	X20 - Likely to Recommend	.983	11740.626	1.000
	X21 - Likely to Purchase	.991	22004.478	1.000
x1	X19 - Satisfaction	.536	227.587	1.000
	X20 - Likely to Recommend	.304	86.223	1.000
	X21 - Likely to Purchase	.337	100.242	1.000
Error	X19 - Satisfaction			
	X20 - Likely to Recommend			
	X21 - Likely to Purchase			
Total	X19 - Satisfaction			
	X20 - Likely to Recommend			
	X21 - Likely to Purchase			
Corrected Total	X19 - Satisfaction			
	X20 - Likely to Recommend			
	X21 - Likely to Purchase			

- a. Computed using alpha = .05  
b. R Squared = .536 (Adjusted R Squared = .531)  
c. R Squared = .304 (Adjusted R Squared = .297)  
d. R Squared = .337 (Adjusted R Squared = .331)

**Residual SSP Matrix**

		X19 - Satisfaction	X20 - Likely to Recommend	X21 - Likely to Purchase
Sum-of-Squares and Cross-Products	X19 - Satisfaction	142.228	95.732	66.362
	X20 - Likely to Recommend	95.732	162.316	65.533
	X21 - Likely to Purchase	66.362	65.533	105.230
Covariance	X19 - Satisfaction	.722	.486	.337
	X20 - Likely to Recommend	.486	.824	.333
	X21 - Likely to Purchase	.337	.333	.534
Correlation	X19 - Satisfaction	1.000	.630	.542
	X20 - Likely to Recommend	.630	1.000	.501
	X21 - Likely to Purchase	.542	.501	1.000

Based on Type III Sum of Squares

## **Post Hoc Tests**

## MANOVA: X1 -- SINGLE FACTOR 3 LEVEL

### X1 - Customer Type

#### Multiple Comparisons

Dependent Variable		(I) X1 - Customer Type	(J) X1 - Customer Type	Mean Difference (I-J)	Std. Error
X19 - Satisfaction	Tukey HSD	Less than 1 year	1 to 5 years	-1.564*	.1480
			Over 5 years	-2.124*	.1457
		1 to 5 years	Less than 1 year	1.564*	.1480
			Over 5 years	-.559*	.1480
		Over 5 years	Less than 1 year	2.124*	.1457
			1 to 5 years	.559*	.1480
	Scheffe	Less than 1 year	1 to 5 years	-1.564*	.1480
			Over 5 years	-2.124*	.1457
		1 to 5 years	Less than 1 year	1.564*	.1480
			Over 5 years	-.559*	.1480
		Over 5 years	Less than 1 year	2.124*	.1457
			1 to 5 years	.559*	.1480
	LSD	Less than 1 year	1 to 5 years	-1.564*	.1480
			Over 5 years	-2.124*	.1457
		1 to 5 years	Less than 1 year	1.564*	.1480
			Over 5 years	-.559*	.1480
		Over 5 years	Less than 1 year	2.124*	.1457
			1 to 5 years	.559*	.1480
X20 - Likely to Recommend	Tukey HSD	Less than 1 year	1 to 5 years	-1.068*	.1581
			Over 5 years	-1.381*	.1557
		1 to 5 years	Less than 1 year	1.068*	.1581
			Over 5 years	-.313	.1581
		Over 5 years	Less than 1 year	1.381*	.1557
			1 to 5 years	.313	.1581
	Scheffe	Less than 1 year	1 to 5 years	-1.068*	.1581
			Over 5 years	-1.381*	.1557
		1 to 5 years	Less than 1 year	1.068*	.1581
			Over 5 years	-.313	.1581
		Over 5 years	Less than 1 year	1.381*	.1557
			1 to 5 years	.313	.1581
	LSD	Less than 1 year	1 to 5 years	-1.068*	.1581
			Over 5 years	-1.381*	.1557
		1 to 5 years	Less than 1 year	1.068*	.1581
			Over 5 years	-.313*	.1581
		Over 5 years	Less than 1 year	1.381*	.1557
			1 to 5 years	.313*	.1581
X21 - Likely to Purchase	Tukey HSD	Less than 1 year	1 to 5 years	-.921*	.1273
			Over 5 years	-1.201*	.1253
		1 to 5 years	Less than 1 year	.921*	.1273
			Over 5 years	-.280	.1273
		Over 5 years	Less than 1 year	1.201*	.1253
			1 to 5 years	.280	.1273
	Scheffe	Less than 1 year	1 to 5 years	-.921*	.1273
			Over 5 years	-1.201*	.1253

Based on observed means.

## **MANOVA: X1 -- SINGLE FACTOR 3 LEVEL**

### **Multiple Comparisons**

Dependent Variable				Mean Difference (I-J)	Std. Error
		(I) X1 - Customer Type	(J) X1 - Customer Type		
X21 - Likely to Purchase	Scheffe	1 to 5 years	Less than 1 year	.921*	.1273
			Over 5 years	-.280	.1273
		Over 5 years	Less than 1 year	1.201*	.1253
			1 to 5 years	.280	.1273
	LSD	Less than 1 year	1 to 5 years	-.921*	.1273
			Over 5 years	-1.201*	.1253
		1 to 5 years	Less than 1 year	.921*	.1273
			Over 5 years	-.280*	.1273
		Over 5 years	Less than 1 year	1.201*	.1253
			1 to 5 years	.280*	.1273

Based on observed means.

## MANOVA: X1 -- SINGLE FACTOR 3 LEVEL

### Multiple Comparisons

Dependent Variable				Sig.	95% Confidence Interval
					Lower Bound
X19 - Satisfaction	Tukey HSD	Less than 1 year	1 to 5 years	.000	-1.914
			Over 5 years	.000	-2.468
		1 to 5 years	Less than 1 year	.000	1.215
			Over 5 years	.001	-.909
		Over 5 years	Less than 1 year	.000	1.779
			1 to 5 years	.001	.210
	Scheffe	Less than 1 year	1 to 5 years	.000	-1.929
			Over 5 years	.000	-2.483
		1 to 5 years	Less than 1 year	.000	1.199
			Over 5 years	.001	-.924
		Over 5 years	Less than 1 year	.000	1.764
			1 to 5 years	.001	.194
	LSD	Less than 1 year	1 to 5 years	.000	-1.856
			Over 5 years	.000	-2.411
		1 to 5 years	Less than 1 year	.000	1.273
			Over 5 years	.000	-.851
		Over 5 years	Less than 1 year	.000	1.836
			1 to 5 years	.000	.267
X20 - Likely to Recommend	Tukey HSD	Less than 1 year	1 to 5 years	.000	-1.442
			Over 5 years	.000	-1.749
		1 to 5 years	Less than 1 year	.000	.695
			Over 5 years	.120	-.686
		Over 5 years	Less than 1 year	.000	1.013
			1 to 5 years	.120	-.061
	Scheffe	Less than 1 year	1 to 5 years	.000	-1.458
			Over 5 years	.000	-1.765
		1 to 5 years	Less than 1 year	.000	.678
			Over 5 years	.144	-.703
		Over 5 years	Less than 1 year	.000	.997
			1 to 5 years	.144	-.077
	LSD	Less than 1 year	1 to 5 years	.000	-1.380
			Over 5 years	.000	-1.688
		1 to 5 years	Less than 1 year	.000	.756
			Over 5 years	.049	-.624
		Over 5 years	Less than 1 year	.000	1.074
			1 to 5 years	.049	.001
X21 - Likely to Purchase	Tukey HSD	Less than 1 year	1 to 5 years	.000	-1.222
			Over 5 years	.000	-1.497
		1 to 5 years	Less than 1 year	.000	.620
			Over 5 years	.073	-.581
		Over 5 years	Less than 1 year	.000	.905
			1 to 5 years	.073	-.020
	Scheffe	Less than 1 year	1 to 5 years	.000	-1.235
			Over 5 years	.000	-1.511

Based on observed means.



## MANOVA: X1 -- SINGLE FACTOR 3 LEVEL

### Multiple Comparisons

				Sig.	95% Confidence Interval
Dependent Variable		(I) X1 - Customer Type	(J) X1 - Customer Type		Lower Bound
X21 - Likely to Purchase	Scheffe	1 to 5 years	Less than 1 year	.000	.607
			Over 5 years	.091	-.594
		Over 5 years	Less than 1 year	.000	.892
			1 to 5 years	.091	-.034
	LSD	Less than 1 year	1 to 5 years	.000	-1.172
			Over 5 years	.000	-1.449
		1 to 5 years	Less than 1 year	.000	.670
			Over 5 years	.029	-.531
		Over 5 years	Less than 1 year	.000	.954
			1 to 5 years	.029	.029

Based on observed means.

## MANOVA: X1 -- SINGLE FACTOR 3 LEVEL

### Multiple Comparisons

				95% Confidence Interval
Dependent Variable		(I) X1 - Customer Type	(J) X1 - Customer Type	Upper Bound
X19 - Satisfaction	Tukey HSD	Less than 1 year	1 to 5 years	-1.215
			Over 5 years	-1.779
		1 to 5 years	Less than 1 year	1.914
			Over 5 years	-.210
		Over 5 years	Less than 1 year	2.468
			1 to 5 years	.909
	Scheffe	Less than 1 year	1 to 5 years	-1.199
			Over 5 years	-1.764
		1 to 5 years	Less than 1 year	1.929
			Over 5 years	-.194
		Over 5 years	Less than 1 year	2.483
			1 to 5 years	.924
	LSD	Less than 1 year	1 to 5 years	-1.273
			Over 5 years	-1.836
		1 to 5 years	Less than 1 year	1.856
			Over 5 years	-.267
		Over 5 years	Less than 1 year	2.411
			1 to 5 years	.851
X20 - Likely to Recommend	Tukey HSD	Less than 1 year	1 to 5 years	-.695
			Over 5 years	-1.013
		1 to 5 years	Less than 1 year	1.442
			Over 5 years	.061
		Over 5 years	Less than 1 year	1.749
			1 to 5 years	.686
	Scheffe	Less than 1 year	1 to 5 years	-.678
			Over 5 years	-.997
		1 to 5 years	Less than 1 year	1.458
			Over 5 years	.077
		Over 5 years	Less than 1 year	1.765
			1 to 5 years	.703
	LSD	Less than 1 year	1 to 5 years	-.756
			Over 5 years	-1.074
		1 to 5 years	Less than 1 year	1.380
			Over 5 years	-.001
		Over 5 years	Less than 1 year	1.688
			1 to 5 years	.624
X21 - Likely to Purchase	Tukey HSD	Less than 1 year	1 to 5 years	-.620
			Over 5 years	-.905
		1 to 5 years	Less than 1 year	1.222
			Over 5 years	.020
		Over 5 years	Less than 1 year	1.497
			1 to 5 years	.581
	Scheffe	Less than 1 year	1 to 5 years	-.607
			Over 5 years	-.892

Based on observed means.

## MANOVA: X1 -- SINGLE FACTOR 3 LEVEL

### Multiple Comparisons

				95% Confidence Interval
Dependent Variable		(I) X1 - Customer Type	(J) X1 - Customer Type	Upper Bound
X21 - Likely to Purchase	Scheffe	1 to 5 years	Less than 1 year	1.235
			Over 5 years	.034
		Over 5 years	Less than 1 year	1.511
			1 to 5 years	.594
	LSD	Less than 1 year	1 to 5 years	-.670
			Over 5 years	-.954
		1 to 5 years	Less than 1 year	1.172
			Over 5 years	-.029
		Over 5 years	Less than 1 year	1.449
			1 to 5 years	.531

Based on observed means.

\*. The mean difference is significant at the .05 level.

## Homogeneous Subsets

### X19 - Satisfaction

X1 - Customer Type		N	Subset		
			1	2	3
Tukey HSD <sup>a,b,c</sup>	Less than 1 year	68	5.729		
	1 to 5 years	64		7.294	
	Over 5 years	68			7.853
	Sig.		1.000	1.000	1.000
Scheffe <sup>a,b,c</sup>	Less than 1 year	68	5.729		
	1 to 5 years	64		7.294	
	Over 5 years	68			7.853
	Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = .722.

a. Uses Harmonic Mean Sample Size = 66.612.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

## **MANOVA: X1 -- SINGLE FACTOR 3 LEVEL**

### **X20 - Likely to Recommend**

		N	Subset	
			1	2
Tukey HSD <sup>a,b,c</sup>	X1 - Customer Type Less than 1 year	68	6.141	
	1 to 5 years	64		7.209
	Over 5 years	68		7.522
	Sig.		1.000	.118
Scheffe <sup>a,b,c</sup>	X1 - Customer Type Less than 1 year	68	6.141	
	1 to 5 years	64		7.209
	Over 5 years	68		7.522
	Sig.		1.000	.141

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = .824.

- a. Uses Harmonic Mean Sample Size = 66.612.
- b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.
- c. Alpha = .05.

### **X21 - Likely to Purchase**

		N	Subset	
			1	2
Tukey HSD <sup>a,b,c</sup>	X1 - Customer Type Less than 1 year	68	6.962	
	1 to 5 years	64		7.883
	Over 5 years	68		8.163
	Sig.		1.000	.071
Scheffe <sup>a,b,c</sup>	X1 - Customer Type Less than 1 year	68	6.962	
	1 to 5 years	64		7.883
	Over 5 years	68		8.163
	Sig.		1.000	.089

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = .534.

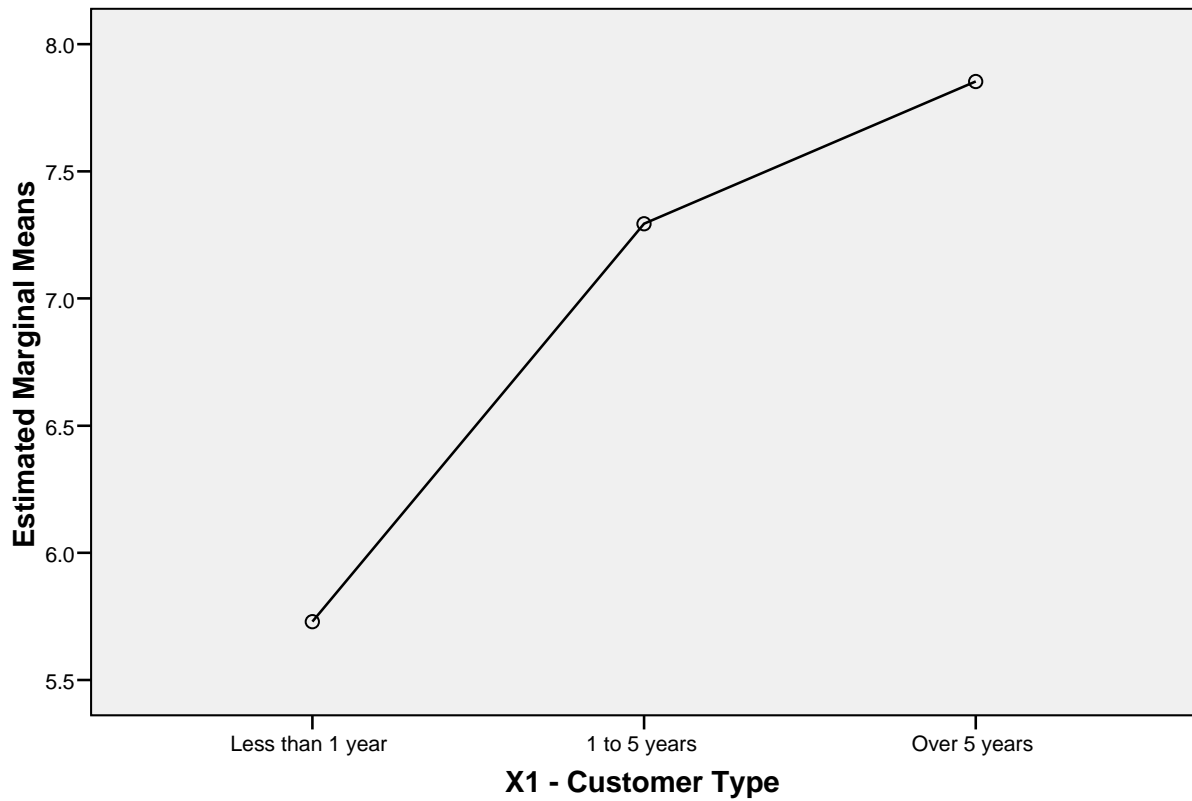
- a. Uses Harmonic Mean Sample Size = 66.612.
- b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.
- c. Alpha = .05.

## **Profile Plots**

### **X19 - Satisfaction**

## MANOVA: X1 -- SINGLE FACTOR 3 LEVEL

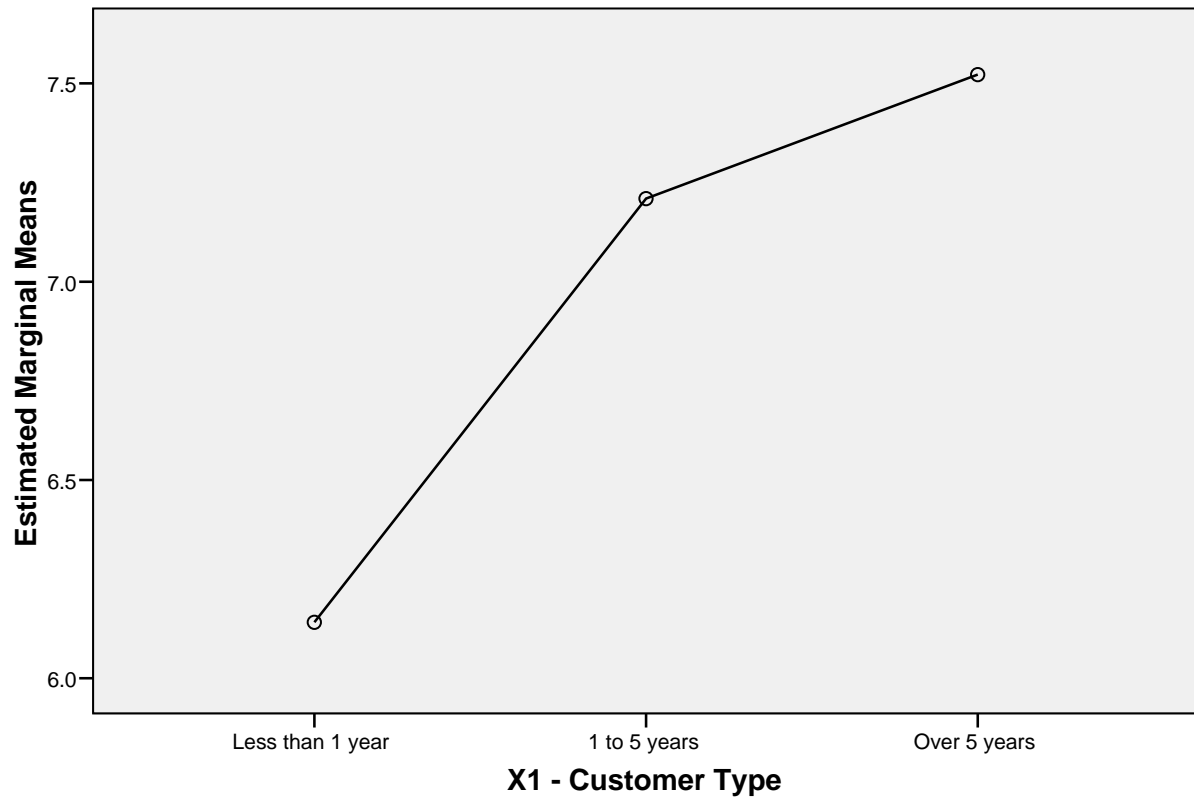
**Estimated Marginal Means of X19 - Satisfaction**



**X20 - Likely to Recommend**

## MANOVA: X1 -- SINGLE FACTOR 3 LEVEL

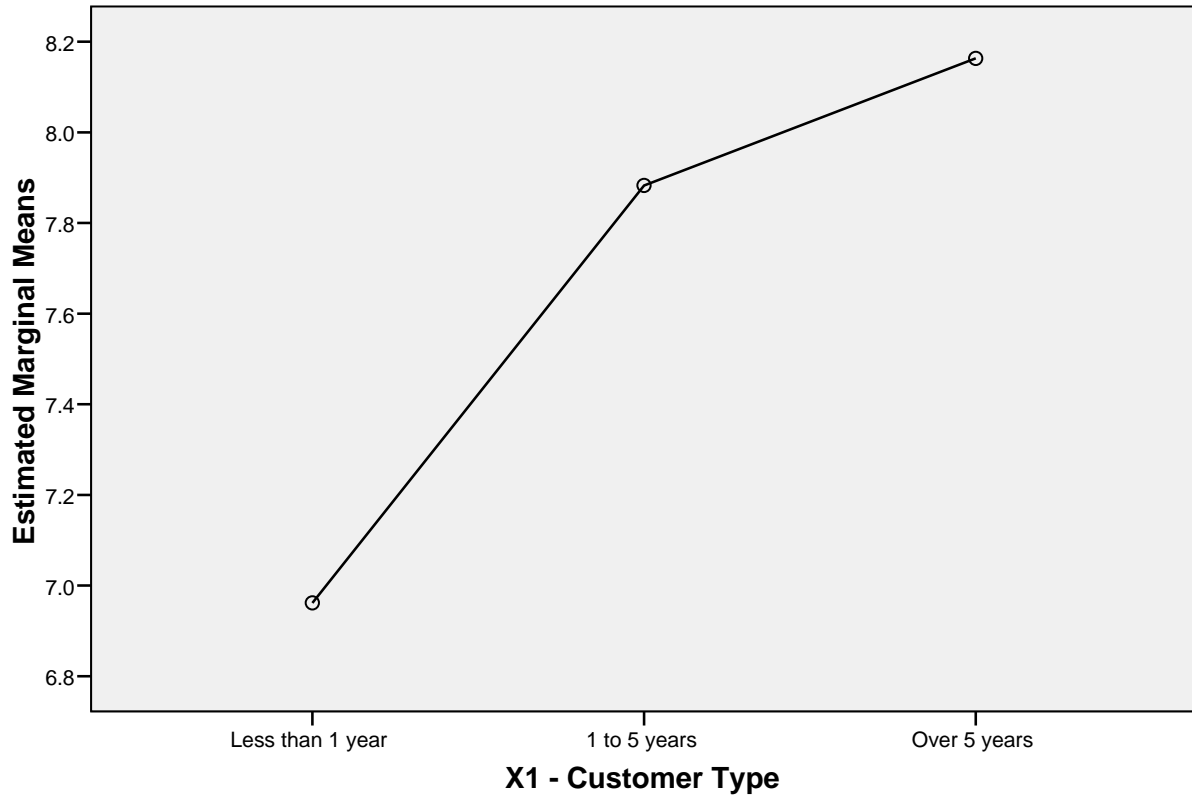
**Estimated Marginal Means of X20 - Likely to Recommend**



**X21 - Likely to Purchase**

## MANOVA: X1 -- SINGLE FACTOR 3 LEVEL

**Estimated Marginal Means of X21 - Likely to Purchase**



## MANOVA: X1 BY X5 -- TWO FACTORS (3 X 2)

### General Linear Model

#### Warnings

Post hoc tests are not performed for X5 - Distribution System because there are fewer than three groups.

#### Between-Subjects Factors

		Value Label	N
X1 - Customer Type	1	Less than 1 year	68
	2	1 to 5 years	64
	3	Over 5 years	68
X5 - Distribution System	0	Indirect through broker	108
	1	Direct to customer	92



## MANOVA: X1 BY X5 -- TWO FACTORS (3 X 2)

### Descriptive Statistics

	X1 - Customer Type	X5 - Distribution System	Mean	Std. Deviation	N
X19 - Satisfaction	Less than 1 year	Indirect through broker	5.462	.4995	52
		Direct to customer	6.600	.8390	16
		Total	5.729	.7643	68
	1 to 5 years	Indirect through broker	7.120	.5508	25
		Direct to customer	7.405	.7786	39
		Total	7.294	.7078	64
	Over 5 years	Indirect through broker	7.132	.8035	31
		Direct to customer	8.457	.7918	37
		Total	7.853	1.0332	68
	Total	Indirect through broker	6.325	1.0328	108
		Direct to customer	7.688	1.0488	92
		Total	6.952	1.2411	200
X20 - Likely to Recommend	Less than 1 year	Indirect through broker	5.883	.7728	52
		Direct to customer	6.981	1.1862	16
		Total	6.141	.9949	68
	1 to 5 years	Indirect through broker	7.144	.8026	25
		Direct to customer	7.251	.6593	39
		Total	7.209	.7144	64
	Over 5 years	Indirect through broker	6.974	.8355	31
		Direct to customer	7.981	.8465	37
		Total	7.522	.9761	68
	Total	Indirect through broker	6.488	.9859	108
		Direct to customer	7.498	.9300	92
		Total	6.953	1.0829	200
X21 - Likely to Purchase	Less than 1 year	Indirect through broker	6.763	.7021	52
		Direct to customer	7.606	.5686	16
		Total	6.962	.7598	68
	1 to 5 years	Indirect through broker	7.804	.7097	25
		Direct to customer	7.933	.6006	39
		Total	7.883	.6430	64
	Over 5 years	Indirect through broker	7.919	.6478	31
		Direct to customer	8.368	.8253	37
		Total	8.163	.7775	68
	Total	Indirect through broker	7.336	.8802	108
		Direct to customer	8.051	.7449	92
		Total	7.665	.8932	200

## MANOVA: X1 BY X5 -- TWO FACTORS (3 X 2)

### Box's Test of Equality of Covariance Matrices<sup>a</sup>

Box's M	39.721
F	1.263
df1	30
df2	33214.45
Sig.	.153

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design:  
Intercept+x1+  
x5+x1 \* x5

### Bartlett's Test of Sphericity<sup>a</sup>

Likelihood Ratio	.000
Approx. Chi-Square	125.265
df	5
Sig.	.000

Tests the null hypothesis that the residual covariance matrix is proportional to an identity matrix.

a. Design:  
Intercept+x1+x5+x1 \* x5

### Multivariate Tests<sup>d</sup>

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.993	9171.741 <sup>b</sup>	3.000	192.000	.000	.993
	Wilks' Lambda	.007	9171.741 <sup>b</sup>	3.000	192.000	.000	.993
	Hotelling's Trace	143.308	9171.741 <sup>b</sup>	3.000	192.000	.000	.993
	Roy's Largest Root	143.308	9171.741 <sup>b</sup>	3.000	192.000	.000	.993
x1	Pillai's Trace	.488	20.770	6.000	386.000	.000	.244
	Wilks' Lambda	.512	25.429 <sup>b</sup>	6.000	384.000	.000	.284
	Hotelling's Trace	.952	30.306	6.000	382.000	.000	.322
	Roy's Largest Root	.951	61.211 <sup>c</sup>	3.000	193.000	.000	.488
x5	Pillai's Trace	.285	25.500 <sup>b</sup>	3.000	192.000	.000	.285
	Wilks' Lambda	.715	25.500 <sup>b</sup>	3.000	192.000	.000	.285
	Hotelling's Trace	.398	25.500 <sup>b</sup>	3.000	192.000	.000	.285
	Roy's Largest Root	.398	25.500 <sup>b</sup>	3.000	192.000	.000	.285
x1 * x5	Pillai's Trace	.124	4.256	6.000	386.000	.000	.062
	Wilks' Lambda	.878	4.291 <sup>b</sup>	6.000	384.000	.000	.063
	Hotelling's Trace	.136	4.327	6.000	382.000	.000	.064
	Roy's Largest Root	.112	7.194 <sup>c</sup>	3.000	193.000	.000	.101

## MANOVA: X1 BY X5 -- TWO FACTORS (3 X 2)

**Multivariate Tests<sup>d</sup>**

Effect		Noncent. Parameter	Observed Power <sup>a</sup>
Intercept	Pillai's Trace	27515.224	1.000
	Wilks' Lambda	27515.224	1.000
	Hotelling's Trace	27515.224	1.000
	Roy's Largest Root	27515.224	1.000
x1	Pillai's Trace	124.618	1.000
	Wilks' Lambda	152.574	1.000
	Hotelling's Trace	181.834	1.000
	Roy's Largest Root	183.633	1.000
x5	Pillai's Trace	76.499	1.000
	Wilks' Lambda	76.499	1.000
	Hotelling's Trace	76.499	1.000
	Roy's Largest Root	76.499	1.000
x1 * x5	Pillai's Trace	25.535	.980
	Wilks' Lambda	25.749	.981
	Hotelling's Trace	25.959	.982
	Roy's Largest Root	21.582	.981

- a. Computed using alpha = .05
- b. Exact statistic
- c. The statistic is an upper bound on F that yields a lower bound on the significance level.
- d. Design: Intercept+x1+x5+x1 \* x5

**Levene's Test of Equality of Error Variances<sup>a</sup>**

	F	df1	df2	Sig.
X19 - Satisfaction	2.169	5	194	.059
X20 - Likely to Recommend	1.808	5	194	.113
X21 - Likely to Purchase	.990	5	194	.425

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

- a. Design: Intercept+x1+x5+x1 \* x5

## MANOVA: X1 BY X5 -- TWO FACTORS (3 X 2)

**Tests of Between-Subjects Effects**

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	X19 - Satisfaction	210.999 <sup>b</sup>	5	42.200	85.689	.000
	X20 - Likely to Recommend	103.085 <sup>c</sup>	5	20.617	30.702	.000
	X21 - Likely to Purchase	65.879 <sup>d</sup>	5	13.176	27.516	.000
Intercept	X19 - Satisfaction	8607.447	1	8607.447	17477.853	.000
	X20 - Likely to Recommend	8623.298	1	8623.298	12841.553	.000
	X21 - Likely to Purchase	10415.333	1	10415.333	21751.005	.000
x1	X19 - Satisfaction	89.995	2	44.998	91.370	.000
	X20 - Likely to Recommend	32.035	2	16.017	23.852	.000
	X21 - Likely to Purchase	26.723	2	13.362	27.904	.000
x5	X19 - Satisfaction	36.544	1	36.544	74.204	.000
	X20 - Likely to Recommend	23.692	1	23.692	35.282	.000
	X21 - Likely to Purchase	9.762	1	9.762	20.386	.000
x1 * x5	X19 - Satisfaction	9.484	2	4.742	9.628	.000
	X20 - Likely to Recommend	8.861	2	4.430	6.597	.002
	X21 - Likely to Purchase	3.454	2	1.727	3.607	.029
Error	X19 - Satisfaction	95.541	194	.492		
	X20 - Likely to Recommend	130.274	194	.672		
	X21 - Likely to Purchase	92.896	194	.479		
Total	X19 - Satisfaction	9972.600	200			
	X20 - Likely to Recommend	9900.810	200			
	X21 - Likely to Purchase	11909.220	200			
Corrected Total	X19 - Satisfaction	306.539	199			
	X20 - Likely to Recommend	233.359	199			
	X21 - Likely to Purchase	158.775	199			

## MANOVA: X1 BY X5 -- TWO FACTORS (3 X 2)

Tests of Between-Subjects Effects

Source	Dependent Variable	Partial Eta Squared	Noncent. Parameter	Observed Power <sup>a</sup>
Corrected Model	X19 - Satisfaction	.688	428.443	1.000
	X20 - Likely to Recommend	.442	153.511	1.000
	X21 - Likely to Purchase	.415	137.580	1.000
Intercept	X19 - Satisfaction	.989	17477.853	1.000
	X20 - Likely to Recommend	.985	12841.553	1.000
	X21 - Likely to Purchase	.991	21751.005	1.000
x1	X19 - Satisfaction	.485	182.740	1.000
	X20 - Likely to Recommend	.197	47.705	1.000
	X21 - Likely to Purchase	.223	55.808	1.000
x5	X19 - Satisfaction	.277	74.204	1.000
	X20 - Likely to Recommend	.154	35.282	1.000
	X21 - Likely to Purchase	.095	20.386	.994
x1 * x5	X19 - Satisfaction	.090	19.257	.980
	X20 - Likely to Recommend	.064	13.195	.908
	X21 - Likely to Purchase	.036	7.213	.662
Error	X19 - Satisfaction			
	X20 - Likely to Recommend			
	X21 - Likely to Purchase			
Total	X19 - Satisfaction			
	X20 - Likely to Recommend			
	X21 - Likely to Purchase			
Corrected Total	X19 - Satisfaction			
	X20 - Likely to Recommend			
	X21 - Likely to Purchase			

a. Computed using alpha = .05

b. R Squared = .688 (Adjusted R Squared = .680)

c. R Squared = .442 (Adjusted R Squared = .427)

d. R Squared = .415 (Adjusted R Squared = .400)

## **MANOVA: X1 BY X5 -- TWO FACTORS (3 X 2)**

**Residual SSCP Matrix**

		X19 - Satisfaction	X20 - Likely to Recommend	X21 - Likely to Purchase
Sum-of-Squares and Cross-Products	X19 - Satisfaction	95.541	57.469	44.047
	X20 - Likely to Recommend	57.469	130.274	46.381
	X21 - Likely to Purchase	44.047	46.381	92.896
Covariance	X19 - Satisfaction	.492	.296	.227
	X20 - Likely to Recommend	.296	.672	.239
	X21 - Likely to Purchase	.227	.239	.479
Correlation	X19 - Satisfaction	1.000	.515	.468
	X20 - Likely to Recommend	.515	1.000	.422
	X21 - Likely to Purchase	.468	.422	1.000

Based on Type III Sum of Squares

### **Post Hoc Tests**

#### **X1 - Customer Type**

## MANOVA: X1 BY X5 -- TWO FACTORS (3 X 2)

### Multiple Comparisons

Dependent Variable		(I) X1 - Customer Type	(J) X1 - Customer Type	Mean Difference (I-J)	Std. Error
X19 - Satisfaction	Tukey HSD	Less than 1 year	1 to 5 years	-1.564*	.1222
			Over 5 years	-2.124*	.1204
		1 to 5 years	Less than 1 year	1.564*	.1222
			Over 5 years	-.559*	.1222
		Over 5 years	Less than 1 year	2.124*	.1204
			1 to 5 years	.559*	.1222
	Scheffe	Less than 1 year	1 to 5 years	-1.564*	.1222
			Over 5 years	-2.124*	.1204
		1 to 5 years	Less than 1 year	1.564*	.1222
			Over 5 years	-.559*	.1222
		Over 5 years	Less than 1 year	2.124*	.1204
			1 to 5 years	.559*	.1222
	LSD	Less than 1 year	1 to 5 years	-1.564*	.1222
			Over 5 years	-2.124*	.1204
		1 to 5 years	Less than 1 year	1.564*	.1222
			Over 5 years	-.559*	.1222
		Over 5 years	Less than 1 year	2.124*	.1204
			1 to 5 years	.559*	.1222
X20 - Likely to Recommend	Tukey HSD	Less than 1 year	1 to 5 years	-1.068*	.1427
			Over 5 years	-1.381*	.1405
		1 to 5 years	Less than 1 year	1.068*	.1427
			Over 5 years	-.313	.1427
		Over 5 years	Less than 1 year	1.381*	.1405
			1 to 5 years	.313	.1427
	Scheffe	Less than 1 year	1 to 5 years	-1.068*	.1427
			Over 5 years	-1.381*	.1405
		1 to 5 years	Less than 1 year	1.068*	.1427
			Over 5 years	-.313	.1427
		Over 5 years	Less than 1 year	1.381*	.1405
			1 to 5 years	.313	.1427
	LSD	Less than 1 year	1 to 5 years	-1.068*	.1427
			Over 5 years	-1.381*	.1405
		1 to 5 years	Less than 1 year	1.068*	.1427
			Over 5 years	-.313*	.1427
		Over 5 years	Less than 1 year	1.381*	.1405
			1 to 5 years	.313*	.1427
X21 - Likely to Purchase	Tukey HSD	Less than 1 year	1 to 5 years	-.921*	.1205
			Over 5 years	-1.201*	.1187
		1 to 5 years	Less than 1 year	.921*	.1205
			Over 5 years	-.280	.1205
		Over 5 years	Less than 1 year	1.201*	.1187
			1 to 5 years	.280	.1205
	Scheffe	Less than 1 year	1 to 5 years	-.921*	.1205
			Over 5 years	-1.201*	.1187

Based on observed means.

## MANOVA: X1 BY X5 -- TWO FACTORS (3 X 2)

### Multiple Comparisons

Dependent Variable				Mean Difference (I-J)	Std. Error
		(I) X1 - Customer Type	(J) X1 - Customer Type		
X21 - Likely to Purchase	Scheffe	1 to 5 years	Less than 1 year	.921*	.1205
			Over 5 years	-.280	.1205
		Over 5 years	Less than 1 year	1.201*	.1187
			1 to 5 years	.280	.1205
	LSD	Less than 1 year	1 to 5 years	-.921*	.1205
			Over 5 years	-1.201*	.1187
		1 to 5 years	Less than 1 year	.921*	.1205
			Over 5 years	-.280*	.1205
		Over 5 years	Less than 1 year	1.201*	.1187
			1 to 5 years	.280*	.1205

Based on observed means.



## MANOVA: X1 BY X5 -- TWO FACTORS (3 X 2)

### Multiple Comparisons

Dependent Variable				Sig.	95% Confidence Interval
					Lower Bound
X19 - Satisfaction	Tukey HSD	Less than 1 year	1 to 5 years	.000	-1.853
			Over 5 years	.000	-2.408
		1 to 5 years	Less than 1 year	.000	1.276
			Over 5 years	.000	-.848
		Over 5 years	Less than 1 year	.000	1.839
			1 to 5 years	.000	.271
	Scheffe	Less than 1 year	1 to 5 years	.000	-1.866
			Over 5 years	.000	-2.420
		1 to 5 years	Less than 1 year	.000	1.263
			Over 5 years	.000	-.861
		Over 5 years	Less than 1 year	.000	1.827
			1 to 5 years	.000	.258
	LSD	Less than 1 year	1 to 5 years	.000	-1.805
			Over 5 years	.000	-2.361
		1 to 5 years	Less than 1 year	.000	1.323
			Over 5 years	.000	-.800
		Over 5 years	Less than 1 year	.000	1.886
			1 to 5 years	.000	.318
X20 - Likely to Recommend	Tukey HSD	Less than 1 year	1 to 5 years	.000	-1.405
			Over 5 years	.000	-1.713
		1 to 5 years	Less than 1 year	.000	.731
			Over 5 years	.075	-.650
		Over 5 years	Less than 1 year	.000	1.049
			1 to 5 years	.075	-.024
	Scheffe	Less than 1 year	1 to 5 years	.000	-1.420
			Over 5 years	.000	-1.728
		1 to 5 years	Less than 1 year	.000	.716
			Over 5 years	.093	-.665
		Over 5 years	Less than 1 year	.000	1.034
			1 to 5 years	.093	-.039
	LSD	Less than 1 year	1 to 5 years	.000	-1.350
			Over 5 years	.000	-1.658
		1 to 5 years	Less than 1 year	.000	.787
			Over 5 years	.030	-.594
		Over 5 years	Less than 1 year	.000	1.104
			1 to 5 years	.030	.031
X21 - Likely to Purchase	Tukey HSD	Less than 1 year	1 to 5 years	.000	-1.206
			Over 5 years	.000	-1.482
		1 to 5 years	Less than 1 year	.000	.636
			Over 5 years	.054	-.565
		Over 5 years	Less than 1 year	.000	.921
			1 to 5 years	.054	-.004
	Scheffe	Less than 1 year	1 to 5 years	.000	-1.218
			Over 5 years	.000	-1.494

Based on observed means.

## MANOVA: X1 BY X5 -- TWO FACTORS (3 X 2)

### Multiple Comparisons

				Sig.	95% Confidence Interval
Dependent Variable		(I) X1 - Customer Type	(J) X1 - Customer Type		Lower Bound
X21 - Likely to Purchase	Scheffe	1 to 5 years	Less than 1 year	.000	.624
			Over 5 years	.069	-.578
		Over 5 years	Less than 1 year	.000	.909
			1 to 5 years	.069	-.017
	LSD	Less than 1 year	1 to 5 years	.000	-1.159
			Over 5 years	.000	-1.436
		1 to 5 years	Less than 1 year	.000	.683
			Over 5 years	.021	-.518
		Over 5 years	Less than 1 year	.000	.967
			1 to 5 years	.021	.043

Based on observed means.

## MANOVA: X1 BY X5 -- TWO FACTORS (3 X 2)

### Multiple Comparisons

				95% Confidence Interval
Dependent Variable		(I) X1 - Customer Type	(J) X1 - Customer Type	Upper Bound
X19 - Satisfaction	Tukey HSD	Less than 1 year	1 to 5 years	-1.276
			Over 5 years	-1.839
		1 to 5 years	Less than 1 year	1.853
			Over 5 years	-.271
		Over 5 years	Less than 1 year	2.408
			1 to 5 years	.848
	Scheffe	Less than 1 year	1 to 5 years	-1.263
			Over 5 years	-1.827
		1 to 5 years	Less than 1 year	1.866
			Over 5 years	-.258
		Over 5 years	Less than 1 year	2.420
			1 to 5 years	.861
	LSD	Less than 1 year	1 to 5 years	-1.323
			Over 5 years	-1.886
		1 to 5 years	Less than 1 year	1.805
			Over 5 years	-.318
		Over 5 years	Less than 1 year	2.361
			1 to 5 years	.800
X20 - Likely to Recommend	Tukey HSD	Less than 1 year	1 to 5 years	-.731
			Over 5 years	-1.049
		1 to 5 years	Less than 1 year	1.405
			Over 5 years	.024
		Over 5 years	Less than 1 year	1.713
			1 to 5 years	.650
	Scheffe	Less than 1 year	1 to 5 years	-.716
			Over 5 years	-1.034
		1 to 5 years	Less than 1 year	1.420
			Over 5 years	.039
		Over 5 years	Less than 1 year	1.728
			1 to 5 years	.665
	LSD	Less than 1 year	1 to 5 years	-.787
			Over 5 years	-1.104
		1 to 5 years	Less than 1 year	1.350
			Over 5 years	-.031
		Over 5 years	Less than 1 year	1.658
			1 to 5 years	.594
X21 - Likely to Purchase	Tukey HSD	Less than 1 year	1 to 5 years	-.636
			Over 5 years	-.921
		1 to 5 years	Less than 1 year	1.206
			Over 5 years	.004
	Scheffe	Less than 1 year	1 to 5 years	.565
			Over 5 years	-.624
			Over 5 years	-.909

Based on observed means.

## MANOVA: X1 BY X5 -- TWO FACTORS (3 X 2)

### Multiple Comparisons

				95% Confidence Interval
Dependent Variable		(I) X1 - Customer Type	(J) X1 - Customer Type	Upper Bound
X21 - Likely to Purchase	Scheffe	1 to 5 years	Less than 1 year	1.218
			Over 5 years	.017
		Over 5 years	Less than 1 year	1.494
			1 to 5 years	.578
	LSD	Less than 1 year	1 to 5 years	-.683
			Over 5 years	-.967
		1 to 5 years	Less than 1 year	1.159
			Over 5 years	-.043
		Over 5 years	Less than 1 year	1.436
			1 to 5 years	.518

Based on observed means.

\*. The mean difference is significant at the .05 level.

## Homogeneous Subsets

### X19 - Satisfaction

X1 - Customer Type		N	Subset		
			1	2	3
Tukey HSD <sup>a,b,c</sup>	Less than 1 year	68	5.729		
	1 to 5 years	64		7.294	
	Over 5 years	68			7.853
	Sig.		1.000	1.000	1.000
Scheffe <sup>a,b,c</sup>	Less than 1 year	68	5.729		
	1 to 5 years	64		7.294	
	Over 5 years	68			7.853
	Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = .492.

a. Uses Harmonic Mean Sample Size = 66.612.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

## **MANOVA: X1 BY X5 -- TWO FACTORS (3 X 2)**

### **X20 - Likely to Recommend**

X1 - Customer Type		N	Subset	
			1	2
Tukey HSD <sup>a,b,c</sup>	Less than 1 year	68	6.141	
	1 to 5 years	64		7.209
	Over 5 years	68		7.522
	Sig.		1.000	.073
Scheffe <sup>a,b,c</sup>	Less than 1 year	68	6.141	
	1 to 5 years	64		7.209
	Over 5 years	68		7.522
	Sig.		1.000	.091

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = .672.

- a. Uses Harmonic Mean Sample Size = 66.612.
- b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.
- c. Alpha = .05.

### **X21 - Likely to Purchase**

X1 - Customer Type		N	Subset	
			1	2
Tukey HSD <sup>a,b,c</sup>	Less than 1 year	68	6.962	
	1 to 5 years	64		7.883
	Over 5 years	68		8.163
	Sig.		1.000	.053
Scheffe <sup>a,b,c</sup>	Less than 1 year	68	6.962	
	1 to 5 years	64		7.883
	Over 5 years	68		8.163
	Sig.		1.000	.067

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = .479.

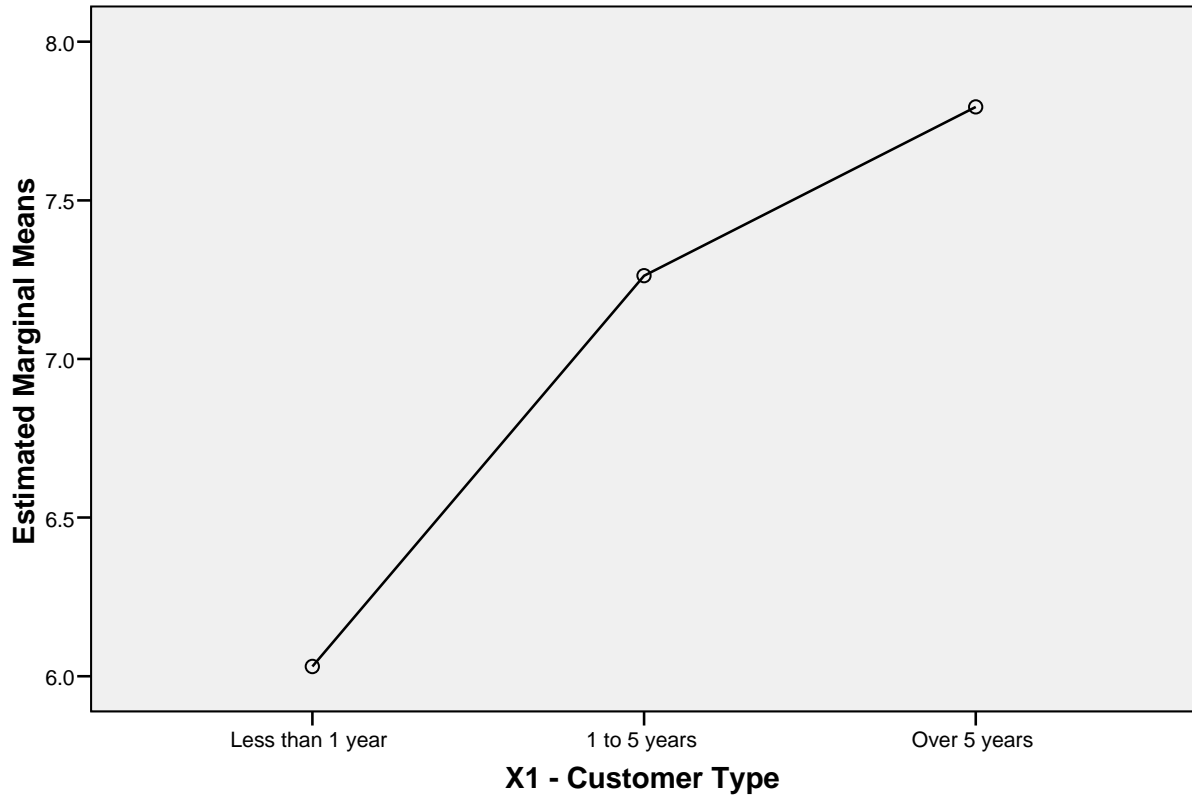
- a. Uses Harmonic Mean Sample Size = 66.612.
- b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.
- c. Alpha = .05.

## **Profile Plots**

### **X19 - Satisfaction**

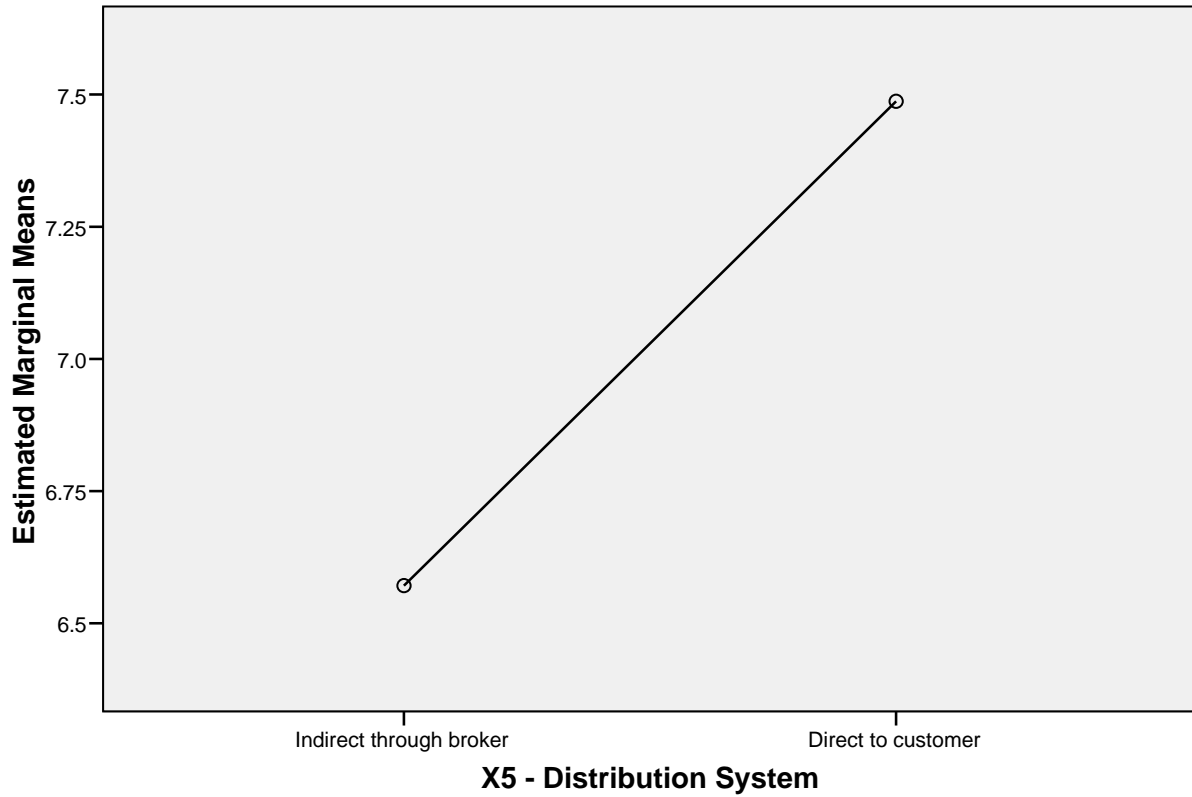
## MANOVA: X1 BY X5 -- TWO FACTORS (3 X 2)

**Estimated Marginal Means of X19 - Satisfaction**



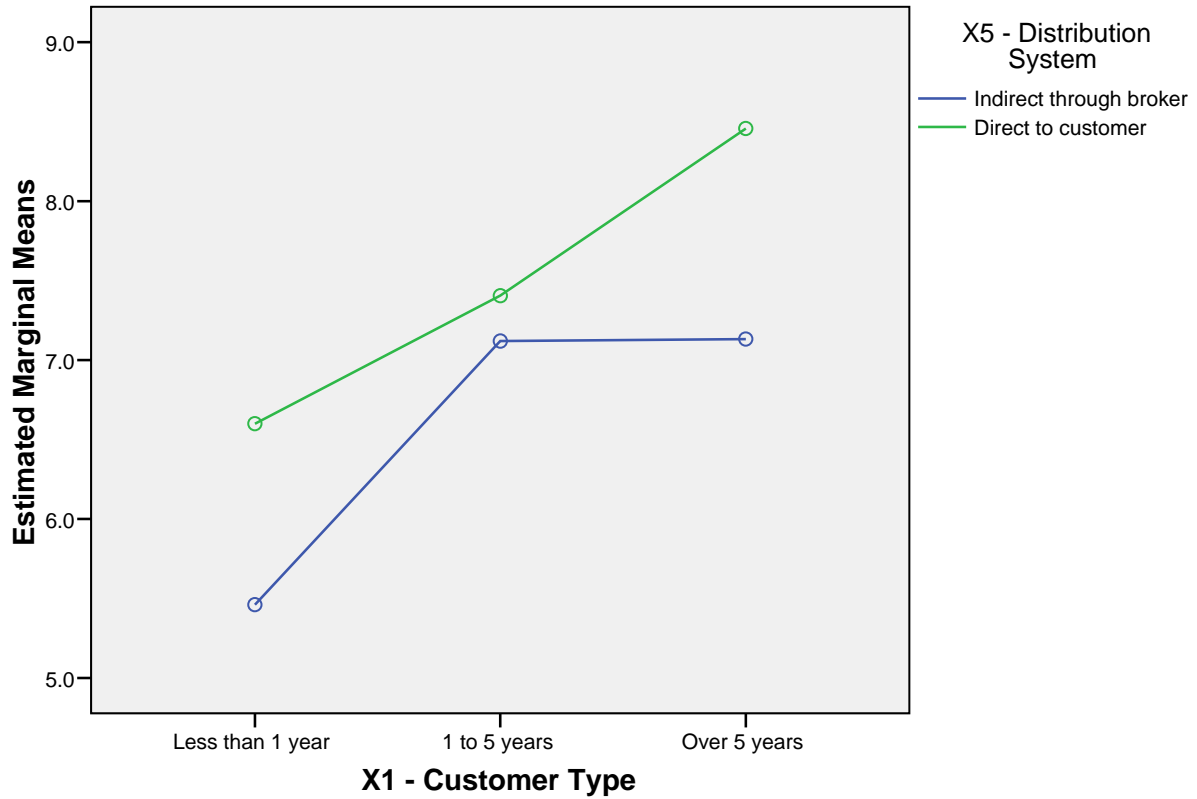
## MANOVA: X1 BY X5 -- TWO FACTORS (3 X 2)

**Estimated Marginal Means of X19 - Satisfaction**



## MANOVA: X1 BY X5 -- TWO FACTORS (3 X 2)

**Estimated Marginal Means of X19 - Satisfaction**

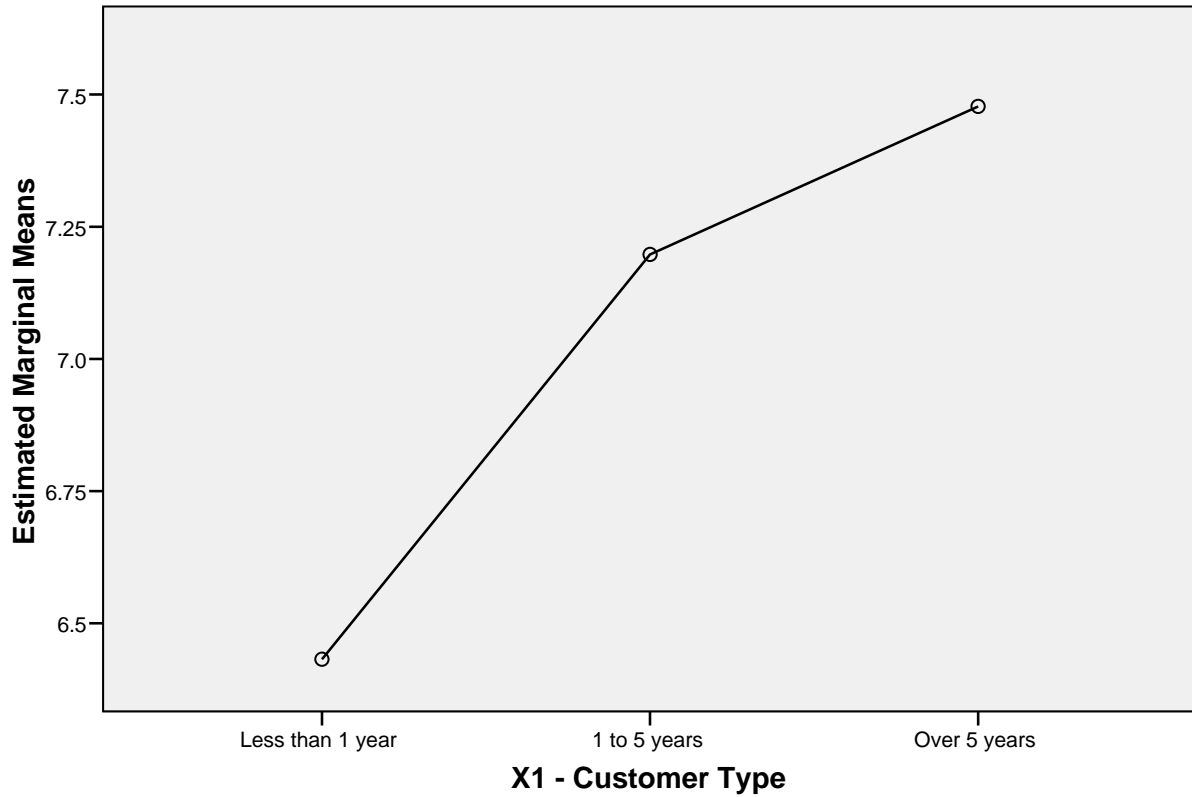


**X20 - Likely to Recommend**



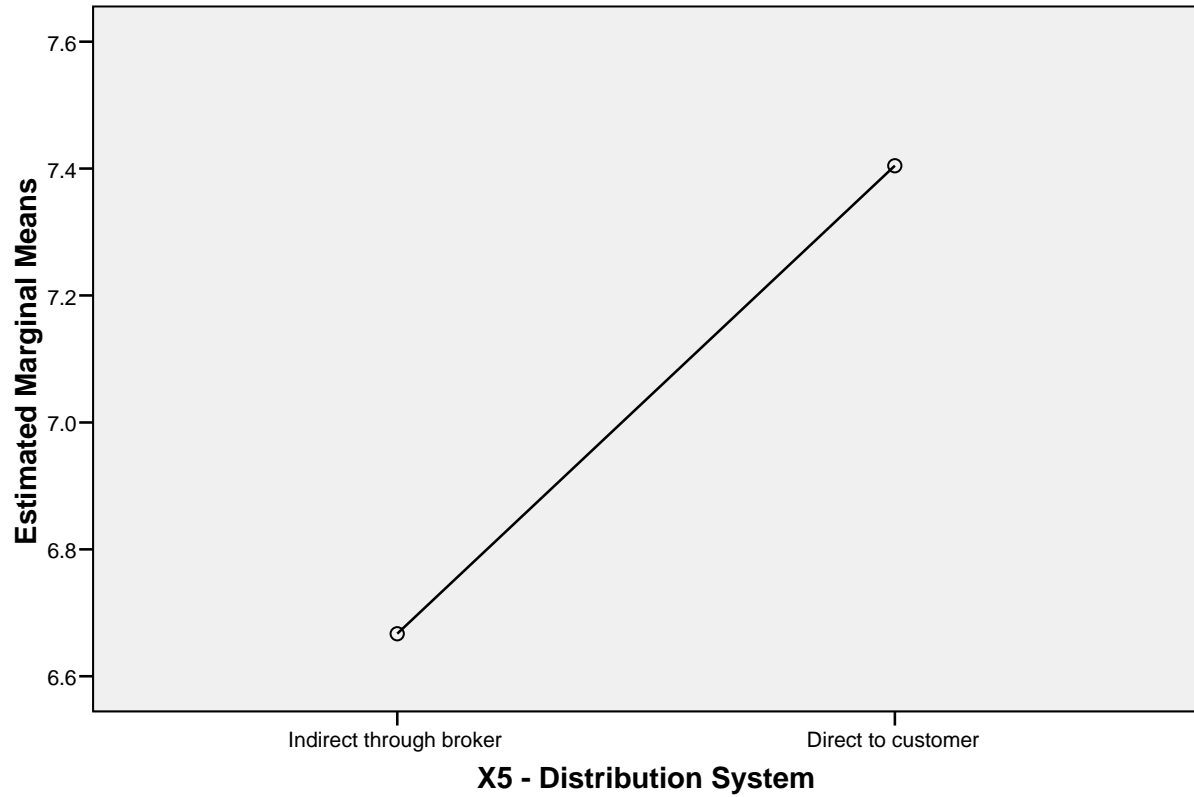
## MANOVA: X1 BY X5 -- TWO FACTORS (3 X 2)

**Estimated Marginal Means of X20 - Likely to Recommend**



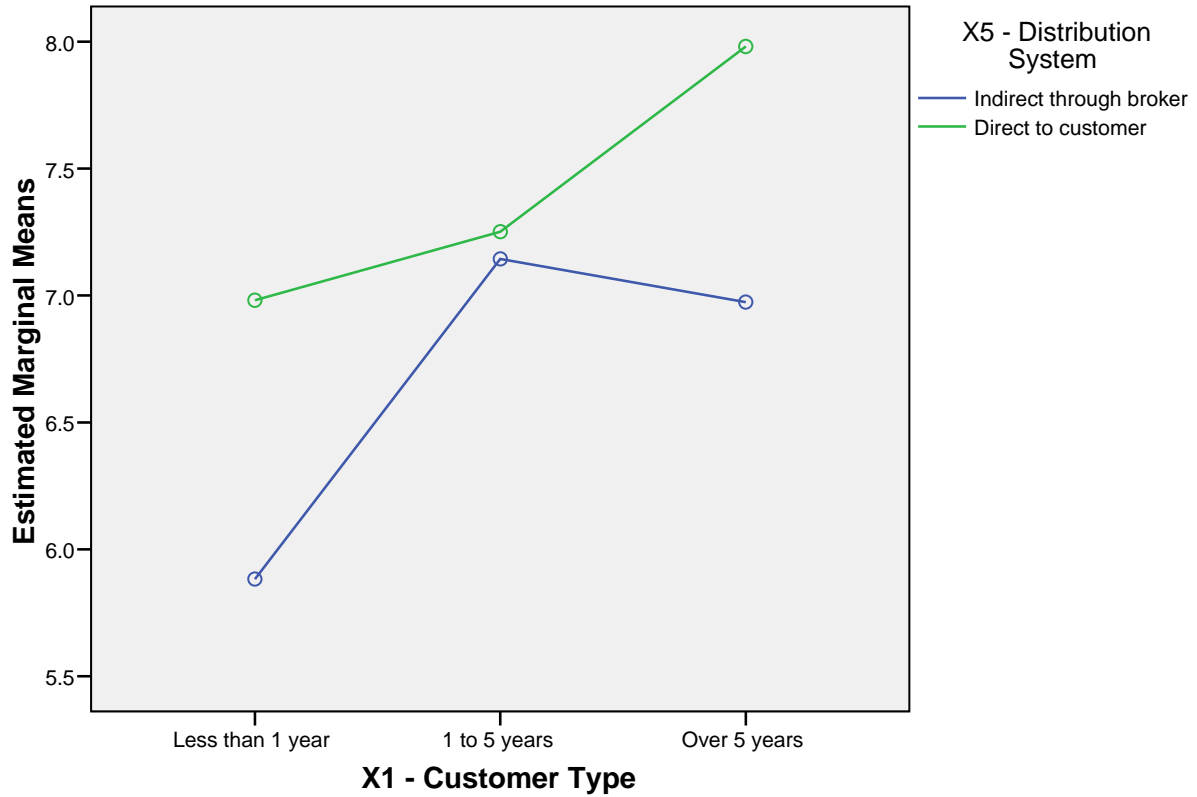
## MANOVA: X1 BY X5 -- TWO FACTORS (3 X 2)

**Estimated Marginal Means of X20 - Likely to Recommend**



## MANOVA: X1 BY X5 -- TWO FACTORS (3 X 2)

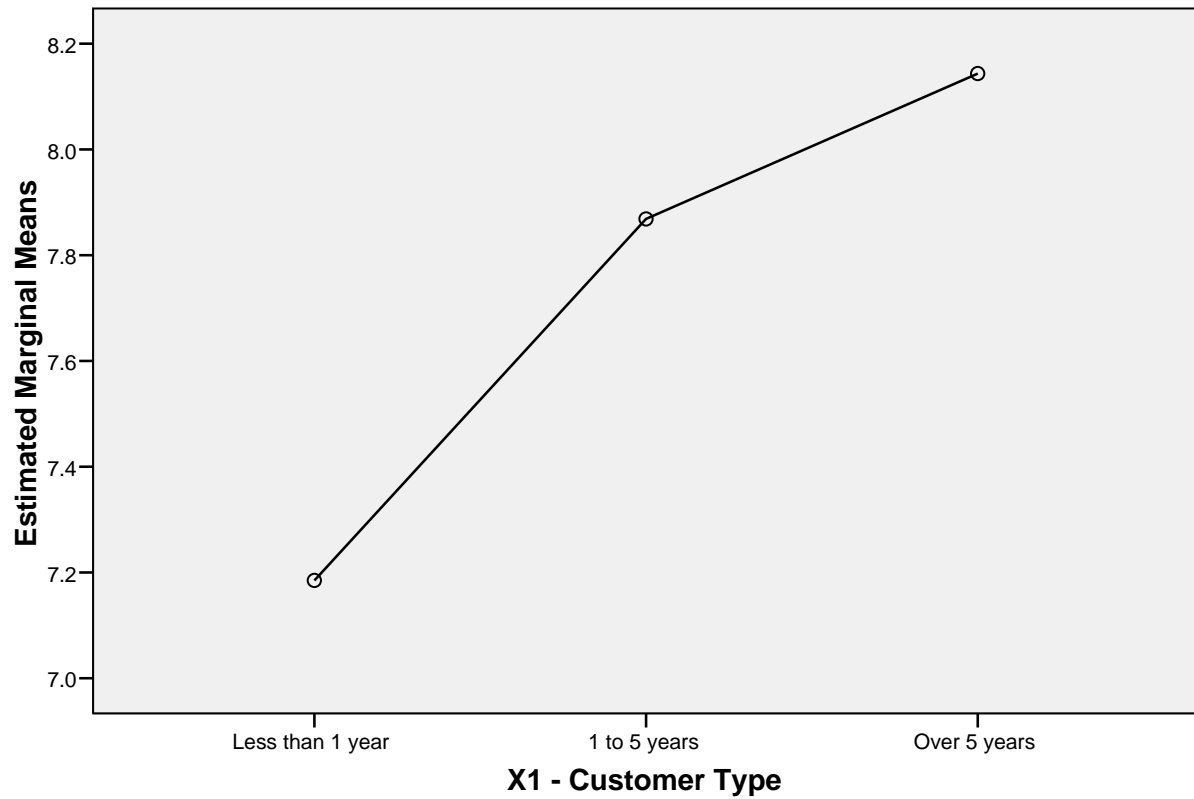
**Estimated Marginal Means of X20 - Likely to Recommend**



**X21 - Likely to Purchase**

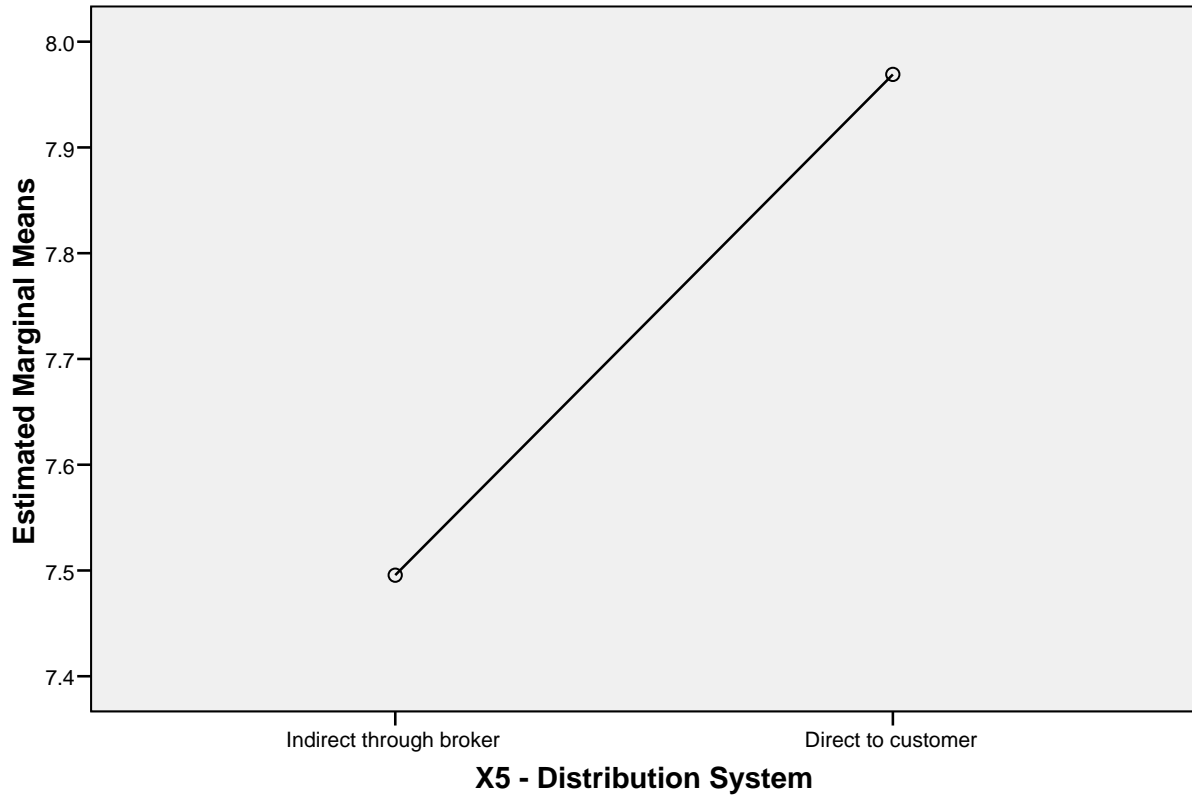
## MANOVA: X1 BY X5 -- TWO FACTORS (3 X 2)

**Estimated Marginal Means of X21 - Likely to Purchase**



## MANOVA: X1 BY X5 -- TWO FACTORS (3 X 2)

**Estimated Marginal Means of X21 - Likely to Purchase**



## MANOVA: X1 BY X5 -- TWO FACTORS (3 X 2)

**Estimated Marginal Means of X21 - Likely to Purchase**

