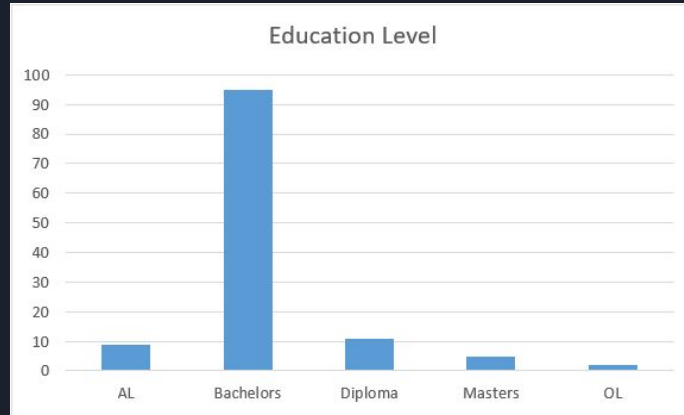# Mobile Banking Applications User's Survey
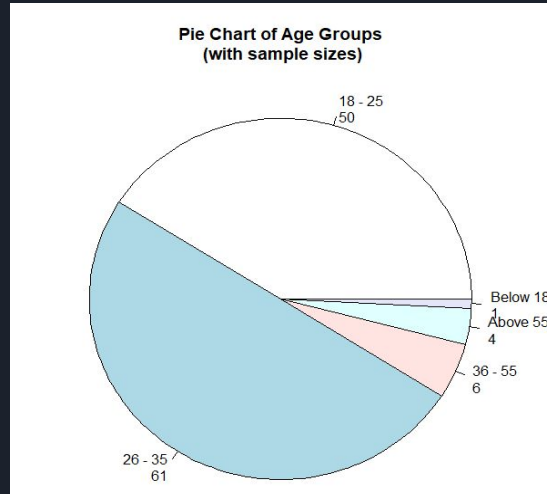
R.R.N.P.A.B.W.M.P.A Galagoda - 209324V

Descriptive Statistics for Categorical Variables
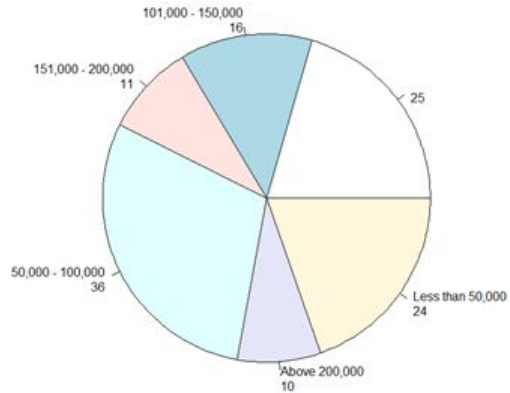
Level of Education
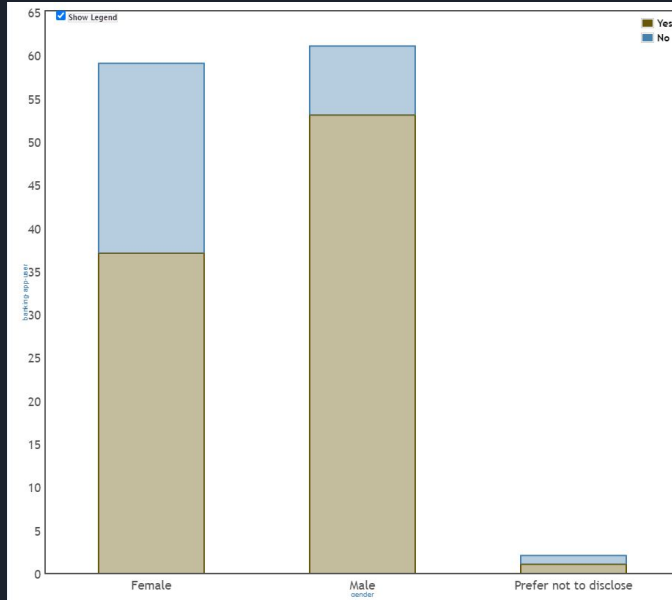

Age Groups

Salary Ranges

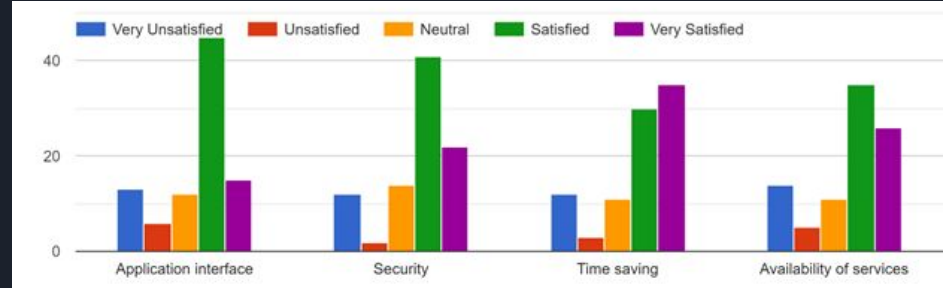Overall Satisfaction on the mobile banking apps by users,

Overall Banking Mobile Application Usage With Gender,

Counts Table Switch Variables

banking-app-user \ gender	Female	Male	Prefer not to disclose	Total
Yes	37	53	1	91
No	22	8	1	31
Total	59	61	2	122

Proportions Row Column Overall

banking-app-user \ gender	Female	Male	Prefer not to disclose	Total
Yes	0.303	0.434	0.0082	0.746
No	0.18	0.066	0.0082	0.254
Total	0.484	0.5	0.016	1

Test for a Single Proportion

Conducted survey of 122 individuals and 76% of them turned out to be mobile bank app users.

Considering 122 individuals as a representative sample of all individuals in Sri Lanka context, is this enough evidence to say more than 50% Sri Lankans are mobile banking app users?
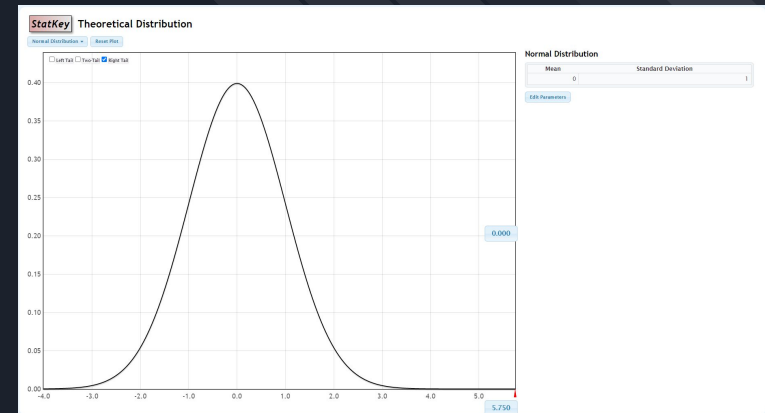
$H_0 : P = 0.5$

$H_A : P > 0.5$

$$Z = \frac{\hat{p} - p_0}{\sqrt{\frac{P_0(1 - P_0)}{n}}} = \left(\frac{0.76 - 0.5}{0.002}\right) = 5.75$$

Since the P-value (0.00001) is less than the significance level (0.05),
we cannot accept the null hypothesis.

Based on this data,
there is more than 50% of chance a
Sri Lankan using mobile bank application.

Conducted survey of 91 individuals who are already users of mobile banking apps and found that 84% of them are employed.
Considering 91 individuals as a representative sample of all individuals in Sri Lanka context, is this enough evidence to state more than 70% of the users are employed?
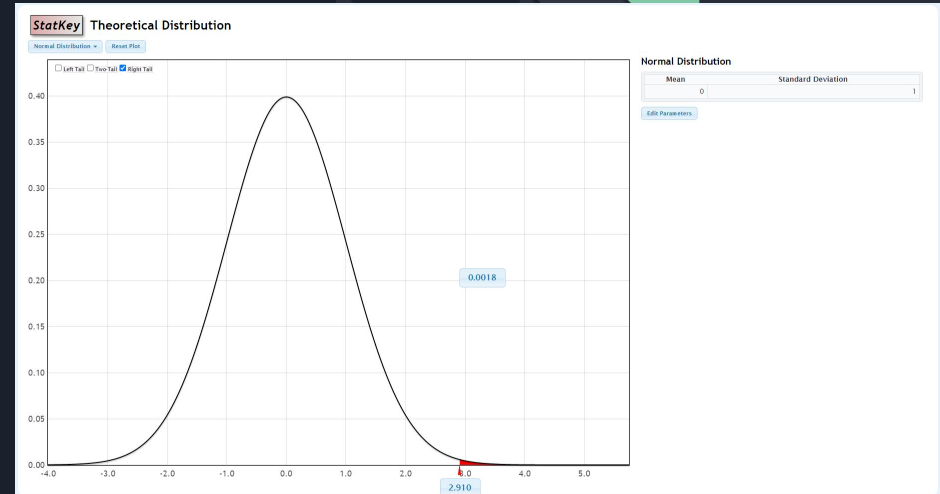
$H_0 : p = 0.7$

$H_a : p > 0.7$

$$Z = \frac{\hat{p} - p_0}{\sqrt{\frac{P_0(1 - P_0)}{n}}} = \left(\frac{0.84 - 0.70}{0.048}\right) = 2.91$$

Since the P-value (0.0018) is lesser than the significance level (0.05), we cannot accept the null hypothesis.

Based on this data,
there is more than 70% of chance a
Sri Lankan using mobile bank application being employed.

Chi-square Goodness-of-fit test for a Single Categorical Variable

Checking the level of satisfaction of mobile banking app users on Application Interface of the mobile banking apps they use.

Very Unsatisfied	Unsatisfied	Neutral	Satisfied	Very Satisfied
13	6	12	45	15

H_0 : Level of satisfaction is equally distributed

H_a : Level of satisfaction is not equally distributed
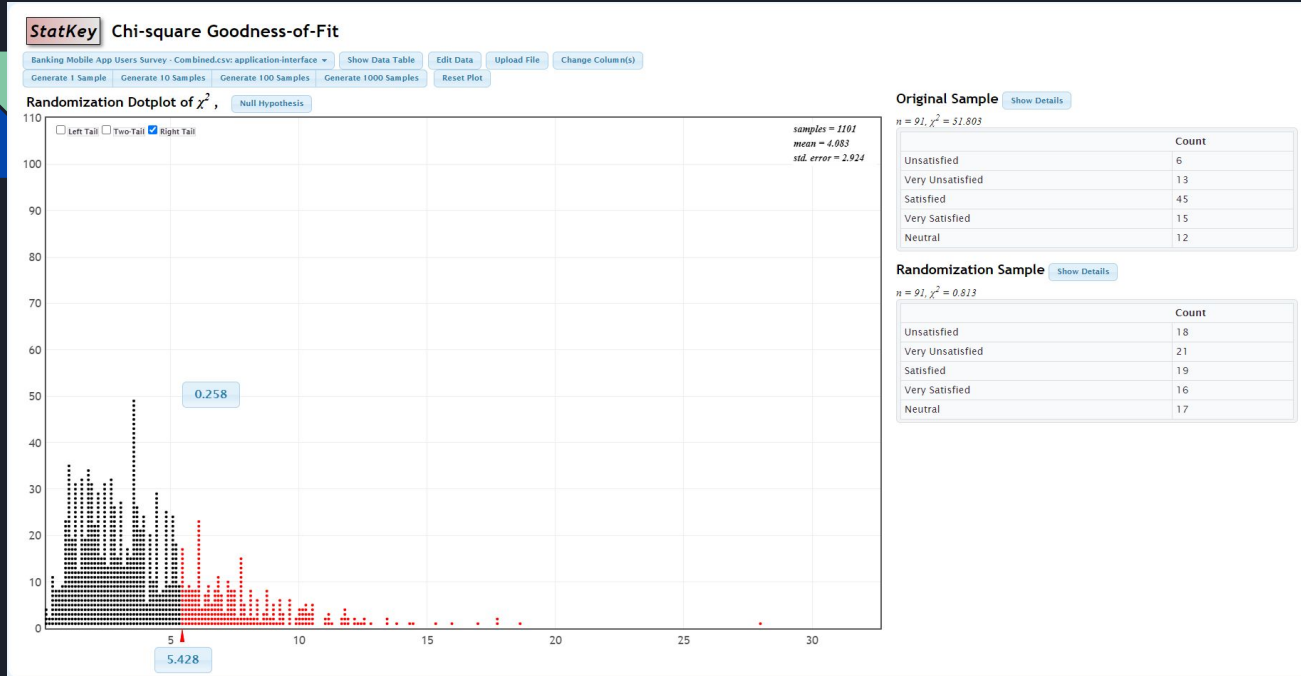
X-squared = 51.803,

df = 5

p-value =3.236e-10

The expected equal distribution of users is not acceptable. The level of satisfaction is not equally distributed.

Chi-square test for Association of two Categorical Variables

Checking the level of satisfaction of mobile banking app users according to the **application interface aspect** of the mobile banking apps they are using.

	Very Unsatisfied	Unsatisfied	Neutral	Satisfied	Very Satisfied
Male	8	4	6	26	10
Female	5	2	5	19	5

H_0 : Level of satisfaction is not associated with gender

H_a : Level of satisfaction is associated with gender

X-squared = 8.008

df = 4

The p-value is .843254.

The result is not significant at p < 0.05

The expected equal distribution of users is not acceptable. Also there is no enough evidence to say the level of satisfaction is associated with gender.

Thank You!