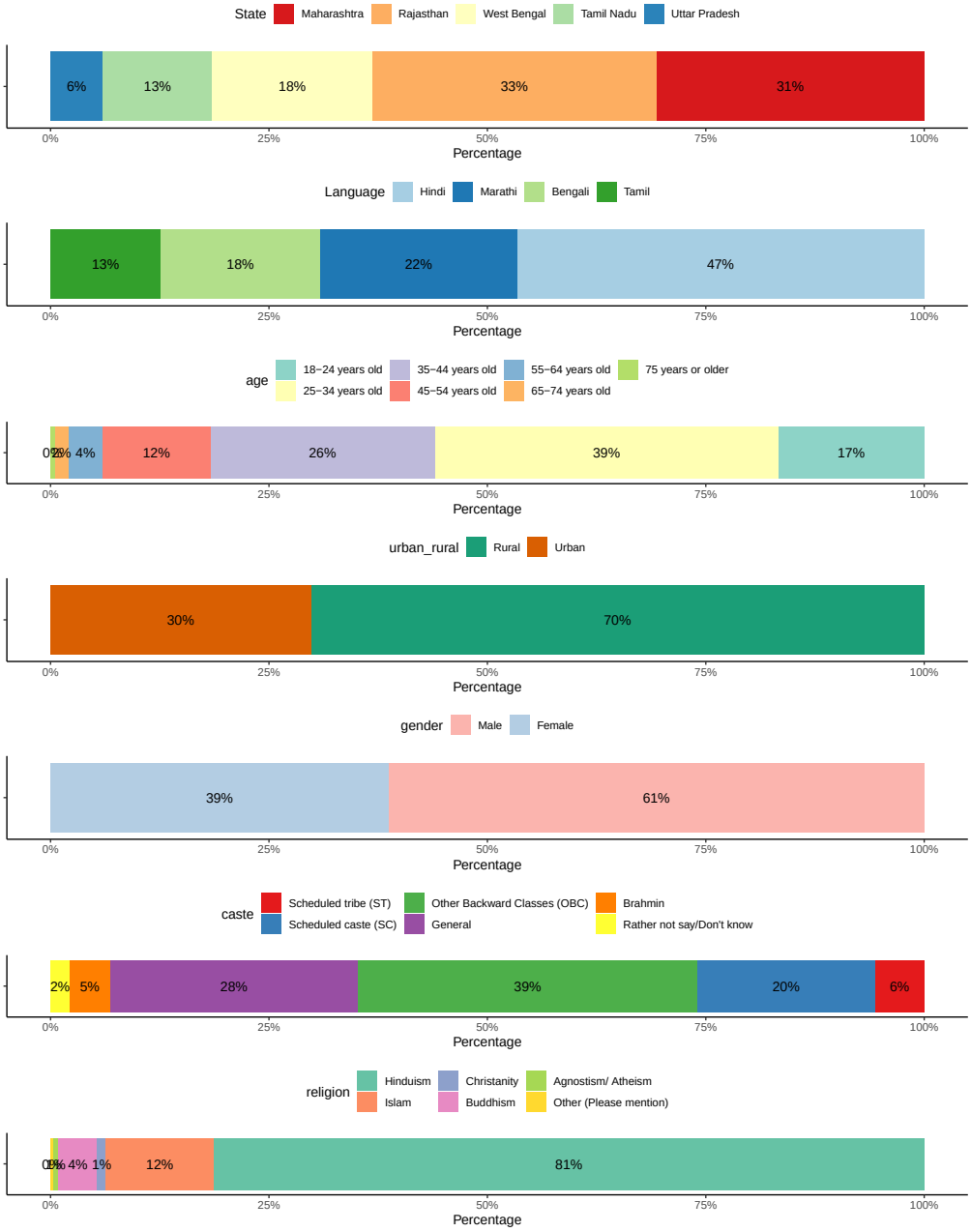
LPG v/s Firewood

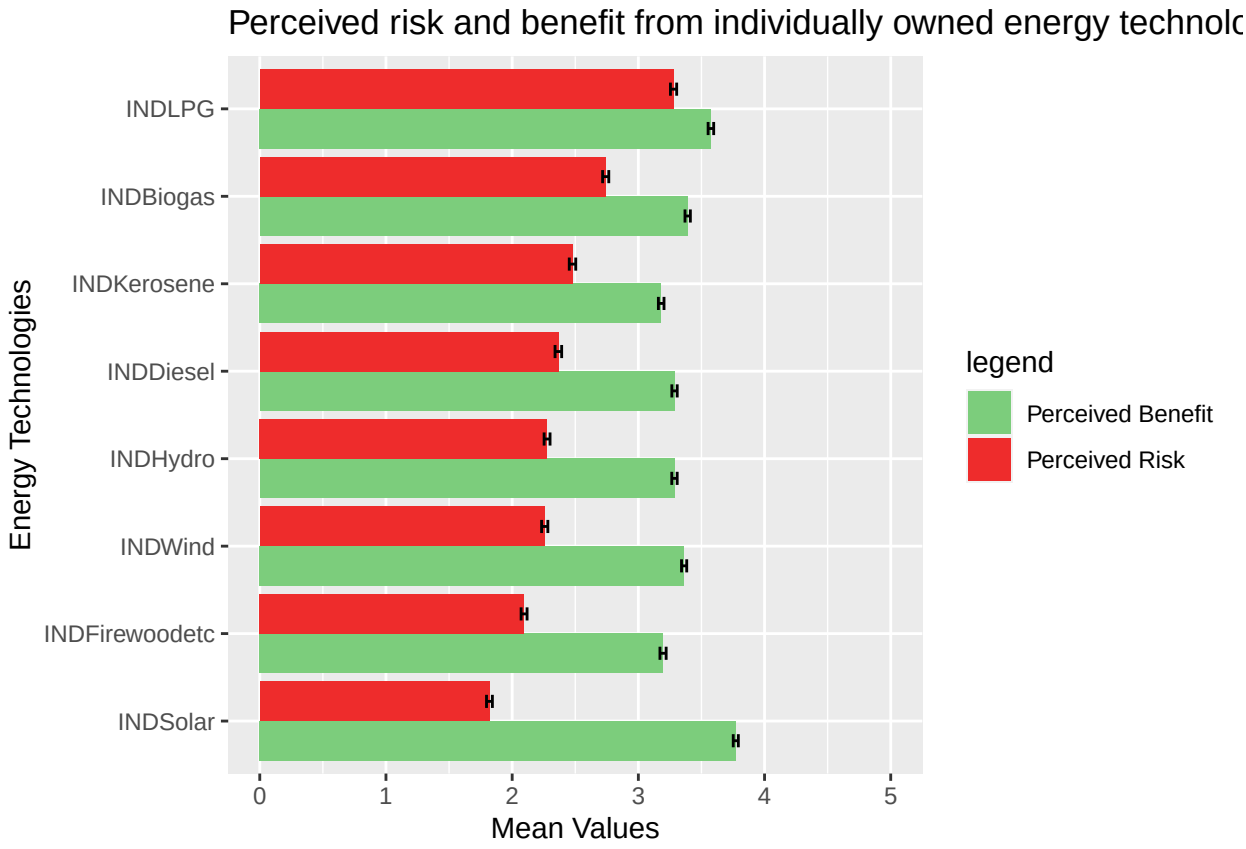
Contents

Characteristics of the Sample

The following graph shows that distribution of different demographic variables in our sample of 2,160 from the combined dataset from both surveys.

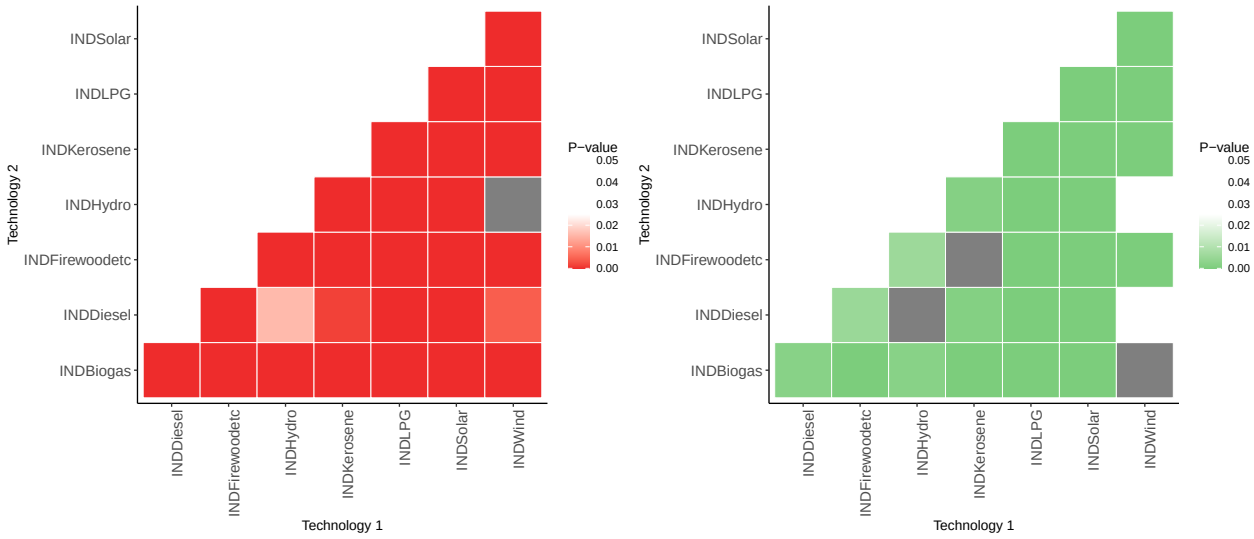


Perceived risk and Perceived Benefit in comparison



T-tests

Pairwise T-test: Mean perceived risk and mean perceived benefit (all individually owned energy technologies)



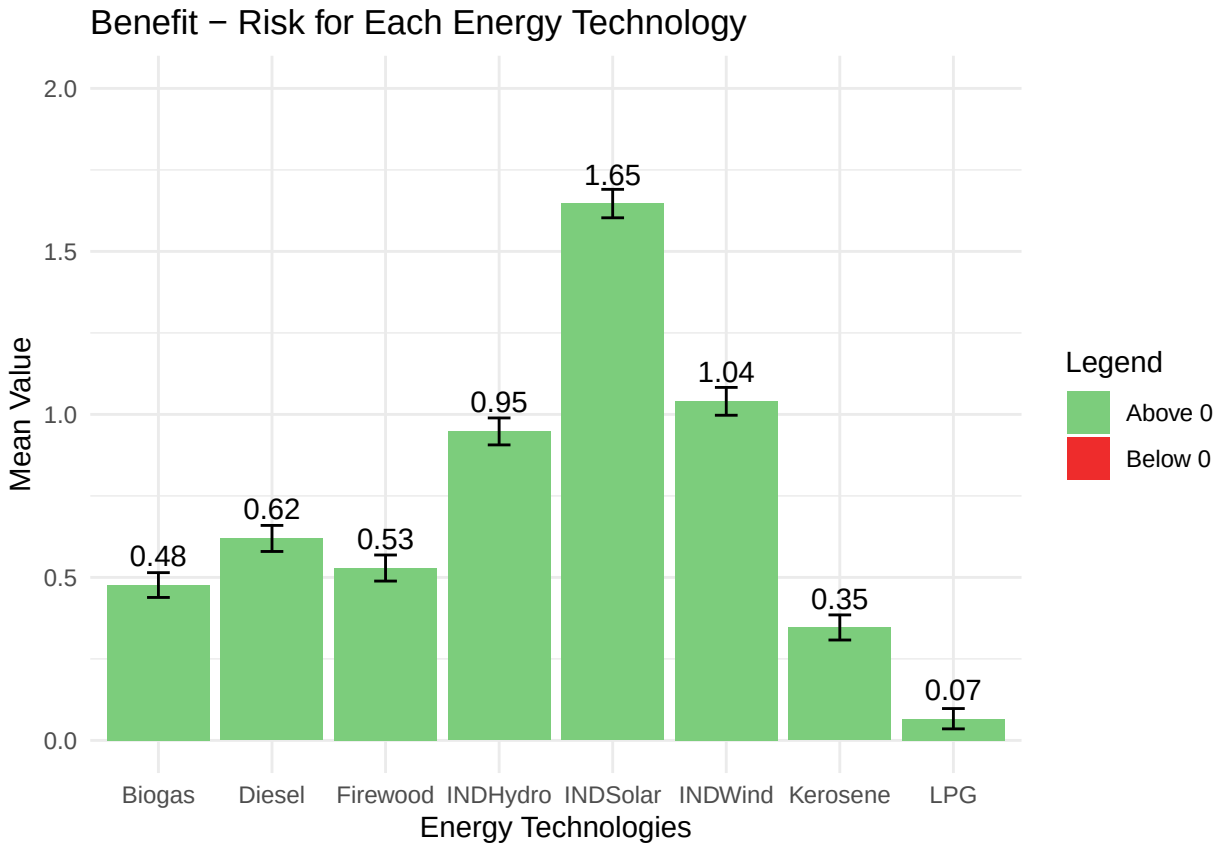
Paired T-test: Comparing mean perceived risk and mean perceived benefit for each technology.

Null hypothesis (H0): The mean difference between perceived risk and perceived benefit from each technology is zero. All p values are less than 0.05 suggesting that the differences observed in the bargraph are statistically significant.

```
## $INDBiogas
## [1] 1.726684e-68
##
## $INDDiesel
## [1] 1.524978e-108
##
## $INDFirewoodetc
## [1] 2.751717e-165
##
## $INDHydro
## [1] 3.355493e-143
##
## $INDKerosene
## [1] 1.023315e-81
##
## $INDLPG
## [1] 2.125422e-16
##
## $INDSolar
## [1] 0
##
## $INDWind
## [1] 1.799622e-128
```

Acceptance = Perceived Benefit - Perceived Risk

Graph representing a combined acceptance scale obtained by subtracting perceived risk from perceived benefit for each respondent



Linear Regression Models

Firewood : demographic variables

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Table 1: Results from 2 linear regression models

	Dependent variable:	
	Risky_INDFirewoodetc	
	(1)	(2)
Uppercaste	−0.077	−0.181***
	(0.050)	(0.047)
Male	−0.014	−0.001
	(0.047)	(0.044)
Hindu	0.011	0.214***
	(0.058)	(0.055)
urban_ruralUrban	0.534***	0.146***
	(0.051)	(0.056)
age25-34 years old	−0.163**	−0.073
	(0.067)	(0.061)
age35-44 years old	−0.440***	−0.228***
	(0.073)	(0.069)
age45-54 years old	−0.428***	−0.211**
	(0.088)	(0.082)
age55-64 years old	−0.406***	−0.184
	(0.130)	(0.121)
age65-74 years old	−0.676***	−0.115
	(0.189)	(0.177)
age75 years or older	0.641*	1.070***
	(0.354)	(0.327)
StateRajasthan		−0.844***
		(0.068)
StateTamil Nadu		−1.443***
		(0.075)
StateUttar Pradesh		−0.546***
		(0.102)
StateWest Bengal		−0.455***
		(0.070)
Constant	2.207***	2.631***
	(0.081)	(0.080)
Observations	2,104	2,104
R^2	0.092	0.235
Adjusted R^2	0.088	0.230
Residual Std. Error	1.049 (df = 2093)	0.964 (df = 2089)
F Statistic	21.294*** (df = 10; 2093)	45.758*** (df = 14; 2089)
Note:		*p<0.1; **p<0.05; ***p<0.01

LPG : demographic variables

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Table 2: Results from 2 linear regression models

	Dependent variable:	
	Risky_INDLPG	
	(1)	(2)
Uppercaste	0.001	−0.128**
	(0.054)	(0.053)
Male	−0.080	−0.137***
	(0.051)	(0.050)
Hindu	−0.119*	0.027
	(0.063)	(0.062)
urban_ruralUrban	0.086	−0.011
	(0.056)	(0.063)
age25-34 years old	−0.045	−0.004
	(0.072)	(0.070)
age35-44 years old	0.079	0.128*
	(0.078)	(0.078)
age45-54 years old	−0.166*	−0.105
	(0.095)	(0.093)
age55-64 years old	0.120	0.128
	(0.139)	(0.136)
age65-74 years old	−0.483**	−0.117
	(0.206)	(0.202)
age75 years or older	0.052	0.308
	(0.386)	(0.373)
StateRajasthan		−0.226***
		(0.077)
StateTamil Nadu		−0.854***
		(0.084)
StateUttar Pradesh		−0.023
		(0.117)
StateWest Bengal		0.250***
		(0.080)
Constant	3.418***	3.516***
	(0.088)	(0.092)
Observations	2,139	2,139
R^2	0.012	0.086
Adjusted R^2	0.007	0.080
Residual Std. Error	1.144 (df = 2128)	1.101 (df = 2124)
F Statistic	2.545*** (df = 10; 2128)	14.342*** (df = 14; 2124)
Note:		*p<0.1; **p<0.05; ***p<0.01

Table 1 and 2 :

1. Uppercaste, Male, Hindu and urban_rural are binary variables.
2. Reference for age variables is 18-24 years old

3. Reference for State is Maharashtra

Linear Regression model - stove ownership by four groups - (i)LPG, (ii)Traditonal Stove(Including Firewood), (iii)Both and (iv)Other

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Table 3: Results from 2 linear regression models

	Dependent variable:	
	Risky_INDLPG	Risky_INDFirewoodetc
	(1)	(2)
urban_ruralUrban	0.074	0.397***
	(0.091)	(0.083)
Hindu	−0.086	0.159*
	(0.089)	(0.081)
Male	0.099	−0.020
	(0.070)	(0.064)
Uppercaste	−0.049	−0.157**
	(0.076)	(0.069)
age25-34 years old	−0.069	−0.025
	(0.102)	(0.093)
age35-44 years old	0.018	−0.234**
	(0.116)	(0.106)
age45-54 years old	−0.186	−0.106
	(0.135)	(0.123)
age55-64 years old	0.245	0.031
	(0.185)	(0.169)
age65-74 years old	0.138	0.116
	(0.317)	(0.289)
age75 years or older	0.805	1.523**
	(0.657)	(0.598)
groupTraditional	0.083	−0.498***
	(0.168)	(0.154)
groupBoth	−0.009	−0.319***
	(0.095)	(0.087)
groupOther	−0.952***	−1.110***
	(0.156)	(0.142)
Constant	3.451***	2.211***
	(0.129)	(0.118)
Observations	1,034	1,034
R^2	0.057	0.150
Adjusted R^2	0.045	0.140
Residual Std. Error (df = 1020)	1.110	1.011
F Statistic (df = 13; 1020)	4.710***	13.895***
Note:		*p<0.1; **p<0.05; ***p<0.01