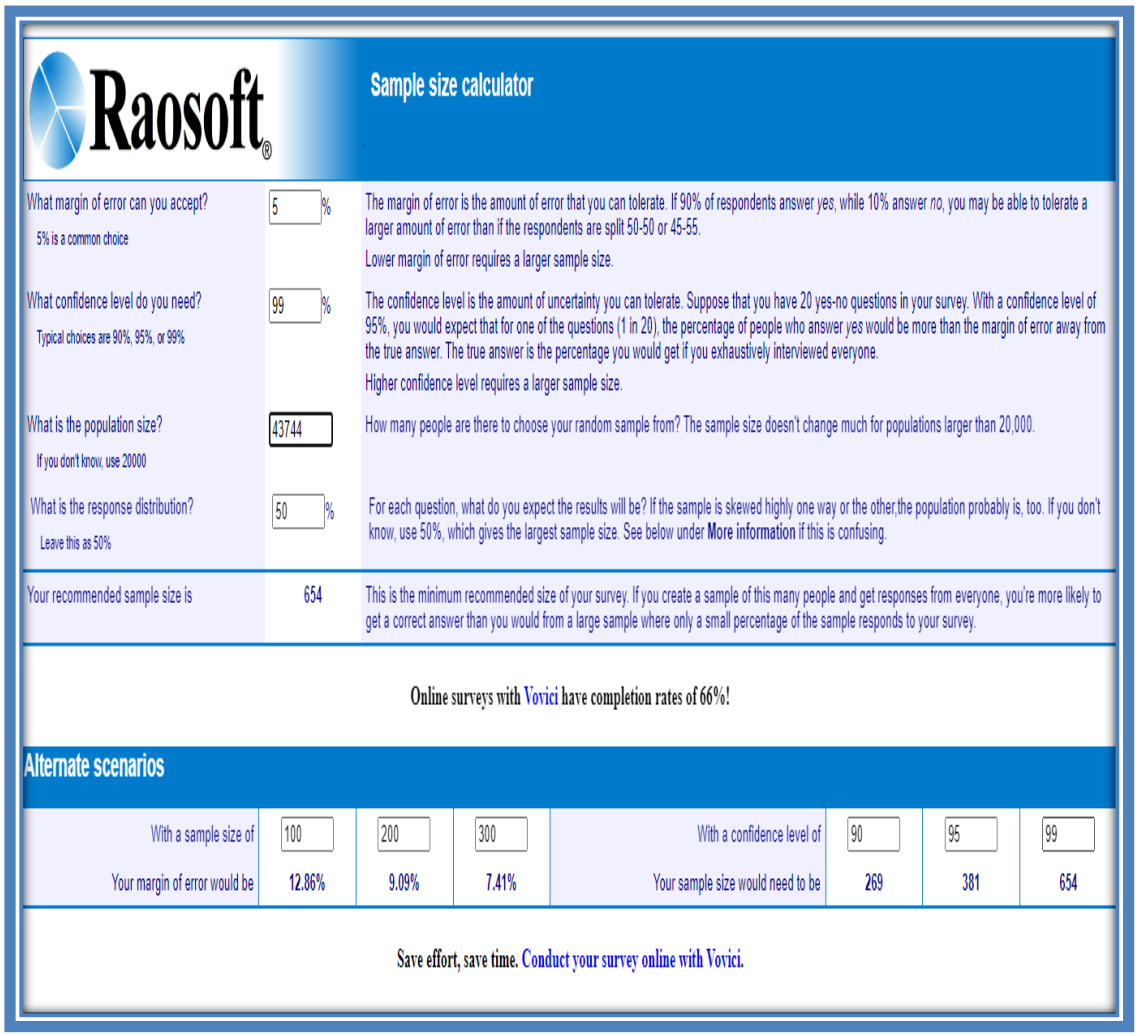
ANNEXURE I

Rao Sample Size Calculator



Raosoft®

Sample size calculator

What margin of error can you accept? 5% is a common choice	5 %	The margin of error is the amount of error that you can tolerate. If 90% of respondents answer *yes*, while 10% answer *no*, you may be able to tolerate a larger amount of error than if the respondents are split 50-50 or 45-55. Lower margin of error requires a larger sample size.
What confidence level do you need? Typical choices are 90%, 95%, or 99%	99 %	The confidence level is the amount of uncertainty you can tolerate. Suppose that you have 20 yes-no questions in your survey. With a confidence level of 95%, you would expect that for one of the questions (1 in 20), the percentage of people who answer *yes* would be more than the margin of error away from the true answer. The true answer is the percentage you would get if you exhaustively interviewed everyone. Higher confidence level requires a larger sample size.
What is the population size? If you don't know, use 20000	43744	How many people are there to choose your random sample from? The sample size doesn't change much for populations larger than 20,000.
What is the response distribution? Leave this as 50%	50 %	For each question, what do you expect the results will be? If the sample is skewed highly one way or the other,the population probably is, too. If you don't know, use 50%, which gives the largest sample size. See below under **More information** if this is confusing.
Your recommended sample size is	654	This is the minimum recommended size of your survey. If you create a sample of this many people and get responses from everyone, you're more likely to get a correct answer than you would from a large sample where only a small percentage of the sample responds to your survey.

Online surveys with Vovici have completion rates of 66%!

Alternate scenarios

With a sample size of	100	200	300	With a confidence level of	90	95	99
Your margin of error would be	12.86%	9.09%	7.41%	Your sample size would need to be	269	381	654

Save effort, save time. Conduct your survey online with Vovici.

ANNEXURE II

Socio-Economic and Environmental Aspects of Urban Water Consumption in Selected Households

Interview Schedule

I. Socio-Economic Characteristics

1. Name of the respondent :
2. Zone :
3. Ward No. :
4. Gender :
5. Community :
6. Marital status :
7. Type of Family :
8. Family size :
9. Demographic Profile :

Sl.No	Name	Age	Education	Occupation	Income P/M
	TOTAL				

Note:

Education : 1. Up to primary level , 2. High School, 3. Higher Secondary, 4. UG, 5. PG 6. Others (Specify)

Occupation: 1. Government, 2. Private, 3. Joint, 4. Business, 5. Contract Labour 6. Daily Wages 7. Others (Specify)

10. What is the monthly expenses for various utility services?

S.No	Expenditure	Amount
1	Food	
2	Drinking water	
3	Electricity	
4	Clothes	
5	Consumer durables	
6	Medical	
7	Education	
8	Rent	
9	Fuel	
10	Entertainment	
11	Festival	
12	God worshiping	
13	Others	

II. LIVING CONDITIONS

11. Type of House

Sl. No	Type of House		Ownership			Rent in Rupees	Garden Area		Square feet
			Own	Rent	Lease		Yes	No	
1	Pucca								
2	Semi-Pucca								
3	Kutcha								
4	Others								

12. Provisions in the house:

1. No. of. room
2. No.of.Bathrooms
3. No.of.Taps
4. No.of.wash basin

5. No.of.Shower
6. No.of.Bathtub
7. Do you have washing machine
8. Type of Machine
9. How many liters?
10. Do you have dishwasher?
11. How many liters?
12. What is the distance of the premises from your house……..

    Meter/Km

III. SOURCE OF WATER

13. Source of water

Sl.No	Source		No.of. Pipeline	Deposited Amount	O & M	Cost per Month (Tax or Price)
1	Own (bore well)					
2	Household Connection (HSC)					
3	Common Street Pipeline					
4	Market Water					

14. Water frequency

Sl. No	Source	Frequency	Hours	Distance	Pressure			Storage		Capacity in liter	
					G	M	B	Sump	Container	Sump	Container
1	Own (bore well)										
2	Household Connection										
3	Common Street Pipeline										
4	Market Water										

Note: G: Good, M: Moderate, B: Bad

15. Who fetch the water from sources ……
16. Time…….....
17. Number of Over Head Tanks ----------
18. Capacity (in liters) OHT ----------
19. Type of Motor ----------
20. Total Cost ----------
21. Frequency per Day ----------

IV. WATER CONSUMPTION DETAILS

22. Source water consumption (as per usage in liter)

Sl.No.	Source	Own	HSC	CSP	MW	Others
1	Drinking					
2	Cooking					
3	Vessel Washing					
4	Cloth Washing					
5	Bathing					
6	Toilet					
7	Cleaning House					
8	Cleaning Vehicles					
9	Gardening					

23. Seasonal wise variations of water usage.

Sl. No	Daily Usage of Water	Time (Numbers)			Liter/Pot/Time (hours)		
		Summer	Winter	Average	Summer	Winter	Average
1	Drinking						
2	Cooking						
3	Vessel Washing						
4	Cloth Washing						
5	Bathing						
6	Toilet						
7	Cleaning House						
8	Cleaning Vehicles						
9	Gardening						

24. Preference of water in daily usage

S.no	Reason	Rank
1	Drinking	
2	Cooking	
3	Vessel Washing	
4	Cloth Washing	
5	Bathing	
6	Toilet	
7	Cleaning House	
8	Cleaning Vehicles	
9	Gardening	

V. WATER QUALITY

25. How was the quality of water

Sl.No	Source	Quality				Taste/ Smell			
		Very Good	Good	Satisfactory	Non-Satisfactory	Very Good	Good	Satisfactory	Non-Satisfactory
1	Own (bore well)								
2	Household Connection								
3	Common Street Pipeline								
4	Market Water								

26. Did you use copping measures to purify water for Drinking?

Yes ☐ No ☐

27. Type of Copping Mechanism for HSC Water

Sl.No	Type	
1	Boiling	
2	Purifying Machines	

28. Problems faced by the respondents with their urban water supply

S.no	Problems	Rank
1	Low water supply	
2	Unpredictable water supply	
3	Dirty water supply	
4	Cleaning of containers	
5	Distance for getting water	

29. Factors influencing the respondents to go for secondary water source

S.no	Factors	Strongly Agree	Agree	Neutral	Strongly disagree	Disagree
1	Quality of water					
2	Quantity of water					
3	Speed of water supply					
4	Distance for getting public water					
5	Time spend for getting water					
6	To meet the daily requirement					
7	Inadequacy of water supply					
8	Unpredicted water supply of public water					
9	No one available for fetching water					

30. Incidence for water borne or based diseases

Name of the disease		Members of the family affected	No. of. days of illness	Type of Hospital	Cost of Treatment
Viral	Hepatitis AandE				
	Rotavirus				
	Poliomyelitis				
Bacterial	Diarrhea				
	Dysentery				
	Cholera				
	Typhoid				
Water Related Disease					
	Malaria				
	Dengue				
	Scabies				

31. Are you statisfised with the urban water supply (HSC)?

Yes ☐ No ☐

32. Are you willing to pay for improved urban water Supply?

- Need water and willing to pay
- No need of extra Water
- Need water but unable to pay

33. Amount for WTP (in Rupees) ----------

VI. WATER CONSERVATION

34. Do you believe that water conservation in the district is?

- A very important issue
- An important issue
- Not a very important issue
- Not important at all
- No opinion

35. Water saving behaviour of respondents

Factors	Number	Indicator Variable	Problem Setting
Water Saving Attitudes	X1	Environmental Awareness	Do you feel guilty of wasting water
	X2	Scarcity Awareness	What is the shortage of drinking water
	X3	Water resource Value	Water resources are very valuable? Do you agree
	X4	Effect of cognition	Water saving technology can improve the ecological environment. Do you agree
	X5	Responsibility cognition	Who do you think should invest in the cost of water saving technology
	X6	Individual water saving attitudes	Have you and your family thought about saving water
	X7	Attitude towards participating in water saving activities	Are you willing to participate in public education or technology promotion activities for water saving

Water Saving Expectations	X8	Saving time and man days	If water saving technologies can save time and man days, would you consider to using them
	X9	Water shortage	Water conservation can solve the water shortage situation do you agree
	X10	Cost expectations	The investment cost of water technology are not expected to affect your water saving decisions do you agree
	X11	Water fee expectations	If investing in water saving technology can save your electricity and drinking water bill, would you consider to using them?
Perceived behavioral control	X12	Family water saving perceptions	For my family water saving technology can be reduce the amount of water consumption do you agree
	X13	Family water saving capacity	My family has energy to learn measure and methods necessary to save water, do you agree?
Subjective norms	X14	Social water-saving expectations	The whole society is advocating for saving drinking water at present; do you agree
	X15	Public water-saving expectations	When you see neighbors and friends implement water saving technologies, will you want to follow their example?
	X16	Social opinion expectations	When you see water saving technologies on the TV or newspaper, will you follow their example?
Water-saving practices	Y1	Investment in water-saving technologies and tools	How much are you willing to pay for water-saving technologies? **

ANNEXURE III

ETHICAL COMMITTEE REPORT

INSTITUTIONAL HUMAN ETHICS COMMITTEE

Avinashilingam

Institute for Home Science and Higher Education for Women
(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3 of UGC Act 1956) Re-accredited with 'A+' Grade by NAAC.
Recognised by UGC Under Section 12 B
Coimbatore-641 043, Tamil Nadu, India

Chairman
Dr. S. Ramalingam
Principal, PSG Institute of Medical Sciences & Research, Coimbatore

Member Secretary
Dr.S.UmaMageshwari
Professor and Head,
Department of Food Service Management & Dietetics

Members
Mr. K.Arulmoli (Legal Expert)
Dr.Subhashini K. Sripathi
Dr.A. Saraswathy
Ms.D.Kavitha
Dr.S. Muthulakshmi
Dr.G.Victoria Naomi
Dr. Judith Justin
Dr.Anitha Subash

20th January 2020

To
Ms.Vaishnavi G,
Department of Economics
Avinashilingam Institute for Home Science and
Higher Education for Women
Coimbatore – 641 043

Dear Vaishnavi G,

Ref: Your proposal No. IHEC /19-20/ECO/04entitled "Socio-Economic and Environmental aspects of Domestic water consumption in Coimbatore Corporation" submitted for approval to the IHEC on 30.10.2019

The Institutional Human Ethics Committee of our University hereby grants approval to your research proposal No. IHEC /19-20/ECO/04 entitled "Socio-Economic and Environmental aspects of Domestic water consumption in Coimbatore Corporation" submitted by you. The Approval number for the same is AUW/IHEC/ECO-19-20/XPD-04.

We wish you all the best in your research endeavours.

Regards,

S. Uma Mageshwari
Dr.S.Uma Mageshwari
Member Secretary

Institutional Human Ethics Committee

ANNXEURE IV

FILED VIST IMAGES

ANNEXURE V

PLAGIARISM REPORT

Avinashilingam Institute for Home Science and Higher Education for Women
(Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD)
Re-accredited with 'A++' Grade by NAAC.CGPA 3.65/4, Category I by UGC
Coimbatore – 641 043, Tamil Nadu, India

PLAGIARISM CHECK REPORT (THESES)

1.	Name of the Research Scholar	Vaishnavi G
2.	Roll No. and Year of Registration	17PHECF004, 2017
3.	Department	Economics
4.	Name of the Research Guide	Dr. C. Parvathi
5.	Title of the Thesis / Dissertation	Socio-Economic and Environmental Aspects of Urban Water Consumption in Selected Households
6.	Similarity Content (%) Identified	**7 %**
7.	Software Used	Turnitin
8.	Date of Verification	19-05-2022

Note : The report is excluding 14 Consecutive words, Review of Literature and Quoted Materials.

Checked by :

19/5/22
Information Scientist

19/5/2022
Research Scholar

19.05.2022
Assistant Librarian

19/05/2022
Research Guide

Date: 19-05-2022