

## Analysis Dimensions

### Availability

- i) Selection Availability : Develop stratification of water filters (device) and replacement filters by retailers (location, type)
- ii) Shelf Availability : Use inventory data and compare with sales data to estimate stockout probability (devices and replacement filters) for each retailers

### Affordability

- i) Total Cost of Ownership : Estimate Total Cost of Ownership for each brand/model  
 $TCO = \text{initial purchase price} + (\text{replacement filter price}) \times (\text{number of replacement filters over the device lifetime})$ 
  - \* number of replacement filters obtained from OEM and from Suitability consumer survey
  - \* number of replacement filters can also be estimated by comparing device sales figures vs replacement sales figures
  - \* consider usage volume for different family size (small, average, large) in TCO calculation
  - \* consider probability of breakdown to account for effect of warranty / breakdown on TCO
- ii) Annual Cost : Estimate Annual Cost of Ownership for each brand/model  
 $\text{Annual Cost} = TCO / \text{Expected lifetime}$ 
  - \* expected lifetime (number of years) obtained from OEM and from Suitability consumer survey
- iii) Financing : Examine correlation between availability of credit for consumers and sales, and correlation between availability of credit for retailers and inventory level
  - \* Apply discounted cash flow to account for effect on financing on TCO
- iv) Retailer Landed Cost : Use inventory data and wholesale price data to calculate retailer's inventory cost
  - \* Apply discounted cash flow to account for effect on financing on Retailer Landed Cost

### After Market

- i) Warranty Awareness : Examine warranty awareness / communication in supply chain by comparing OEMs that offer warranty and retailers that promote and offer the warranty to consumers
- ii) Support Process Complexity : Evaluate ease of receiving warranty support by assessing warranty process complexity (e.g. direct support from OEM vs. support through retailer, third parties, etc.)

## Brand Specific Questions

Code	Priority	Questions	Potential Answers	Proposed Analysis
1	A	Which brands/models of water filters do you carry?	List all brands, add Other	Availability - Selection Availability
2	A	How many of these on average do you have in the store?	Do we have ranges here? Or just write down the number and create ranges later?	Availability - Shelf Availability
3	A	How many water filters do you sell a month? (Of each Brand)	Do we have ranges here? Or just write down the number and create ranges later?	Availability - Shelf Availability
4	A	What is the price for this water filtration device?	For each device sold in store	Affordability - Total Cost of Ownership
5	A	How much do you pay to purchase the filtration device?	For each device sold in store	Affordability - Retailer Landed Cost
6	A	For which brands/models do you carry replacement filters? If none, why not?	List all with replacement filters, add other	Availability - Selection Availability
7	A	How many of these on average do you have in the store?	Do we have ranges here? Or just write down the number and create ranges later?	Availability - Shelf Availability
8	A	How many replacement filters do you sell a month? (of each brand)	Do we have ranges here? Or just write down the number and create ranges later?	Availability - Shelf Availability
9	A	What is the price for the replacement filters?	For each device sold in store	Affordability - Total Cost of Ownership
10	A	How much do you pay to purchase replacement filters?	For each device sold in store	Affordability - Retailer Landed Cost
11a	A	What is the length of warranty or replacement plan (by manufacturer or by retailer, if large retailer)?	a) yes, by OEM, for xxx years b) yes, by retailer, for xxx years c) zero (no)	Affer Market - Warranty Awareness
11b	A	Is there an additional cost to obtain warranty?	a) zero (free) b) xxx rupees	Affer Market - Warranty Awareness      Affordability - Total Cost of Ownership
12	B	What made you decide to carry these brands versus others?	a) price of these water filters b) demand for these water filters c) availability of these water filters d) what retailers/distributor sells	Availability - Selection Availability

## General Questions

Code	Priority	Questions	Potential Answers	Proposed Analysis
0		What are the days of operation of this store?		
0		What are the hours of operation of this store?		
0		How many employees do you have?		
13	A	Do you offer credit to your customers? If yes, for what amount (max) and for how long?	a) yes b) no	Affordability - Financing , Affordability - Total Cost of Ownership
14	A	Where do you order the water filters from?	Get location and name	Availability - Selection Availability
15a	B	Could you switch distributors easily? To what extent?	a) yes b) no	Availability - Selection Availability
15b	A	Does this supplier deliver directly to your store?	a) yes b) no, [explanation]	Availability - Retailer Landed Cost
15c	A	After you place an order with the supplier, when do you expect for the shipment to arrive at your store?	Do we have ranges here? Or just write down the number and create ranges later?	Availability - Shelf Availability
15d	B	How often is the delivery late?	a) never (0%) b) rarely (<20%) c) sometimes (20-50%) d) often (50-70%) e) very often (>70%)	Availability - Shelf Availability
16	B	What is your standard order size? Is there a minimum order size?	Do we have ranges here? Or just write down the number and create ranges later?	Availability - Shelf Availability
17	A	How do you pay for the order?	a) upfront b) credit	Affordability - Retailer Landed Cost
18	A	Do they offer credit? If yes, what are the terms?		Affordability - Retailer Landed Cost
19	A	Where do customers take the device if they have a problem with it?	a) to me b) to [xxx] c) don't know	After Market - Warranty Awareness , After Market - Support Process Complexity
20	A	If customers bring devices to you for maintenance and support, how do you execute support process?	a) ship to manufacturer for repair b) ship to manufacturer for replace c) ship to third-party for repair d) give away spare parts e) receive or use spare parts and perform fix	After Market - Support Process Complexity
21a	B	Do you ever mark down the listed price on water filters?	a) yes b) no	Affordability - Total Cost of Ownership
21b	B	If yes, does it change how many you sell? By how much?	a) yes b) no - Find out how much? Make ranges potentially	Availability - Shelf Availability
21c	B	Do you (and if yes how much) negotiate the selling price with consumers?	a) no b) yes, xxx %	Affordability - Total Cost of Ownership
21d	B	If no, how much would you have to discount a water filter in order to sell significantly more filters?	ranges (e.g. xx% discount would double sales)	Availability - Shelf Availability , Affordability - Total Cost of Ownership
22	B	Where do customers who purchase water filters live?	a) within walking distance of the store b) surrounding neighborhoods c) more distant neighborhoods d) other towns (out km ranges)	Market Insight
23	B	What type of people/customers generally purchase water filters?	classification by income levels, or other criteria (if retailer suggests any)	Market Insight
24	B	Is dirty water seen as an issue with your customers?	a) yes b) no	Market Insight
25	B	What change would have to happen to sell more water filters? And how many more do you think you would sell?	a) decrease in cost from distributor b) availability c) demand from customer d) water safety knowledge increase e) increase in peoples income	Market Insight