# SECTION - 1

## QUESTION-1.

## ANSWER:-

### **Cross Tabulation:-**

A cross tabulation (or crosstab) report is used to analyze the relationship between two or more variables. The report has the x-axis as one variable (or question) and the y-axis as another variable. This type of analysis is crucial in finding underlying relationships within your survey results. (or any type of data!)

Generally, survey results are presented in aggregate – meaning, you only see a summary of the results, one question at a time. Cross tabulation takes this one step further and enables you to see how one or more questions correlate to each other. This type of analysis can reveal a relationship in your data that is not initially apparent.

#### A Real World Example

If you were a store owner and asked the question "Do you like our products?" to customers, would the answers help improve your business? Of course! But without cross tabulation, it would be hard to gain further insights.

The data table below is from a sample survey in this scenario. You can see people generally do not like this company's products. But does that tell the whole story? No, it does not!

#### Data table WITHOUT cross tabulation

Answer Choice	<b>Total Survey Responses</b>		Percent of Responses
I do not like them	22	47%	
I love your products!	20	43%	
They are okay 5	11%		
Total Responses	47	100%	

Here is the same data below, but now we'll create a cross tabulation report with the respondents' gender (asked in a prior question). A graph is also incorporated to better visually represent the data.

Example Cross Tabulation (Product Likability vs Gender) Percent of Total Responses

Total Responses					
Male					
Female					
I do not like them					
They are okay					
I love your products!					
0%					
25%					
50%					
75%					
100%					
Count Percent					
Answer Choice	Male	FemaleTotal Compared Responses			
I do not like them	3	19	22		
They are okay 3	2	5			
I love your products!	16	4	20		
Totals 22 25	47				

### Walking Through the Example

The question in our example, "Do you like our products?", has been cross tabulated, with age range from another question.

In the table, the total compared responses (47), matches the total survey responses (47). All data has been accounted for and is properly separated by gender. We can now look at the relationships in our data. We can see right away that it appears males tend to love the stores products and females tend to dislike the stores' products. This result can also be seen in the graph above.

A feature unique to SurveyKing, is the ability to toggle response counts with response percentages. This makes your data table clean and easy to follow along with.

#### The Importance of Cross Tabulation

Only with cross tabulation, were we able to see that a younger age group liked the company's products. Without this, a marketing team might have seen the survey results and thought, "Wow our products aren't doing well, maybe we need to re-brand". But as it turns out, a specific age group did like their products, and the marketing team would now be able to focus on growing that customer base.

#### Clean, Useable Data:

Cross tabulation makes it simple to interpret data! The clarity offered by cross tabulation helps deliver clean data that be used to improve decisions throughout an organization.

Easy to Understand:

No advanced statistical degree is needed to interpret cross tabulation. The results are easy to read and explain. This is makes it useful in any type of presentation.