
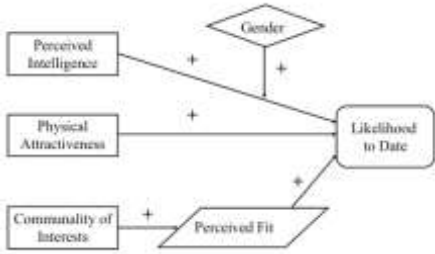


<b>Name:</b>  <b>Enrolment No:</b>			
<b>UNIVERSITY OF PETROLEUM &amp; ENERGY STUDIES</b> Online End Semester Examination, May 2021 Course: Research Methodology and Report Writing      Semester: IV Program: B.Com (All)      Max. Marks: 100 Course Code: DSRM 2001      Duration: 3Hours			
<b>Q.No</b>	<b>Section A</b> Choose the Correct Answer in each of the following:	<b>Marks</b>	<b>COs</b>
Q1	Which example isn't a qualitative data? a) interview notes b) transcripts of records of focus groups c) answers to close-ended questions such as using Likert-scale d) news articles	5	CO1
Q2	What type of the scale is used below?  How pleased are you with your new estate agent? <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 5px 0;">           Extremely Pleased   7 6 5 4 3 2 1   Extremely Displeased         </div> a) Numerical scale b) Likert scale c) Category scale d) Dichotomous scale	5	CO1
Q3	In quantitative analysis, reliability is a test of how consistently a measuring instrument measures whatever concept it is measuring. Which one isn't the content in reliability? a) stability of measurement b) consistent measurement c) internal consistency d) construct validity	5	CO1

Q4	<p>If you want to capture how respondents in a survey feel about individual items, measuring positive or negative to a question or statement. Which scale can be used?</p> <ul style="list-style-type: none"> <li>a) ranking scales</li> <li>b) rating scales</li> <li>c) nominal scales</li> <li>d) no scale can be used</li> </ul>	5	CO1
Q5	<p>Which sampling method is a Probability sampling?</p> <ul style="list-style-type: none"> <li>a) Convenience Sampling</li> <li>b) Judgment Sampling</li> <li>c) Stratified Random Sampling</li> <li>d) Quota Sampling</li> </ul>	5	CO1
Q6	<p>Which statement is true about the trade-off between precision and confidence when we determine the sample size?</p> <ul style="list-style-type: none"> <li>a) Narrower range, greater precision</li> <li>b) the narrower the range, the higher the confidence.</li> <li>c) More confidence, more precision</li> <li>d) Less precision, less confidence.</li> </ul>	5	CO1
<b>Section B</b>			
Q7	<p>Please put the following steps of operationalizing in order (from number 1 to 6). Put 1 on the row of first step, 2 on the row of second step, go on.</p> <ul style="list-style-type: none"> <li>( ) Test the reliability and validity of the instrument</li> <li>( ) Collect data from representative sample from the population.</li> <li>( ) Decide on response format (e.g., 5 point Likert-scales with end-points ‘strongly disagree’ and ‘strongly agree’).</li> <li>( ) Provide conceptual definition of construct.</li> <li>( ) Select items for your scale using ‘item-analysis’.</li> <li>( ) Develop pool of items related/important to the construct.</li> </ul>	10	CO2

Q8	Identify the object and the attribute/characteristics of the measurement, if you try to measure the price consciousness of car buyers as a researcher.	10	CO2																																			
Q9	What is Cronbach's alpha? How can we use it?	10	CO2																																			
Q10	What kinds of sampling design would be used for the following: The generalizability of the attitudes of blue-collar workers from a sample of 184, to the total population of 350 blue collar workers in the entire factory of a particular company.	10	CO3																																			
Q11	<p>Please read the conceptual model and determine the independent variables, dependent variable, mediator and moderator.</p> 	10	CO3																																			
Section C (Case Study)																																						
Q12	<p>Three Tables summarize the results of data analyses of research conducted in a sales organization that operates in 50 different cities of the country and employs a total sales force of about 500. The number of salespersons sampled for the study was 150.</p> <table border="1" data-bbox="334 1367 1094 1604"> <thead> <tr> <th colspan="5" style="background-color: #0056b3; color: white;">Means, Standard Deviations, Minimum and Maximum</th> </tr> <tr> <th style="background-color: #e6e6e6;">Variable</th> <th style="background-color: #e6e6e6;">Mean</th> <th style="background-color: #e6e6e6;">Std. deviation</th> <th style="background-color: #e6e6e6;">Minimum</th> <th style="background-color: #e6e6e6;">Maximum</th> </tr> </thead> <tbody> <tr> <td>Sales (in 1000s of \$)</td> <td>75.1</td> <td>8.6</td> <td>45.2</td> <td>97.3</td> </tr> <tr> <td>No of salespersons</td> <td>25</td> <td>6</td> <td>5</td> <td>50</td> </tr> <tr> <td>Population (in 100s)</td> <td>5.1</td> <td>0.8</td> <td>2.78</td> <td>7.12</td> </tr> <tr> <td>Per capita income (in 1000s of \$)</td> <td>20.3</td> <td>20.1</td> <td>10.1</td> <td>75.9</td> </tr> <tr> <td>Advertising (in 1000s of \$)</td> <td>10.3</td> <td>5.2</td> <td>6.1</td> <td>15.7</td> </tr> </tbody> </table>	Means, Standard Deviations, Minimum and Maximum					Variable	Mean	Std. deviation	Minimum	Maximum	Sales (in 1000s of \$)	75.1	8.6	45.2	97.3	No of salespersons	25	6	5	50	Population (in 100s)	5.1	0.8	2.78	7.12	Per capita income (in 1000s of \$)	20.3	20.1	10.1	75.9	Advertising (in 1000s of \$)	10.3	5.2	6.1	15.7	20	CO4
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### Correlations Among the Variables

	Sales	Salespersons	Population	Income	Ad. expenditure
Sales	1.0				
No. of salespersons	0.76	1.0			
Population	0.62	0.06	1.0		
Income	0.56	0.21	0.11	1.0	
Ad. expenditure	0.68	0.16	0.36	0.23	1.0

All figures above 0.15 are significant at  $p = 0.05$ .

All figures above 0.35 are significant at  $p \leq 0.001$ .

### Results of Regression Analysis

Multiple <i>R</i>	0.65924		
<i>R</i> -square	0.43459		
Adjusted <i>R</i> -square	0.35225		
Standard error	0.41173		
df	(5.144)		
<i>F</i>	5.278		
Sig.	0.000		
Variable	Beta	<i>t</i>	Sig. <i>t</i>
Training of salespersons	0.28	2.768	0.0092
No. of salespersons	0.34	3.55	0.00001
Population	0.09	0.97	0.467
Per capita income	0.12	1.200	0.089
Advertisement	0.47	4.54	0.00001

- Interpret the information contained in each of the tables in as much detail as possible.
- Summarize the results for the CEO of the company.
- Make recommendations based on your interpretation of the results.