

## KARPAGAM ACADEMY OF HIGHER EDUCATION (Deemed to be University)

(Established under section 3 of UGC Act 1956) Coimbatore-641021 DEPARTMENT OF MANAGEMENT

Subject: SPSS (PRACTICAL) Semester: II Subject Code: 19MBAP211

**Class- I MBA** 

## **COURSE OBJECTIVES:**

To make the students,

1. To understand the Importance of SPSS and the features for entering the data according to the variable type.

- 2. To understand and apply the descriptive analytical tools
- 3. To know the Univariate tools and its application

4. To comprehend the application of Bivariate analysis

5. To understand and compute the multivariate analysis using the package.

## **COURSE OUTCOMES:**

Learners should be able to

- 1. Create datasheet and enter the data
- 2. Compute descriptive statistics using the package and graphically represent the data.
- 3. Perform univariate and bivariate analysis in the software package.
- 4. Perform multivariate analysis in the software package.
- 5. Demonstrate capabilities of problem-solving, critical thinking, and communication skills to infer the output.

## UNIT I Overview and Data Entry

SPSS – Meaning – Scope- Limitation- Data view- Variable view- Data entry procedures- Data editing-Missing.

### **UNIT II Descriptive Statistics**

Descriptive statistics – Frequencies Distribution – Diagram –Graphs, Mean, Median, Mode, Skewness – Kurtosis – Standard Deviation

### UNIT III Non parametric and parametric test

Cross tabulation, Chi square, t test, independent sample t test, paired t test.

#### UNIT IV Analysis of Variance, Bivariate Analysis

ANOVA - One way, Two Way ANOVA, Correlation - Rank correlation - Regression - charts.

#### **UNIT V Multivariate analysis**

Factor Analysis, Cluster Analysis and Discriminate analysis

#### **Suggested Readings:**

1. Darren George, Paul Mallery (2016), IBM SPSS Statistics 23 Step by Step, Routledge, New Delhi.

2. Asthana & Braj Bhushan (2017), Statistics for Social Sciences (With SPSS Applications), PHI, New Delhi.

3. Keith Mccormick, Jesus Salcedo, Aaron Poh, SPSS Statistics for Dummies, 3rd edition, Wiley, New Delhi.

4. Keith McCormick, Jesus Salcedo, Jon Peck, Andrew Wheeler, Jason Verlen (2017), SPSS Statistics for Data Analysis and Visualization, Wiley, New Delhi.

5. Brian C. Cronk (2016), How to Use SPSS: A Step-By-Step Guide to Analysis and Interpretation, 9<sup>th</sup> edition, Routledge, New Delhi.

Class: I MBA Course Name: SPSS			
Code: 19MBAP211	Semester: II	Year: 2019-21 Batch	
Ex.No.1 Date:	DESCRIPTIVE STATI	STICS	
	DESCRIPTIVE STATI		
Aim			
To compute Mean, Media	an, Mode and Standard Dev	iation	
Algorithm			
Step 1: Start the Process			
Step 2: Open the Advert.	sav data set from the sample	e files folder	
Step 3: Advert and sales	variables are display in data	view window	
Step 4: Select Descriptive	e Statistics option from Ana	lyze Menu	
Step 5: Select Frequenci	es option from Descriptive	Sub menu	
Step 6: Forward the Sale	es variable data to Variables	Window	
Step 7: Select Statistics	Command button on Freque	ncies window	
Step 8: Select Mean, Me Deviation from Dispersion	dian and Mode from Centra	ll Tendency Option and Standard	
Step 9: Click Ok button	on Frequency Window		
Step 10: Stop the proces	s		
<b>.</b>			

The above statistical analysis has been verified by using SPSS Package.

Prepared by Dr.M.S.Sibi, Assistant Professor, Dept of Management, KAHE

KARPAGAM ACADEMY OF HIGHER EDUCATION, COIMBATORE						
Class: I MBA		Course Name: SPSS (Practi				
Code: 19MBAP211 Sem		nester: II	Year: 20	19-21 Batch		
Outpu	ut:					
			Statistics			
Detren	ded sales					
N		Valid			24	
IN		Missing			0	
Mean					10.5688	
Median	I				11.0831	
Mode					6.71 <sup>a</sup>	
Std. De	eviation				1.80001	
a. Multi	iple modes ex	tist. The smallest v	alue is shown/			
		C	Detrended sale	s		
		Frequency	Percent	Valid Percent	Cumulative	
					Percent	
	6.71	1	4.2	4.2	4.2	
	7.60	1	4.2	4.2	8.3	
	8.71	1	4.2	4.2	20.8	
	8.75	1	4.2	4.2	25.0	
	8.87	1	4.2	4.2	29.2	
	9.82	1	4.2	4.2	33.3	
1	10.38	1	4.2	4.2	37.5	
	10.50	1	4.2	4.2	41.7	
	10.97	1	4.2	4.2	45.8	
	11.15	1	4.2	4.2	58.3	
Valid	11.51	1	4.2	4.2	62.5	
	11.84	1	4.2	4.2	66.7	
	11.86	1	4.2	4.2	70.8	
	12.07	1	4.2	4.2	75.0	
	12.23	1	4.2	4.2	79.2	
	12.25	1	4.2	4.2	83.3	
	12.27	1	4.2	4.2	87.5	
	12.46	1	4.2	4.2	91.7	
	12.57	1	4.2	4.2	95.8	
	12.74	1	4.2	4.2	100.0	
	Total	24	100.0	100.0		

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Class: I MBA		<b>Course Name: SPSS (Practica</b>	
Code: 19MBAP211	Semester: II	Year: 2019-21 Batch	
Ex.No.2			
Date:			
I	FREQUENCIES DISTRI	BUTION	
Aim			
To compute frequencies d	listribution and skewness a	nd kurtosis	
Algorithm			
Step 1: Start the Process			
Step 2: Open the demo.sa	v data set from the sample	files folder	
Step 3: Age, marital statu	s, gender and employ varial	bles are display in data	
view window		$\frown$	
Step 4: Select Descriptive	Statistics option from Ana	lyze Menu	
Step 5: Select Frequencie	es option from Descriptive	Sub menu	
Step 6: Forward the age i	in years and gender variable	es data to Variables Window	
Step 7: Select Statistics C	Command button on Freque	ncies window	
Step 8: Select Mean, M	Iedian and Mode from (	Central Tendency Option and Standa	
Deviation from Dispersio	on option also select percer	tiles tab add (10) value in the percent	
value option and Select	skewness and kurtosis from	n distribution option and click Contin	
command button.			
Step 9: Click charts, Co	mmand button on frequence	cies window select Histograms and cli	
show normal on histogra	am [chart type and select	percentages in chart values option] a	
click continue button.	- •••		
Step 10: Click Ok button	on Frequency Window		
Step 11: Stop the process	3		

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# Class: I MBACourse Name: SPSS (Practical)Code: 19MBAP211Semester: IIYear: 2019-21 Batch

#### Result

The above statistical analysis has been verified by using SPSS Package.

## **Output:**

Statistics					
		Gender	Age in years		
Ν	Valid	6400	6400		
	Missing	0	0		
Mean			42.06		
Median			41.00		
Mode			39		
Std. Deviation			12.290		
Skewness			.299		
Std. Error of Skewness			.031		
Kurtosis			602		
Std. Error of Ku	irtosis		.061		
Percentiles	10		26.00		
	•			7	

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
	Female	3179	49.7	49.7	49.7
Valid	Male	3221	50.3	50.3	100.0
	Total	6400	100.0	100.0	



Class: I MBA Course Name: SH			
Code: 19MBAP211	Semester: II	Year: 2019-21 Batch	
Ex.No.3 Date:			
Aim	CHI-SQUARE		
To calculate Chi-square t	est to find association betwe	een two variables	
Algorithm			
Step 1: Start the Process			
Step 2: Open the Advert	.sav data set from the sample	e files folder	
Step 3: Advert and sales	variables are display in data	view window	
Step 4: Select Descriptiv	ve Statistics option from Ana	ılyze Menu	
Step 5: Select Crosstabs	from Descriptive Sub menu		
Step 6: Forward advert v	ariable to Row and sales var	table to Column options	
Step 7: Click Statistics C select Chi-square option	ommand button on Crosstab and press continue command	window, from which d button	
Step 8: Click Cells com	nand button on Crosstab wir	ndow, in which select row on	
Percentage option and pr	ess continue command butto	on	
Step 9: Click Ok button	on Crosstab window		
Step 10: Stop the proces	s		
D14			

The Chi-square test result has been verified by using SPSS Package.

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Class: I MBA		Course Name: SPSS (Practical)
Code: 19MBAP211	Semester: II	Year: 2019-21 Batch

## **Output:**

#### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	552.000 <sup>a</sup>	529	.237
Likelihood Ratio	152.547	529	1.000
Linear-by-Linear Association	19.294	1	.000
N of Valid Cases	24		

a. 576 cells (100.0%) have expected count less than 5. The minimum expected count is .04.

