WHICH IS SLIGHTLY ADVANCED IN TERMS OF CALCULATIONS AND DATA COLLECTIONS BUT IS CONSIDERED TO BE THE MOST ACCURATE FOR PREDICTIONS. ALL THE ESTIMATIONS ARE BASED ON THE PAST DATA AVAILABLE AND THE FACTORS THAT ARE INFLUENCING IT DIRECTLY OR INDIRECTLY. STEPS FOR REGRESSION ANALYSINOW LET'S GO OVER THE STEPS THAT ARE INVOLVED IN REGRESSION ANALYSIS METHOD ONE BY ONE. STEP 1 DETERMINING THE VARIABLESHE IS THE VERY FIRST STEP WHICH INVOLVES THE DETERMINATION OR RECOGNITION OF YOUR VARIABLES BASED ON WHICH THE FORECASTING WILL BE DONE.LET'S CONSIDER AN EXAMPLE OF A COMMODITY A AND STATE ITS VARIABLES IN TERMS OF ITS DEMAND FUNCTION BELOWREGRESSION ANALYSIS TERMINOLOGYSTARTING WITH THE TERM REGRESSION ANALYSIS, IT IS A STATISTICAL PROCESS USED FOR FINDING OUT OR ESTIMATING THE RELATIONSHIP BETWEEN ONE OR MORE INDEPENDENT/PREDICTOR VARIABLES AND THE DEPENDENT/RESPONSE VARIABLE. INDEPENDENT/PREDICTOR VARIABLE THAT WE ARE TRYING TO PREDICT WHERE AS DEPENDENT/RESPONSE IS THE ONE THAT IS EFFECTING IT DIRECTLY OR INDIRECTLY. MULTIPLE REGRESSION ANALYSIS INVOLVES MULTIPLE JARIABLES WHICH IS SLIGHTLY ADVANCED IN TERMS OF CALCULATIONS AND DATA COLLECTIONS BUT IS CONSIDERED TO BE THE MOST ACCURATE FOR PREDICTIONS. ALL THE ESTIMATIONS ARE BASED ON THE PAST DATA AVAILABLE AND THE FACTORS THAT ARE INFLUENCING IT DIRECTLY OR INDIRECTLY. STEPS FOR REGRESSION ANALYSIS NOW LET'S GO OVER THE STEPS THAT ARE INVOLVED IN REGRESSION ANALYSIS METHOD ONE BY ONE. STEP 1 DETERMINING THE VARIABLESTHE IS THE VERY FIRST STEP JUHICH INVOLVES THE DETERMINATION OR RECOGNITION OF YOUR VARIABLES BASED ON WHICH THE FORECASTING WILL BE DONE.LET'S CONSIDER AN EXAMPLE OF A COMMODITY A AND STATE ITS VARIABLES IN TERMS OF ITS DEMAND FUNCTION BELOW, ZDA = F (PZ, Y, A, PS, PC WHERE, ZDA=DEMAND FOR COMMODITY A PRICE OF COMMODITY A (PZ.CONSUMER INCOME CYDADVERTISING EXPENDITURE INCURRED ONCOMMODIT DEMAND THAT IS EXPLAINED LATER IN THE BELOW STEPS.KNOWING HOW TO SELECT YOUR VARIABLES FOR THE DEMAND FUNCTION IS VERY IMPORTANT, THE VARIABLE THAT ARE TO BE SELECTED SHOULD HAVE A SIGNIFICANT IMPORTANCE ON THE DEMAND THAT COMMODITY AND WHEREAS THE USE OF TOO MANY VARIABLES AND UNIMPORTANT FACTORS SHOULD BE OVERLOOKED, BELOW IS AN EXAMPLE OF WHAT'S STATED ABOVEWHEN A CERTAIN BRAND OF CLOTHING IS PREDICTING THE DEMAND OF THEIR SEASONAL PI PRICED COMMODITY LIKE HOUSING IS CONSIDERED THEN FACTORS SUCH AS CREDIT ACCOUNTS AND INTEREST PLAY A VITAL ROLE. ADDING EXTRA VARIABLES THAT HAS NEGLIGIBLE AFFECT OR NO EFFECTS WILL MAKE YOUR ANALYSIS COMPLICATED AND TOO MUCH WORK SO ITS HEPT SIMPLE.STEP 2 PAST DATA COLLECTIONS ONCE YOU HAVE YOUR VARIABLES SET AND DETERMINED THE NEXT IMPORTANT STEP IN THE PROCESS IS THE COLLECTION OF THE PAST DATA. THE DATA THAT SHOULD BE GATHERED MUST BE WITH RESPECT TO THE VARIABLES THAT YOU HAVE DETERMINED OR SET. THE DATA COLLECTION CAN BE DONE IN TWO DIFFERENT UNIQUE WAYS DESCRIBED BELOWFIRSTLY, IT CAN BE COLLECTED WITH RESPECT TO THE POPULATION IN TERMS OF INCOME, PRICES, ETC. FOR VARIOUS TIME PERIODS. ALSO IN CAN BE COLLECTED WITH RESPECT TO INCOME AND PRICES FOR THE DIFFERENT REGIONS OF THE MARKET FOR A PARTICULAR TIME PERIOD.REMEMBER THAT FREQUENCY OF THE DATA COLLECTED CAN BE OF VARIOUS PERIODS SUCH AS FOR A MONTH, HALF A YEAR OR A YEAR OR SO, BUT THE REGULARITY OF THE FREQUENCY IS IMPORTANT AND IT SHOULD BE MAINTAINED, FOR EXAMPLE IF THE DATA COLLECTED IS FOR EVERY OTHER YEAR OR SO IT IS BEST TO KEEP ON COLLECTING THE DATA YEAR WISE AND NOT TO SHIP ANY YEAR.STEP 3 SELECTION OF THE DEMAND FUNCTIONAFTER SETTING THE VARIABLES AND THE COLLECTION OF PAST DATA, THE NEXT STEP BEFORE FINALLY COMPILING EVERYTHING IS TO DETERMINE THE COMPLETE DEMAND FUNCTION, WHICH IS THE DEPENDENT OR THE VARIABLE THAT IS TO BE PREDICTED.THE FACTORS THAT EFFECT THIS ARE THE VARIABLES THAT WERE DEFINED IN THE FIRST STEP. THE DEMAND FUNCTION CAN BE OF LINEAR OR IN LOGARITHMIC FORM, BOTH OF THEM ARE DISCUSSED INDIVIDUALLY BELOW.LINEAR INVOLUES FINDING THE LINE OF BEST FITS BETWEEN TWO OR MORE VARIABLES, THUS BY INPUTTING ONE OR MULTIPLE VARIABLES OTHER VARIABLE CAN BE PRI THESE COEFFICIENTS ARE RESPONSIBLE FOR THE AMOUNT OF CHANGE AS WELL AS THE NATURE OF THE CHANGE (POSITIVE OR NEGATIVE) FOR EXAMPLE IN THE ABOVE EQUATION EFFECT OF INCOME, ADVERTISEMENT AND SUBSTITUTE WILL HAVE A POSITIVE EFFECT ON I BETWEEN THE OVEN TEMPERATURE AND SHELF LIFE OF COOKIES BAKED IN THOSE OVENS OR A COMPANY OPERATING A CALL CENTER MAY WISH TO KNOW THE RELATIONSHIP BETWEEN THE WAIT TIMES OF CALLERS AND THE NUMBER OF COMPLAINS THAT THEY RECEIVI STRENGTH CAN BE PREDICTED AND ANALYZED USING DIFFERENT FACTORS, WHEREAS IN BIOLOGICAL SCIENCE MEASURING THE BODY MASS AND COX ENZYME ACTIVITY IN A SAMPLE OF FEW DIFFERENT SPECIES OF SMALL MAMMALS ARE ALL DONE USING THIS EXACT SAME METHOD.BY USING REGRESSION ANALYSIS IN VAST NUMBER OF DISCIPLINES IT BECOMES EASIER TO PREDICT AND ESTIMATE THE BEHAVIOR OF THE STRUCTURES OR FORECAST THE DEMANDS OF A PRODUCT, THIS METHOD HELPS GENERATE ACCURATE RESULTS AND ANALYZE THE FACTORS EFFECTING IT DIRECTLY OR INDIRECTLY BY SUMMARIZING LARGE NUMBER OF DATA AND CALCULATING THE RESULTS, WHICH FOR IN SOME CASES ARE OF HIGH IMPORTANCE AND CAN CHANGE THE OUTCOME OF THE ORGANIZATIONS.CONCLUSION AND SUMMARY IN THIS ARTICLE WE HAVE DISCUSSED ABOUT REGRESSION ANALYSIS AND SEEN HOW IT IS USED TO EXAMINE THE RELATIONSHIP BETWEEN TWO OR MORE VARIABLE, THE DEPENDENT (PREDICTOR) AND THE INDEPENDENT CRESPONSE) VARIABLE, AND THEN STUDIED WHY THIS METHOD IS WIDELY USED FOR PREDICTING OR ESTIMATING THE OUTCOMES IN VARIOUS FIELDS. PLUS, WE HAVE ALSO WENT THROUGH STEP BY STEP METHOD TO USI FAR CONSIDERED THE BEST TECHNIQUE FOR PREDICTING THE OUTCOME OF VARIOUS MODELS AND IS TODAYS MANAGERS BELIEVES IT TO BE AN INDISPENSABLE TOOL. REFERENCESHTTP://WWW.PURCHASESMARTER.COM/ARTICLES/119 HTTP://LEARNECONOMICSONLY BIOLOGY.QUEENSU.CA/ACADEMICS/UNDERGRADUATE/RESOURCES-FOR-COURSES/ANALYZING-DATA/CORRELATION-AND-REGRESSIONY ZDAF (PZ, Y, A, PS, PC) WHERE, ZDA= DEMAND FOR COMMODITY A PRICE OF COMMODITY A CPZ.CONSUMER INCOME (YJADVERTISING EXPENDITURE INCURRED ON COMMODITY Z (APRICES OF SUBSTITUTE (PS)PRICES OF COMPLEMENT (PC) NOTE THAT THESE VARIABLES CAN HAVE BOTH POSITIVE AND NEGATIVE EFFECTS ON THE DEMAND THAT IS EXPLAINED THAT ARE TO BE SELECTED SHOULD HAVE A SIGNIFICANT IMPORTANCE ON THE DEMAND THAT COMMODITY AND WHEREAS THE USE OF TOO MANY VARIABLES AND UNIMPORTANT FACTORS SHOULD BE OVERLOOKED, BELOW IS AN EXAMPLE OF WHAT'S STATED ABOVEWHEN A CERTAIN BRAND OF CLOTHING IS PREDICTING THE DEMAND OF THEIR SEASONAL PRODUCT FACTORS LIKE WEATHER CONDITIONS, AND PEOPLE'S INCOME PLAY AN IMPORTANT ROLE IN THE ANALYSIS. ASIDE FROM THAT IF A HIGH PRICED COMMODITY LIKE HOUSING IS CONSIDERED THEN FACTORS SUCH AS CREDIT ACCOUNTS AND INTEREST PLAY A VITAL ROLE. ADDING EXTRA VARIABLES THAT HAS NEGLIGIBLE AFFECT OR NO EFFECTS WILL MAKE YOUR ANALYSIS COMPLICATED AND TOO MUCH WORK SO ITS KEPT SIMPLE.STEP 2 PAST DATA COLLECTIONSONCE YOU HAVE YOUR VARIABLES SET AND DETERMINED THE NEXT IMPORTANT STEP IN THE PROCESS IS THE COLLECTION OF THE PAST DATA. THE DATA THAT SHOULD BE GATHERED MUST BE WITH RESPECT TO THE VARIABLES THAT YOU HAVE DETERMINED OR SET. THE DATA COLLECTION CAN BE DONE IN TWO DIFFERENT UNIQUE WAYS DESCRIBED BELOWFIRSTLY, IT CAN BE COLLECTED WITH RESPECT TO THE POPULATION IN TERMS OF INCOME, PRICES, ETC. FOR VARIOUS TIME PERIODS. 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THE DEMAND FUNCTION CAN BE OF LINEAR OR IN LOGARITHMIC FORM, BOTH OF THEM ARE DISCUSSED INDIVIDUALLY BELOW.LINEAR INVOLVES FINDING THE LINE OF BEST FITS BETWEEN TWO OR MORE VARIABLES, THUS BY INPUTTING ONE OR MULTIPLE VARIABLES OTHER JARIABLE CAN BE PREDICTED, USING A LINEAR EQUATION. NOW CONSIDERING THE FUNCTION FORMED ABOVE IN STEP 1 AND DETERMINING ITS DEMAND FUNCTION IN THE LINEAR EQUATION FORM BELOW, ZDA - MB. MIP2 m2Y.M3A M4PS. T5PCWHERE, mi, m2, M3, M4 AND MS ARE THE REGRESSION COEFFICIENTS.THESE COEFFICIENTS REPRESENT THE ELASTICITY OF DEMAND ALSO INCLUDES PRICE ELASTICITY, INCOME ELASTICITY, PROMOTIONAL ELASTICITY AND CROSS ELASTICITY OF DEMAND THESE COEFFICIENTS ARE RESPONSIBLE FOR THE AMOUNT OF CHANGE AS WELL AS THE NATURE OF THE CHANGE (POSITIVE OR NEGATIVE FOR EXAMPLE IN THE ABOVE EQUATION EFFECT OF INCOME, ADVERTISEMENT AND SUBSTITUTE WILL HAVE A POSITIVE EFFECT ON THE DEMAND, WHEREAS THE PRICE OF COMMODITY A MIGHT HAVE A NEGATIVE EFFECT ON THE FUTURE DEMANDS OF IT. THEN COMES THE POLYNOMIAL FORMS IN WHICH THE RELATIONSHIP IS NOT A STRAIGHT LINE, NEVER THE LESS THEY CAN BE CONVERTED INTO A STRAIGHT LINE BY TRANSFORMING THE JARIABLES USING LOGARITHMS INTO A STRAIGHT LINE FOR SIMPLICITY, IT IS MOST COMMONLY USED IN META MODELS FOR MECHANICAL SYSTEMS.STEP 4 FUNCTION ESTIMATIONTHIS IS THE MOST IMPORTANT STEP IN WHICH THE COEFFICIENT VALUES PRE FOUND. THESE COEFFICIENTS EACH REPRESENTS THE MEAN CHANGE IN THE RESPONSE VARIABLE FOR ONE UNIT OF CHANGE WHILE KEEPING THE OTHER VARIABLES CONSTANT. THESE CAN BE EASILY DETERMINED USING THE SOFTWARE USED FOR PLOTTING THE REGRESSION ANALYSES GRAPH OR MANUALLY STANDARDIZING EACH VALUES.IT IS ESSENTIAL TO REMEMBER THAT THE VALUES OF THESE COEFFICIENTS CANNOT BE MORE THAN ONE, ALWAYS TO UNDERSTAND THE EFFECTS OF INFLATION ON CONSUMER, WE MUST FIRST GET INTO WHAT INFLATION REALLY IS. INFLATION IS THE SUSTAINED INCREASE IN THE PRICES OF GOODS AND SERVICES IN AN ECONOMY OVER A PERIOD OF TIME. IT COULD BE A INCREMENT MEASURED MONTHLY OR YEARLY. IT USUALLY HAS A VERY ADVERSE EFFECT ON THE ECONOMY OF A PERSON AND A COUNTRY. THERE ARE 5 TYPES OF INFLATION, HYPERINFLATION, ASSET INFLATION, CREEPING INFLATION, WALKING INFLATION AND GALLOPING INFLATION. HYPERINFLATION IS THE WORST TYPE. ITS WHEN PRICES RISE MORE THAN 50% A MONTH. ITS VERY RARE BUT IT HAS HAPPENED. SINCE MOST OF THE ECONOMIES ARE NOT FULLY BACHED BY EITHER GOLD OR SILVER, THE ECONOMIES ARE THEN RUN ON FIAT MONEY, WHICH MAKES T EASIER TO MANIPULATE INFLATION DUE TO SEVERAL REASONS MOTIVATED EITHER POLITICALLY OR ELSE.. ONE SUCH EXAMPLE IN HISTORY COULD BE IN THE FORM OF INDONESIA OR GERMANY. IN 1920S, GERMANY WAS STRUCK BY HYPERINFLATION SINCE GERMANY HAD LOST THE WORLD WAR 1, THE VICTORIOUS NATIONS ASKED IT FOR COMPENSATION OF THE LOSSES THEY FACED DURING THE WAR AT THE HANDS OF THE GERMAN. THE GERMANS COULDN'T PAY THEM BACK IN GERMAN CURRENCY BECAUSE OF ITS SUSPECT VALUE DUE TO PREVIOUS MASS BORROWING SO THE GERMANS MASS PRINTED THE THEIR PAPER NOTES WHICH LED TO A DEVALUATION OF THEIR CURRENCY WHICH IN TURN LED TO HYPERINFLATION IN THEIR COUNTRY. ASSET INFLATION IS THE MILDEST AND OCCURS VERY OFTEN. ONE SUCH EXAMPLE COULD BE THAT THE PRICES OF VEGETABLES AND FRUITS GO UP EVERY YEAR. THIS IS DUE TO THE ANTICIPATION OF RISING DEMAND. CREEPING INFLATION IS WHEN PRICES RISE BY A FIXED AMOUNT ANNUALLY. ITS SOMEWHAT COMMON. HOWEVER, THE LAST TIME IT OCCURRED WAS IN 2007. WALKING INFLATION IS WHEN PRICES GO UP 3-10% ANNUALLY. ANY PERCENTAGE BETWEEN THE GIVEN NUMBER COULD DO AS LONG AS IT FORCES PEOPLE TO START STOCK SAVING IN THE ANTICIPATION OF FURTHER INCREASE IN PRICES. THIS LEADS TO A HIGH DEMAND IN STOCK BUT A SHORTAGE IN SUPPLY WHICH INCREASES THE PRICE FURTHER FOR MORE PROFIT. GALLOPING INFLATION S WHEN PRICES INCREASE BY 10% OR MORE ANNUALLY. THIS IS DEVASTATING FOR AN NFLATION IS MEASURED ON A CONSUMER PRICE INDEX (CPD). THIS INDEX NOTES THE INCREMENT OR A DECREMENT OF PRICES OVER A SHORT OR LONG PERIOD OF TIME. CPI DOESN ECONOMY AS IT DRIVES OUT FOREIGN INVESTORS. ONE REASON FOR IT IS THE MONEY WHICH IS NOW HAVING LESS VALUE IN TERMS OF GOOD. THE REASON BEING THAT THE VALUE IS NOW LESS THAN THE TIME THEY BORROWED IT. SIMILARLY, DUE TO DEVA FLUCTUATIONS IN THE VALUE OF THE CURRENCY.OFLATION IS MEASURED ON A CONSUMER PRICE INDEX (CPD. THIS INDEX NOTES THE INCREMENT OR A DECREMENT OF PRICES OVER A SHORT OR LONG PERIOD OF TIME. CPI DOESN'T MEASURE EVERYTHING IN THE SAME BRACKET. FOR EXAMPLE, WHILE THE PRICES OF VEGETABLES OR FRUITS MAY BE THE SAME OR FACE A SMALL INCREMENT OVER TIME, THE PRICES OF FUEL REMAIN ERRATIC, THEY SOMETIMES FACE AN INCREMENT OR A DECREMENT DEPENDING ON THE GEO-POLITICAL SCENARIOS OF THE SAID TIME. UNCONTROLLED INFLATION ALMOST ALWAYS HAS AN ADVERSE EFFECT ON THE ECONOMY OF A PERSON. A PERSON WHO HAS A SALARY OF RS100,000 COULD GET HIS HOUSE IN ORDER BY SPENDING AROUND RS75,000 ON NECESSITIES OF LIFE AND STILL SAVE AROUND RS25,000. BUT AS INFLATION HITS THE MARKET, FOR EXAMPLE, THE PRICE OF PETROL PER LITRE INCREASES, NOW, THE PERSON HAS TO PAY MORE TO GET THE SAID LITRE OF PETROL, BUT THE OTHER BASIC ACCOMMODATES OF LIFE GET EXPENSIVE AS WELL. TRANSPORTATION COSTS GET HIGHER, WHICH LEADS TO FOOD GETTING MORE EXPENSIVE BECAUSE THE ITS MORE EXPENSIVE NOW TO TRANSPORT THE VEGETABLES AND THE FRUITS FROM THEIR FARMS TO THE SHOPS AND STORES. THIS CHAIN OF EVENTS CONTINUES AND BASICALLY CREATES A HUGE BURDEN ON THE ECONOMY OF A CONSUMER WHO COULD AFFORD TO BE LAVISH BEFORE BUT NOW HAS TO BE CAREFUL IN ORDER TO SAVE FOR THE VERY XBOX HE WAS SAVING THAT'S COINCIDENTALLY ALSO HAS GOTTEN A BIT MORE EXPENSIVE. NOW, THE EVENT MENTIONED ABOVE IS A NO BIGGIE FOR A CONSUMER BELONGING TO A HIGHER CLASS BUT INFLATION BECOMES A HUGE HEADACHE TO MIDDLE AND LOWER MIDDLE CLASS FAMILIES WHO JUST BARELY MAKE DO WITH THE INCOME THEY GET. SO TO PUT IN GENERAL TERMS, INFLATION BASICALLY RAISES THE COST OF LIVING. WHAT IT ALSO DOES IS INCREASE THE POVERTY IN A COUNTRY, NOW THERE ARE MORE CHILDREN WHO GO TO SLEEP HUNGRY BECAUSE THEIR FATHER WHO WAS BARELY ABLE TO BRING BREAD AND BUTTER HOME AFTER A DAY'S HARD EARNED PAY COULD NOT AFFORD TO DO SO ANYMORE. IN ONE WAY OR ANOTHER, INFLATION IS A FACT OF LIFE. IT AFFECTS US ALL, THE CONSUMERS AND INVESTORS BOTH, AS BOTH ARE EFFECTED BY THE RISING PRICES OF RAW MATERIALS.EFFECTS OF INFLATION ON DIFFERENT SECTS OF SOCIETY ARE GIVEN BELOW.DEBTORS AND CREDITORSWITH RISING INFLATION, DEBTORS HAVE A MAJOR DEVALUATION DUE TO RISING INFLATION AND THUS THE DEBTORS EASILY RETURN THE MONEY WHICH IS NOW HAVING LESS VALUE IN TERMS OF GOOD. THE REASON BEING THAT THE VALUE IS NOW LESS THAN THE TIME THEY BORROWED IT. SIMILARLY, DUE TO DEVALUAT