

**A Project report on,
ANALYSIS OF KUNDALI AND RASHIBHAVISHYA IN A STATISTICAL WAY**

Submitted to



SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE

By

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2020-2021

CERTIFICATE

This is certify that at project report entitled “**ANALYSIS OF KUNDALI AND RASHIBHAVISHYA IN A STATISTICAL WAY**” is benefited work carried out by

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Student of T.Y.Bsc (Statistics) under my guidance and supervision during the academic year 2020-2021.

Miss. Dipalee Jadhav
(Project Guide)

Dr. G.S. Phad
(Head Of Department)

DECLARATION

We hereby declare that project entitled, “**ANALYSIS OF KUNDALI AND RASHIBHAVISHYA IN A STATISTICAL WAY**” submitted by us, for the partial fulfillment of our B.Sc. degree in Statistics during 2020-2021 is our original work.

We further declare that the analysis has been carried out based on primary data collected from our surroundings. We have given our best and hope that our project work may be helpful for people. And give them a true vision about Kundali and Rashibhavishya (Horoscope).

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Date: 30/06/2021

Place-Nashik

ACKNOWLEDGEMENT

The success and outcome of this project required a lot of guidance from many people. All that we have done is only due to such direction and we would not forget to thank them.

We take this opportunity to record my sincere thanks to Honorable Principal Dr. V.B. Gaikwad, K.T.H.M. College, Nashik for providing the basic infrastructure at the college.

We are heartily thankful to Dr. G.S. phad, Head of Department of Statistics, K.T.H.M. College, Nashik for giving us an opportunity and providing all the necessary facilities to do this project work. We are very much thankful to our project guide Miss. Dipalee Jadhav Mam, Department of Statistics, K.T.H.M. College, Nashik for giving us all support, guidance, endless motivation, encouragement, and providing the all necessary information for developing a good structure of our project.

Our special thanks go to Mrs. Pangvhane mam, Department of Statistics, K.T.H.M. College, Nashik for her encouragement and for her timely support and direction till the completion of our project work. We are also thankful to respondents from our surroundings for their cooperation. Our special thanks go to our friends who helped us directly or indirectly to complete this project successfully. Finally, we would like to thank our parents for their moral support.

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INTRODUCTION

Indian culture is one of the oldest cultures in the world evolved around 5000 years ago. Indian culture is known for its diversity in the fields like arts, music, dance, philosophy, etc. Along with all these things one thing which is closely related to the Indian culture, as well as various stages of life of an Indian person, is kundalini and Rashibhavishya (Horoscope). Kundali And Rashibhavishya(Horoscope) are the traditional Hindu system of astrology is called Hindu astrology.

Statisticians are concerned with the collection, analysis, interpretation and presentation of quantitative or qualitative information. And being a statistician we are interested in knowing, why some people have faith in Kundali and Rashibhavishya and why some people deny in believing it and all. If Kundali and Rashibhavishya are really relevant in our lives? For this, we had created a Google form and we have collected a sample of 200 people from our surroundings irrespective of age, sex, education, locality, etc.

MOTIVATION

As a part of our TYBSC project we thought of taking a deeper look into the reality of traditional knowledge by using modern data collection tools. For that we choose **“ANALYSIS OF KUNDALI AND RASHIBHAVISHYA IN A STATISTICAL WAY”** as our subject. From this exercise we wanted to access the reality of kundali and rashibhavishya(Horoscope).

From this project, we have tried to find the answer to some questions like does Kundali hold any relevance in today's world? Do people still believe in it? How many people look at Kundali before taking major decisions? And what are the trend variation in these things? according to age, gender, etc. Many of the answers to these questions remain unanswerable during our daily life. Therefore we have chosen this subject to find the proper answer to these question using real-life data with statistical tools.

ABSTRACT

Kundali and Rashibhavishya are some of the aspects of the Indian family.

Nowadays view about it is different in different age group. Kundali relates with most of the aspects of our life as the carrier, nature, etc. So by this project, we want to test the reliability of such statements. For this we collect primary data by Google forms, then we code the data and uses the statistical tool we know and get the conclusion about our objective.

➤ **MS-EXCEL :**

We enter collected data in MS-Excel worksheet. We draw some descriptive graph using MS-Excel. Also using it we solve 2^2 factorial design.

➤ **R-Software :**

We performed chi-square test of independence of attribute and also proportion test using R-software.

STATISTICAL TOOLS USED

For the Analysis of data in our project we have used the following tools:

- ❖ Chi-square Test.
- ❖ Proportion Test.
- ❖ 2^2 factorial Design.

QUESTIONNAIRE

Q.1) Your name.

Q.2) Your gender

A. Male. **B. Female.**

Q.3) Your date of birth.

Q.4) Time of birth.

Q.5) Where do you live?

A. In the village. **B. In the city.**

Q.6) What is your occupation/education?

A. Teacher. **B. Engineer. C. Doctor. D. Farmer. E. Business. F. Job G. Housewife H. Other.**

Q.7) Mobile number/e-mail.

Q.8) You draw a horoscope?

A. Yes. B. No.

Q.9) Your zodiac (called birth).

Q.10) Through which you know your horoscope

A. TV **B. Newspaper. C. Internet. D. Calendar. E. Not looking.**

Q.11) How many days do you see the zodiac future?

A. Daily. B. Weekly C. Monthly. D. Not looking at the horoscope

Q.12) Does your day go by like a horoscope?

A.Yes . B.NO C.To some extent D. Not looking at the horoscope

Q.13) If the horoscope is ominous, how does it affect you?

A.Positive B.Negative C.Does not result D.Not looking at the horoscope

Q.14)Why did you and your family drawal your Kundali?

A. To get married. B. For business C. Due to health problems

D. Kundali not drawal E. Other

Q.15) Is there any flaws in your Kundali ? If so, which ones?

A. Birth constellation flaw B. Mars flaw C. Snake while flaw. D.There is no fault

E.Don't know F. Kundali not drawal G.Other

Q.16) What is the solution for you?

A.Genital mutilation B.Worship of God C.To do charity D.Wearing a ring.

E. To fast. F. No flaw stated. G. Kundali not drawal H. Don't know.

I.The solution is not stated. J. Other.

Q.17) Did the above solutions reduce your problems?

A. Yes. B. NO C. To some extent D. No flaw state E. Kundali not drawal

F.No solution G. The solution is not stated. H. Don't know

Q.18) How much do you value the Kundali ?

- A.** 0%-25%. **B.** 25% - 50%. **C.** 50% - 75%. **D.** 75% - 100%.

Q.19) Your favourite colour.

Q.20) Your favourite number.

Q.21) How is your nature? (according to people)

- A.** You get angry quickly
B. You trust others quickly /It's hard for you to say no to your people.
C. It is difficult to choose the one you like.
D. You are afraid to express your opinion in front of some people.
E. No matter what anyone says about your opinion, they are firm.
F. Other.

Q.22) Have you chosen your academic path according to your horoscope?

- A.** Yes. **B.** No **C.** Kundali not drawal

Q.23) Does the gravity of the planets have any effect on our nature or future?

- A.** Yes. **B.** NO **C.** To some extent.

Q.24) Are you married?

- A.** Yes. **B.** No

Q.25) Did you get horoscopes at your wedding?

- A.** Yes. **B.** No **C.** Don't know.

Q.26) What do you think is the relationship between marriage and Kundali?

- A.** 0% - 25%. **B.** 25% - 50%.
C. 50% - 75%. **D.** 75% - 100%.

Q.27) Did you reject the boys and girls who have Mars when you decide to get married?

- A.** Yes. **B.** No **C.** Don't know. **D.** Mars was not to flaw.

Q.28) Did you get married even though you were told a pulse fault?

- A.** Yes. **B.** NO **C.** There was no fault **D.** Don't know

Q.29) Did you get married even after you were sentenced to death?

- A.** Yes. **B.** NO **C.** There was no fault **D.** Don't know.

Q.30) Did you have any problems because you did not get married properly and on time?

- A.** Yes. **B.** No **C.** The marriage was solemnized and on time.

A.31) What do you think about "Kundali and Real life"?

CODING

Q.1) Your name.

Q.2) Your gender

A. Male. B. Female.

A	B
0	1

Q.3) Your date of birth.

Q.4) Time of birth.

Q.5) Where do you live?

A. In the village. B. In the city.

A	B
0	1

Q.6) What is your occupation/education?

A. Teacher. B. Engineer C. Doctor. D. Farmer.
E. Business. F. Job G. Housewife. H. Other.

A	B	C	D	E	F	G	H
0	1	2	3	4	5	6	7

Q.7) Mobile number/e-mail.

Q.8) You drawal your horoscope?

A. Yes.

B. No.

A	B
0	1

Q.9) Your zodiac (called birth).

Q.10) Through which you know your horoscope

A. TV

B. Newspaper

C. Internet.

D. Calendar

E. Not looking.

A	B	C	D	E
0	1	2	3	4

Q.11) How many days do you see the zodiac future?

A. Daily.

B. Weekly

C. Monthly.

D. Not looking at the horoscope.

A	B	C	D
0	1	2	3

Q.12) Does your day go by like a horoscope?

A. Yes.

B. No

C. To some extent

D. Not looking at the horoscope

A	B	C	D
0	1	2	3

Q.13) If the horoscope is ominous, how does it affect you?

A. Positive

B. Negative

C. Does not result

D. Not looking at the horoscope

A	B	C	D
---	---	---	---

0	1	2	3
---	---	---	---

Q.14) Why did you and your family draw your horoscope?

- A. To get married. B. For business C. Due to health problems
D. Horoscope not drawn E. Other

A	B	C	D	E
0	1	2	3	4

Q.15) Is there any flaw or problem in your horoscope? If so, which ones?

- A. Birth constellation flaw. B. Mars flaw C. Snake while flaw.
D. There is no fault. E. Don't know. F. Horoscope not drawn. G. Other

A	B	C	D	E	F	G
0	1	2	3	4	5	6

Q.16) What is the solution for you?

- A. Genital mutilation B. Worship of God. C. To do charity
D. Wearing a ring. E. To fast. F. No flaw stated.
G. Horoscope not drawn H. Don't know. I. The solution is not stated J. Other.

A	B	C	D	E	F	G	H	I	J
0	1	2	3	4	5	6	7	8	9

Q.17) Did the above solutions reduce your problems?

- A. Yes. B. No C. To some extent D. No flaw stated.
E. Horoscope not drawn. F. No solution G. The solution is not stated
H. Don't know

A	B	C	D	E	F	G	H
0	1	2	3	4	5	6	7

Q.18) How much do you value the horoscope?

A. 0% - 25%.

B. 25%-50% C. 50% - 75%.

D. 75% - 100%.

A	B	C	D
0	1	2	3

Q.19) Your favourite colour.

Q.20) Your favourite number.

Q.21) How is your nature? (according to people)

A. You get angry quickly.

B. You trust others quickly / It's hard for you to say no to your people.

C. It is difficult to choose the one you like.

D. You are afraid to express your opinion in front of some people.

E. No matter what anyone says about your opinion, they are firm.

F. Other.

A	B	C	D	E	F
0	1	2	3	4	5

Q.22) Have you chosen your academic path according to your horoscope?

A. Yes.

B. No C. Horoscope not drawaled.

A	B	C
0	1	2

Q.23) Does the gravity of the planets have any effect on our nature or future?

A. Yes. B. No C. To some extent.

A	B	C
0	1	2

Q.24) Are you married?

A. Yes. B. No

A	B
0	1

Q.25) Did you get horoscopes at your wedding?

A. Yes. B. No

C. Don't know.

A	B	C
0	1	2

Q.26) What do you think is the relationship between marriage and horoscope?

A. 0% - 25%. B. 25% - 50%. C. 50% - 75%. D. 75% - 100%.

A	B	C	D
0	1	2	3

Q.27) Did you reject the boys and girls who have Mars when you decide to get married?

A. Yes. B. No C. Don't know D. Mars was not to flaw.

A	B	C	D
0	1	2	3

Q.28) Did you get married even though you were told a pulse fault?

A. Yes. B. No C. There was no fault D. Don't know

A	B	C	D
0	1	2	3

Q.29) Did you get married even after you were sentenced to death?

A. Yes. B. No C. There was no fault D. Don't know.

A	B	C	D
0	1	2	3

Q.30) Did you have any problems because you did not get married properly and on time?

A. Yes. B.No C. The marriage was solemnized and on time.

A	B	C
0	1	2

A.31) What do you think about "Horoscopes and Real life"?

THEORETICAL PART

PIE CHART:

A pie chart is a circular statistical graphic that is divided into slices to illustrate numerical proportion. In a pie chart, the arc length of each slice (and consequently its central angle and area), is proportional to the quantity it represents. While it is named for its resemblance to a pie that has been sliced, there are variations in the way it can be presented. The earliest known pie chart is generally credited to William Playfair's Statistical Breviary of pie charts are very widely used in the business world and the mass media. However, they have been criticized, and many experts recommend avoiding them, pointing out that research has shown it is difficult to compare different sections of a given pie chart or to compare data across different pie charts. Pie charts can be replaced in most cases by other plots such as the bar chart, box plot, or dot plots.

BAR CHART:

A bar chart or bar graph is a chart or graph that presents categorical data with rectangular bars with heights or lengths proportional to the values that they represent. The bars can be plotted vertically or horizontally. A vertical bar chart is sometimes called a column chart. A bar graph shows comparisons among discrete categories. One axis of the chart shows the specific categories being compared, and the other axis represents the measured value. Some bar graphs present bars clustered in groups of more than one, showing the values of more than one measured variable.

CHI-SQUARE TEST FOR TESTING THE INDEPENDENCE OF TWO ATTRIBUTES

We test independence of some pairs of attributes the rejection or acceptance of the respective null hypothesis would reflect on the severity of the attributes.

DESCRIPTION FOR COMPUTING SYSTEM

Computing system for independency/dependency: In this section, we make a tabular form of n levels of attributes A & m levels of attributes B such as,

A	B 1 B 2 - - - B j - - - - B m	Total
A 1	O 11 O 12 - - - O 1j - - - - O 1m	(A 1)
A 2	O 21 O 22 - - - O 2j - - - - O 2m	(A 2)
!	!	(!)
!	!	(!)
A i	O i1 O i2 - - - O ij - - - - O im	(i)
!	!	(!)
A n	O n1 O n2 - - - O nj - - - - O nm	(An)
Total	(B 1) (B 2) - - - (B j) - - - - (B m)	N

Where, (O_{ij}) = Observed frequency corresponding to i th row and j th column.i.e. corresponding to (i, j) th cell.

$i = 1, 2, 3, \dots, m. j = 1, 2, 3, \dots, n.$

$(A_i) = \sum O_{ij}$ = Total of observed frequency in i th row.

$(B_j) = \sum O_{ij}$ = Total of observed frequency in j th row.

Where, A_i = i th level of 1 st attribute

B_j = j th level of 2 nd attribute

Here to test H_0 :Two attributes A and B are independent

H_1 :Two attributes A and B are dependent

Fix Level of significance (l.o.s)= α

For carrying out above test we compute test statistic as follows,

$$\chi^2 = (\sum \sum o_{ij}^2 / E_{ij}) - N$$

Where,

E_{ij} = Expected frequency corresponding to (i,j) cell

$$A = (A_i) \cdot (B_j) \div N \quad ; i=1,2,\dots,n ; j=1,2,\dots,m$$

N = Total frequency

Also Under H_0

$$\chi^2 \sim \chi^2 ((n-1) \cdot (m-1)), d.f.$$

Decision Rule :

We reject H_0 if

$$\chi^2 (cal) > \chi^2 ((n-1) \cdot (m-1), \alpha)$$

Otherwise accept H_0 otherwise.

PROPORTION TEST

Two proportion test is used to check difference in proportions. A two proportion z-test allows you to compare two proportions to see if they are the same.

- The null hypothesis (H_0) for the test is that the proportions are the same.
- The alternate hypothesis (H_1) is that the proportions are not the same.

Let n_1 = size of sample drawn from the first population

n_2 = size of sample drawn from the second population

x_1 = number of items of specific type in first sample

x_2 = number of items of specific type in second sample

$p_1 = x_1/n_1$ = proportion of specific items in a first sample

$p_2 = x_2/n_2$ = proportion of specific items in a second sample

P_1 = proportion of specific items in a first population

P_2 = proportion of specific items in a second population

The hypothesis for such problem will be :

$H_0 : P_1 = P_2$

$H_1 : P_1 \neq P_2$

Note that : $X_1 \sim B(n_1, P_1)$

& $X_2 \sim B(n_2, P_2)$

Therefore, $E(x_1) = n_1 P_1$, $Var(x_1) = n_1 Q_1$ And $E(x_2) = n_2 P_2$, $Var(x_2) = n_2 P_2 Q_2$

Where $Q_1 = 1 - P_1$ and $Q_2 = 1 - P_2$

$$\begin{aligned} \text{Therefore, } E(p_1 - p_2) &= E(p_1) - E(p_2) \\ &= E(x_1/n_1) - E(x_2/n_2) \\ &= E(n_1 P_1/n_1) - E(n_2 P_2/n_2) \\ &= P_1 - P_2 \end{aligned}$$

Therefore, $Var(P_1 - P_2) = Var(P_1) + Var(P_2) - 2Cov(P_1, P_2)$

Since, the samples are independent $Cov(p_1, p_2) = 0$.

Therefore, $Var(P_1, P_2) = Var(x_1/n_1) + Var(x_2/n_2)$

$$Z = (p_1 - p_2) - E(p_1 - p_2) \div \sqrt{var(p_1 - p_2)}$$

$Z = (p_1 - p_2) - (p_1 - p_2) \div ((P_1 Q_1/n_1) + (P_2 Q_2/n_2))^{(1/2)}$ follows $N(0,1)$ for large n_1, n_2

Under $H_0 : P_1 = P_2$, we get

$$Z = \{(P_1 - P_2) \div \sqrt{PQ((\frac{1}{n_1}) + (\frac{1}{n_2}))}\} \text{ for large } n_1, n_2$$

If p-value = $P(|N(0,1)| > |z_{\alpha/2}|)$ is less than level of significance, reject H_0 , accept otherwise.

Analysis of 2² Factorial Design

In 2² experiment we consider two factors, say, A & B each at two levels.

Factors	Low level	High level
A	a ₀	a ₁
B	b ₀	b ₁

There are 2² = 4 treatment combinations according to low (0) and high (1) level which are ,

A	B	Treatment Combination
0	0	a ₀ b ₀
0	1	a ₀ b ₁
1	0	a ₁ b ₀
1	1	a ₁ b ₁

1, a, b, ab.

Notations:

[1] = Total of all observations due to treatment '1'

[a] = Total of all observations due to treatment 'a'

[b] = Total of all observations due to treatment b

[ab] = Total of all observations due to treatment 'ab'

A : Main effect due to factor A.

B : Main effect due to factor B.

AB : Interaction effect due to factor AB.

r = Number of replication of each treatment combination.

Usually, for 2² factorial experiment, we test the following hypothesis.

<i>Null Hypothesis</i>	<i>V/S</i>	<i>Alternative Hypothesis</i>
-------------------------------	-------------------	--------------------------------------

H0: There is no significant difference between different age groups		H1: There is significant difference between different age groups.
H0A: Main Effect of A is not significant		H1A: Main Effect of A is significant
H0B: Main Effect of B is not significant		H1B: Main Effect of B is significant
H0C: Main effect of C is not significant		H1C: Main effect of C is significant
H0AB: Interaction effect of AB is not significant		H1AB: Interaction effect of AB is significant

Factorial effect totals are given by :

$$[A] = [ab] + [a] - [b] - [1]$$

$$[B] = [ab] - [a] + [b] - [1]$$

$$[AB] = [ab] - [a] - [b] + [1]$$

Sum of Squares :

$$1) \text{ Total sum of square, } SST = \sum_{i=1}^4 \sum_{j=1}^r (x_{ij} - \bar{x}_{..})^2$$

$$2) \text{ Sum of squares due to block, } SSb = \sum_{i=1}^4 \sum_{j=1}^r (\bar{x}_{.j} - \bar{x}_{..})^2$$

$$3) SS_A = \frac{[A]^2}{4 * r}$$

$$4) SS_B = \frac{[B]^2}{4 * r}$$

$$5) SS_{AB} = \frac{[AB]^2}{4 * r}$$

In 2^2 factorial experiment the different treatment combinations are '1', a, b, ab.

Treatment Combinations (C1)	Treatment Total (C2)	(C3)	(C4)	Effect totals
'1'	[1]	[1] + [a]	[1] + [a] + [b] + [ab]	Grand Total
a	[a]	[b] + [ab]	[a] - [1] + [ab] - [b]	[A]
b	[b]	[a] - [1]	[b] + [ab] - [1] - [a]	[B]
ab	[ab]	[ab] - [b]	[ab] - [b] - [a] + [1]	[AB]

Yates method table.

ANOVA table for 2^2 factorial design in RBD with r-replicates:

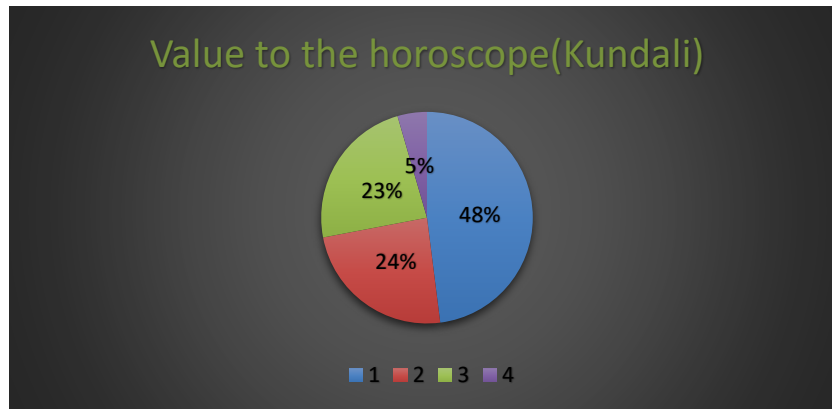
Sources of variation	D.F.	S.S.	M.S.S.	Variance ration "F"
Block effect	r-1	SSb	$MSb = \frac{SSb}{(r-1)}$	$F_b = \frac{MSb}{MSE}$
Main effect A	1	SS_A	$MS_A = \frac{SS_A}{1}$	$F_A = \frac{MS_A}{MSE}$
Main effect B	1	SS_B	$MS_B = \frac{SS_B}{1}$	$F_B = \frac{MS_B}{MSE}$
Interaction effect AB	1	SS_{AB}	$MS_{AB} = \frac{SS_{AB}}{1}$	$F_{AB} = \frac{MS_{AB}}{MSE}$
Error	3(r-1)	SSE	$MSE = \frac{SSE}{3(r-1)}$	-
Total	4r-1	SST	-	-

CONCLUSION=

- 1) If $F_b > \text{Critical value} = F(r-1, 3(r-1), \alpha)$; Then we reject H_{01} at given α % level of significance .
- 2) If $F_A > \text{Critical value} = F(1, 3(r-1), \alpha)$; Then we reject H_{02} at given α % level of significance .
- 3) If $F_B > \text{Critical value} = F(1, 3(r-1), \alpha)$; Then we reject H_{03} at given α % level of significance.
- 4) If $F_{AB} > \text{Critical value} = F(1, 3(r-1), \alpha)$; Then we reject H_{04} at given α % level of significance.

EXPLORATORY DATA ANALYSIS

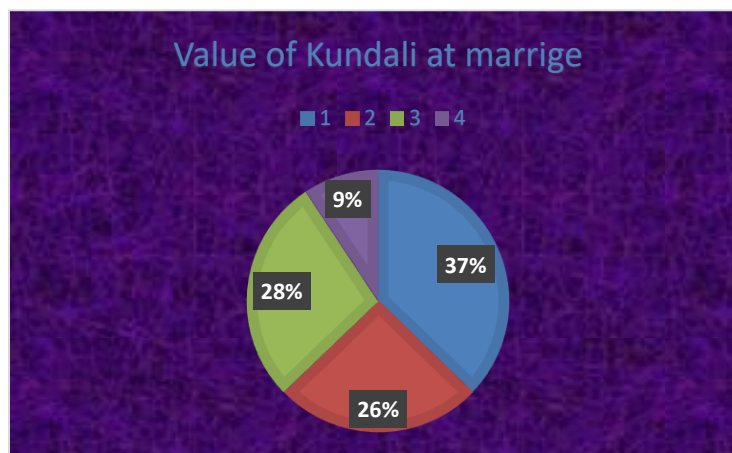
1) Pie-chart of showing the belief in horoscope (kundali):



Conclusion:

- 1) There are 48% people who believe in horoscope (kundali) between the range 0% - 25%.
- 2) There are 24% people who believe in horoscope (kundali) between the range 25% - 50%.
- 3) There are 23% people who believe in horoscope (kundali) between the range 50% - 75%.
- 4) There are 5% people who believe in horoscope (kundali) between the range 75% - 100%.

2) Pie-chart of showing the belief in kundali at the time of marriage:



Conclusion:

- 1) There are 37% people who believe 0%- 25% in matching kundali at the time

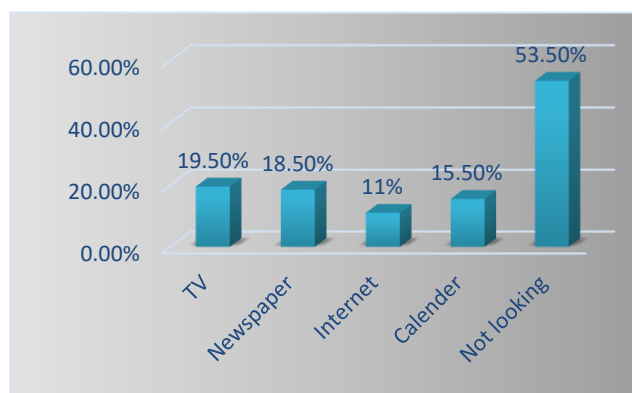
of marriage.

2)There are 26% people who believe 25%- 50% in matching kundali at the time of marriage .

3)There are 28% people who believe 50%- 75% in matching kundali at the time of marriage .

4)There are 9% people who believe 75%- 100% in matching kundali at the time of marriage.

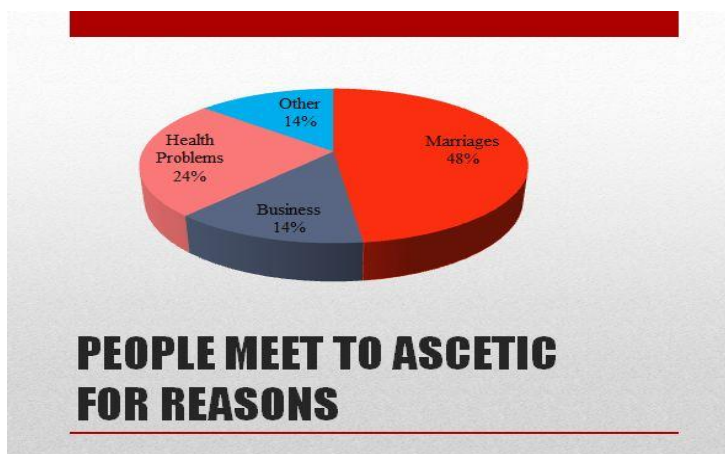
3) Column chart showing medium of watching/reading horoscope



Conclusion:

- 1)There are 19.5% people who watch horoscope on television.
- 2)There are 18.5% people who read horoscope in newspaper.
- 3)There are 11% people who watch/read horoscope on internet.
- 4)There are 15.5% people who read horoscope in calendar.
- 5)There are 53.5% people who don't watch/read horoscope.

4) Pie chart showing reason of people meet to ascetic :



Conclusion:-

- 1) Most of the people (48%) goes to Ascetic for reasons related to marriage.
- 2) 24% people goes to ascetic for Health issues.
- 3) 28% people goes to ascetic for Business reasons and for other issues respectively.

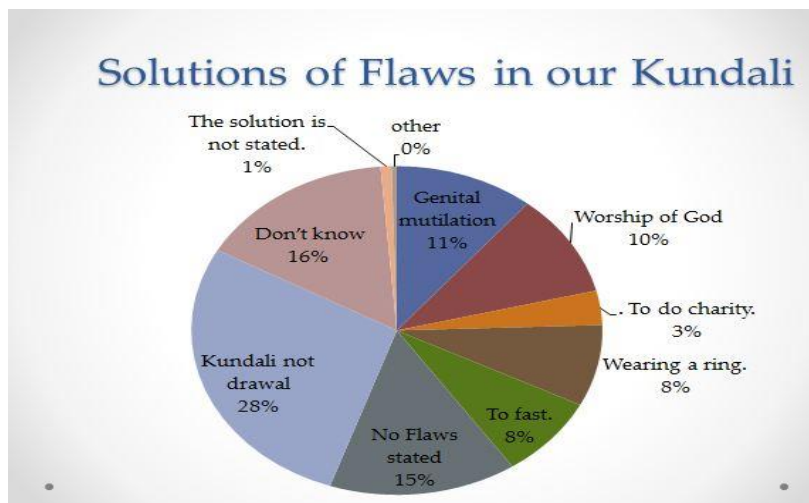
5) Pie Chart shows, Flaws in Kundali:



Conclusions:

- 1) 5% have been told that their *Birth Constellation Flaw* in their Kundali.
- 2) 5% have been told that their *Mars Flaw* in their Kundali.
- 3) 13% have been told that their *Snake While Flaw* in their Kundali.
- 4) 21% have been told that their No Flaw in their Kundali.
- 5) 29% people Don't Know about Flaw in their Kundali.
- 6) 26% people Not drawal their Kundali.
- 7) 2% have been told that they have other Flaws.

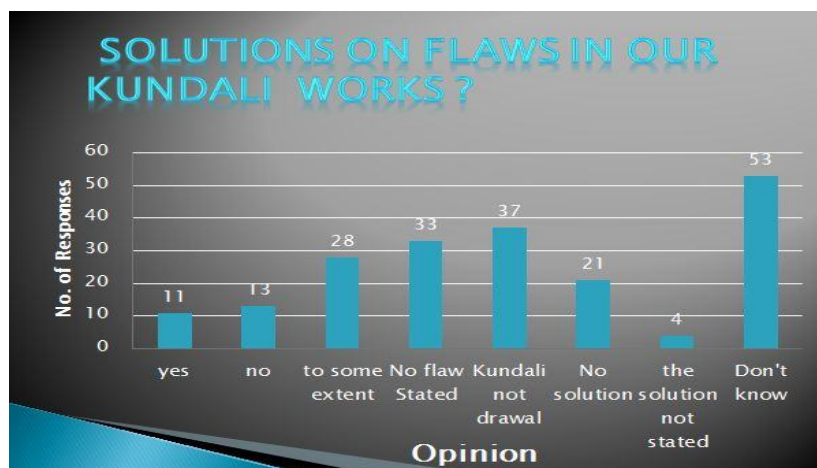
6) Pie chart showing solution suggested for flaws in Kundali:



Conclusions:

- 1) 11% people have suggested *Genital Mutilation* as a remedy for flaws in their Kundali.
- 2) 10% people have suggested *Worship of God* as a remedy for flaws in their Kundali.
- 3) 3% people have suggested to *do Charity* as a remedy for flaws in their Kundali.
- 4) 8% people have suggested *Wearing a Ring* as a remedy for flaws in their Kundali.
- 5) 8% people have suggested to *do Fasts* as a remedy for flaws in their Kundali.
- 6) 15% have been told that No Flaw in their Kundali
- 7) 28% people Not Drawal their Kundali.
- 8) 16% people don't know about solutions of Flaws in their Kundali.

7) Graph showing "Solutions on flaws in Kundali works ?"

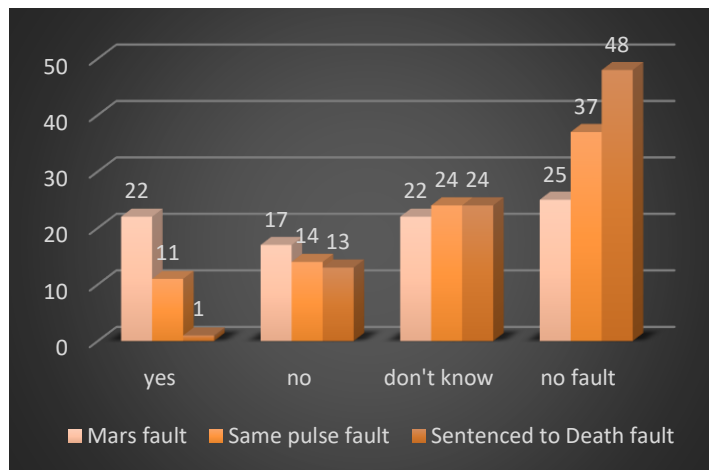


Conclusions :

- 1) 11 (5.5%) people found that a solution to flaws in Kundali works in their life.
- 2) 13 (6.5%) people found that a solution on flaws in Kundali does affect their life.
- 3) 28 (14%) people found that a solution to flaws in Kundali works in their life to some extent.

- 4)33(16.5%) people do not specify any flaws in their Kundali.
- 5)37 18.5%) people do not drawl their Kundali.
- 6)21(10.5%) people do not receive any solution for their flaws.
- 7)4 (2%) people have not stated any solution for their flaws.
- 8)53(26.5%) people do not know the solution for their flaws.

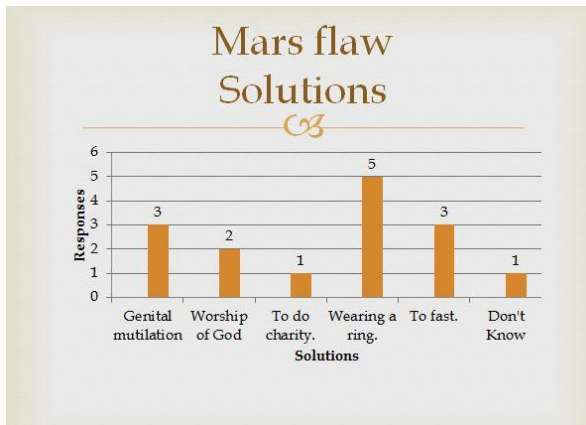
8) Clustered column chart of showing refusion/acceptance of proposal of marriage when there is fault in kundali:



Conclusion:

- 1)There are 22 people who refuse to marriage due to the mars fault present in the kundali and 17 people married still there is a mars fault in the partner's kundali.
- 2)There are 11 people who refuse to marriage due to the same pulse fault present in the kundaliand 14 people married still there is a same pulse fault in partner's kundali.
- 3)There is one person who refuse to marriage due to the sentenced to death fault present in the kundaliand 13 people married still there is a sentenced to death fault in partner's kundali.

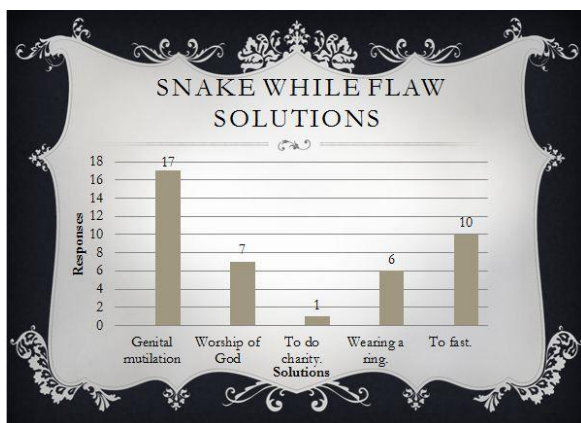
9) Graph showing solutions on different flaw:



Interpretation:For Mars Flaw, people have been told different kinds of solutions by Astrologers According to their DOB, birth time Kundali and place of birth. The solutions they suggest like in our case Genital mutilation(20%),Worship of God 13.3%,To do Charity6.6%,Wearing a ring (33.3%),To do fast (20%).



Interpretation:For Birth Constellation Flaw, people have been told different kinds of solutions by Astrologers According to their DOB, birth time, Kundali and place of birth. The solutions they suggest like in our case Genital mutilation(35.7%),Worship of God (21.4%),To do Charity(7.14%),Wearing a ring (21.4%),To do fast(14.2%).



Interpretation:For Snake While Flaw, people have been told different kinds of solutions by Astrologers According to their DOB, birth time, Kundali and place of birth. The solutions they suggest like in our case Genital mutilation(41.4%),Worship of God (17.07%),To do Charity(2.4%),Wearing a ring (14.63%),To do fast(24.3%).

Chi square test:

1.chi square test :

H_0 : Drawal of kundali is independent of gender.

H_1 : Drawal of kundali is depend on gender.

Gender	Drawal of kundali	
	Yes	No
Male	39	58
Female	36	67

For carrying above test , we use R software.

```
> x=c(39,58,36,67)
```

```
> m=matrix(x,byrow=T,ncol=2)
```

```
> chisq.test(m)
```

Pearson's Chi-squared test

data: m

X-squared = 0.38568, df = 1, ***p-value = 0.5346***

Decision rule: When p-value is less than level of significance then H_0 is rejected.

Here, we observed that p-value=0.5346 is greater than l.o.s. =0.05, so we accept H_0 .

Decision: We accept H_0 at 5% level of significance.

Conclusion: Drawal of kundali is independent of gender.

2.Chi square test:

H_0 : Drawal of kundali is independent of location(rural and urban) .

H_1 : Drawal of kundali is depend on location(rural and urban).

Living area	Drawal of kundali	
	Yes	No
Rural	44	68
Urban	31	57

For carrying above test , we use R software.

```
> x=c(44,68,31,57)
```

```
> m=matrix(x,byrow=T,ncol=2)
```

```
> chisq.test(m)
```

Pearson's Chi-squared test

data: m

X-squared = 0.19481, df = 1, **p-value = 0.6589**

Decision rule: When p-value is less than level of significance then H_0 is rejected.

Here, we observed that p-value=0.6589 is greater than l.o.s. =0.05, so we accept H_0 .

Decision: We accept H_0 at 5% level of significance.

Conclusion: Drawal of kundali is independent of location(rural and urban).

3.chi square test.

H_0 : Drawal of kundali is independent of occupation.

H_1 : Drawal of kundali is depend on occupation.

Occupation	Drawal of kundali	
	Yes	No
Student	22	38
Job	21	20
Homemaker	7	23
Business	11	19
Teacher	5	12
Farmer	9	13

For carrying above test , we use R software.

```
> x=c(22,38,21,20,7,23,11,19,5,12,9,13)
```

```
> m=matrix(x,byrow=T,ncol=2)
```

```
> chisq.test(m)
```

Pearson's Chi-squared test

data: m

X-squared = 6.4718, df = 5, ***p-value = 0.263***

Decision rule: When p-value is less than level of significance then H_0 is rejected.

Here, we observed that p-value=0.263 is greater than l.o.s. =0.05, so we accept H_0 .
Decision: We reject H_0 at 5% level of significance.

Conclusion: Drawal of kundali is independent of occupation.

Proportion Test

With help of Google form we had taken the information about Name, Birth year, Birth time, Occupation, Favourite color and Favourite number of people from our surrounding. With help of Birth date and Birth time we had created some information about the kundali of that person with help of Hindu astrology. we have cross checked the real name of person, occupation they are doing, favourite colour and number is same or not as mentioned in their kundali. With help of proportion test.

1. Proportion Test-

112 = people whose favourite colour is same as the colour which mentioned in their kundali as a favourite colour.

88 = people whose favourite colour is not same as the colour which mentioned in their kundali as a favourite colour.

H_0 : Proportion of people whose favourite colour is same as the colour which mentioned in their kundali as a favourite colour.

H_1 : Proportion of people whose favourite colour is not same as the colour which mentioned in their kundali as a favourite colour.

> x=c(112,88)

> n=c(200,200)

> prop.test(x,n)

2-sample test for equality of proportions with continuity correction

data: x out of n

X-squared = 5.29 , df = 1 , p-value = 0.02145

alternative hypothesis: two.sided

95 percent confidence interval:

0.02240794 0.22634828

sample estimates:

prop 1 prop 2

0.5621891 0.4378109

Decision rule: If p-value is less than L.O.S then reject H_0 .

Decision: Hence we reject H_0 at 5% L.O.S.

Conclusion: : Proportion of Favourite colour of people is not same as the colour which mentioned in their kundali as a favourite colour.

2.Proportion Test:

26 = people whose favourite number is same as the number which mentioned in their kundali as a favourite colour

174 = people whose favourite number is not same as the number which mentioned in their kundali as a favourite number

H_0 : Proportion of people whose favourite number is same as the number which mentioned in their kundali as a favourite colour.

H_1 : Proportion of people whose favourite number is not same as the number which mentioned in their kundali as a favourite number

> x=c(26,174)

> n=c(200,200)

> prop.test(x,n)

2-sample test for equality of proportions with continuity correction

data: x out of n

X-squared = 212.1, df = 1, p-value < 2.2e-16

alternative hypothesis: two.sided

95 percent confidence interval:

-0.8029876 -0.6596989

sample estimates:

prop 1 prop 2

0.1343284 0.8656716

Decision rule: If p-value is less than L.O.S then reject H_0 .

Decision: Hence we reject H_0 at 5% L.O.S.

Conclusion: : Proportion of people whose favourite number is not same as the number which mentioned in their kundali as a favourite number.

3.Proportion Test

31 = whose name is same as the name which mentioned in their kundali .

169 = people whose name is not same as the name which mentioned in their kundali

H_0 : Proportion of people whose name is same as the name which mentioned in their kundali .

H_1 : Proportion of people whose name is not same as the name which mentioned in their kundali

> x=c(31,169)

> n=c(200,200)

> prop.test(x,n)

2-sample test for equality of proportions with continuity correction

data: x out of n

X-squared = 189.49, df = 1, p-value < 2.2e-16

alternative hypothesis: two.sided

95 percent confidence interval:

-0.7671287 -0.6159558

sample estimates:

prop 1 prop 2

0.1542289 0.8457711

Decision rule: If p-value is less than L.O.S then reject H_0 .

Decision: Hence we reject H_0 at 5% L.O.S.

Conclusion: : Proportion of people whose name is not same as the name which mentioned in their kundali.

4.Proportion Test:

74 = people whose occupation is same as the occupation which mentioned in their kundali .

126 = people whose occupation is not same as the occupation which mentioned in their kundali

H_0 : Proportion of people whose occupation is same as the occupation which mentioned in their kundali .

H_1 : Proportion of people whose occupation is not same as the occupation which mentioned in their kundali

> X=c(126,74)

> n=c(200,200)

> prop.test(x,n)

2-sample test for equality of proportions with continuity correction

data: x out of n

X-squared = 190.44, df = 1, p-value < 2.2e-16

alternative hypothesis: two.sided

95 percent confidence interval:

-0.77046 -0.61954

sample estimates:

prop 1 prop 2

0.155 0.850

Decision rule: If p -value is less than L.O.S then reject H_0 .

Decision: Hence we reject H_0 at 5% L.O.S.

Conclusion: : Proportion of people whose occupation is not same as the occupation which mentioned in their kundali .

2² factorial experiment

We have presented data in the proper format which is required to analyse 2² factorial experiment. Here, we consider two factors each at two levels. The summary of factors and their level given in bellow table.

Summary of factors and their

TABLE NO. 1:

Factors	Level of the factor
A (Have you drawal of your kundali(horoscope))	Level1: yes <i>a</i> 0 Level2: No: <i>a</i> 1
B (how much faith you have on kundali(horoscope) ?)	Level1: (0-50)%: <i>b</i> 0 Level2: (50-100)%: <i>b</i> 1

Column1		AGE GROUPS				
Treatment Combination	(15-30)0	(31-45)1	(46-60)2	(61-75)3	(75 and above)4	Total
1	55	24	6	2	2	89
a	16	12	6	0	1	35
b	16	3	0	1	0	20
ab	44	7	5	0	0	56
Total	131	46	17	3	3	200

1-a0b0=People have their kundali but have faith on kundali 0 to 50%

a-a1b0=People have not their kundali but have faith on kundali 0 to 50%

b-a0b1=People have their kundali but have faith on kundali 50 to 100%

ab-a1b1=People have not their kundali but have faith on kundali 50 to 100%

Hypothesis-

H₀- There is no significant difference between different age groups.

Vs H₁-At least to age groups differ significantly.

H_{0A}-Drawal of kundali is not significant

Vs H_{A1}-Drawal of kundali is significant

H_{0B}-Having faith on kundali is not significant.

VsHB1-Having faith on kundali is significant.

HAB-Drawal of kundali and having faith on kundali is not significant.

Vs HAB1-Drawal of kundali and having faith on kundali is significant

TABLE NO 2:

SR.NO	treatment comb.	total yild for all replicate	3	4	Effect Total	Mean effect total
1	1	89(1)	124	200	200(G)	-
2	A	35(a)	76	-18	- 18[A]	-1.8
3	B	20(b)	-54	-48	- 48[B]	-4.8
4	Ab	56(ab)	36	90	90[AB]	9

In above table we have use Yates method.

TABLE NO. 3:

ANOVA Table for 2² factorial

source of variation	degrees of freedom	sum of square	Mean sum of square	F ratio
Age	4	2896	724	0.4404
A	1	16.2	16.2	0.00986
B	1	115.2	115.2	0.0701
AB	1	405	405	0.2464
Error	12	19725.6	1643.8	
Total	19	23158	-	

If Fcalculated value > F table value then we can reject H0 at 5% L.O.S.

F-Table values=

1.F- follows $F(4,12,0.05)=3.26 > F_{cal}=0.4404$

Decision-Here we can accept H0 at 5% L.O.S.

Conclusion -1There is no significant difference between different age groups

2.F1 –follows $F(1,12,0.05)=4.75 > F_{1cal}=0.00986$

Decision-Here we can accept H0A at 5% L.O.S.

Conclusion-2--Drawal of kundali is not significant

3.F2-follows $F(1,12,0.05)=4.75 > F_{2cal}=0.0701$

Decision-Here we can accept H_0B at 5% L.O.S.

Conclusion-3- Having faith on kundali is not significant

4.F3-follows $F(1,12,0.05)=4.75 > F_{3cal}=0.2464$

Decision-Here we can accept H_0AB at 5% L.O.S.

Conclusion-4- Drawal of kundali and having faith on kundali is not significant

Conclusion- 1) From conclusion 1 we said that the age group we have considered for the data of drawal of kundali and having faith on kundali are not different from each other.

2)The mean of main effect of drawal of kundali is negative (-1.8) and from conclusion (2) drawal of kundali is not significant ,so we have keep it on level -1(YES) .This means that number of people who have drawaled their kundali is maximum as compared to number of people who have not drawaled their kundli.

3) The mean of main effect of having faith on kundali is negative (-4.8) and from conclusion (3) Having faith on kundali is not significant ,so we have keep it on level -1 (0 to 50%) .This means that number of people who have faith on kundali between 0 to 50% is maximum as compared to number of people who have faith on kundli between 50 to 100%.

4)The mean of main effect of interaction effect between drawal of kundali and having faith on kundali is positive(9).But from conclusion (4) there is no any interaction between drawal of kundali and having faith on kundali.

CONCLUSION

Conclusions based on graphs:

- 1) In our conclusion, we have found that most of the respondent's faith in a horoscope is getting decreased.
- 2) In our conclusion, we have found that very few people give more importance to watching horoscopes at the time of marriage.
- 3) In our conclusion, we have found that out of the total number of respondents nearly half of the people watching horoscope through various mediums and half didn't.
- 4) In our conclusion, we have found that most of the people go to ascetic for marital reasons but we have also found that nearly one-fourth of the people go to ascetic for health-related issues rather than a doctor.
- 5) In our conclusion we have found that there are nearly one-fourth of the total people have some flaws in their horoscope and about one-third didn't know about flaws in their horoscope.
- 6) In conclusion, we have found that different people have suggested different types of a solution according to flaws in their horoscope.
- 7) The conclusion we have found that nearly 21% of people believe that solutions to flaws on their horoscope work in the life.
- 8) In our conclusion, we are found at nearly 17% of people who says that they face rejection due to flaws in their horoscope at the time of marriage.

Conclusion based on Chi-square:

- 9) Drawal of kundali is not depend on gender
- 10) Drawal of kundali is not depend on where they lived in village or city.

11) Drawal of kundali is not depend on occupation of people.

Conclusion based on proportion test:

12) Proportion of Favourite colour of people is not same as the colour which mentioned in their kundali as a favourite colour.

13) : Proportion of people whose favourite number is not same as the number which mentioned in their kundali as a favourite number.

14): Proportion of people whose name is not same as the name which mentioned in their kundali .

15) Proportion of people whose occupation is not same as the occupation which mentioned in their kundali .

Conclusion based on 2² factorial test:

16). age group we have considered for the drawal of kundali and having faith on kundali are not different from each other

17) Number of people who have drawaled their kundali and number of people who have faith on kundali between 0 to 50% is maximum as compared to number of people who have not drawaled their kundli and people who have faith on kundali between 50 to 100% .

18) There is no any interaction between drawal of kundali and having faith on kundali.

VIEWS

During this project we had taken some opinion of people about kundali and rashibhavishya. Here we have mentioned some selective opinion of those people.

1) Believe in tools like astrology or horoscope but not superstition. Just because Raja Yoga is written in your horoscope, you don't want to relax without any effort. Must try. उद्यमेन हि सिन्ध्यन्ति कार्याणि, न मनोरथैः। न हि सुप्तस्य सिंहस्य प्रविशन्ति मुखे मृगाः ॥

In this Sanskrit verse, it is said that success is achieved only by doing business, not by mere intention. If a lion sleeps thinking of a deer, the deer does not automatically enter its mouth. In short, man is not driven by hard work in life.

2) The horoscope is a basis but it is not appropriate to live real life according to it. Real life should be lived according to the situation and with the right thinking.

3) Your thoughts, karma, and efforts create your Destiny.. Kundli is just a document created based on our last birth.. but with our present karmas we can change our future and destiny.

4) I don't firmly believe in Kundli and real life incidence have some connection. Maybe it has some sort of connection, but without any proof or experience believing in such things which are followed traditionally in our culture is a kind of foolishness. We must respect our values and culture, but along with the changing world it needs to be modernised and improved. Because change is the rule of nature for survival and continuity of a species.

5) The two are not related. The birth chart is just a prediction of the future. It is not something that will come true. So in our real life we can make different decisions than the birth chart.

LIMITATION

- 1) Most of the observation are collected from our surrounding.
- 2) The data is majorly belongs to specific religion.
- 3) Most of the aspect of kundali does not know to the people.

REFERENCE

- 1) Date panchang
- 2) Rashishastra – by Pandit Gawtam
- 3) Hindu panchang
- 4) Numerology (APP.)
- 5) Blog of Atulshastri Bhagare
- 6) Fundamental of mathematics and statistics by S.C. Gupta and V.K. Kapoor