



# **Statistical Analysis on Fast-Food Consumption Survey**

Submitted By-

Roll – MC/UG/S-IV/20, No – 1635

Reg. No – 2017-162 of 2019-2020

# Aims & Objectives

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- ❖ Descriptive analysis: To compare the trends of fast food consumption according to age, gender, family income among my friends.
- ❖ Is there any association between sex and gender on fast-food consumption ?
- ❖ Is there any association between family consume fast food and friends know what goes into fast food ?
- ❖ Is there any association between family income and age distribution on fast food consumption ?

# Data Description

We take a survey on fast food consumption by Google form.

We take 131 responses.

Fast food consumption survey (Responses) ☆

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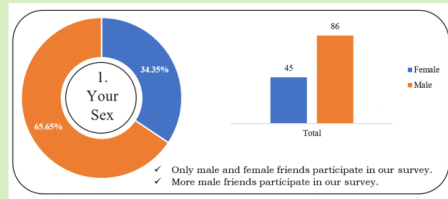
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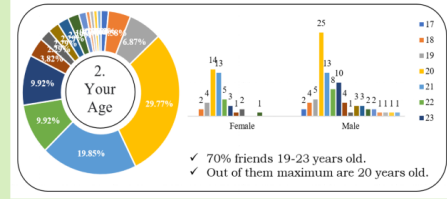
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# Descriptive Data Analysis

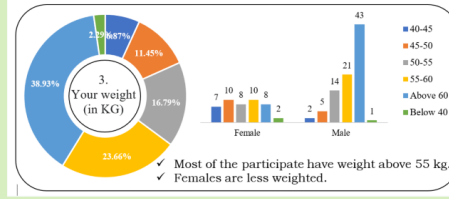
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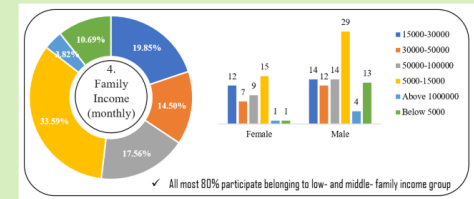
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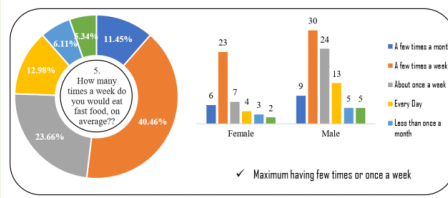
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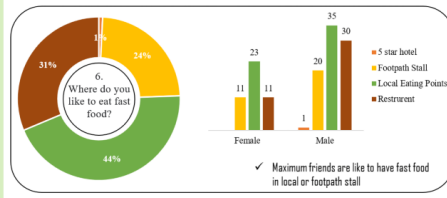
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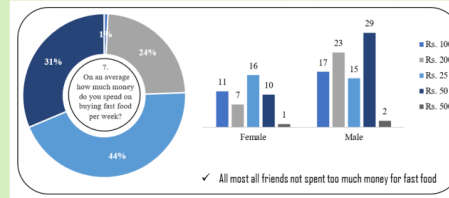
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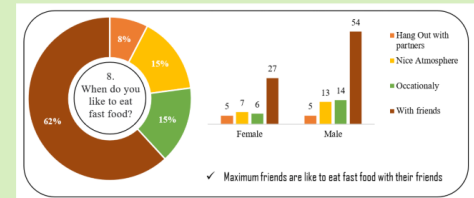
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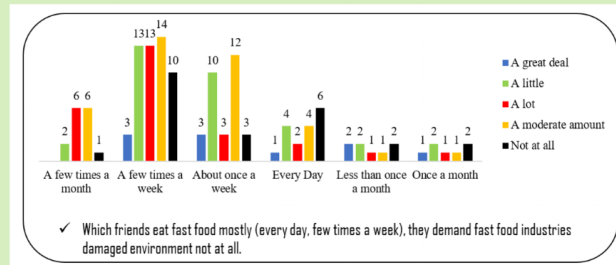
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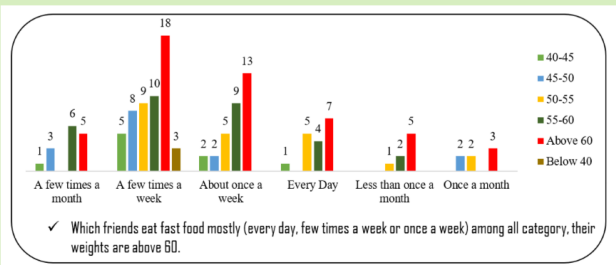
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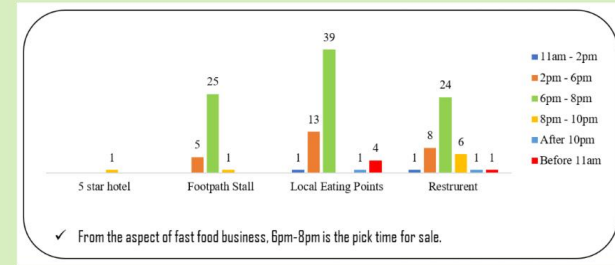
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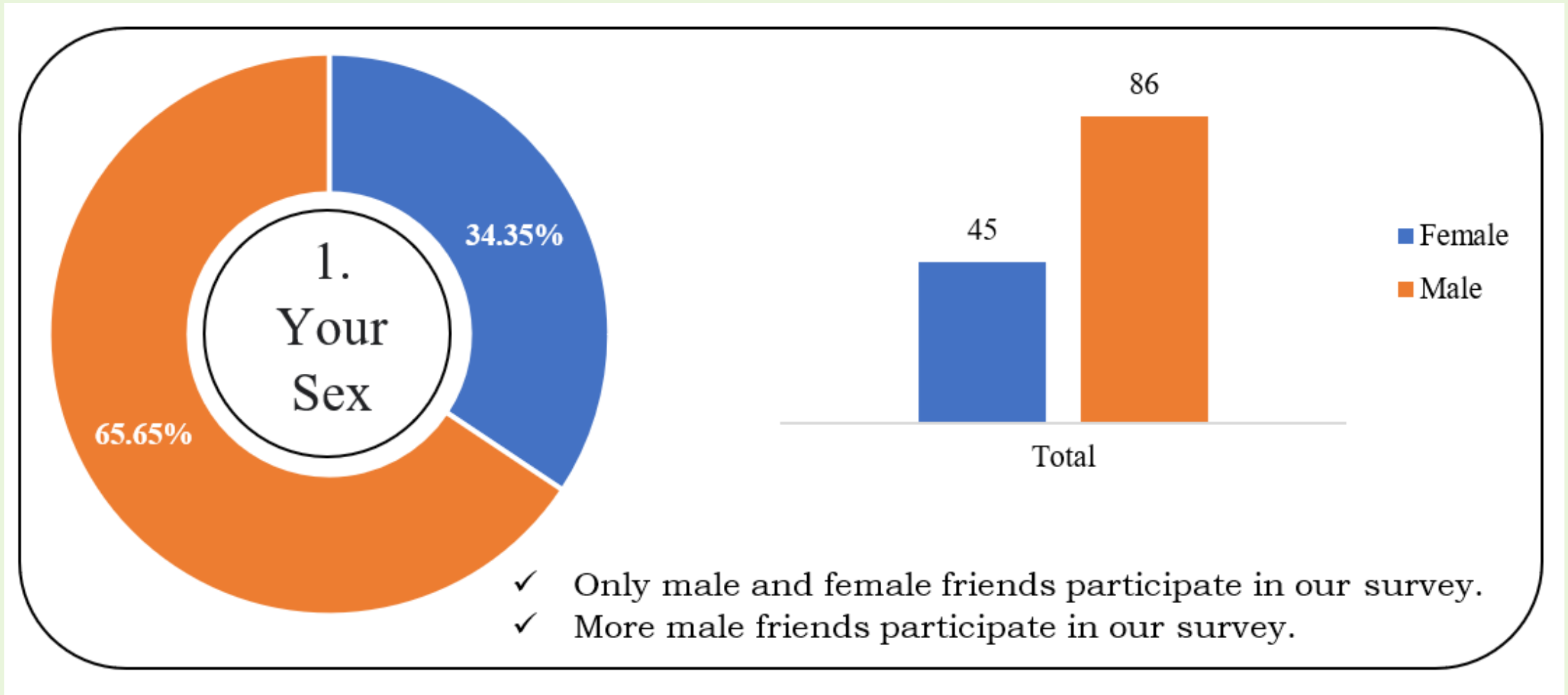


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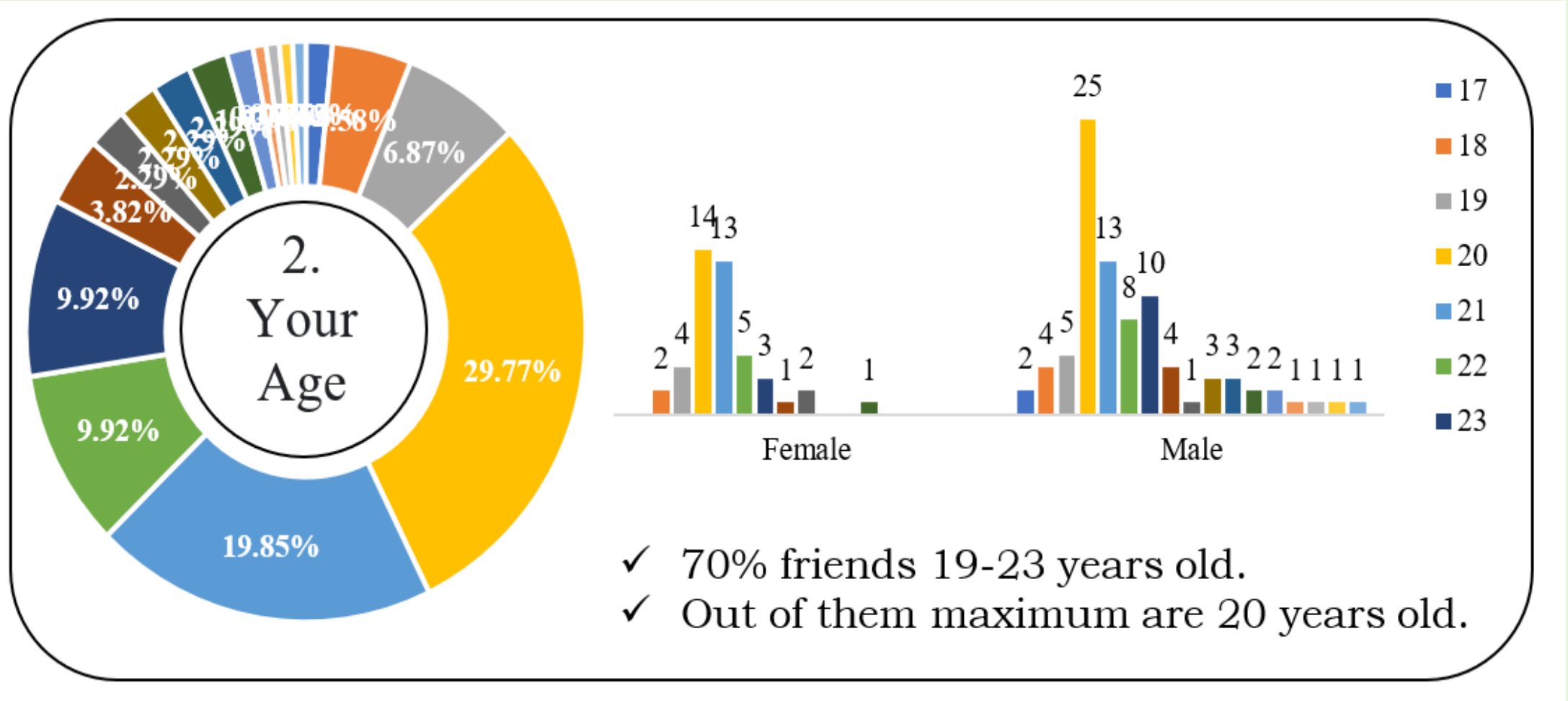




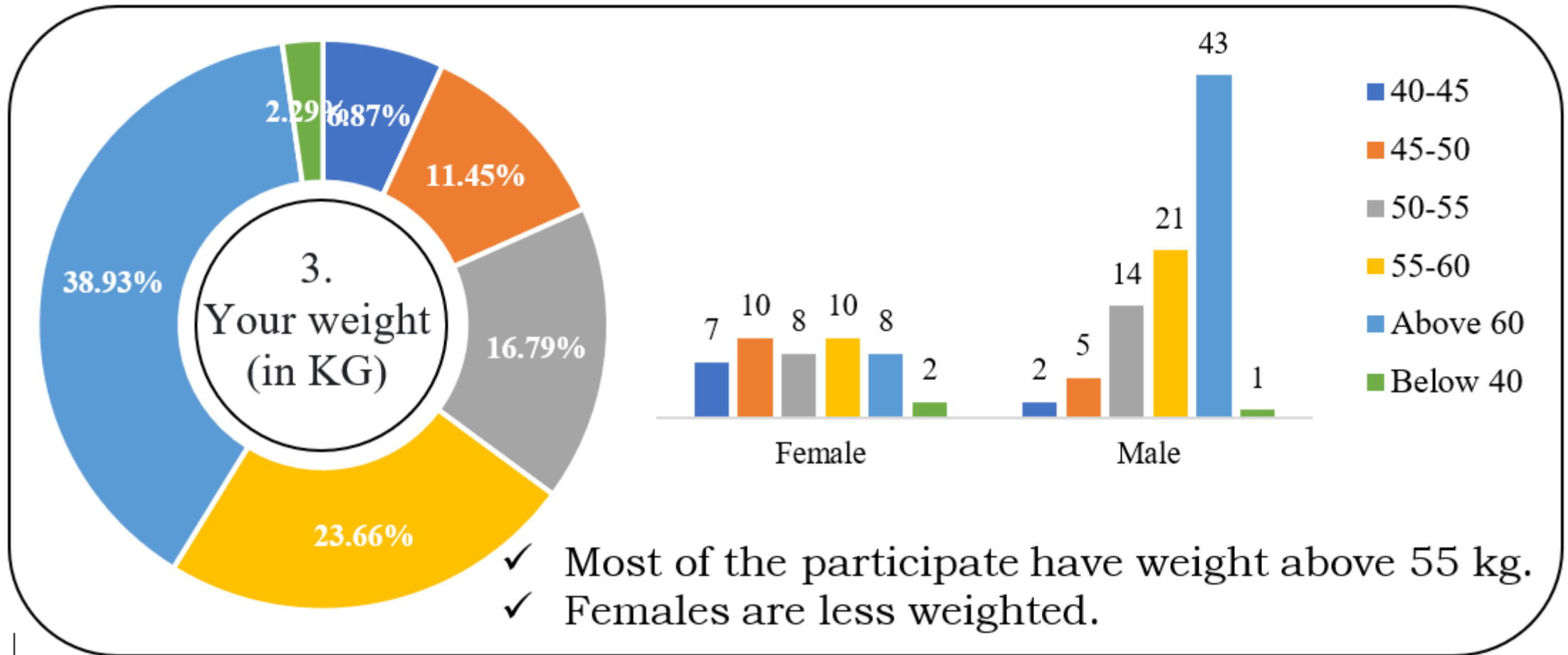
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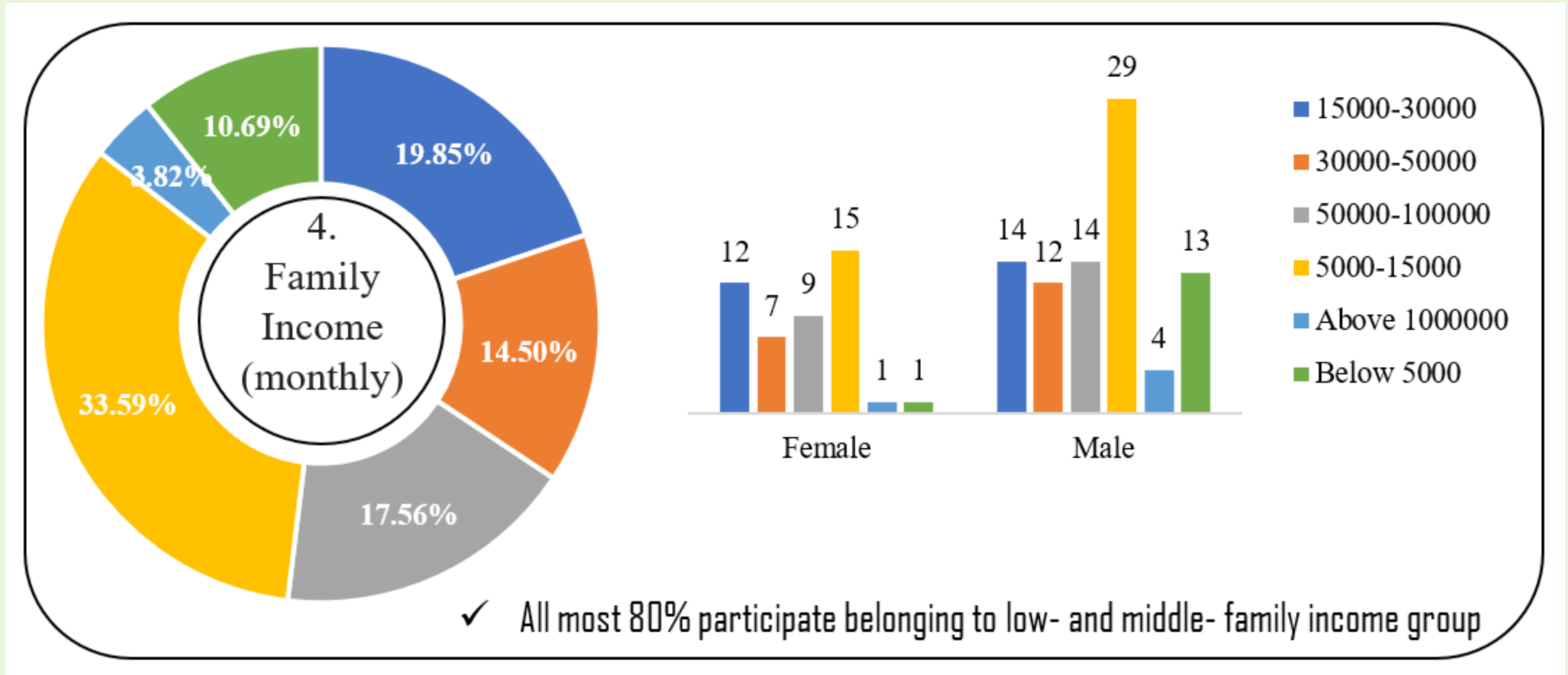
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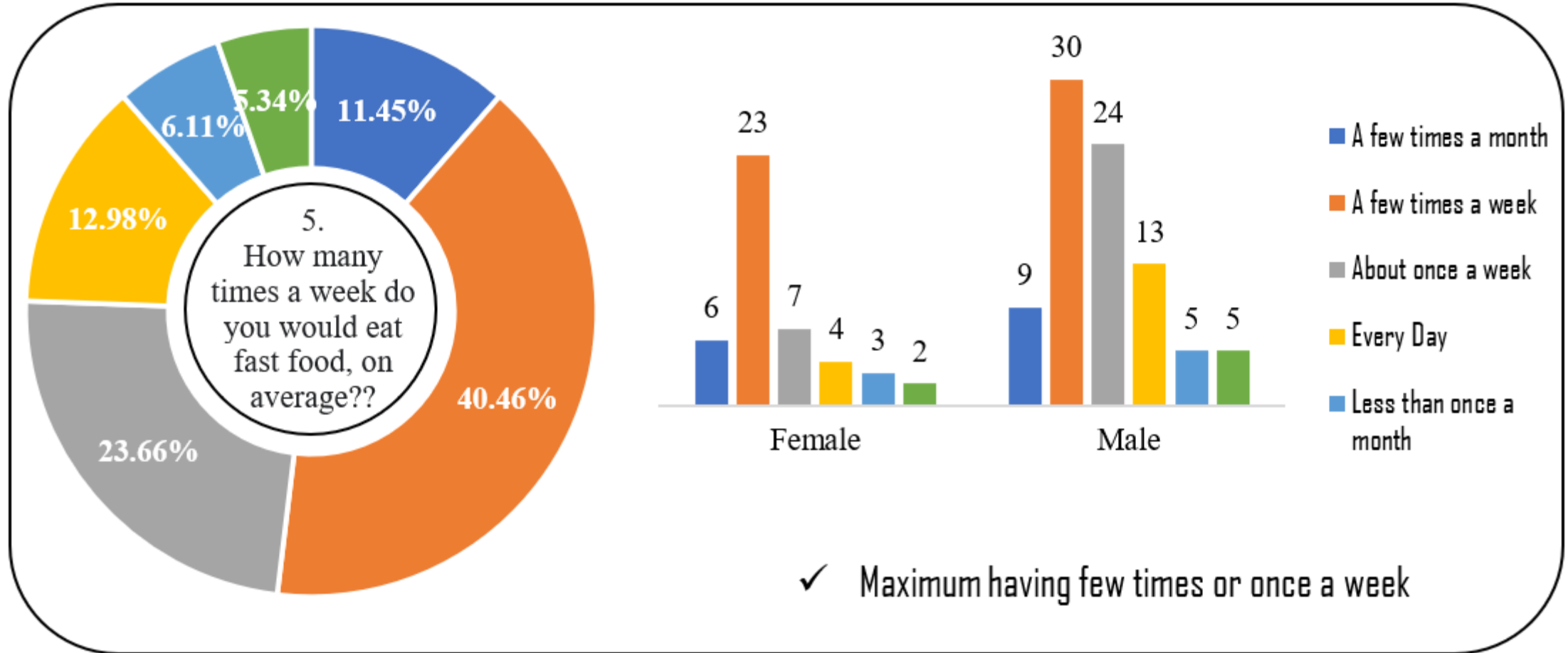


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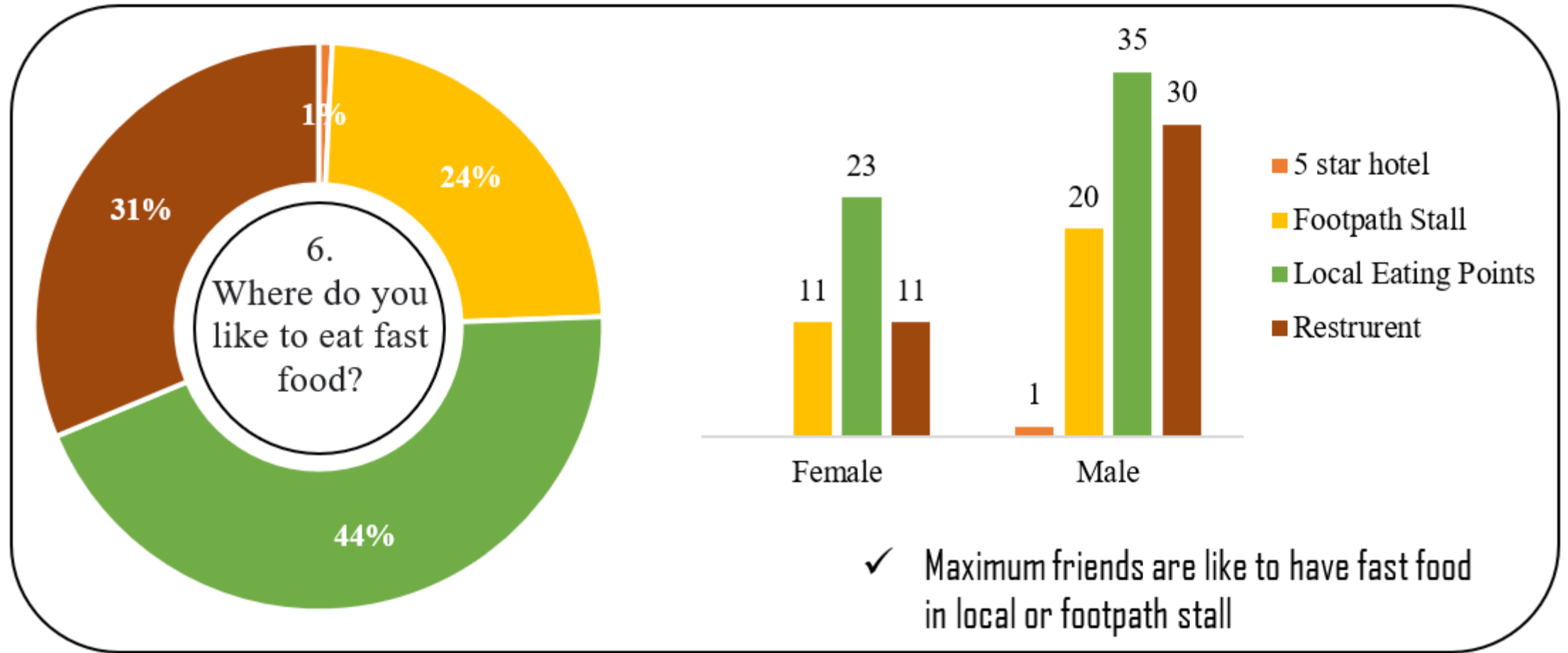




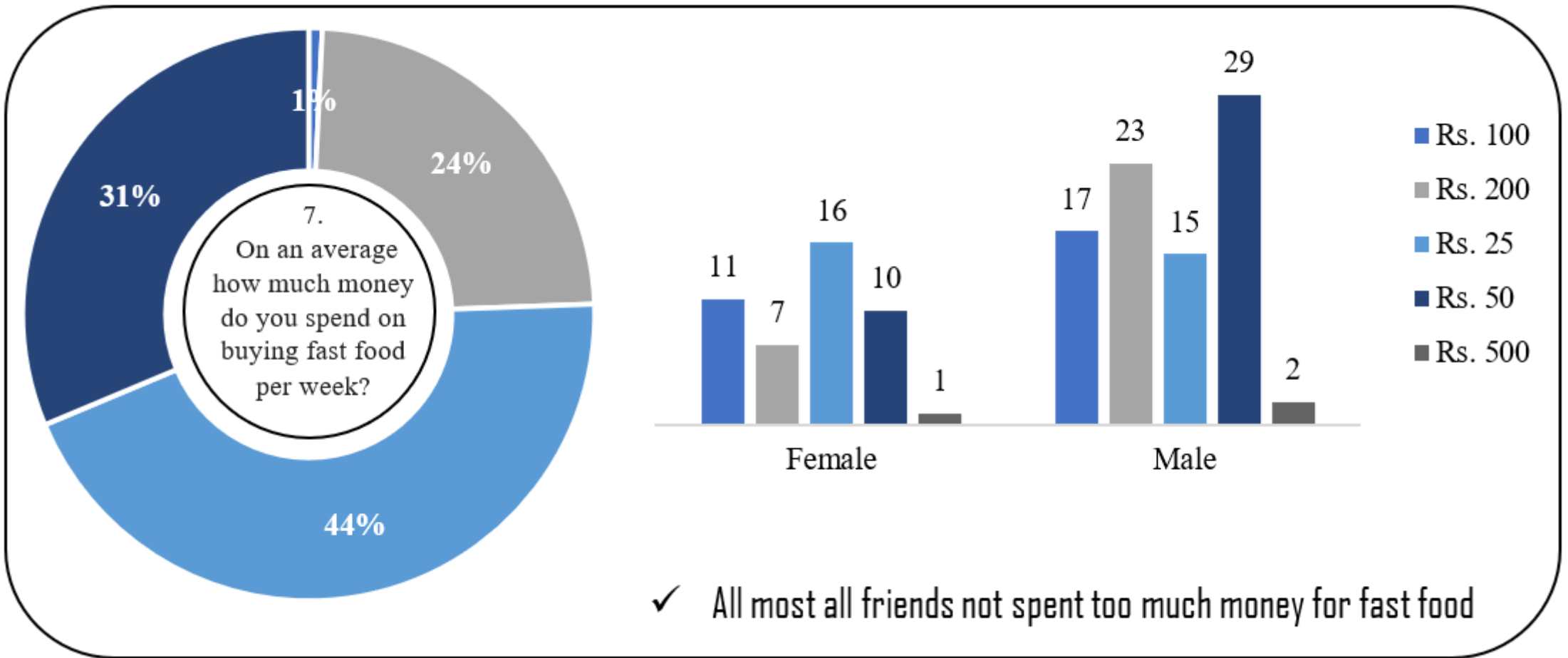
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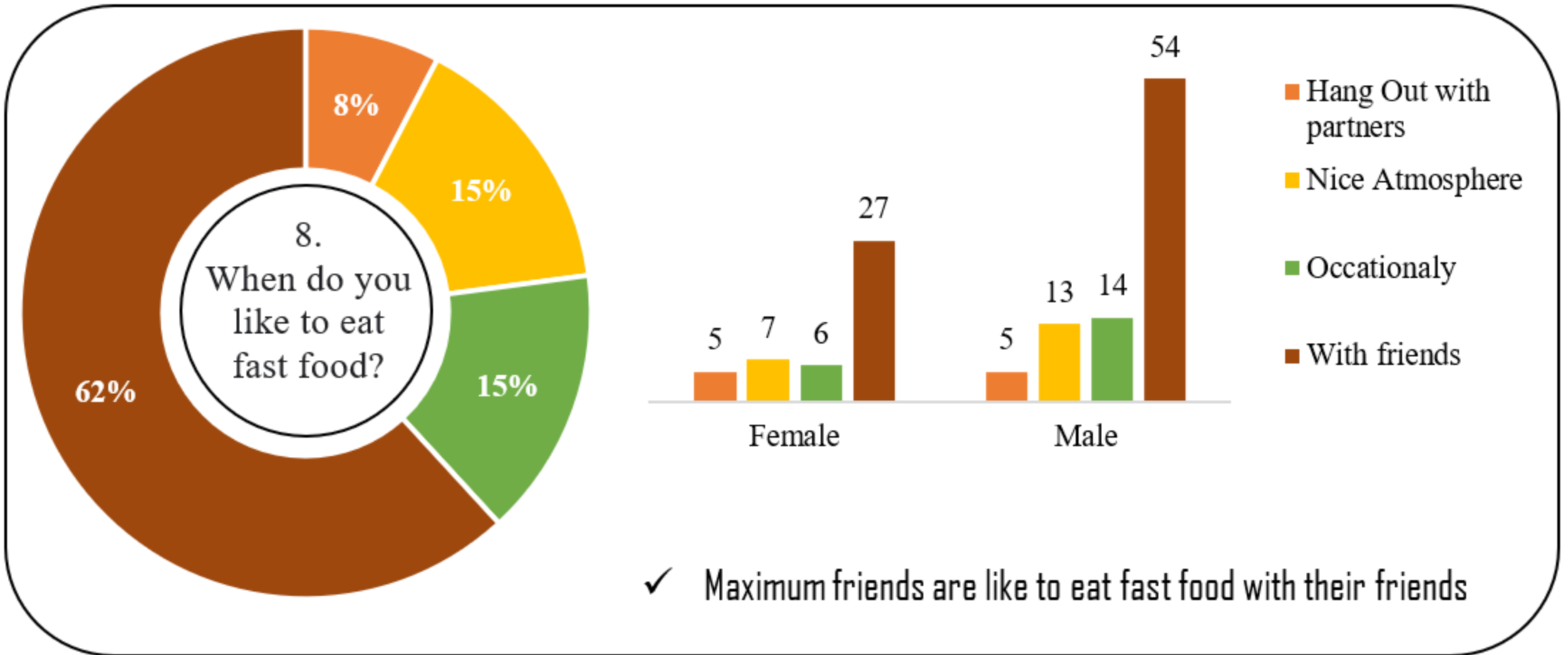
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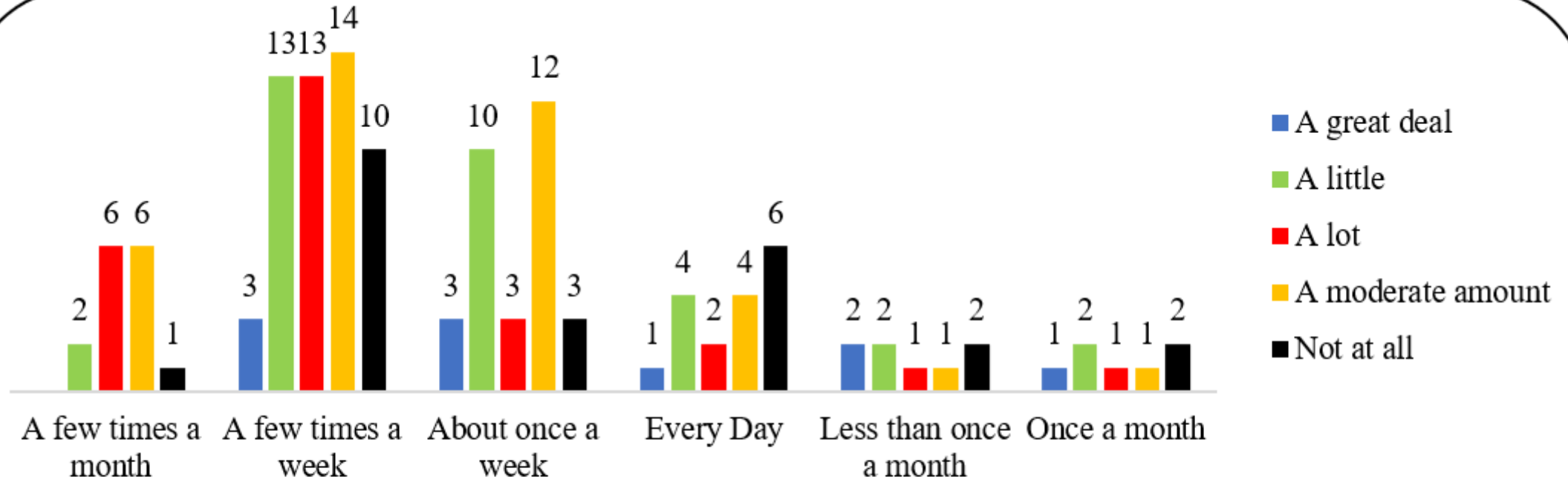
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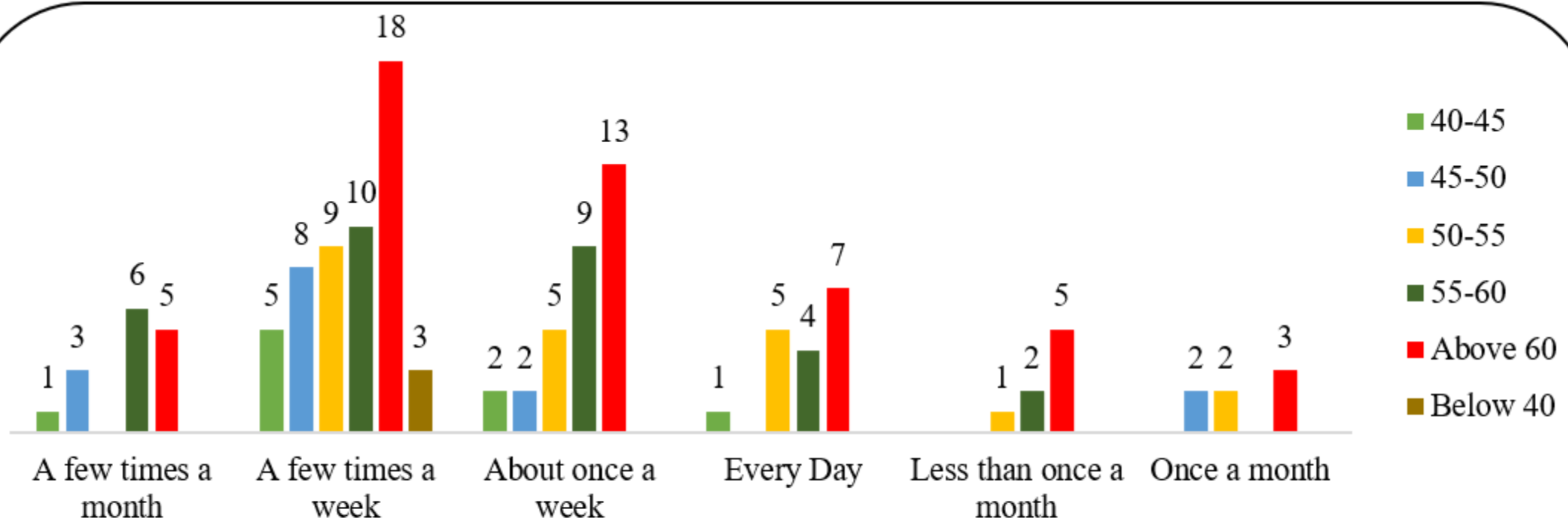


# Descriptive Data Analysis



- ✓ Which friends eat fast food mostly (every day, few times a week), they demand fast food industries damaged environment not at all.

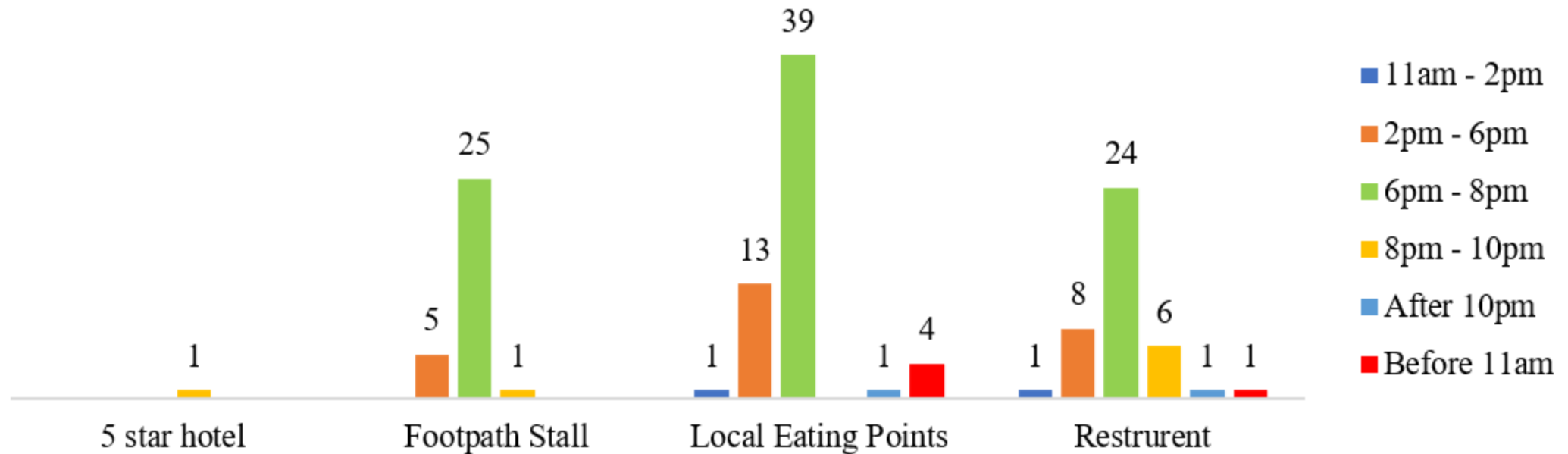
# Descriptive Data Analysis



- ✓ Which friends eat fast food mostly (every day, few times a week or once a week) among all category, their weights are above 60.



# Descriptive Data Analysis



✓ From the aspect of fast food business, 6pm-8pm is the pick time for sale.

# Data Analysis: Chi-Square Test

	Below 40	40-45	45-50	50-55	55-60	Above 60
Female	2	7	10	8	10	8
Male	1	2	5	14	21	43

*Here we are interested in testing the hypothesis,*

***$H_0$ : Weight for consumption of fast food is independent of their sex against***

***$H_1$ : Weight for consumption of fast food is not independent of their sex.***

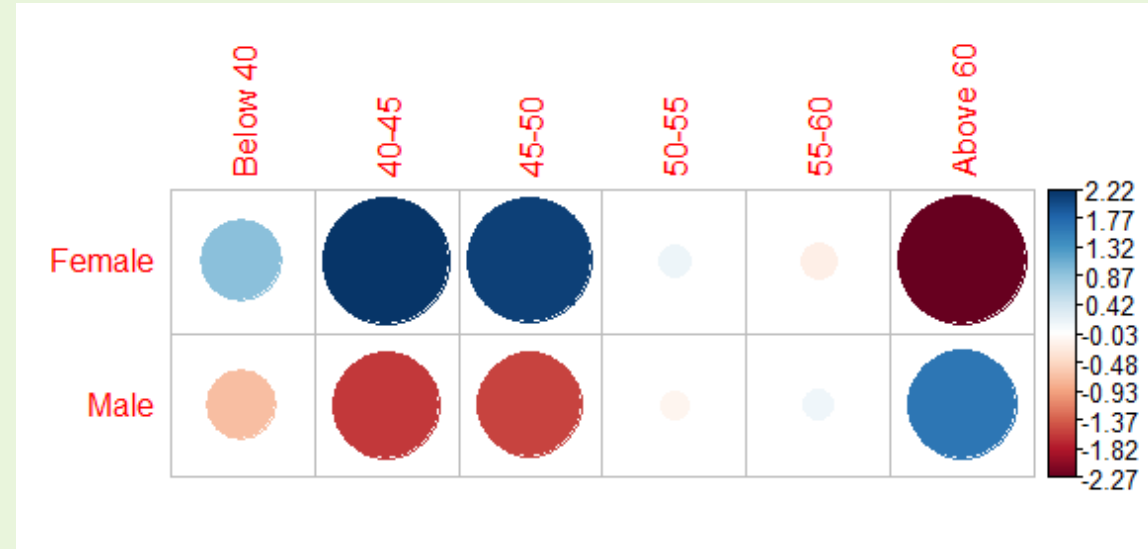
Pearson's Chi-squared test

data: df

X-squared = 23.84, df = 5, **p-value = 0.000233**

**Here p-value is less than 0.05, so our null hypothesis is rejected, i.e. there are some association between weight and their**

# Data Analysis: Residual Plot



- **Positive residuals** are in blue. Positive values in cells specify a positive association between the corresponding row and column variables.
- In the image above, it's evident that there is a strong positive association between the female and weight group 40-50 (40-45 & 45-50).
- There is a positive association between the male and weight group above 60.
- **Negative residuals** are in red. This implies a negative association between the corresponding row and column variables.
- Here males are negatively related with weight group 40-50 and there is strong negative association between females and weight group above 60.

# Conclusion

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- Only male and females participate in our survey.
- More male friends participate in our survey.
- Only male and females participate in our survey.
- More male friends participate in our survey.
- Most of the participate have weight above 55 kg.
- Females are less weighted.
- All most 80% participate belonging to low and middle family income group.
- Maximum having few times or once a week.
- Maximum friends are like to have fast food in local or footpath stall.
- All most all friends not spent too much money for fast food.
- Maximum friends are like to eat fast food with their friends.
- Which friends eat fast food mostly (every day, few times a week), they demand fast food industries damaged environment not at all.
- Which friends eat fast food mostly (every day, few times a week or once a week) among all category, their weights are above 60.
- From the aspect of fast food business, 6pm-8pm is the pick time for sale.
- There are some association between weight and their sex.
- Having knowledge about fast food making process is independent of family members consuming fast food.
- Fast food consumption family income is independent of age classification.

# Aims & Objectives

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- ❑ Wikipedia [[https://en.wikipedia.org/wiki/Fast\\_food](https://en.wikipedia.org/wiki/Fast_food)]
- ❑ Fundamental Statistics, Volume-I & II
- ❑ <https://www.slideshare.net/GarimaTaneja4/a-statistical-study-on-the-trends-of-fast-food-consumption>
- ❑ <http://www.sthda.com/english/wiki/chi-square-test-of-independence-in-r>

A top-down view of a traditional Indian thali meal. The food is served on a large, circular, polished copper plate. In the center are two mounds of white, fluffy rice. Surrounding the rice are eight small, round, copper bowls, each containing a different dish. The dishes include a bright yellow curry, a green chutney, a dark green vegetable dish, a light green dal, a yellowish-brown curry, a green vegetable dish, a yellowish-brown curry, and a light green dal. The lighting is warm and focused on the food, creating a rich, golden glow.

THANK YOU

Avoid Fast Food or Street Food