ECONOMIC RESEARCH DATA REPORT

DATA ENTRY AND ANALYSIS REPORT

BY: PAULINE WAIRIMU

DATE: 30/09/2024

INTRODUCTION

The objective of this report is to access participant satisfaction with the economic situation across different regions in Kenya. The participants' data was analysed based on certain variables that included Participant ID, Age, Gender, Region, Monthly Income, Education Level Attained, Employment status, and satisfaction level on a scale of 1 to 5 with 1 being the lowest and 5 being the highest.

METHODOLOGY

Data collection: Synthetic data creation for analysis

Tools: Excel for Data entry and analysis

Techniques: Analysis achieved through descriptive statistics e.g. measures of central tendency and variability to mention but a few.

ANALYSIS

1. **SATISFACTION BY EMPLOYMENT**

This analysis explores the relationship between employment status and participants' satisfaction level. The participants are categorized into three different groups, Employed, Unemployed, and Student. The aim is to investigate the influence of employment status on the participants' satisfaction level.

The following visuals have been provided for better understanding:

Satisfaction by Employment
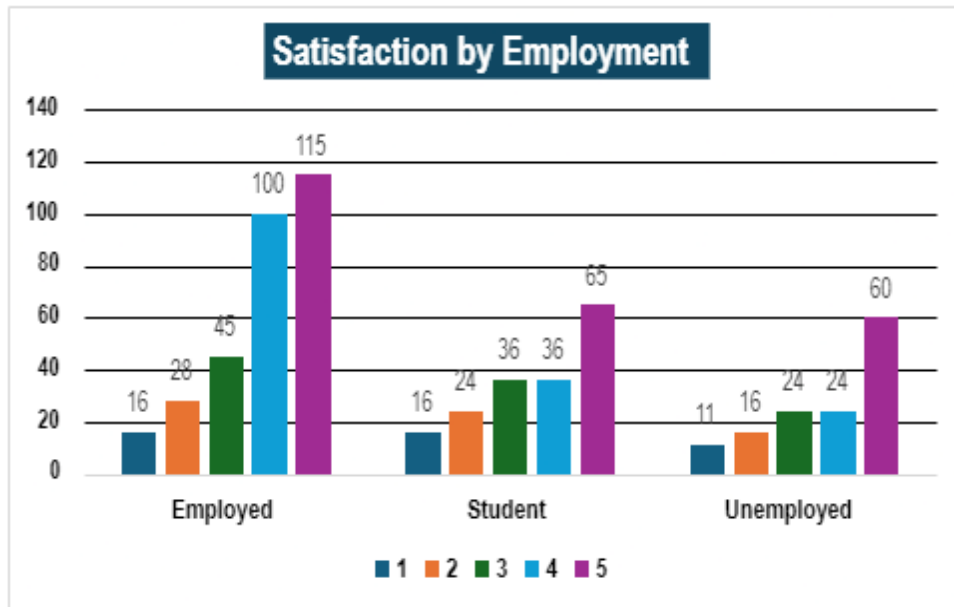
From the above it can be seen that;

- Employed participants have the highest number of respondents reporting satisfaction at level 4 and 5 (100 and 115, respectively)
- Students also show relatively high satisfaction at levels 4 and 5 (36 and 65) and the Unemployed participants are the least satisfied with the most respondents at satisfaction level 5 (60), but a significant number at lower levels (11 at level 1).

From this simple analysis we can conclude that there is a positive correlation between the employment status and the satisfaction levels.

2. INCOME VS GENDER

In this section, participants were grouped by gender, i.e. Male and Female. Their average income was calculated to compare how income levels vary by gender. Utilizing Ms Excel's powerful functions, the percentage salary one gender earns over or below the other gender was also calculated.

The following table was generated;

| Gender	Average of Monthly Income	%Male vs Female	%Female vs Male
Female	15703.10377		-5.29
Male	16580.78723	5.59	

It can be seen that;

- The Male gender has a slightly higher monthly average income compared to the Female gender. This shows a slight disparity in the income between the two with the former earning 5.59% above the latter and the latter earning 5.29% below the former.

Let's go ahead and look at the **GENDER DISTRIBUTION** as well.

From the two hundred participants;

| Male	Female	Total
94	106	200
47%	53%	100%

This is further simplified to a doughnut pie for easier visualization.
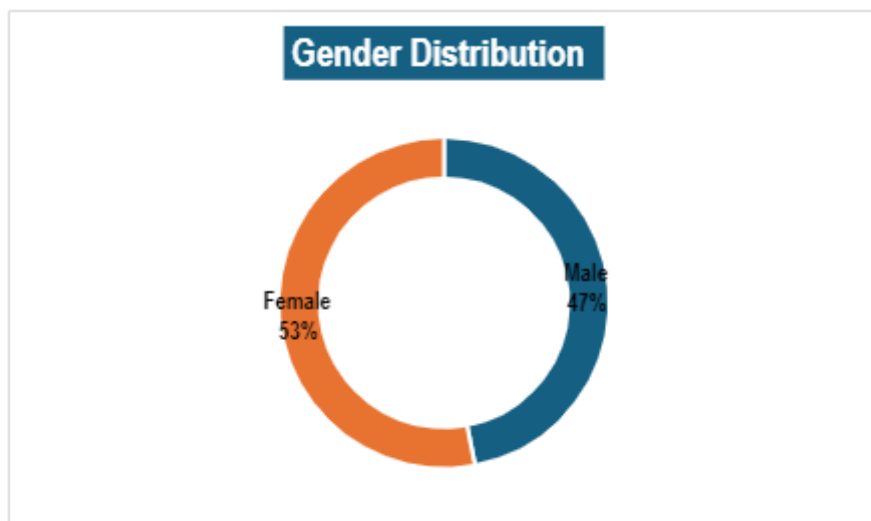
The **gender distribution** indicates a higher proportion of females **(53%)** compared to males **(47%)** among the participants.

3. EDUCATION VS GENDER

The analysis focuses on the distribution of education levels among participants based on gender. The data includes counts of males and females across three education levels: Primary, Secondary, and University. The objective is to understand gender representation in education levels within the sample of 200 participants. This can be viewed as;

Education by Gender
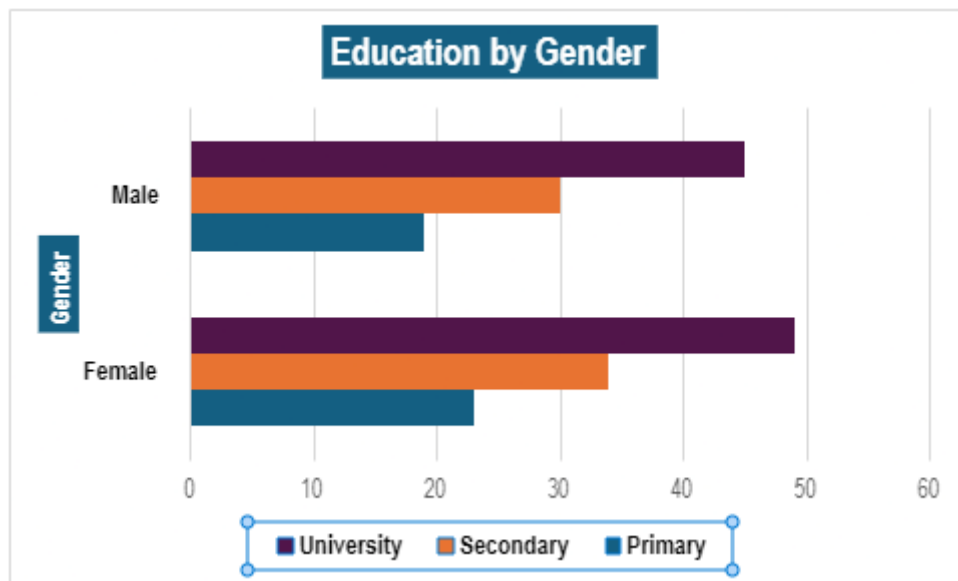
Interpretation;

Primary Education:
- Females: 23 (11.5%)
- Males: 19 (9.5%)

Secondary Education:
- Females: 34 (17%)
- Males: 30 (15%)

University Education:
- Females: 49 (24.5%)
- Males: 45 (22.5%)

The findings indicate that females have a marginally higher representation in higher education (University level) compared to males.
Both genders show significant participation in Secondary education, while the gap is narrower at the Primary level.

4. INCOME TRENDS BY REGION

- This analysis examines the average monthly income across various regions in the dataset.
- The focus is on understanding regional income disparities within the sample population.

Graphical representation:

Income Trends by Region
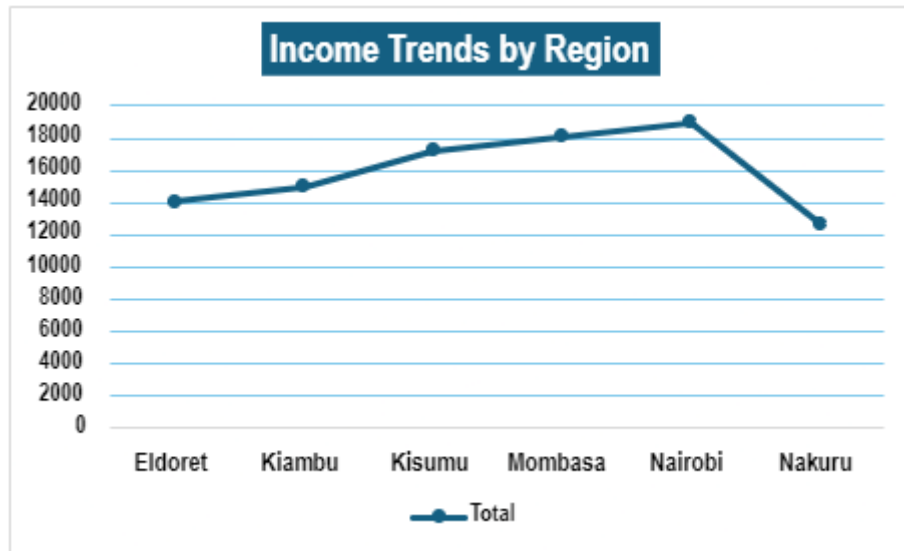
The following table is also used to provide additional information;

Average Income	Region	Value
Lowest	Nakuru	12672.41379
Highest	Nairobi	18977.41667
Range	Nairobi - Nakuru	6305.002874

Interpretation;
- Nairobi has the highest average monthly income at $18,977.42.

- Nakuru has the lowest average monthly income at $12,672.41.

- A clear gradient of income can be observed, with urban areas (Nairobi and Mombasa) generally having higher average incomes.

- Nakuru and Eldoret have the lowest average incomes, indicating potential economic challenges in these regions.

Conclusion;

- Major urban areas like Mombasa and Nairobi are leading in Income.
- Nakuru and Eldoret may need interventions to improve their performance.

5. EDUCATION BY REGION

This analysis focuses on the distribution of education levels across different regions.It aims to compare the number of participants at each education level (Primary, Secondary, and University) in selected Kenyan regions.

Graphical Representation;
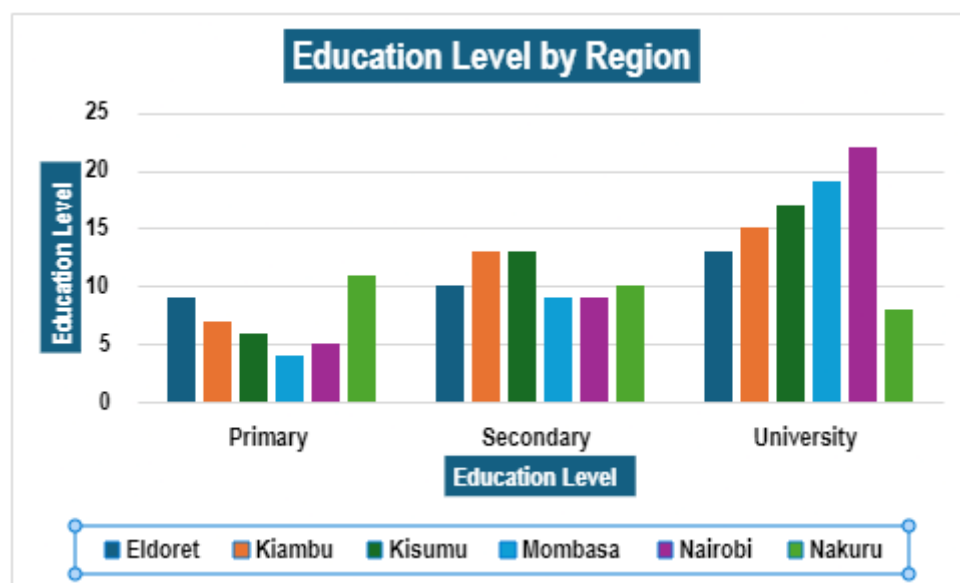
It can be observed that like income by region, Nairobi is leading with the highest number of graduates and Nakuru is tailing. Further observations that can be made include;

- Kisumu follows Nairobi with 17 University graduates, showing significant educational engagement.
- Mombasa has a comparable number of university graduates (19).
- Kiambu and Eldoret show moderate numbers at the University level with 15 and 13 graduates, respectively.
- In Secondary Education, Kiambu and Kisumu are leading with a tie of 13 participants while the other regions have similar distributions ranging from 9 to 10.
- In Primary Education, Nakuru is at the top of the list followed closely by Eldoret and Mombasa has the least number of people in this level

We can therefore go ahead to make the following conclusions;

- Nairobi stands out in higher education while Nakuru has lower participation regarding education.

- There is need to address educational disparities to foster equitable access to educational opportunities across different regions in Kenya.

6. ACADEMIC LEVEL AND AVERAGE INCOME PER LEVEL

This analysis examines the relationship between academic level, the number of participants, and their average income. By evaluating the data from individuals with varying levels of education i.e. Primary, Secondary, and University insights can be gained regarding how education impacts income and participant representation.

ACADEMIC LEVEL:

Graphical Representation;

No. of Participants per each Academic Level attained
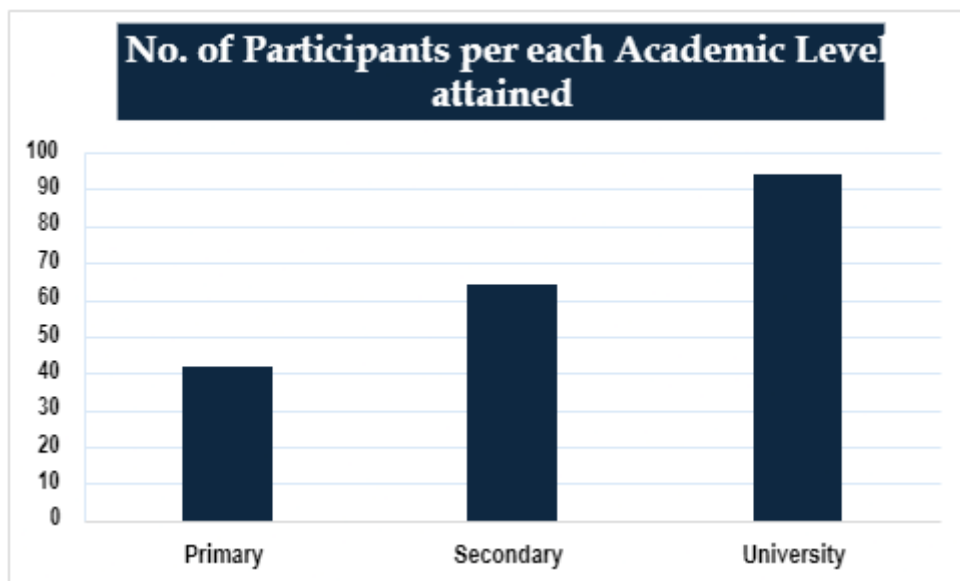
Interpretation;

- Primary education level has the least representation with slightly above 40.
- Secondary education is moderately represented with above 60 participants.
- University education level has the highest representation with 94 participants. This shows preference for Higher Education among participants.

AVERAGE INCOME PER ACADEMIC LEVEL:

Graphical Representation;

Average Income per Academic Level
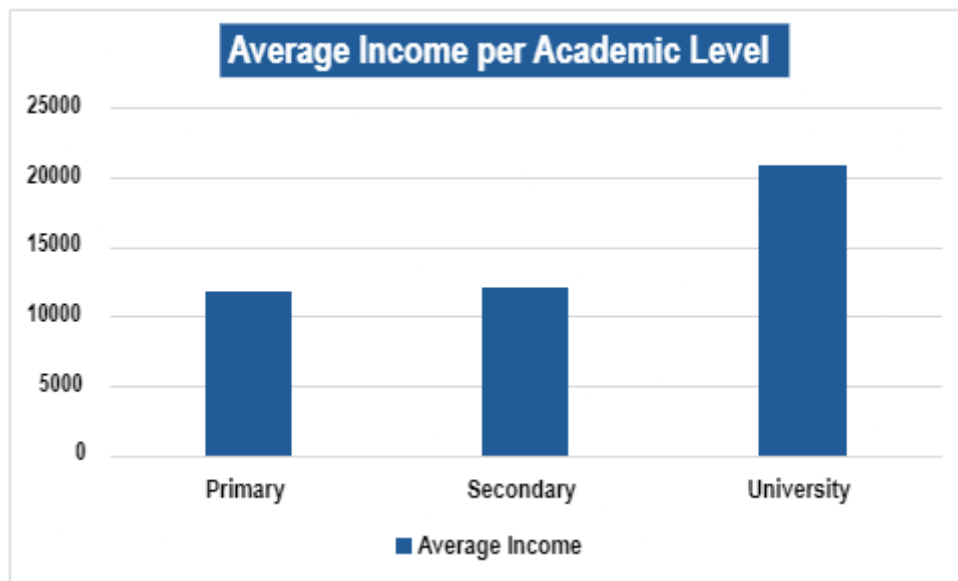
Interpretation;

- Participants who have only attained primary level education have a low earning potential, indicating scarce employment opportunities for people in this level.
- For participants with secondary education only, there is a slight increase in the earnings, this however still indicates limited opportunities in the job market.
- There is significant increase when it comes to participants with higher education, emphasizing the importance of higher education.

Conclusion;

The data clearly indicates a positive correlation between academic attainment and average income, with university graduates earning substantially more than those with only Primary or Secondary education. It also indicates that more participants opted to go for higher education perhaps because of its high reward in the job market. This highlights the critical role that education plays in enhancing economic opportunities for individuals.

SOME OTHER BASIC ANALSYIS PERFROMED INCLUDE:

   a) **Average Monthly Income**

The total income earned by an individual or household within a month, divided by the number of income-earning months in a given period of time.

The Average monthly in this case is $16,115.615

   b) **Average Age**

The sum of the ages of all individuals in a group divided by the total number of individuals, reflecting the central tendency of age within that population.

Average age in this scenario is 33.

More calculations, analysis and visualizations have been performed on Microsoft Excel.

RATIONALE

This analysis reveals key insights into the relationship between employment status, education level, and satisfaction across different regions. Employed participants report the highest satisfaction levels, while students and unemployed individuals follow, indicating that job stability significantly enhances life satisfaction. Among regions, Nairobi stands out with the highest satisfaction and average monthly income ($18,977), while Eldoret has the lowest satisfaction scores, suggesting economic challenges. Additionally, the income disparity between genders is evident, with males earning more on average than females, despite a higher female participant count, highlighting potential inequalities that need addressing. Furthermore, educational attainment emerges as a crucial factor in determining income levels, with university graduates earning significantly more than those with primary or secondary education. The analysis shows that the majority of participants hold university degrees, reinforcing the value of higher education in improving economic prospects. Overall, the study underscores the importance of job stability, regional economic conditions, and educational investment in shaping satisfaction and income, providing valuable insights for policymakers and educators aiming to foster economic growth and equity.

Recommendations

- Increase Job Opportunities:

Implement programs to support local businesses and attract new industries to regions with low employment rates.

- Enhance Educational Access:

Provide scholarships and training programs to empower students, particularly in areas with lower educational attainment.

- Address Income Disparities:

Develop policies aimed at closing the gender pay gap through transparency and support for women in the workforce.

Conclusion

The analysis of participant satisfaction, income levels, and education highlights significant disparities across regions and demographics. It emphasizes the importance of employment and education in enhancing life satisfaction and economic well-being. The findings suggest that targeted interventions are needed to improve the economic situation for the most affected groups.