

A STATISTICAL STUDY OF AWARENESS ON VEERAPANDIYA KATTABOMMAN

Abstract

Veerapandiya Kattabomman, also known as Katta Bomman, was an Indian Palaiyakkarar clan head from Panchalankurichi in the eighteenth century who was among the first to rebel against British control. Sixty years before to the Indian War of Independence, which took place in Northern India in 1857, he pursued a battle with the British.. This work makes sense of the methodology for examine the information on the consciousness of Veerapandiya Kattabomman in Kayathar and the was collected from Manimandapam, consisting of 80 samples (52 male and 28 female).

Keywords: Sixty years before to the Indian War of Independence.

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I. INTRODUCTION

- 1. Biography of Veerapandiya Kattabomman:** Who was among the first to challenge British rule? Veerapandiya Kattabomman, often referred to as Katta Bomman, was an Indian Palaiyakkarar leader from Panchalankurichi in the eighteenth century. Six decades prior to the Indian fight of Independence, which took place in Northern India in 1857, he fought a fight with the British. He was captured by the British after a brutal battle, and in 1799 CE, he was hung. The British troops destroyed his fort and stole his fortune. Panchalankurichi, located in the Thoothukudi district of Tamil Nadu state, India, is a historically significant location.
- 2. Early Life of Kattabomman:** On January 3, 1760, Veerapandiya Kattabomman was born to Jagaveera Kattabomman and Arumugathammal. His two younger brothers were Duraisingam and Dalavai Kumarasami. Both Veerapandiyan and Dalavai Kumarasami were affectionately referred to as "Karuthaiah" (the black prince) and "Sevathaiah" (the white prince). Good speaker Duraisingam went by the moniker "Oomaidurai," or the Mute Prince.
- 3. Veerapandiya Kattabomman Ancestors:** Jagaveera Pandiyan was the ruler of Azhagiya Veerapandiapuram (Otta, the modern-day pidaram). He had a minister named Bommu, who was also a valiant warrior and was named after the god Sastha Ayyappan Swamy. Over time, his fighting prowess and power became known as Kattabomman in Tamil. Following Jagaveera Pandiyan, who had no problems, Kattabomman took the throne as Adi Kattabomman, the first member of the Kattabomman clan.
- 4. Panchalankurichi:** Legend has it that one of the Kattabommans witnessed a hare chasing seven hounds while on a hunting expedition into the jungles of Salikulam, which is near Azhagiya Pandiapuram. This miracle astounded Kattabomman. Convinced that the region held immense qualities capable of inspiring bravery in others, he constructed his fort there and gave it the name Panchalankurichi. Veerapandiyan, 30, succeeded as king of Panchalankurichi on February 2, 1790, using the name Veera Pandia Kattabomman. He was considered to be the 47th monarch of the area, the fifth member of the Kattabomman clan, and a Palya-karrar (also known as Polygar) of the Madurai Nayak dynasty.
- 5. Events of Veerapandiya Kattabomman:** For a considerable amount of time, Kattabomman declined to meet with Jackson, the East India Company Collector, and to pay his debts. At last, he met Jackson at Sethupathi's palace at Ramanathapuram, known as Ramalinga Vilasam. The angry encounter resulted in a skirmish that claimed the life of Clarke, the Deputy Commandant of the Company's men. While Kattabomman and his soldiers battled their way to safety and freedom, Kattabomman's secretary, Thanapathi Pillai, was captured.

The Commission of Enquiry, which investigated the incident, blamed Jackson and removed him from his position because they believed that Jackson's altercation with Veerapandiya Kattabomman would damage the Company's strategy of progressively annexing the entire country.

Kattabomman received a letter from the new Tirunelveli Collector inviting him to a meeting on March 16, 1799. Kattabombman responded, blaming the prolonged drought for the postponement of the due date and requesting the return of all the items that had been taken from him at Ramanathapuram. The Collector chose to target Kattabomman because he wanted the Sethupathis royal family to stop him from siding with the Company's adversaries.

In addition, the British encouraged Ettayapuram Poligar, his long-time rival, to wage aggressive conflicts over Kattabomman in their long-running territorial disputes.

- 6. Veerapandiya Kattabomman Capture and Sentence:** Veerapandiya Kattabomman sought refuge in various locations, including Thirumayam and Virachilai, but eventually settled in Kolarpatti at Rajagopala Naicker's residence, where his hiding place was surrounded by opposing forces. In an attempt to evade capture, Kattabomman and his associates fled from Kolarpatti and sought sanctuary in the Thirukalambur forests, located near Pudu-k-kottai. In response to these developments, Bannerman issued orders to the Raja of Pudukkottai, instructing him to apprehend Kattabomman. Consequently, Kattabomman was captured, and on the 16th of October, 1799, legal proceedings were initiated, nearly three weeks after his arrest near Pudukkottai.

After a summary trial, Kattabomman was hanged unceremoniously on a Tamarind tree in Kayathar (near Tirunelveli).

- 7. Legend and Folklore:** Over the next few years, Kattabomman and the Marudu Brothers became the subject of a great deal of legend and folklore. The site of Kattabomman's execution, Kayatharu, continues to be a political destination.

H. R. Pate mentions in his 1917 Tinnevely Gazetteer that there is "a great pile of stones of all sizes, which represents the accumulated offerings by wayfarers of the past hundred years" in Kayatharu. Even now, folk tunes honoring the bravery of the Poligar chiefs are still performed in Tamil Nadu.

- 8. Honor and Monuments of Veerapandiya Kattabomman:** As a result, Kattabomman emerged as the focal point of the growing Tamil nationalism. Many Tamil epic poems and stories honor his life and times. As one of the first rebels to fight against the British, Kattabomman is acknowledged by the government today. He is also credited with serving as the impetus for the first independence conflict of 1857, known as the Sepoy Mutiny by the British.
- The Tamil Nadu government built a new Memorial fort in 1974. The Memorial Hall's walls are adorned with exquisite paintings that portray the valiant actions of the saga, providing a comprehensive understanding of the era's history. A British soldier's graveyard can also be seen next to the fort.
 - The Archaeological Survey of India guards the ruins of the historic fort.
 - Kattabomman has another memorial in Kayathar, near Tirunelveli on the modern NH7, the site of his hanging.
 - The Government of India released a postal stamp in honor of Kattabomman to mark the bicentennial of his hanging on October 16, 1999.

- INS Kattabomman, the Indian Navy's primary communication hub, is located approximately 40 kilometers away in Vijayanarayanam.
- Kattabomman Transport Corporation was the name of the state transportation buses in the Kanniyakumari and Thirunelveli Districts till recently (1999).
- VeerapandiaKattabommanPanpattuKazhagam (VeerapandiaKattabomman Cultural association) is an organisation named in his honour.
- On his anniversaries, the district administration conducts the "VeerapandiaKattabomman festival" at Panchalankurichi.

II. MATERIALS AND METHODS

This section deals with the description of methodology and steps undertaken for collection. Then explain the procedure for analyze the data on the awareness of Veerapandiya Kattabomman in Kayathar. It is a test score data. Using this data we analyze the following statistical tools.

- Descriptive analysis
- Independent sample t-test
- ANOVA test

1. **Descriptive Analysis:** A summary statistic that uses numbers to characterize or condense features from a body of data is called a descriptive statistic; descriptive statistics is the application and analysis of those statistics. Rather of using the data to learn more about the population that the sample of data is believed to represent, descriptive statistics seeks to summarize a sample. This sets it apart from inferential statistics, also known as inductive statistics. This usually means that descriptive statistics are often non-parametric and are not constructed using probability theory as inferential statistics are. Descriptive statistics are typically provided even when inferential statistics are used to get the primary conclusions of a data investigation. For instance, a table containing the overall sample size, sample sizes in significant subgroups, and clinical or demographic details like the average age, the percentage of subjects of each sex, the percentage of subjects with related co-morbidities, etc. is usually included in papers reporting on human subjects.

Measures of central tendency, variability, and dispersion are a few metrics that are frequently employed to characterize a data set. The standard deviation (or variance), the lowest and greatest values of the variables, kurtosis, and skewness are measurements of variability, whereas the mean, median, and mode are measures of central tendency.

It is classified into two types. They are

- Measures of central tendency,
- Measures of dispersion.

2. **Central Tendancy:** A central tendency, also known as a measure of central tendency, represents the central or typical value within a probability distribution. It is sometimes referred to as the center or location of the distribution. Informally, these measures are commonly referred to as averages. The term "central tendency" was coined in the late 1920s.

The primary measures of central tendency include the arithmetic mean, the median, and the mode. Central tendency can be computed for a finite set of values or for a theoretical distribution like the normal distribution. In some cases, the term "central tendency" is employed to describe the inclination of quantitative data to concentrate around a central value.

The concept of central tendency in a distribution is commonly compared to its dispersion or variability, as these are key characteristics often used to describe distributions. Analyzing data may involve assessing the strength of central tendency by considering its dispersion.

- 3. Arithmetic Mean:** The sum of all measurements divided by the number of observations in the data set.

The sample mean formula is: $\bar{x} = (\sum x_i) / n$;

- 4. Median:** The difference between the upper and lower halves of a population, a probability distribution, or a sample of data is called the median. It may be regarded as "the middle" value for a set of data. When comparing data, the fundamental difference between the mean (often referred to as the "average") and the median is that the latter is more likely to represent a "typical" number because it is not skewed by a tiny percentage of exceptionally big or small values. The median income, for instance, may provide a more accurate indication of what constitutes a "typical" income because the distribution of income might be very skewed. With a breakdown point of 50%, the median is the most resilient statistic and is crucial to robust statistics since it ensures that results are not wildly huge or tiny as long as there is no contamination of more than half the data.

- 5. Mode:** The mode is the most common number in a set. For example, the mode in this set of numbers is 21:

21, 21, 21, 23, 24, 26, 26, 28, 29, 30, 31, 33

- 6. Measures of Dispersion:** In the field of Statistics, dispersion, which is also referred to as variability, scatter, or spread, quantifies how much a distribution is stretched or compressed. Well-known measures of statistical dispersion include the variance, standard deviation, and interquartile range.

- 7. Standard Deviation:** A measure of how much a group of values vary or are dispersed is the standard deviation. While a high standard deviation suggests that the values are dispersed over a larger range, a low standard deviation suggests that the values tend to be near the set's mean, also known as the expected value.

In mathematical literature and calculations, the standard deviation is often represented by the lower case Greek symbol σ for the population standard deviation or the Latin letter s for the sample standard deviation. Standard deviation can also be shortened to SD.

The variance squared is the standard deviation of a random variable, sample, statistical population, data collection, or probability distribution. Although less reliable in practice than the average absolute deviation, it is algebraically easier. One helpful

characteristic of the standard deviation is that, in contrast to variance, it has the same unit of measurement as the data.

$$\sigma = \sqrt{\frac{\sum (X - \mu)^2}{N}}$$

- σ = population standard deviation
- \sum = sum of...
- X = each value
- μ = population mean
- N = number of values in the population

- 8. Variance:** The expectation of a random variable's squared divergence from its mean is called variance. Stated differently, it quantifies the degree to which a collection of values deviates from their mean. A key concept in statistics is variance. Descriptive statistics, statistical inference, goodness of fit, and Monte Carlo sampling are a few concepts that make use of it. In the sciences, where statistical data analysis is frequently used, variance is a crucial tool. The variance can be defined as the covariance of the random variable with itself, the square of the standard deviation, and the second central moment of a distribution.

$$\text{Sample Variance} = s^2 = \frac{\sum(x-\bar{x})^2}{n-1}$$

- 9. Independent sample t-test:** The independent sample t-test is a statistical method employed for comparing the means of two separate and unrelated groups. When this test is applied to two samples drawn from the same population, their means might be the same. However, when the samples are collected from two distinct populations, their means could differ. In such situations, the independent sample t-test is utilized to make inferences about the means of these two populations and determine if they exhibit similarity.

Assumptions in independent samples t-test:

- Assumes normal distribution for the dependent variable
- Assumes equal variances for the two groups in relation to the dependent variable.
- Assumes independence between the two samples.
- Requires random sampling from the population.
- In an independent sample t-test, all observations must exhibit independence.
- In an independent sample t-test, the dependent variables should be measured using an interval or ratio scale.

Procedures for independent sample t-test:

- Set up the hypothesis.
- The null hypothesis is predicated on the absence of a significant difference between the means of the two groups.
- Alternative Hypothesis: Postulates a significant difference between the means of the two groups.

The standard deviation for the independent sample t-test formula:

$$S = \sqrt{\frac{\sum(X_1 - \bar{X}_2)^2 + \sum(X_1 - \bar{X}_2)^2}{n_1 + n_2 - 2}}$$

The value of the independent sample t-test

$$t = \frac{\bar{X}_1 - \bar{X}_2}{S} \sqrt{\frac{n_1 n_2}{n_1 + n_2}}$$

Degree of freedom for independent sample t-test:

$$V = n_1 + n_2 - 2$$

Where

V= degree of freedom

$n_1 + n_2$ = number of observations in both samples of the independent sample t-test.

Hypothesis testing in the context of the independent sample t-test involves making statistical judgments regarding the equality of the two population means. The procedure involves comparing the computed value of the independent sample t-test to the critical table value corresponding to the chosen significance level. If the calculated independent sample t-test value exceeds the predetermined significance level's table value, we reject the null hypothesis, indicating that the means of the two groups are distinct. Conversely, if the calculated independent sample t-test value is less than the table value, we conclude that the means of the two groups are equivalent.

10. ANOVA: Analysis of variance (ANOVA) is a statistical analytical method employed to partition the total observed variability within a dataset into two distinct components: systematic factors and random factors. Systematic factors exert a statistically significant impact on the dataset, whereas random factors do not. ANOVA is utilized by analysts to assess the influence of independent variables on the dependent variable within a regression study.

$$F = \frac{MST}{MSE}$$

where

F=ANOVA coefficient

MST=Mean sum of squares due to treatment

MSE=Mean sum of squares due to error

III. RESULTS AND DISCUSSIONS

In this study, we discussed about there are 80 sample data were collected from the Veerapandiya Kattabomman, Manimandapam, Kayathar and used to test the further Statistical Analysis

The age bunches of males and females about the attention to Indian political dissident Veerapandiya Kattabomman. In the age class 20-40 has the most elevated frequency of 55 and 68.8 percent which give the reasonable thought that the middle age bunches have better information about the Kattabomman. Age gathering of 40-60 has the most reduced frequency of 9 and with percent 11.3 when contrasted with other two age gatherings.

Reveals that Male have more information or mindfulness when contrasted with female that is with frequency of 52 and 65 percent.

Besides going into the instructive status of the age gatherings, the individuals who have schooling capability of UG has the most elevated frequency of 37 and 46 percent. Others (expect 12th, UG, PG) have the most minimal frequency of 5 and 6.3 percent. Schooling capabilities old enough gatherings having underneath 12th have frequency 32 and 40 percent and PG age bunches has frequency 6 and percent 7.5. indicates that Bar outline shows the frequencies for the different age bunches who have the mindfulness about Veerapandiya Kattabomman.

The representation shows that the age bunches having 20-40 have the most noteworthy frequency and age bunches having 40-60 have the least frequency.

The illustration of the above bar chart shows the frequencies for the male and female who have the awareness about Veerapandiya Kattabomman. So male have the highest frequency as compared to female which means they have more knowledge about the Veerapandiya Kattabomman.

Specific visual diagram shows the schooling capability of age bunches gatherings whose have the mindfulness Veerapandiya Kattabomman. Apparently, age bunches having schooling capability of UG have the most noteworthy frequency when contrasted with other instruction capability. That appears to be legit that middle age bunches have more mindfulness about Veerapandiya Kattabomman. Furthermore, others (expect 12th, UG, PG) have the least frequency.

The below table provides basic information about the group comparisons, including the sample size (n), mean, standard deviation, and standard error for the groups. In this collected data, there are 52 Males and 28 Females. The mean of the knowledge about during his rule Veerapandiya kattabomman knows his people needs and satisfied for Male known is 4.67 and standard deviation is 0.760, and also for female known are mean is 4.79 and standard deviation 0.499.

The beneath table, in collected information, there are 52 Males and 28 Females. The mean of the information about Veerapandiya kattabomman ruled well during his period for Male known is 4.46 with Standard deviation 0.917, likewise for female known is 4.18 and the Standard deviation is 0.945.

Provides basic information about the group comparisons, the mean of the knowledge about during his rule Veerapandiya kattabomman knows his people needs and satisfied for Male known is 4.67 with Standard deviation 0.760, also for female known is 4.79 and the Standard deviation is 0.499.

The mean of the knowledge about Veerapandiya kattabomman was shot dead by the British for Male known is 1.27 with Standard deviation 0.952, also for female known is 1.11 and the Standard deviation is 0.315.

The mean of the knowledge about Devotion to Veerapandiyakattabomman is high for Male known is 3.79 with Standard deviation 0.997, also for female known is 3.79 and the Standard deviation is 0.917.

The mean of the knowledge about Veerapandiyakattabomman during his reign collected high taxes from the people for Male known is 2.40 with Standard deviation 1.089, also for female known is 2.36 and the Standard deviation is 1.026

The mean of the knowledge about there are 2 siblings to Veerapandiyakattabomman for Male known is 3.60 with Standard deviation 1.472, also for female known is 4.43 and the Standard deviation is 0.836.

The mean of the knowledge about Veerapandiyakattabomman speaks and acts kindly to the people for Male known is 4.02 with Standard deviation 1.038, also for female known is 4.04 and the Standard deviation is 1.170.

The mean of the knowledge about Veerapandiyakattabomman is angry with his wife for the consequence of what happen outside for Male known is 2.33 with Standard deviation 0.964, also for female known is 2.07 and the Standard deviation is 0.766.

The mean of the knowledge about Veerapandiyakattabomman mother tongue is Tamil for Male known is 1.69 with Standard deviation 1.336, also for female known is 1.25 and the Standard deviation is 0.799.

The mean of the knowledge about Veerapandiyakattabomman was hanged at Palayamkottai for Male known is 1.06 with Standard deviation 0.416, also for female known is 1.21 and the Standard deviation is 0.630.

IV. INDEPENDENT SAMPLE T TEST:

Indicates that independent samples T test for all the questions knowledge about Veerapandiyakattabomman.

H_0 : All the peoples are well known about VeerapandiyaKattabomman

H_1 : All the peoples are not known about Veerapandiyakattabomman

In the likert scale data Knowledge about VeerapandiyaKattabomman, many of the peoples are well known about the VeerapandiyaKattabomman life because all 10 questions more than 8 questions independent significance value is above 0.05. So we accept the Null hypothesis, otherwise reject the alternative hypothesis.

There are 2 siblings to Veerapandiyakattabomman and Mother tongue is Tamil these two thinks significance value is below 0.05 so we reject the null hypothesis. Finally all the

peoples are not well known about there are 2 siblings to Veerapandiyakattabomman and mother tongue is Tamil.

ANOVA: The above table 3.5 shows the output of the ANOVA analysis and whether there is a statistically significant difference between our group means. We can see that the significance values are above 0.05 for all information about VeerapandiyaKattabomman, so there is no statistically significant difference for all.

H_0 : All the peoples are not well known basic knowledge of VeerapandiyaKattabomman.
 H_1 : All the peoples are well known basic knowledge of VeerapandiyaKattabomman.

In the table all the values are above 0.05 so we reject the null hypothesis. This ANOVA table clearly explains the people knowledge about VeerapandiyaKattabomman is well known those who visit VeerapandiyaKattabomman, ManimandapamKayathar.

V. CONCLUSION

The main purpose of this study is to analyze the awareness of peoples about VeerapandiyaKattabomman those who are visiting VeerapandiyaKattabommanManimandapam, Kayathar.

Going deep into our study, the first chapter includes the introduction about VeerapandiyaKattabomman. Second chapter deals with description of methodology and steps undertaken for data collection. The data was collected from Manimandapam, consisting of 80 samples (52 male and 28 female). So we can say that there is a high majority of males visiting the Manimandapam.

We concluded that the results of frequency table give the reasonable thought that the middle age bunches have better information or knowledge about the Kattabomman. Which gives the clear idea that they are visiting Manimandapam more and age gathering of 40-60 has the most reduced frequency which says they don't visit that much. So the authorities must investigate and find a better solution for this. Furthermore going into the instructive status of the age gatherings, the individuals who have schooling capability of UG has the most elevated frequency as compared to others. That is they have much knowledge about Kattabomman.

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