

DEMOGRAPHIC PROFILE OF TENDER COCONUT VENDORS

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ABSTRACT

Tender coconut water vending is a common street vending business here in India. It was observed that most of the coconut based research concentrated on commercial or dried coconut processing ignoring the tender coconut processing. Tender coconut vending is observed to be a risky and messy job which is prone to a lot of injuries. Therefore this study was conducted to gain knowledge on the demographic profile of tender coconut vendors. The study was conducted on 30 local tender coconut vendors in Guntur city. The results showed that the tender coconut vendors aged between age 28 and 45 years have a minimum experience of 5 years in tender coconut vending. Most of the local tender coconut vendors and all are literates. The business is either carried out by an individual alone or by family. It was observed there are sixty percent of the respondents were selling 124.06 to 279.6 coconuts per day and their income is Rs 2,000 to Rs 20,000 in a month. The mean family income was found to be Rs 19,933.3 with a standard deviation of Rs 11,157. The socio-economic status of most of the tender vendors are lower middle class and only a few are in the upper lower class. Most of the musculoskeletal pains are experienced in their upper limbs and shoulder region. And slight discomfort in neck and back areas. Therefore it was concluded that there is a need for designing new tools for tender coconut vendors to reduce the risk of occupational disorders.

KEYWORDS: Demographic Profile of Tender & Coconut Vendors

Received: Feb 27, 2021; **Accepted:** Mar 17, 2021; **Published:** May 27, 2021; **Paper Id:** IJESRJUN202114

INTRODUCTION

Tender coconut vending is one of the common street vending businesses. Tender coconut water contains major electrolytes (Priya and Ramaswamy, 2014), glucose, vitamins, hormones and minerals (Yong et al., 2009). Coconut water has anti-carcinogenic properties (Syliacono et al., 1992) and helps in the rise of human metabolism, boost human immune system, detoxification, controlling diabetes, flu, herpes and AIDS (Poduval et al., 1998). It is at its peak especially in the summer season. The method of punching coconut is tough and strenuous. The common traditional tool used for making a hole for tender coconut is a hand sickle. This method is unsafe, messy and has a high risk of injuries. This conventional method cannot be done by everyone as it requires special skill. The time required for cutting the top portion of the tender coconut demands use of force and more time. One should have expertise in cutting the coconut. Roshini et. al. (2009) stated that the major problem the tender coconut vendors faced in developing countries like India was punching and splitting of tender coconut. Anil et. al. (2016) opined that the traditional method of dealing out tender coconut is very tedious and the chances of causing accidents are more. Balachandar et. al. (2018) stated that the existing traditional tools used are unsafe, messy, need skill and training and the risk of injury is also too high. This method has a high risk of injury. The traditional technique of cutting and punching tender coconut demands effort of 300 N and 150 N for cutting and punching respectively (Anil et al., 2016). The vendor has to use high force which may affect the nerves, blood vessels or tissues inside the hands.

Injuries to the hand are a common cause of pain and other types of discomfort, particularly in people who regularly use heavy equipment. Injuries can damage key areas of the hand, including nerves, tendons, and muscles (medical news today).

The aim of the study is to gain knowledge regarding the profile of street tender coconut vendors and the availability of the machinery for cutting a tender coconut.

METHODOLOGY

Demographic information enables the researcher to understand the background characteristics of the population under the study. A descriptive research design was selected for studying the demographic profile of tender coconut vendors. Descriptive research studies are those studies which are concerned with describing the characteristics of a particular individual or of a group (Kothari, 1990).

Guntur Municipal Corporation was selected to conduct the study. Random sampling technique was used for the selection of locations in the city. Out of thirty two revenue wards fifteen revenue wards were selected at random two coconut vendors from each revenue ward were taken as sample. The revenue wards chosen were 1, 4, 5, 7, 8, 11, 12, 15, 17, 20, 24, 25, 27, 31 and 32. The tender coconut vendors, who were in the business for the last five years, and who were continuously running the tender coconut vending business irrespective of the season was the criteria followed to select the sample.

An interview schedule was developed for collecting the demographic profile information of the local tender coconut vendors. The interview schedule consisted of information about the background information, business establishment, details on the cutting tender coconut..etc.The social-economic status is determined by the scale "modified kuppusswamy scale updated for the year 2018" that was updated by Sheik Mohd Saleem.

RESULTS AND DISCUSSIONS

Demographic Profile of the Tender Coconut Vendors

The age of tender coconut vendors selected for the study ranged from 28 years to 75 years, with a mean age of 46.7 years. The deviation in the age of the respondents was found to be 11.4 years. More than three fourth (80 %) of the sample were male. Female coconut vendors were only 20 per cent. Fifty percent of the population fell into high schooling category. The elementary school and illiterates constitute nearly twenty seven (26.67 %) percent and twenty percent respectively. Only three (3.33 %) percent of the total population had college level education. Most of the respondents (66.67 %) were fathers in the family. Only 16.67 percent of the sample was mothers in the family. The grandfathers and grandmother were only 10 per cent and 3.33 percent respectively. Female children were not occupied in this business. Nearly sixty seven percent of the respondents had four to five family members. Thirty percent of the respondents had one to three family members. Only 3.33 percent of the population fell into the category of families above five members. The mean age of the youngest family member was 18.23 years with a standard deviation of 11.4 years. The mean age of the eldest family member was found to be 48.46 years with a standard deviation of 11.87 years. Single male families were 26.67 per cent and single female families were 33.33 per cent. Families with two male members and two female members were 56.67 per cent and 43.34 per cent respectively. Families having three male members were 13.33 per cent and their female members were 23.33 per cent. None of the families that formed the sample had four female members in the family and only 3.33 per cent of the families had four male members in the family. Fifty percent of the respondents had only one earning member in the family. Forty percent of the respondents had two earning members in the family. Remaining ten percent of the respondents had three

earning members. Families with more than one earner are fifty per cent.

Almost equal per cent of the respondents were carrying out tender coconut vending business either individually (53.33%) or as a family (46.67%). No tender coconut vending business was in the form of partnership. Slightly more than half of the respondents (53.33%) were carrying out the business single handedly. Forty per cent of the tender coconut vending businesses were run by two members either they belong to the same family or different families. A negligible proportion (6.67%) of the tender coconut vending businesses was run by three members.

The mean working hours of the tender coconut business was 13 hours with a deviation of two hours. The majority (80%) of the tender coconut businesses were running for 11 to 15 hours. Only 10 per cent of the tender coconut vendors were available for more than 15 hours. The experience of vendors in tender coconut business ranged between 6 years and 25 years. The mean years of vendors experience were found to be 15.1 years with a standard deviation of 5.2 years. The majority of the respondents were concentrating only on tender coconut vending alone. However, one fourth (26.67%) had other businesses apart from tender coconut vending. Tea stall, fruit vending, working as electrician and running a petty shop were other businesses taken up by negligible proportion of the sample.

Number of coconuts sold per day was derived from the number of coconuts sold per day in a week during the period of investigation. On average, the vendors were selling 202 coconuts per day. More than sixty (63.33 %) percent of the respondents were selling 124.06 to 279.6.coconuts per day. Twenty percent of the respondents were selling more than 279.7 coconuts and 16.67 respondents were selling less than 124.05 coconuts per day. The income earned by tender coconut vendors ranged between Rs 2,000 to Rs 20,000 in a month. The mean income earned was found to be Rs 10,900 with a standard deviation of Rs 4,596.47. The mean profit earned by the respondents in a day through tender coconut business was Rs 440.33. There was a variation of Rs 184.60 in the daily profit among the respondents. Nearly three fourth of the sample earned a profit between Rs 255.73 and Rs 624.93. Ten per cent of the sample earned profit between Rs 624.94 and Rs 2,500. The mean family income was found to be Rs 19,933.3 with an SD of Rs 11,157.

The total respondents were distributed between two socio-economic classes i.e. lower middle and upper lower class. Nearly three fourth (73.33%) belonged to the lower middle class. None of the respondents were found in the upper class, upper middle class and lower class.

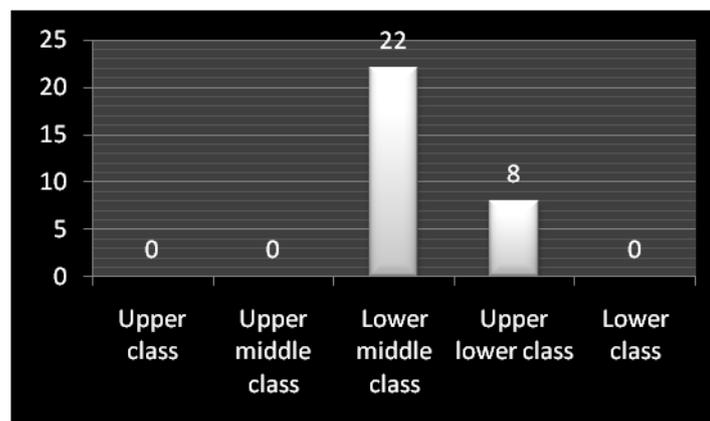


Figure 1: Distribution of the Sample by Socioeconomic Status.

As the time taken for cutting and punching a tender coconut was few seconds, to have more accuracy in the data the activity was repeated five times and average time taken for cutting and punching a tender coconut was arrived and that was treated as the time taken for cutting and punching a tender coconut.

The mean time taken for cutting and punching a tender coconut was found to be 8.16 seconds with a SD of 2.59 seconds. The mean time taken for splitting a tender coconut was found to be 12.16 seconds with a SD of 3.10 seconds. Negligible and equal proportion of the respondents either took relatively more time or relatively less time for splitting the coconut. Slightly less than three fourth (73.34 %) of the sample took between 9.06 and 15.26 seconds to split tender coconut. The common practice of selling coconut water was in three sizes of bottles measuring 100 ml 200 ml and 350 ml. The vendors keep the bottles ready in advance. The vendor keeps the bottles ready and continuously cut, punch and pour the coconut water into the bottle. The time taken by the respondent to open one tender coconut and emptying it into the bottle is taken as time for processing. The mean time taken for processing one coconut was 24.53seconds with a variation of 6.21 seconds. Half of the sample (53.34%) took time between 18.33 seconds and 31.14 seconds. Slightly less than one fourth of the sample (23.33%) each took either up to 18.31 seconds and more than 31.15 seconds.

The probable musculoskeletal discomfort symptoms that a person can experience were identified through a literature search and finalized with a medical practitioner's guidance. The respondents were asked to mark 'Always' in case the symptom was experienced throughout the week. When the symptom was experienced 3 to 4 days in a week the respondent was asked to mark 'Frequently'. In case the symptom was experienced for 1 to 2 days in a week, the respondent was asked to mark 'Some times'. When the symptom was experienced for few hours in a day the respondent was asked to mark 'Rarely'. In case the symptom was not experienced then the respondent was asked to mark 'Never'.

The musculoskeletal discomforts identified in the neck were pain, stiffness, swelling, spasms, cramps, numbness, tingling sensation, pain radiating to the head and pain radiating from neck to shoulder. The mean score earned by the sample was 13.76 with a standard deviation of 4.80. The majority (86.67%) of the tender coconut vendors were experiencing a moderate level of musculoskeletal discomforts in the neck. Only 13.33 per cent were found experiencing musculoskeletal discomforts in the neck more frequently.

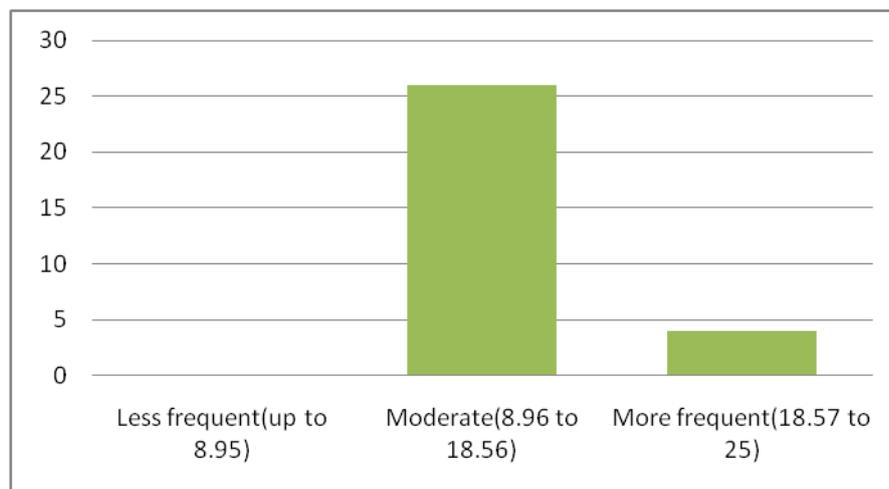


Figure 2: Distribution of the Sample by Frequency of Occurrence of Musculoskeletal Disorders in the Neck.

The musculoskeletal discomforts of the shoulder identified were pain, stiffness, swelling, spasms, cramps, numbness, tingling sensation, soreness, pain radiating from shoulder to upper limb. The mean score earned by the sample was 20.4 with a standard deviation of 4.70. Taking mean and SD into consideration the sample was divided into three groups as respondents experiencing musculoskeletal discomforts less frequently, moderately and more frequently.

The majority (70%) of the tender coconut vendors were experiencing a moderate level of musculoskeletal discomforts in the shoulder. Only 16.67 per cent were found experiencing musculoskeletal discomforts in the shoulder more frequently. The remaining 13.33 per cent of the tender coconut vendors were experiencing musculoskeletal discomforts in the shoulder less frequently (Figure 3).

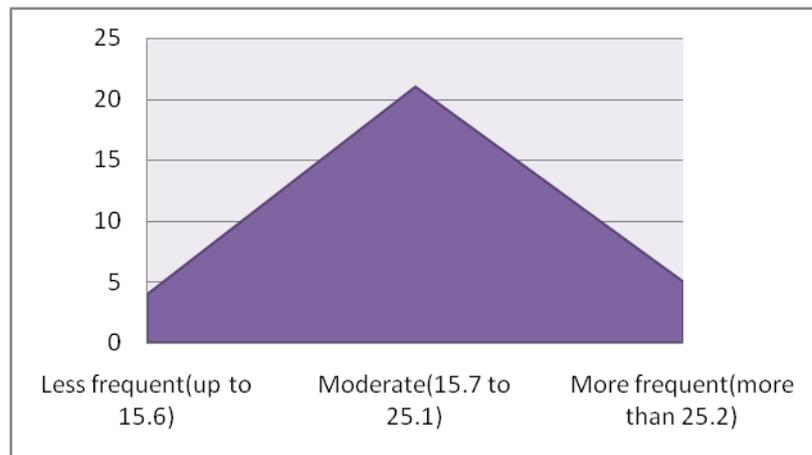


Figure 3: Distribution of the Sample by Frequency of Occurrence of Musculoskeletal Discomforts in the Shoulder.

There are a total of twelve probable musculoskeletal symptoms that a person can experience in the upper limb. They were pain, stiffness, swelling, spasms, cramps, numbness, tingling sensation, soreness, heaviness, burning in palms, tingling sensation in fingers and pain radiating from the upper limb to back. The mean score earned by the sample was 27.76 % with a standard deviation of 4.43. Taking mean and SD into consideration the sample was divided into three groups as respondents experiencing musculoskeletal discomforts less frequently, moderately and more frequently.

Relatively more number (66.67%) of the tender coconut vendors was experiencing a moderate level of musculoskeletal discomforts in the upper limb. One fifth of the respondents were found experiencing musculoskeletal discomforts in the upper limb more frequently. Remaining 13.33 per cent of the tender coconut vendors were experiencing musculoskeletal discomforts in the upper limb less frequently (Figure 4).

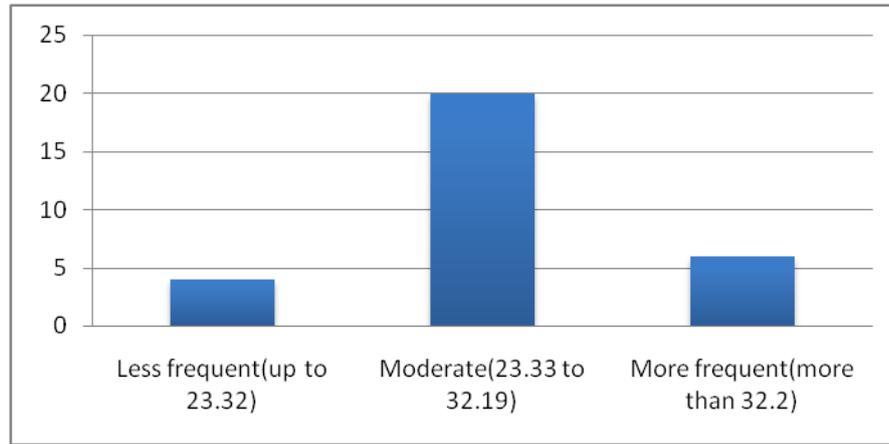


Figure 4: Distribution of the Sample by Frequency of Occurrence of Musculoskeletal Discomforts in Upper Limbs

There were a total of nine musculoskeletal symptoms experienced in the back region. They were pain, stiffness, swelling, tenderness, cramps, numbness, tingling sensation, soreness and pain radiating from back to lower limbs. The mean score earned by the sample was 27.76 with a standard deviation of 4.43. Taking mean and SD into consideration the sample was divided into three groups as respondents experiencing musculoskeletal discomforts less frequently, moderately and more frequently.

Slightly less than three fourth (73.33%) of the tender coconut vendors were experiencing a moderate level of musculoskeletal discomforts in the back. Only 16.67 per cent of the respondents were found experiencing musculoskeletal discomforts in the back more frequently. The remaining ten per cent of the tender coconut vendors were experiencing musculoskeletal discomforts in the back less frequently (Figure 5).

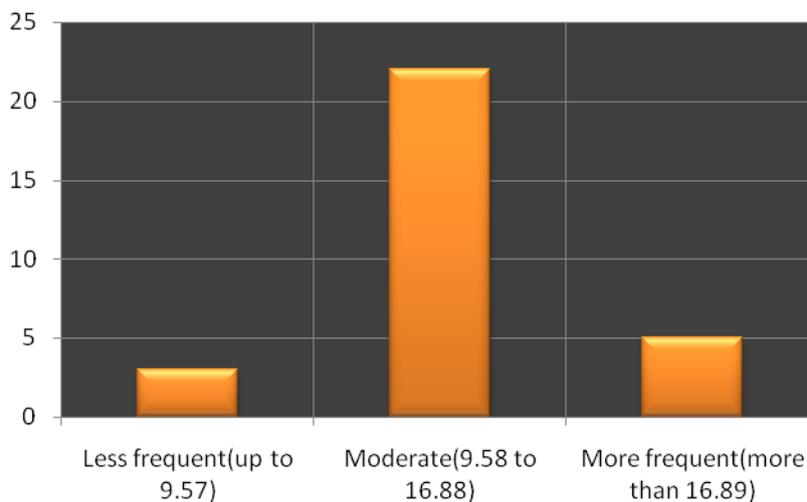


Figure 5: Distribution of the Sample by Frequency of Occurrence of Musculoskeletal Discomforts in Back.

CONCLUSIONS

The age of tender coconut vendors selected for the study ranged from 28 years to 75 years. The total sample was literates.

From the distribution of sample according to educational qualifications it was observed that the literacy rate among the population has increased over a period of time. Nearly 67% of the respondents had four to five family members. From the age of the last member, it can be stated that the majority of families that formed the sample for the investigation were in the expanding stage of the family life cycle. The families that formed the sample for the investigation were middle aged families. Probably this is the period where the head of the family is physically fit to take up strenuous income-earning works. Fifty per cent of the respondents had only one earning member in the family. Tender coconut vending business was found to be either individual or family business.

The experience of vendors in the tender coconut business ranged between 6 years and 25 years. Seventy percent of the respondents had experience from 9.9 years to 20.3 years. On average the vendors were selling 202 coconuts per day. The income earned by tender coconut vendors ranged between Rs 2,000 to Rs 20,000 in a month. The mean income earned was found to be Rs 10,900 with a standard deviation of Rs 4,596.47. The mean profit earned by the respondents in a day through tender coconut business was Rs 440.33. The total respondents were distributed between two socio-economic classes i.e. lower middle and upper lower class. Nearly three fourth belonged to the lower middle class. The mean time taken for cutting and punching a tender coconut was found to be 8.16 seconds.

Pain in the neck, stiffness in the neck, pain radiating to the head and pain radiating from neck to shoulder were the musculoskeletal discomforts experienced mostly by tender coconut vendors in the neck. Pains, stiffness, tenderness in the shoulder, pain scorching from shoulder to upper limb were the musculoskeletal discomforts experienced mostly by tender coconut vendors in the shoulder. Pain in the upper extremity, stiffness in the upper extremity, soreness in the upper extremity, heaviness in the upper extremity, pain radiating from the upper extremity, to the back be predominantly experienced by respondents. Swelling, spasms and cramps in the upper limb, were experienced by the respondents frequently, sometimes and rarely. Back pain and discomfort in the back were the most frequently felt discomforts in the back. Inflexibility in the back was complained about by few respondents frequently. Pain radiating from back to the lower limb was experienced more regularly by vendors.

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