



Quality of Life of Vegetable Vendors: A Geographical Study of Patna Municipal Corporation

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Abstract: In India, the unorganised or informal sector is one of the most important sources of employment, i.e. with 81% of the total employed population. Street vendors constitute a major portion of unorganised sector that accounts for 14% of total urban unorganised employment. Vegetable vendors of unorganised sector work as self-employed and on daily basis (Samarpita A, 2019). Vegetable vendor plays an integral part in urban areas. Urban area constitutes high population with less agricultural land, hence high demand. In this type of scenario, importance of vegetable vendors emerges act as nutritional bridge for the urban people. In this research, the range is short, i.e., vegetable vendors of Patna Municipal Corporation as a geographical space. The daily vending activities performed

by vegetable vendors have an immense impact on their physical as well as mental state, social relations, etc., resulting in differentiating quality of life (Sugiyama T. at all, 2009). Quality of life as a concept is comprehensive in nature, it embraces various aspect like individual's physical health, mental health, psychological state, social relationships, level of independence, personal values and beliefs and their relationships to the components of the environment (WHO, 2012). That's why; it becomes important to study the quality of life of these vegetable vendors to determine the well-being of people residing in Patna Municipal Corporation.

Keywords: Quality of life, vegetable vendors, well-being.

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Introduction:

Quality of life as a concept first came in 20th century. Since then, many different definitions came on basis of level of development. There is no universal definition for this (Barcaccia B. et. al., 2013). Quality of life is a broad concept that can be defined as perception of the individual regarding their position in life in connection with the existing culture and value system, including their goals, expectations and concerns (WHO, 2012). Since, this concept is broad ranging, WHO released the method of measurement in form of the concept "WHOQOL" (WHOQOL SRPB group, 2006). With this method, assessing the quality of life becomes elementary and coherent. Due to changing dynamics of daily living, both opportunities and challenges need to be assessed so that human rights and dignity can be maintained. That's why, it becomes paramount to assess the quality of life. Vegetable vendor is a

person who used to sell the vegetables to the consumer at public place. Since it is a type of street vendors, it remains a constituent of India's informal sector. Vegetable vendors play an integral part in urban areas and have an immense impact on their physical as well as mental state, social relations, etc, resulting in differentiating quality of life.

Significance of Study:

This study on the "Quality of Life of Vegetable Vendors" within the Patna Municipal Corporation holds substantial significance. It sheds light on the living and working conditions of a marginalized and economically crucial section of the population. Vegetable vendors contribute significantly to the local economy, and understanding their quality of life can help improve their livelihood sustainability. Investigating the quality of life of vegetable vendors can help identify challenges they face in sustaining their livelihoods. This information can inform policy and support measures to enhance their income security. It can serve as a reference for future researchers interested in similar topics.

Objectives:

The main objectives of the study-

1. To find out the economic status and livelihood of vegetable vendors.
2. To assess their access to basic facilities and opportunities.
3. To know about the impact of their work on health.
4. To assess their social relationships and perceptions about their life.

Hypotheses:

The study is based on the following working hypotheses:

1. Vendors have poor access to basic facilities.
2. Low and uncertain income is main reason for lower quality of life of vegetable vendors.

Methodology:

The methodology of the study uses some of the applied, speculative and conceptual techniques that are used in research. The methodology follows three distinct stages:

1. Pre-Field Survey Stage–

- It involves the study of relevant literature for delimiting the area of study.

- Collection of secondary data and maps.
- Visit to relevant articles, concerned websites, libraries and government offices.

2. Field Survey –

- It involves preparation of a Schedule for the primary data collection from 96 vegetable vendors from different parts of the study area.

3. Post Field Survey Stage –

- Analysis of the collected data.
- Compilation, tabulation, interpretation and cartographic representation of the obtained primary data.

4. Database –

- 96 vegetable vendors.

Study Area:

Patna is the capital and major city of the state of Bihar in India. It is one of the oldest continuously inhabited cities in the world and has a rich historical and cultural heritage spreading over an area of 109.218 sq. km. situated at crossroad of 25°36'0" N latitude and 85° 7'0" E longitude. The population of Patna is over 1,683,200 (Census of India, 2011) with a density of 1823 persons per square kilometre. Patna municipal corporation area has been divided in 75 corporation wards which have been arranged in 6 circles namely new capital circle, Pataliputra circle, Kankarbagh circle, Bankipur circle, Azimabad circle, Patna city circle. The study will investigate the quality of life of vegetable vendors operating in these areas, which may face unique challenges related to infrastructure, market access, and overall well- being.

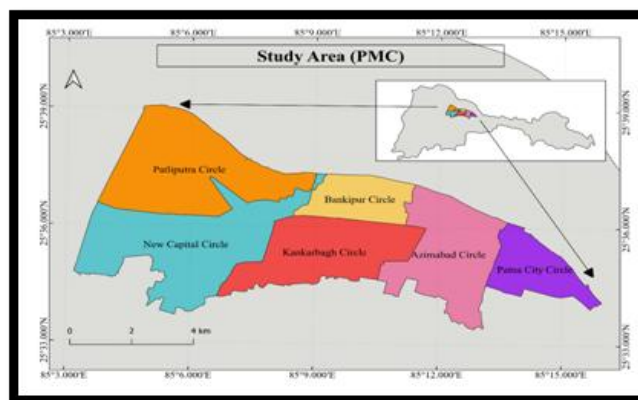


Fig. 1. Study Area

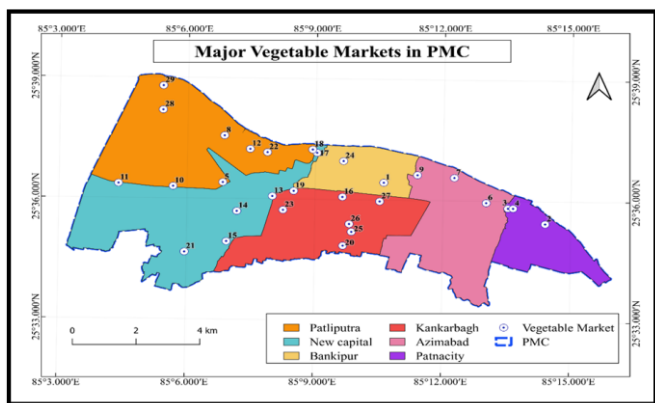


Fig. 2. Major Vegetable Markets in PMC

Table 1. List of Vegetable Mandi

S. No.	Vegetable Mandi	Longiude	Latitude
1	Sabzi mandi bazaar samiti	85.17675863	25.60723592
2	Sabzi mandi Bihari mills colony	85.23998949	25.5906828
3	Khajekalan sabzi mandi	85.22538503	25.59703799
4	Sabji Market Loha ka pul	85.22738503	25.59703799
5	Punaichak sabji mandi	85.113902	25.606765
6	Sabji market sadikpur	85.21685725	25.59925311
7	Sabji market Gulzar Bagh	85.20431063	25.60951634
8	Gosai tola sabzi mandi	85.1143617	25.62611727
9	Sabji mandi musallahpur hat	85.18990098	25.61049683
10	Sabji mandi Rajbanshi Nagar	85.0945163	25.6049557
11	Jagdev path sabji mandi	85.0732018	25.6060218
12	Sabji mandi Rajpal	85.12447494	25.62063994
13	Mithapur sabji mandi	85.1333091	25.6012105
14	Sabji mandi yarpur	85.1195272	25.59487763
15	New sabji mandi sipara	85.11557447	25.5823149
16	Sabji mandi chitraguptanagar	85.1606913	25.60113559
17	Antaghat sabzi mandi	85.1506018	25.61932024

18	Sabji market golambar	85.1488522	25.6206356
19	Sabji market chirayatand	85.1416299	25.60344439
20	Khemnichak sabzi market	85.1610582	25.5809655
21	Sabzi bazar beur more	85.09926201	25.5778207
22	Sabji market buddha colony	85.1311995	25.6193432
23	Mithapur sabji mandi	85.13755632	25.59554546
24	Sabzi bazar machuatoli	85.1609603	25.6160117
25	Kankarbagh vegetable market	85.16436302	25.58674695
26	Hanuman nagar sabzi market	85.16343915	25.58997491
27	Bhootnath sabji mandi	85.1752548	25.5994432
28	Vegetable market Digha	85.0902338	25.6365646
29	Fruit market Digha	85.0902338	25.6465646

Results and Discussion:

Quality of life of a section of population is dynamic function of various attributes such as access to basic amenities, economic status, social conditions and physical as well as mental health condition. The present study has tried to assess the quality of life of vegetable vendors of Patna Municipal Corporation and get a deeper insight into their socio- economic conditions, factors determining these conditions as well as their physical and mental health and well-being. The study has revealed some notable findings as vegetable vendors of Patna municipal corporation have access to almost all basic facilities like safe and quality drinking water, housing, healthcare, roads and transportation etc. they are also able to earn a satisfactory and significant amount of income required for living a good quality life and for their overall well-being.

Demographic Attributes

Demographic attributes are the key points which categorize a segment of population and present some specific characteristics of the same. These attributes are fundamental in understanding and serving any segment of population. Age and sex composition, caste structure, religion, educational qualification, family type and size are some of the

common demographic attributes which have been studied here to assess the Quality of life of Vegetable Vendors of Patna Municipal Corporation.

From the primary survey, it is very clear from the procured data that a larger chunk of vegetable vendors is in the age group of 45-55 years. The data revealed that young and middle age population are more involved in the work of vending vegetables and are able to maintain a good living.

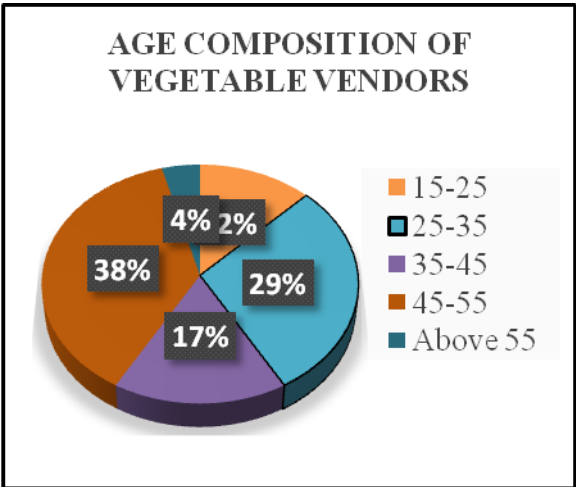
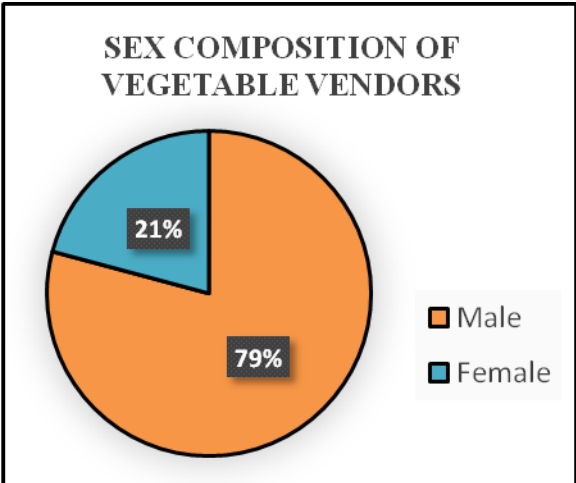


Fig. 3.

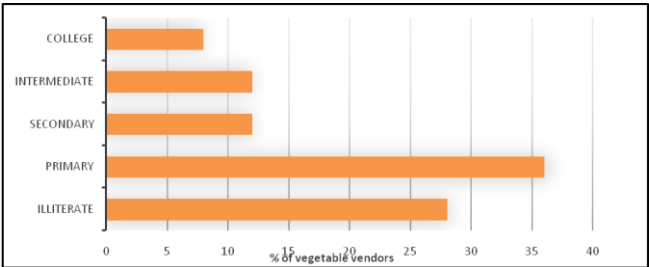
Source – Primary Field survey, 2023.



Source – Primary Field survey, 2023.

Fig. 4.

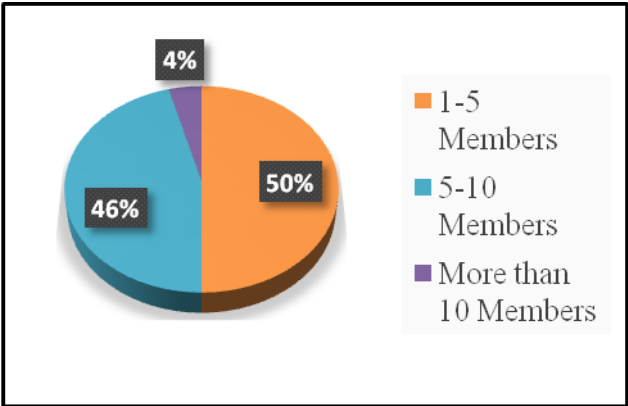
Education is one of the fundamental requirements for an individual to lead a quality life. Also, Educational qualification doesn't merely mean the academic qualification but also the practical and functional literacy. The figure below illustrates that most of the vegetable vendors have either primary level of education or are illiterate.



Source – Primary Field survey, 2023.

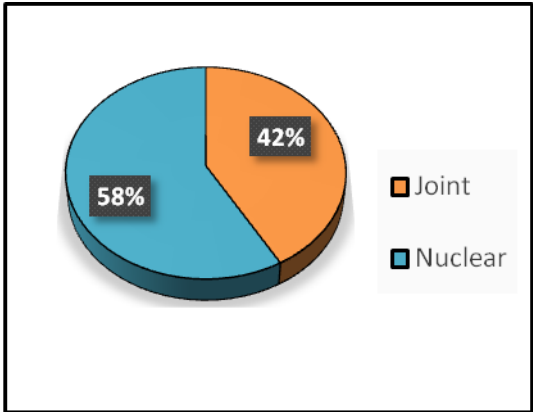
Fig. 5. Educational Qualification of Vegetable Vendors

Family type and family size of an individual is an important factor which reveals their economic and social status in the society. The vegetable vendors of PMC are living in nuclear families.



Source – Primary Field survey, 2023.

Fig. 6. Family Size of Vegetable Vendors



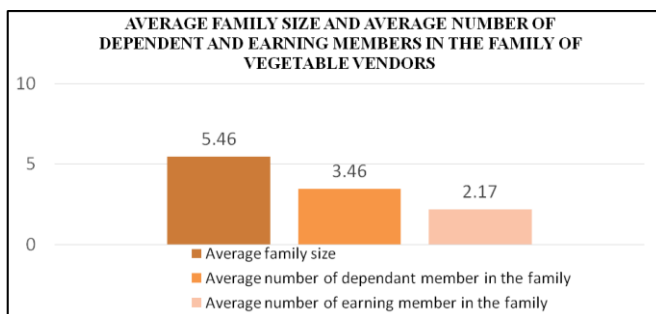
Source – Primary Field survey, 2023.

Fig. 7. Family Type of Vegetable Vendors

Social Condition of Vegetable Vendors: Understanding the social conditions is important to understand and address issues related to inequality, poverty, discrimination, and overall well-being within a given society. It involves examining the structures,

norms, and dynamics that shape how individuals and groups experience and navigate their social environment.

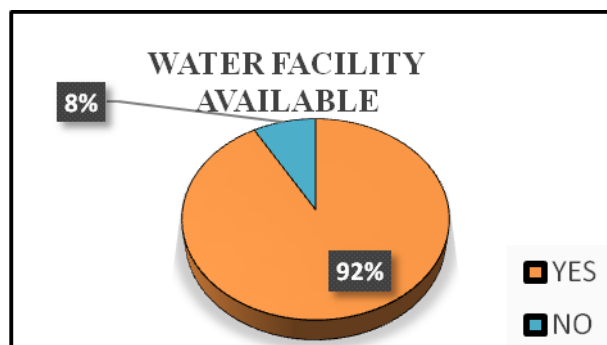
The dependent members are usually the older members or the females or the children while the earning members are mostly male. With an average family size of around 6 members, there are approximately 4 dependent and only 2 earning members. This could be one of the major reasons of their relatively poor economic condition.



Source – Primary Field survey, 2023.

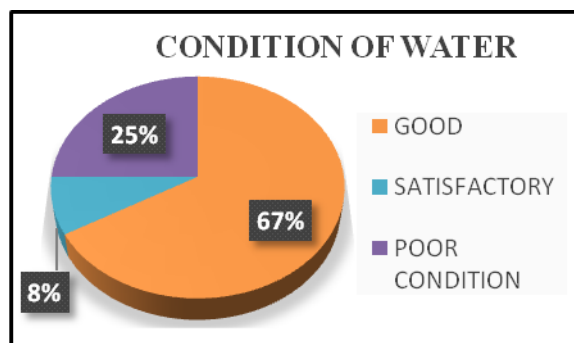
Fig. 8

The quality and condition of the available water is also important as this aspect is directly associated with the health of the individuals.



Source – Primary Field survey, 2023.

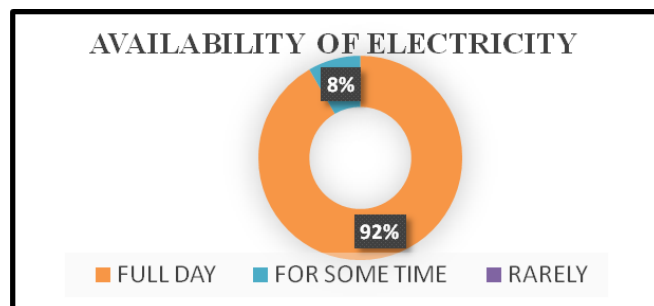
Fig. 9.



Source – Primary Field survey, 2023.

Fig. 10

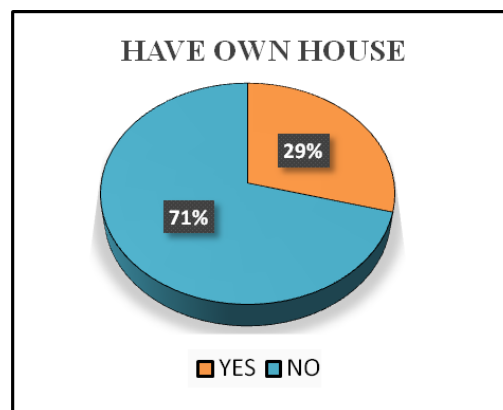
Electricity is the next important basic amenity which is required by all in this developing world. 92% of the interviewed vegetable vendors of PMC said that they are getting full electricity supply both at their workplace as well as at their homes.



Source – Primary Field survey, 2023.

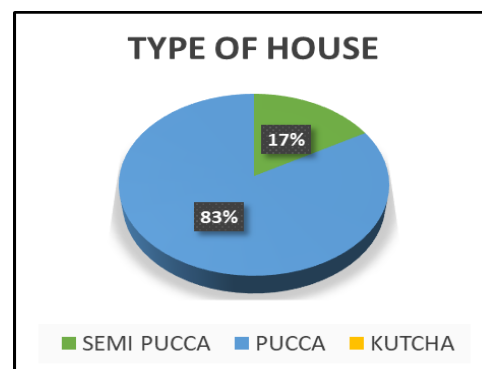
Fig. 11

The availability and affordability of housing facility is another important determinant for understanding the living condition of a particular section of society. A large proportion of vegetable vendors of PMC (71%) do not have their own house in the city and are living in rented homes.



Source – Primary Field survey, 2023.

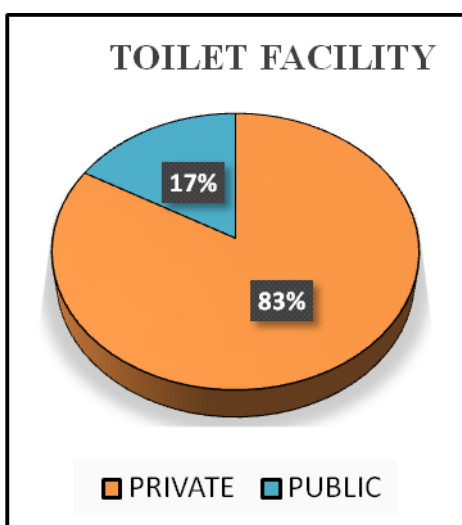
Fig. 12



Source – Primary Field survey, 2023.

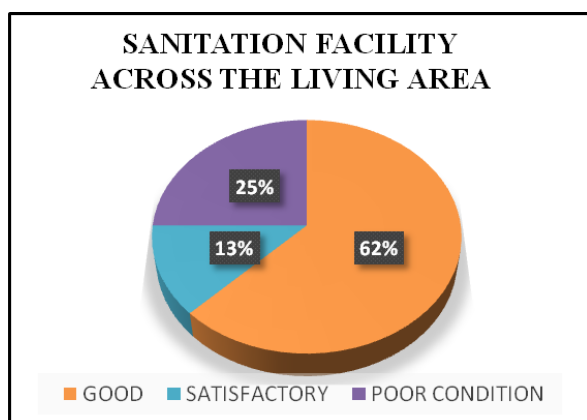
Fig. 13

Sanitation is another important amenity which an individual requires for his overall well-being. The level of sanitation in an area is directly associated with the health condition of people in that area that is why it has always been a focus area for international as well as national and state governments. The United Nations has also added right to safe water and sanitation in their 6th SDG. Our Indian government has also been trying to achieve high level of sanitation through programmes like “Swaachha Bharat Mission” which aims to make urban as well as rural India free from open defecation and scientific and sustainable management of solid waste. Under the second phase of Swaachha Bharat Mission, i.e., SBM 2.0, the aspirational toilet scheme was launched in September 2022 which was aimed to increase the number of ODF cities.



Source – Primary Field survey, 2023.

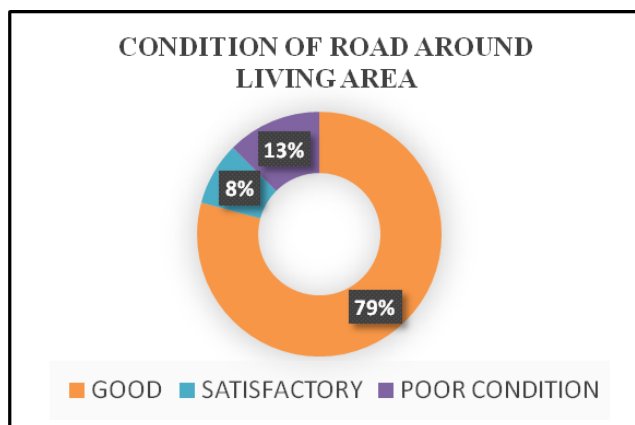
Fig. 14



Source – Primary Field survey, 2023.

Fig. 15

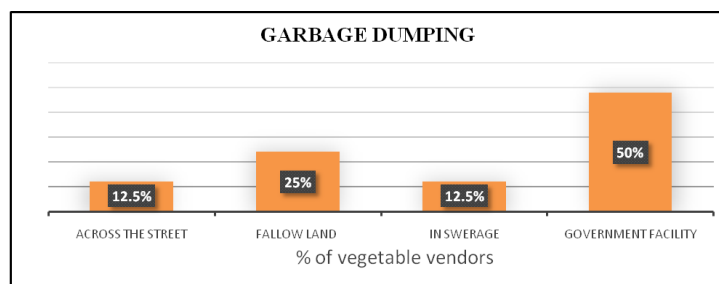
Transportation is another crucial element for the development of any city. A good transportation facility is required for the movement of people as well as goods in and out of the city. Here in the case of vegetable vendors of PMC we are only talking about the condition of roads near their living and working area.



Source – Primary Field survey, 2023.

Fig. 16

To get proper understanding of the quality of life of vegetable vendors it was necessary to understand the level of cleanliness in their areas.



Source – Primary Field survey, 2023.

Fig. 17

Understanding the overall quality of life of any particular section of society involves assessment of various different attributes of their life. One such important social attribute is the quality of food they are having. By quality of food, we mean the availability of all important nutrients in their food which they are having on daily basis.

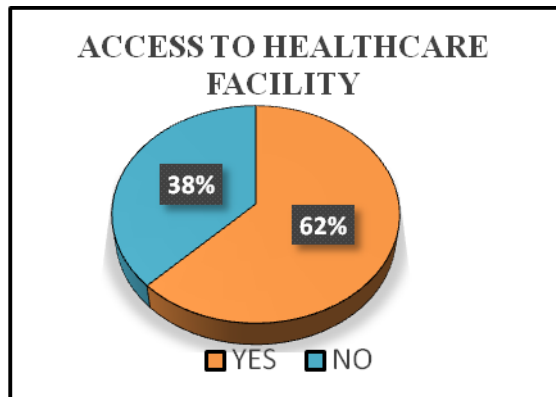
Table 2. Quality of Food

Category	Staple food rice, chapati (in%)	Milk (%)	Meat, fish, Mutton (%)	Pulses (%)	Green vegetable (%)	Fruits (%)
Every day	100	29	0	63	100	2
Once in week	0	12.5	40	0	0	26
Twice in week	0	12.5	34	10	0	27
More than twice	0	38	12	27	0	29
Occasionally	0	8	14	0	0	16

Source – Primary Field survey, 2023.

The collected data shows that vegetable vendors of PMC can meet their basic food requirements but there is a need to implement such measures that can provide them with a stable source of protein in their daily diet as most of them are not able to incorporate protein sources like pulses, meat, fish or milk in their daily diet.

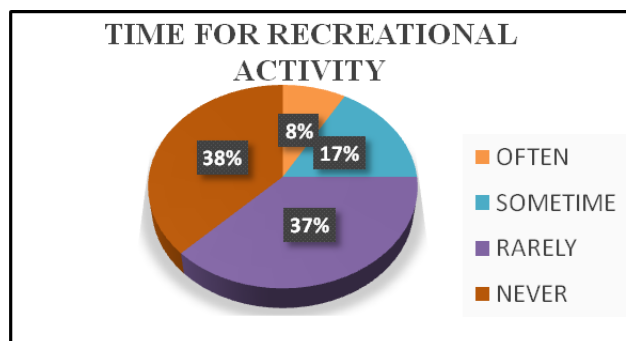
Health is widely recognized as a critical subset of quality of life, representing a foundational aspect that significantly contributes to an individual's overall well-being. 62% of the vegetable vendors mentioned that they have access to available healthcare facility in their area.



Source – Primary Field survey, 2023.

Fig. 18

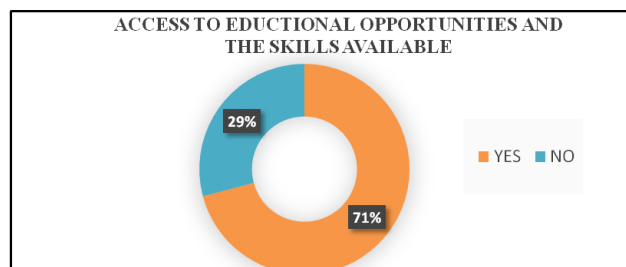
For the assessment of quality of life of vegetable vendors, it was important to get an idea about their leisure and recreational activities. It is evident from the collected data that majority of vegetable vendors are hardly getting time for recreational activities.



Source – Primary Field survey, 2023.

Fig. 19

Availability of educational opportunities and skills is another important factor affecting the overall quality of life of an individual or a group of population. In case of vegetable vendors, it is important for them to get some additional skills and trainings to improve and enhance their knowledge and skills. 71% of the interviewed vendors mentioned that they have access to such opportunities.

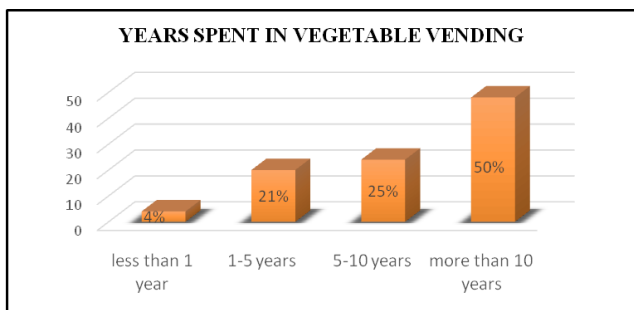


Source – Primary Field survey, 2023.

Fig. 20

Economic Status of Vegetable Vendors: The economic status of a group of population refers to the collective financial well-being and stability of its members. It encompasses various indicators, including income distribution, employment rates and overall standards of living. Key factors such as average income levels, employment opportunities, and the prevalence of poverty within the group contribute to a holistic understanding of their economic status. Additionally, aspects like wealth distribution, social mobility, and economic disparities provide insights into the overall economic health of the population. Evaluating economic status involves considering both quantitative metrics and qualitative aspects, acknowledging the intersectionality of social, cultural, and economic factors that influence the group's financial standing.

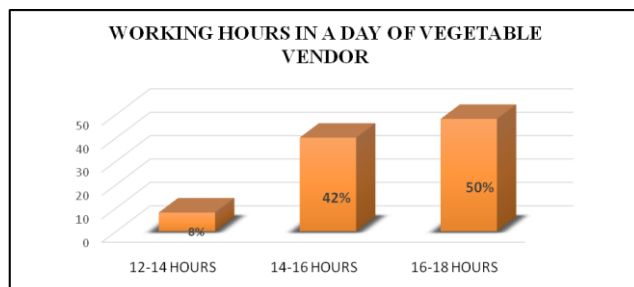
To better understand the economic status of vegetable vendors, it is very important to know how many years they have spent in this profession as a vegetable vendor. Data shows that majority, more than 50%, have spent more than 10 years in this profession.



Source – Primary Field survey, 2023.

Fig. 21

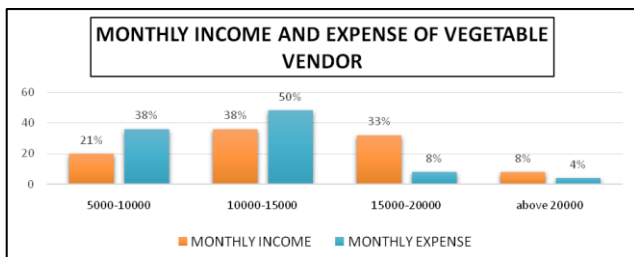
Working hours in any kind of job affects the quality of life a person will have as it directly and indirectly affects both physical and mental health of the worker. Vegetable vending is a very rigorous job to perform. It often involves long and challenging working hours for individuals engaged in this trade, and it does not involve any kind of leaves and holidays and hence vegetable vendors are generally active throughout the month in a year.



Source – Primary Field survey, 2023.

Fig. 22

Monthly income an individual refers to the total income generated by them in a month before spending anything from it and by monthly expenditure we mean the total money which is being spent by them in a month. A difference of income and expenditure gives us the idea of savings in a month.

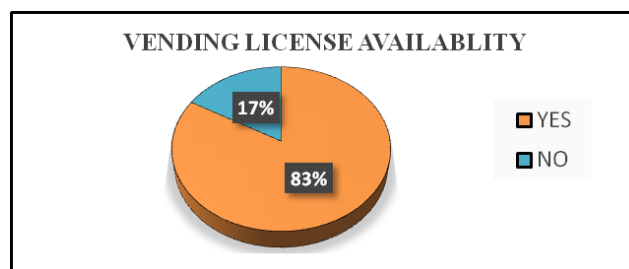


Source – Primary Field survey, 2023.

Fig. 23

The above Fig. 23 provides insights into the income and expenditure trends among vegetable vendors, suggesting a potential discrepancy between earnings and spending habits within this demographic section. Majority of vegetable vendors are earning in the range of 10000-15000 a month and their expenditure is also in the same range. This indicated that they are not able to generate much savings at the end of the month.

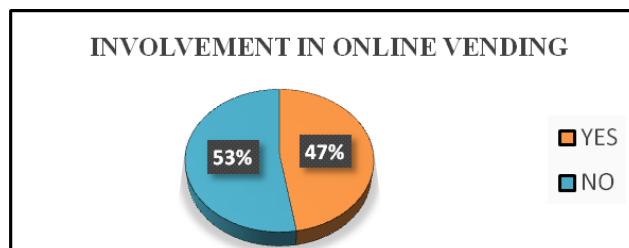
An FSSAI issued food license certificate is required by any individual who wants to sell any type of food product in India. These products could be in packaged form or could be unpacked and locally available. All the restaurants, traders and street food vendors including vegetable vendors need to have this license if they want to sell their food products. The registration for this certificate cum license is done on three levels- basic registration, state registration and central registration. After the registration and issuance of license a 14-digit code is provided to them. 83% of the vegetable vendors of PMC have vending license.



Source – Primary Field survey, 2023.

Fig. 24

An online market is a virtual platform where an individual sells his products over the internet. There online markets could be any online websites, mobile applications, networking websites and apps etc.

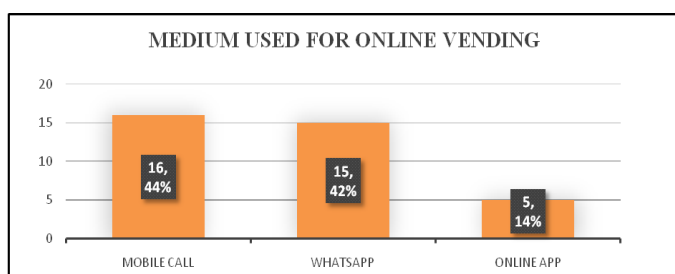


Source – Primary Field survey, 2023.

Fig. 25

The data procured thus revealed that online vegetable vending is less popular in PMC area. More than half of the vegetable vendors are relying on offline vegetable markets for their business.

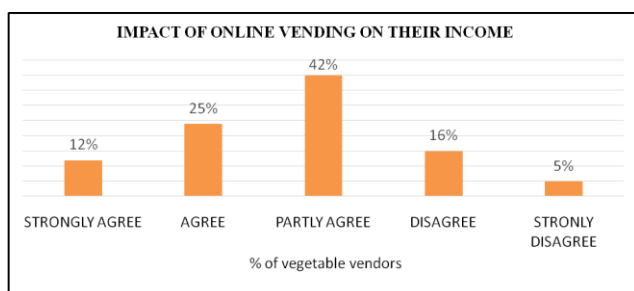
Big basket, Blinkit, WhatsApp etc are some of the most popularly used mobile applications for the purpose of buying and selling products. Other than that phone calls are also an important means for collecting orders. These online means are now getting popular among the vegetable vendors as well. This is the reason why the present study tried to get an idea about the degree of penetration of online markets as well as their impact on their business.



Source – Primary Field survey, 2023.

Fig. 26

The next important aspect of study is the impact of using these online means of selling vegetables on their monthly income. 40% of the vegetable vendors have agreed that their work is getting affected by online marketplaces like Bigbasket etc.



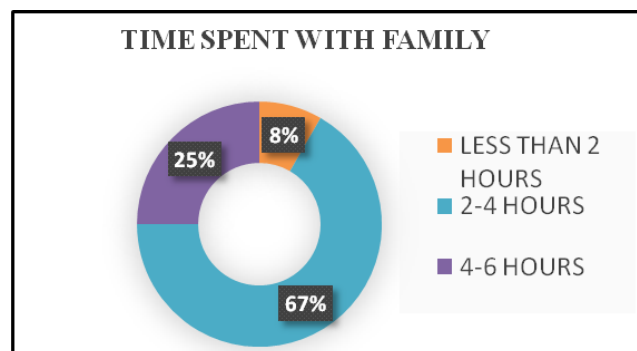
Source – Primary Field survey, 2023.

Fig. 27

Family and Social Life of Vegetable Vendors:

Family and social life play a crucial role in determining an individual's quality of life. It affects their mental and emotional well-being by providing a support system that can help them to come up with life's challenges. Strong family ties and meaningful social connections contribute significantly to a person's happiness and overall life satisfaction. There are several elements for determining the family and

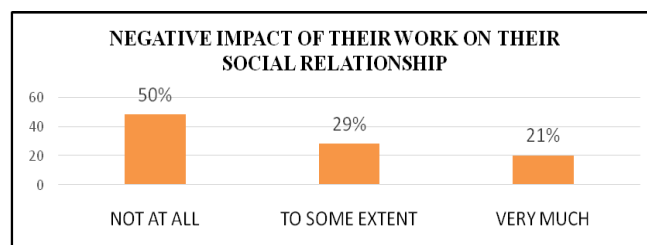
social condition of an individual, one of the major among them is how much time they are spending with their family.



Source – Primary Field survey, 2023.

Fig. 28

As per the study conducted, we have seen that vegetable vendors of Patna Municipal Corporation are working for long hours. This has essentially affected their family and social relationships in a negative way. It is evident from the Fig. 29 that 21% of the vegetable vendors agreed that their social relations and family life is getting negatively impacted by their work.



Source – Primary Field survey, 2023.

Fig. 29

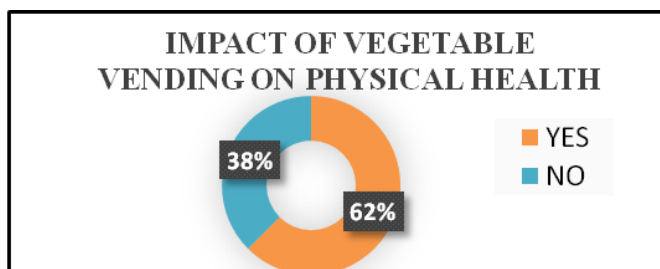
Impact of Vegetable Vending on General

Physical Health: Health refers to an individual's overall well-being, encompassing physical, mental, and social dimensions. It is a dynamic state influenced by various factors, including genetics, lifestyle, access to healthcare, and environmental conditions.

A positive health status implies the absence of illness or the effective management of existing conditions, accompanied by optimal physical fitness, mental resilience, and social functioning.

The below Fig. 30 signifies that a majority of 62% agreed that their physical health is getting negatively affected due to their work and work-related environment. Longer sitting hours and continuous

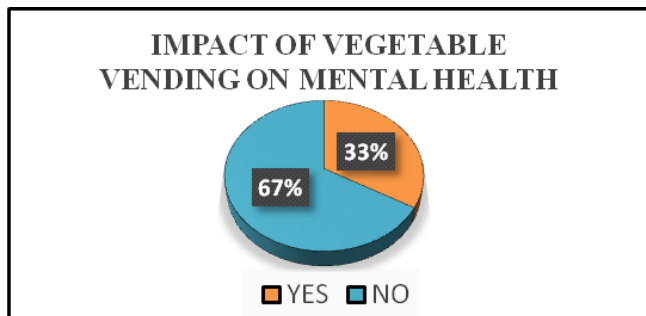
exposure to adverse weather are the main reasons behind their poor physical health.



Source – Primary Field survey, 2023.

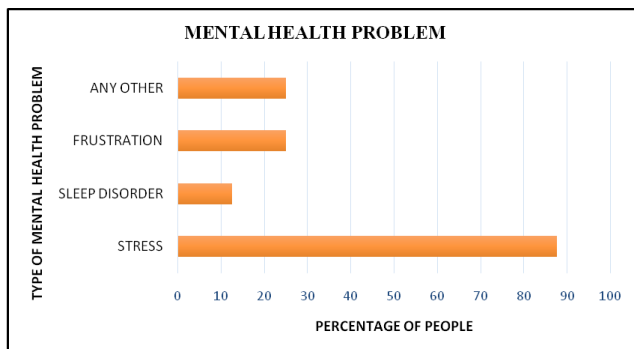
Fig. 30

Impact of Vegetable Vending on Mental Health: For the overall assessment of quality of life of vegetable vendors, it is important to know that if their work has any kind of mental health implications or not. The below Fig. 31 suggests that a significant majority, comprising 67% of the total vegetable vendors, does not perceive any direct impact of vegetable vending on their mental health.



Source – Primary Field survey, 2023.

Fig. 31



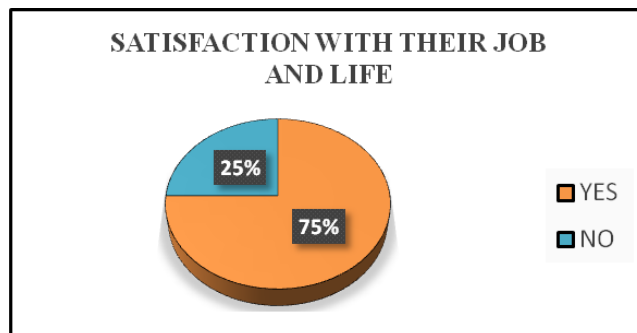
Source – Primary Field survey, 2023.

Fig. 32

Among the respondents who are experiencing mental health issues due to their work, 87% of them

mentioned that they are experiencing stress in their day-to-day life.

Being satisfied with one's job, job environment and life is essential for an individual's overall psychological well-being. Satisfaction with life comes when a person has stable source of income and can fulfil all his basic needs.



Source – Primary Field survey, 2023.

Fig. 33

The distribution represented in the above Fig. 34 highlights a substantial majority of 75% of the total respondents, reporting contentment with their job and overall life. However, the presence of 25% indicating dissatisfaction signifies a notable segment within the surveyed population that does not feel content with their job or life circumstances. Addressing concerns and improving conditions for those dissatisfied can contribute to a more fulfilling work environment and overall life quality for them.

Conclusion:

The present study of Quality of life of vegetable vendors of Patna Municipal Corporation has been carried out to get a deeper insight into their socio-economic conditions as well as physical and mental health and well-being. The study has been carried out by taking responses from a total of 96 respondent vegetable vendors of PMC through primary field survey. In the survey we asked them questions regarding their social conditions. Economic status, physical health and their psychological well-being.

The current study revealed that more than two third (79%) of the vegetable vendors of PMC are male while the share of female participation is quite low. The level of education among them is also a matter of concern as majority of them are either illiterate or have got only primary education. The study represents that the vegetable vendors of PMC are getting the access of all the basic amenities such as good quality drinking water, electricity, sanitation,

healthcare facility etc, that are required by an individual to live a healthy and happy life.

The economic condition of the vegetable vendors of PMC is also satisfactory according to them. They consider their work as a stable source of income and hence do not need to get engaged in any other kind of work. They also have a positive attitude towards shifting to online vegetable markets and 40% of them have agreed that their business is getting affected by marketplaces like Bigbasket. They are also aware of the necessary documents required for vending vegetables. A large proportion of vegetable vendors have vending license which is issued by the government.

A large portion of the Vegetable vendors of Patna municipal corporation area have agreed that their long working hours is negatively impacting their physical as well as mental health and well-being. 87% of them mentioned that they are experiencing work related stress every day.

Hence, both our first and second hypotheses have been proved to be wrong as per the results and outcomes of the present study.

Despite getting engaged in such a rigorous job, majority of vegetable vendors are satisfied with their work and life. They have the feeling of getting valued and respected in the society and are proud of the work they are doing.

Suggestions:

Though vegetable vendors of PMC are satisfied with their life conditions, but we cannot deny on the fact that they are facing different types of challenges every day to make their life a little better. To improve their quality of life, following suggestions could be of a great help, based on the present study.

- The level of education should be improved among the vegetable vendors as the data has revealed that they are either illiterate or have only primary education.
- The field survey has revealed that there is a need to improve female participation in the workplace.
- There is a need to provide a permanent place to them for their task of vending vegetables. Permanent market creation would provide them with a stable vending space of their own.
- Vendors are facing considerable challenges in sourcing vegetables from the wholesale market. To reduce these problems, we can

come up with measures to directly connect these vegetable e vendors with the vegetable producers.

- There is a need to provide some additional skills like computer literacy and online marketing and business etc to the vegetable vendors so that they can improve and enhance their income. This will also reduce the uncertainty and fluctuation in their income.
- There should be some awareness programmes where the importance and need of psychological well-being taught and hence vegetable vendors are encouraged to spend a considerable amount of their time with family and friends.
- There are several government programmes that are working for the well-being of such vendors like National Pension Scheme for Traders, Shopkeeper and Self-Employed Persons, Pradhan Mantri Shram Yogi Maan-Dhan etc. these schemes should be properly implemented so that they are beneficial to the grassroot level.

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