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An analytical study on urban dwellers' attitude towards market-available vegetables in Assam

¹Sandiponi Tasha, ²Mayuri Bora, ³Pompy Malakar and ⁴Borsha Neog

¹M.Sc. Student, Department of Extension Education and Communication Management, Faculty of Community Science, AAU, Jorhat, Assam, India

²Senior Scientist, All India Coordinated Research Project on Women in Agriculture, Department of Extension Education and Communication Management, Faculty of Community Science, AAU, Jorhat, Assam, India

³Assistant Professor, Department of Extension Education and Communication Management, Faculty of Community Science, AAU, Jorhat, Assam, India

⁴Assistant Professor, Department of Agricultural Statistics, Faculty of Agriculture, AAU, Jorhat, Assam, India

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Corresponding Author: Sandiponi Tasha

Abstract

The study titled "An Analytical Study on Urban Dwellers' Attitude Towards Market-Available Vegetables in Assam" explores the perceptions and attitudes of urban consumers toward vegetables sold in local markets, with special emphasis on concerns related to agrochemical residues. Conducted across three municipal areas Jorhat, Nagaon, and North Lakhimpur the research adopted a descriptive and analytical design, utilizing a validated attitude scale to collect data from 180 respondents selected through a multistage random sampling technique. Results indicated that the majority (65.00%) of respondents exhibited a moderately favourable attitude toward market-available vegetables. Statistical analysis revealed significant positive correlations between attitude and factors such as organizational membership and training exposure, while education level, vegetable production experience, and mass media exposure showed negative correlations. These findings suggest that greater awareness may lead to increased caution and scepticism, whereas participatory engagement and training foster more favourable attitudes. The study highlights the need for enhanced consumer education, awareness programmes, and promotion of organic and residue-free vegetables to strengthen public trust, ensure food safety, and support sustainable consumption practices in urban Assam.

Keywords: Urban consumers, agrochemical residues, consumer attitude, market vegetables, food safety

Introduction

Vegetables are a vital part of the Indian diet and play a central role in ensuring nutritional security and promoting public health. They provide essential vitamins, minerals, and dietary fibre necessary for maintaining health and preventing chronic diseases. In India, where a large share of the population is vegetarian or primarily plant-based, the consumption of vegetables forms an integral part of cultural and economic life (Uniyal, 2023) ^[14]. However, with the growing demand for vegetables and the expansion of urban markets, concerns over food safety and agrochemical residues have become more significant, especially among urban consumers who depend entirely on market sources for their daily needs. Modern agriculture has heavily relied on synthetic fertilizers and pesticides to enhance productivity and control pests. Although these chemicals have contributed to higher yields, their overuse has led to several negative consequences, including contamination of soil, water, and food. The residual effects of agrochemicals on vegetables are of growing concern, as these residues can remain even after washing and cooking, posing long-term health risks to consumers (McDuffie *et al.*, 2001; Adeyemi *et al.*, 2021) ^[10, 1]. Studies

have linked prolonged exposure to agrochemical residues with diseases such as cancer, neurological disorders, and hormonal imbalances. Thus, the issue of pesticide residues is not only a matter of agricultural practice but also a significant public health concern.

Urban dwellers are the ultimate consumers in the food chain and largely depend on market-based supply systems. In Assam, most city residents procure vegetables from traditional markets, roadside vendors, and retail shops rather than organized outlets. These sources often lack formal quality control mechanisms, leaving consumers to rely on their own perceptions, trust, and awareness to make purchasing decisions. As a result, their attitude towards market-available vegetables is shaped by their knowledge of production practices, awareness of agrochemical residues, and concern for health and environmental sustainability.

Growing media attention on pesticide contamination and the increasing number of food-related illnesses have made consumers more conscious of food safety. Incidents such as the 2013 pesticide-related school tragedy in Bihar (BBC India, 2013) ^[4] and the deaths of farmers due to pesticide exposure (Hindustan Times, 2018) ^[6] have heightened

awareness about the dangers of chemical misuse. Many urban consumers now express scepticism about the safety of vegetables available in the market. However, awareness levels, attitudes, and behavioural responses vary depending on education, income, and access to information.

Several studies have shown that simple household methods such as washing vegetables under running water, soaking them in salt solutions, peeling, or cooking can reduce residue levels (Yang *et al.*, 2022; Kim *et al.*, 2025) ^[15, 8]. Yet, the effectiveness of these practices depends on awareness and consistency of use. Many urban consumers remain unaware of these measures or underestimate the seriousness of the problem. As a result, a gap persists between knowledge and actual consumer behaviour. This gap is an important dimension in studying attitudes toward market-available vegetables.

The Government of India has introduced programmes such as the Paramparagat Krishi Vikas Yojana (PKVY) and the Mission Organic Value Chain Development for North Eastern Region (MOVCDNER) to promote organic farming and reduce dependence on synthetic inputs. Assam, being part of the North Eastern region, has significant potential for organic production due to its low base of chemical use and favourable agro-climatic conditions. However, the success of such initiatives also depends on consumer support and awareness. Urban consumers' attitudes play a crucial role in influencing market demand for safe, chemical-free vegetables.

In Assam's urban areas, where consumers have limited direct connection to production sources, understanding their perceptions becomes essential for ensuring food safety and promoting sustainable practices. A favourable attitude toward organically grown or residue-free vegetables can encourage demand for safer production methods and help build a sustainable food chain. Conversely, negative attitudes or lack of awareness may hinder progress toward safer food systems.

Hence, this study titled "An Analytical Study on Urban Dwellers' Attitude Towards Market-Available Vegetables in Assam" is undertaken to examine the attitude of urban consumers toward vegetables available in the market with special focus on the residual effects of agrochemicals. The study seeks to understand how awareness, experience, and perception influence their attitudes and choices. The findings will provide insights useful for designing consumer education programmes, supporting organic and sustainable production, and improving the safety and quality of vegetables available in urban markets of Assam.

Review of Literature

Radulescu *et al.* (2021) ^[12] conducted a study on "Consumers' attitude and intention towards organic fruits and vegetables: Empirical study on Romanian consumers" and found that respondents viewed organic fruits and vegetables more favourably than conventional ones. Respondents perceived organic produce as natural products free from chemicals, genetically modified organisms (GMOs), and stimulants. Organic fruits and vegetables were viewed as more nutritious, healthier, environmentally sustainable, and of superior quality. Along with that, many of the respondents believed organic produce provided good value for money.

Ostojić *et al.* (2023) ^[11] observed in their research "Consumer attitudes about purchasing and consuming vegetables in the Republic of Srpska" that consumer attitudes towards purchasing vegetables were influenced by several key factors viz. freshness, quality, aroma, taste, and origin of the vegetables. In contrast, external factors like the visual appeal of the display or the location of the vendor were less significant in influencing consumers attitudes.

Ayaviri-Nina *et al.* (2022) ^[3] studied on "Consumer behaviour and attitude towards the purchase of organic products in Riobamba, Ecuador" and found that the attitude of consumers towards the organic products was mostly good with 52.40 per cent. The survey reflected that 33.30 per cent of the respondents indicated attitude had an influence on purchase of organic products, while 35.00 per cent of the respondents indicated influence of behaviour and attitude on purchase of organic products. Emotions, feelings and motivation were found to be most significant variables in the consumers' attitude towards the purchase of organic products.

Kavoi and Kimambo (2021) ^[7] in their study on "Attitudes of farmers, traders and urban consumers concerning consumption of traditional African vegetables in Tanzania" found that consumer attitudes toward traditional African vegetables were shaped by dimensions like taste, health benefits, freshness, and personal perception. The taste factor was particularly valued by urban consumers, while health factor was dominant across the respondents widely recognizing traditional African vegetables as medicinal, comprising the farmers, traders, and consumers. Among consumers believing fresh traditional African vegetables retained more nutrients, freshness was dominantly emphasized.

The study by Sudarma *et al.* (2019) ^[13] reported that majority (67.00%) of the respondents displayed a moderate attitude towards vegetables and fruits in relation to pesticide concerns. More than 50.00 per cent respondents disagreed with the idea that all produce contains pesticide residues. However, small fraction (15.00%) used antiseptic solutions to wash their produce.

Dittus *et al.* (1993) ^[5] conducted one study on "Attitudes and behaviors about pesticide residues, susceptibility to cancer, and consumption of fruits and vegetables" and reported that concerns for personal health and environmental impact heavily influences consumers attitudes toward pesticide use in food. Respondents having greater trust and believe in regulations and authority were less worried about pesticide risks. In contrast, respondents with higher concerns to reduce exposure tended to take proactive steps, such as modifying food choices.

Koch *et al.* (2017) ^[9] in their research on "Pesticide residues in food: attitudes, beliefs, and misconceptions among conventional and organic consumers" revealed that irrespective of organic or conventional both types of consumers, both viewed pesticides, chemicals and toxins as significant threat to food safety and quality. Among organic consumers, 70.00 per cent rated the risks greater than benefits and 53.00 per cent of conventional consumers rated benefits greater than the risks while evaluating risks and benefits of pesticides use. Large percentage (69.00%) of organic consumers and 61.00 per cent of conventional consumers believed that pesticide residues in food are generally not

permitted.

Amin (2006)^[2] in his study on “Farmers’ attitude towards use of pesticides” found that majority (77.00%) of the respondents showed moderately favourable attitude towards use of pesticides followed by 13.00 per cent highly favourable and 10.00 per cent slightly favourable attitude. Results revealed a negatively significant relationship between education of farmers with their attitude towards use of pesticides. While farm size was observed to have positively significant relationship with respondents’ attitude, extension contact, organizational participation and knowledge on pesticides of the respondents found to have significantly negative relationship with their attitude towards use of pesticides.

Research Methodology

The present study was conducted in the state of Assam, located in the north-eastern region of India. To achieve the objectives of the study, a multistage simple random sampling technique was employed. Three districts viz. Jorhat, Nagaon, and Lakhimpur were randomly selected from the total of thirty-five districts of Assam. From the municipal areas of the selected districts, one municipality from each district, namely Jorhat, Nagaon, and North Lakhimpur, was randomly selected using the simple random sampling method. A total of 180 respondents were selected from the three chosen municipal areas by adopting the simple random sampling method. The selection of respondents was carried out using the Probability Proportion to Size (PPS) technique to ensure proportional representation according to the population size of each municipality. To comprehensively understand the attitude of urban dwellers toward market-available vegetables, a set of independent and dependent variables was identified based on the objectives of the study and the review of related literature. The independent variables considered included age, sex, marital status, educational qualification, type of family, type of house, annual income, organizational membership, vegetable production, exposure to training, and mass media exposure. The dependent variable of the study was attitude of the respondents towards market-available vegetables, with particular emphasis on their awareness and concern regarding the residual effects of agrochemicals. The research design was descriptive and analytical in nature. Data were gathered through a well-structured interview schedule developed according to the objectives and pre-tested for reliability and validity. The collected data were then tabulated, coded, and analyzed using appropriate statistical tools to interpret relationships between variables and assess the overall attitude of urban dwellers toward vegetables available in the market.

Construction of Attitude Scale

Attitude scale was prepared consisting 20 statements to understand their attitude towards vegetables available in market with especial focus on residual effect of agrochemicals. For evaluation of the attitude scale, it was sent to 9 experts and based on their recommendations and comments necessary modifications were made. The validity of the attitude scale was ensured through expert evaluation, as nine specialists reviewed the statements and suggested necessary modifications. To test reliability, a pre-test was conducted with 40 respondents from non-sampled areas of

Jorhat and Mariani municipal areas.

Findings and Discussion

Socio-economic Profile of the Respondents

Understanding the socio-economic background of respondents provides essential context for interpreting their attitude towards vegetables available in the market. Socio-economic characteristics often influence food preferences, purchasing behaviour, and awareness of food safety. Therefore, the demographic and economic profile of respondents offers valuable insight into the factors shaping their perceptions and attitudes.

The study revealed that more than half of the respondents (53.33%) belonged to the age group of 21 to 38 years, followed by 33.89 per cent in the 39 to 55 years category, and 12.78 per cent in the 56 to 72 years group. This distribution suggests that a majority of respondents were in their economically active years, a phase often associated with higher purchasing power and decision-making involvement in household food selection. Such an age profile indicates that most participants were capable of forming informed attitudes toward market vegetables and food safety issues.

With regard to gender, the study reflected a predominance of male respondents (63.33%), while females constituted 36.67 per cent of the total sample. This imbalance mirrors the general pattern of male participation in public surveys across urban Assam. Nevertheless, women’s participation remains significant, especially since they play an active role in household food management and selection of vegetables.

The marital status of respondents revealed that 60 per cent were married, indicating that most participants were directly responsible for household food procurement and diet-related decisions. Unmarried respondents constituted 37.77 per cent, while widowed, divorced, and separated respondents accounted for a small proportion (0.56–1.11%). This composition suggests that the majority had practical engagement in regular market interactions and were likely to have established attitudes toward vegetable quality and safety.

Caste distribution showed that 57.78 per cent of respondents belonged to the Other Backward Classes (OBC) category, followed by 36.66 per cent from the General category, while Scheduled Tribes (ST) and Scheduled Castes (SC) each represented 2.78 per cent. The predominance of OBC and General categories reflects the socio-economic diversity typical of urban Assam.

In terms of religion, Hinduism was predominant (87.22%), followed by Christianity (6.67%) and Islam (5.56%), which corresponds with the general religious composition of the state’s urban population.

Education is a key determinant influencing consumer attitude and awareness. The study found that 35.00 per cent of respondents were graduates, while 28.33 per cent were postgraduates or above. Additionally, 27.78 per cent had completed Higher Secondary, 8.33 per cent had passed High School, and 0.56 per cent held diplomas. These figures indicate 100 per cent literacy, with a large proportion possessing higher education, which may positively influence informed decision-making and a more discerning attitude toward market-available vegetables.

Occupationally, 40.55 per cent of respondents were service holders, followed by businesspersons (22.22%), students

(21.67%), and housewives (15.56%). This occupational diversity indicates representation from varied socio-economic backgrounds, each with distinct food purchasing patterns and attitudes toward vegetable quality, price, and safety.

Family structure analysis showed that 65.56 per cent of respondents lived in nuclear families, 28.89 per cent in joint families, and 5.55 per cent in extended families. Most respondents (72.78%) had small family sizes, consistent with urban living patterns, while 26.67 per cent had medium-sized families and 0.55 per cent had large families. Such composition reflects typical urban households, where convenience, time, and affordability strongly influence vegetable purchasing decisions.

In terms of housing, 82.78 per cent of respondents lived in self-owned houses, 14.44 per cent in rented houses, and 2.78 per cent in quarters. The majority resided in Assam-type houses (56.12%), while 39.44 per cent lived in RCC houses and 4.44 per cent in apartments. Housing patterns correspond with stable living conditions, which may indirectly affect household food planning and regularity of vegetable consumption.

The income distribution revealed that 58.89 per cent of respondents had an annual family income below ₹5 lakh,

followed by 30.56 per cent earning between ₹5–10 lakh, 6.11 per cent between ₹10–15 lakh, and 4.44 per cent above ₹15 lakh. This indicates that a majority of respondents belonged to the middle-income group, typically characterized by moderate but consistent spending on food items.

Access to household and communication resources was high, reflecting a modern urban lifestyle. Nearly all respondents reported using gas stoves (99.44%), electricity (98.89%), and refrigerators (95.56%). All respondents owned mobile phones (100%), while 92.22 per cent had internet access, and 87.22 per cent were active on social media. Such high levels of connectivity suggest easy access to food-related information, online market trends, and awareness campaigns about food safety.

A notable 51.67 per cent of respondents reported having land available for small-scale cultivation, and 53.89 per cent engaged in household vegetable production—mainly on available land (87.63%), followed by tubs (8.25%) and fish cartons (4.12%). This indicates a degree of self-reliance and familiarity with vegetable production practices, which could shape positive attitudes toward fresh and safe produce. However, only 28.33 per cent had training exposure, primarily in health and wellness/yoga (72.55%), food and nutrition (19.61%), and agriculture (17.65%).

Table 1: Background profile of respondents

Attributes	Category	n = 180	
		Frequency	Percentage (%)
Age (Years)	21-38	96	53.33
	39-55	61	33.89
	56-72	23	12.78
Gender	Male	114	63.33
	Female	66	36.67
Marital Status	Married	108	60.00
	Unmarried	68	37.77
	Divorced	1	0.56
	Separated	1	0.56
Caste	Widowed	2	1.11
	General	66	36.66
	OBC	104	57.78
	SC	5	2.78
	ST	5	2.78
Religion	Hinduism	157	87.22
	Islam	10	5.56
	Christianity	12	6.67
	Buddhism	1	0.55
Attributes	Category	n = 180	
		Frequency	Percentage (%)
Educational Qualification	HSLC	15	8.33
	HSSLC	50	27.78
	Graduate	63	35.00
	Post Graduate and above	51	28.33
Occupation	Service	73	40.55
	Business	40	22.22
	Housewife	28	15.56
	Student	39	21.67
Family Type	Nuclear	118	65.56
	Joint	52	28.89
	Extended	10	5.55
Family Size	Small	131	72.78
	Medium	48	26.67
	Large	1	0.55
Organizational Membership	Yes	86	47.78
	No	94	52.22

Type of Organization	NGO	5	5.81
(n = 86)	Society	57	66.28
	SHG	22	25.58
	Political Party	2	2.33
Types of House	Assam Type	101	56.12
	RCC	71	39.44
	Apartment/ Flat	8	4.44

Attributes	Category	n = 180	
		Frequency	Frequency
House Ownership	Self owned	149	82.78
	Rental	26	14.44
	Quarters	5	2.78
Annual Income of Family	<₹5,00,000	106	58.89
	₹5,00,001-₹10,00,000	55	30.56
	₹10,00,001-₹15,00,000	11	6.11
	>₹15,00,001	8	4.44
Communication Media	Radio	35	19.44
	Television	167	92.78
	CD Player	22	12.22
	DTH Service	153	85.00
	Mobile	180	100.00
	News Paper	88	48.89
	Magazine	42	23.33
	Magazine	42	23.33

Table 2: Distribution of Respondents According to Mass Media Exposure

Mass Media Exposure	Regular		Frequently		Sometimes		Never	
n = 180	f	%	f	%	f	%	f	%
Newspaper	72	40.00	15	8.33	17	9.44	76	42.22
Magazine	12	6.67	13	7.22	43	23.89	112	62.22
Radio	8	4.44	7	3.89	20	11.11	145	80.56
Television	84	46.67	57	31.67	28	15.56	11	6.11
Mobile	178	98.89	1	0.56	1	0.56	0	0.00
Internet	166	92.22	3	1.67	4	2.22	7	3.89
Social Media	157	87.22	7	3.89	4	2.22	12	6.67

Attitude of the respondents towards the vegetables available in market

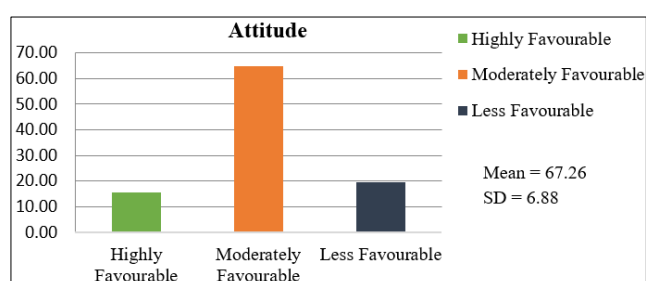


Fig 1: Distribution of the respondents according to the level of attitude towards vegetables available in market

The respondents' attitude towards vegetables available in the market was assessed using 20 statements, and the results are presented in Figure 1. The findings indicate that 65.00 per cent of respondents exhibited a moderately favourable attitude, followed by 19.44 per cent with less favourable and 15.56 per cent with highly favourable attitudes. Although the majority demonstrated a moderate level of favourability, the mean score of 67.26 (SD = 6.88) suggests that their overall attitude was only moderately positive. These findings are consistent with those of Sudarma *et al.* (2019) [13], who

reported that 67.00 per cent of respondents had a moderate attitude towards vegetables and fruits concerning pesticide-related concerns.

As presented in Table 3, the statement "Vegetables from known sources can be eaten without fear" ranked first (mean = 4.35), followed by "Availability of vegetables in the market affects purchasing decisions" (mean = 4.11). These higher-ranked statements reflect respondents' trust in vegetables obtained from familiar or reliable sources and their sensitivity to market availability.

In contrast, "Vegetables from unknown sources raise doubt about quality" (mean = 2.57) and "Parents are concerned about allowing their children to consume vegetables available in the market" (mean = 2.71) received the lowest ranks, indicating skepticism toward vegetables from unverified sources.

Additionally, respondents agreed that higher prices of organically grown vegetables are justified due to increased production costs (mean = 3.89) and acknowledged that organically cultivated or native vegetables are generally perceived as residue-free (mean = 3.75-3.84). These attitudes suggest a growing preference for vegetables sourced from trusted, organic, or locally grown origins. Overall, the findings reveal that urban dwellers' trust in known sources, combined with their awareness of agrochemical risks, reflects a shift towards health-conscious and safety-oriented purchasing behaviour. Such attitudes may influence their willingness to seek reliable and organic alternatives in the vegetable market.

Relationship between attitude of respondents with selected independent variables

To explore the association between the attitude of respondents towards vegetables available in the market and various selected independent variables, a Pearson's correlation coefficient test was employed. This statistical test was used to determine both the direction and strength of the

relationships between the dependent and independent variables included in the study.

The analysis, as presented in Table 4, revealed that organizational membership and exposure to training were positively and significantly correlated with respondents' attitudes. The correlation coefficients were $r = 0.194$ ($p = 0.009$) for organizational membership and $r = 0.177$ ($p = 0.017$) for training exposure. These findings indicate that individuals who were part of social or professional organizations and those who had undergone some form of training tended to exhibit a more favourable attitude towards vegetables available in the market.

Specifically, organizational membership demonstrated a highly significant positive correlation at the 1% level, suggesting that active participation in organizations enhances awareness, facilitates information sharing, and fosters more informed perspectives on food-related issues. Being part of organized groups likely exposes individuals to collective

discussions on food safety, market trends, and healthy consumption habits, thereby shaping a favourable outlook towards market-available vegetables. Similarly, exposure to training showed a significant positive relationship at the 5% level, highlighting the importance of training in shaping consumer understanding and attitude. Training programmes whether related to nutrition, health, or agriculture appear to contribute to more constructive evaluations and greater trust in market-supplied vegetables.

In contrast, educational qualification, vegetable production, and mass media exposure displayed highly significant negative correlations with respondents' attitudes at the 1% level ($p = 0.000$), with correlation coefficients of -0.276 , -0.370 , and -0.394 , respectively. These results suggest that respondents with higher levels of education, greater involvement in vegetable production, and higher exposure to mass media exhibited less favourable attitudes toward vegetables available in the market.

Table 3: Ranking of attitude statements towards vegetables available in market with especial focus on residual affect of agrochemicals

Sl. No.	Statements	Mean Score	Ranking
1.	Vegetables from known sources can be eaten without fear	4.35	I
2.	Availability of vegetables in the market affects purchasing decisions	4.11	II
3.	Organically grown vegetables are purchased without any fear	4.10	III
4.	Vegetables collected from forests etc. are considered free from agrochemicals	4.07	IV
5.	Authenticity of organic vegetables is a challenge faced while purchasing vegetables	4.01	V
6.	Limited availability of organic vegetables in market influences purchasing choice	3.93	VI
7.	Vegetables that contribute to a healthier and more balanced diet are selected more often	3.89	VII
8.	Higher price of organically grown vegetables is justified as the production cost is high	3.89	VIII
9.	Producers charge higher price for organically cultivated vegetables	3.84	IX
10.	Vegetables collected from trees are considered free from agrochemical residues	3.79	X
Sl. No.	Statements	Mean Score	Ranking
11.	Vegetables native to the region are generally free from agrochemical residues	3.75	XI
12.	Past purchasing experience influences the decision to buy vegetables again	3.64	XII
13.	Vegetables of comparatively smaller size are considered free from agrochemical residues	3.56	XIII
14.	Imported vegetables are less preferred as sources are not known	3.53	XIV
15.	Agrochemicals help to save time and money	3.22	XV
16.	Potential health risk of agrochemicals influences vegetable purchasing decision from organic source	3.09	XVI
17.	While purchasing price of vegetable is considered rather than its quality	2.99	XVII
18.	Vegetables available in market is inferior in terms of nutritional quality	2.96	XVIII
19.	It is a matter of concern for parents to let their children consume vegetables available in the market	2.71	XIX
20.	Vegetables from unknown sources raises doubt about the quality of the vegetables	2.57	XX

This inverse relationship could be attributed to heightened awareness of food safety issues and concerns regarding the residual effects of agrochemicals. Educated individuals and those with direct exposure to production practices are often more informed about pesticide use, handling, and possible contamination risks associated with market vegetables. Mass media particularly digital and social platforms often disseminate reports and awareness campaigns highlighting food adulteration, pesticide residues, and unsafe farming practices. Increased exposure to such information may lead to greater scepticism or critical evaluation of the vegetables available in markets, thus explaining the negative correlation observed.

On the other hand, variables such as age ($r = 0.106$, $p = 0.156$) did not show any statistically significant relationship with respondents' attitudes, as their significance levels exceeded the conventional 0.10 threshold. This indicates that age was not a determining factor in shaping the respondents' attitudes toward market-available vegetables within the sampled population.

Overall, the findings suggest that participation in organizations and exposure to training positively influence consumers' attitudes by improving awareness and confidence in market practices, while higher education, direct production experience, and extensive media exposure tend to make consumers more cautious or critical of market-supplied vegetables. These relationships underline the complex interplay between knowledge, experience, and perception in determining urban consumers' attitudes toward vegetable quality and safety in Assam.

Table 4: Relationship between attitude of respondents with selected independent variables

Variables	r value	p Value
Attitude Vs. Age	0.106	0.156
Attitude Vs. Educational Qualification	-0.276	0.000*
Attitude Vs. Organizational Membership	0.194	0.009*
Attitude Vs. Production of Vegetables	-0.370	0.000*
Attitude Vs. Exposure to Training	0.177	0.017**
Attitude Vs. Mass Media Exposure	-0.394	0.000*

*($p < 0.01$), **($p < 0.05$)

Conclusion

Vegetables constitute an indispensable component of the Indian diet, serving as a primary source of essential nutrients that support health and nutritional security. The study conducted among urban dwellers of Assam revealed a predominantly moderate attitude towards vegetables available in the market, reflecting both awareness and apprehension regarding agrochemical residues. Respondents demonstrated greater trust in vegetables sourced from known or organic origins while expressing scepticism towards those of unknown sources. Such attitudes underline an emerging consciousness about food safety, environmental sustainability, and the importance of consuming residue-free produce. The findings indicate that socio-economic factors, organizational participation, and training exposure significantly influence consumers' attitudes. Respondents with training or organizational involvement exhibited more favourable perceptions, whereas higher education, production experience, and mass media exposure correlated negatively, possibly due to greater awareness of potential health risks associated with agrochemical use. This pattern suggests that informed individuals may display heightened caution rather than indifference. The study emphasizes the need for strengthened consumer education and awareness programmes focused on the safe handling of vegetables and the implications of agrochemical residues. Encouraging transparent labelling, residue monitoring, and the promotion of organic and local produce can foster greater consumer trust. Moreover, policy initiatives such as enhancing urban market surveillance, supporting organic farming through schemes like PKVY and MOVCNDR, and fostering linkages between producers and consumers will be crucial in promoting food safety. By bridging the knowledge practice gap and reinforcing consumer confidence in safe vegetable consumption, Assam can advance toward a healthier and more sustainable urban food system one that aligns consumer attitudes with environmentally responsible production and market practices.

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