

Factors Influencing Community Participation in Street Vending Business on Urban Road Corridors: A Disposition of Economic Theories and Land Use Models.

*Musa Adamu Eya¹, Gobi Krishna Sinniah², Muhammad Zaly Shah³, Abdullahi Hashim⁴.

¹Department of Transportation Planning, Universiti Teknologi Malaysia

²Department of Urban and Regional Planning, Universiti Teknologi Malaysia

³Centre For Innovative Planning and Development (CIPD), Universiti Teknologi Malaysia

⁴Department of Urban and Regional Planning, Federal Polytechnic Mubi, Adamawa, Nigeria

Corresponding Author*

DOI : <https://dx.doi.org/10.47772/IJRISS.2024.808003>

Received: 21 July 2024; Accepted: 25 July 2024; Published: 26 August 2024

ABSTRACT

Cities are complicated ecosystems in which buildings are built and humans interact. Street vending, while sometimes spontaneous and unplanned, serves a crucial role in the urban fabric. Globally, there has been a surge of interest in understanding the dynamics of informal street vending, motivated by a desire to relieve economic inequalities. The goal of this research was to examine the factors that influence street vending activities based on economic disposition as a result of inadequate economic stability, a lack of formal jobs, and individual disengagement from the pursuit of western formal education. We take stock of this study to bring together the many kinds of street vending activities as an integral part of what is considered as liveability. The urban environment functions as an ecosystem, digesting materials, energy, and information while also supporting economic activity and human existence. The study begins with economic theories of street vending; while these activities are not controlled in Nigeria, they are woven into the urban fabric of socioeconomic status. The Cronbach's alpha of 0.861 and Cronbach's alpha based on standardised items of 0.856 suggest 100% validity and 90% reliability, respectively. The model fitting data yielded 93.917 at the 0.001** significance level. The results demonstrate that the model was appropriate for the investigation. Individuals engaged in vending activities to meet their daily and family necessities.

Keywords: Street vending, Livelihood, Factors, Demand location, Supply location.

INTRODUCTION

Street vendors in Nigeria work on a small scale. These activities are typical of densely inhabited areas. Stationed vendors, and mobile units operated by a single owner. Street vending occurs on a local scale, in congested regions or locations. In Nigeria, these activities are prevalent in densely populated areas where sales are generated by both stationary and mobile vendor units[1]. This study evaluates the factors influence community participation in street vending operations as well as factors influencing their means of subsistence. Market determination reinforces the disposition of economic theories and land use models, as vendors want to sell their commodities but are unwilling to give loose materials.

The most obvious ways of street vendors engagement is to makes sells through meeting with the buyer[2]. Nonetheless, vendors play various roles to alleviate their suffering in a bad economic circumstance, which motivates them to engage in such transitory and illegal activities [3].Cooperation among local governments is an issue that the current government should be concerned about, given its role in defining the country's

resilience [4]. The exchange function is important for the sustainability of Africa's megacities since the community cannot conduct commerce without properly satisfying the family's daily requirements [5]. Labour market statistics are among the most important economic indicators [7]. Therefore, a reliable labour market statistic can help businesses and investors develop effective economic strategies that create jobs and eradicate poverty.

Street sellers confront a number of challenges, notably the high cost of retail space, the widespread decline of the area's natural and physical environment, insecurity, and the lack of viable vending zones [6]. Many African urban residents relied on street vending to make a living [7]. Vendors employ more than two-thirds of the metropolitan population, with street vending popular among both men and women [8].

This study presents a thorough and comprehensive fieldwork on street vending. It also delves further into the various factors driving street vending participation, providing valuable insights into the socioeconomic factors that create this phenomenon. It offers researchers, policymakers, and practitioners a clear way to better understand the complexity of street vending. In availability of vending laws to govern street vending activity in some local communities posed a major challenges to the regulatory authority [9]. The reality of street vending activities on public roadways operate illegally in locations with different product's [10].

Significance of the Study

The study focuses on non-regulatory solutions and plans to conduct a detailed assessment of socioeconomic aspects related to street vending. Despite their extensive breadth, these variables are believed to be experimentally important. Since the start of global deindustrialization and urbanisation, street retailing has grown popular in central business districts. This wide phenomenon stresses the pervasive issues of poverty and unemployment, which inspire people to pursue self-employment through micro-scale economic activities. Labour is critical to both manufacturing and the global economy. However, it is vital to understand whether or not people are working, how long they work, and what kinds of jobs they do.

The ability to engage in street vending is influenced not only by their position, as theory suggests, but also by supply and demand characteristics in the neighbourhood in which they operate [11]. External vending forces, such as unemployment and labour costs, are also likely to affect their capacity to sell on the street. When assumptions about street vendor engagement are challenged, situations involving street vending must be investigated. However, many who frequently resort to street vending do so to avoid the rising unemployment rate, which is causing financial difficulties even for those with academic credentials.

The purpose of this research is to address the following question: what are the key factors impacting street vending on the street? The study location is well known area which serves as a city's commercial spot. The purpose of this study is to identify the numerous factors that influence street vendor participation long road ways. Despite a lack of data on the number of vendors on the analysed streets, a deliberate random sampling approach was used to fill the data gap, with a focus on vending activities. This study sought to fill this void by offering researchers with practical solutions to the issues surrounding street vending in Keffi, Nasarawa State, and Nigeria as a whole.

LITERATURE REVIEW

Previous research has primarily focused on specific concerns, such as vendors' socioeconomic backgrounds and motivations for participating in street selling, as well as the impact of street vending of urbanisation and everyday space behaviour [12]. However, cultural and social themes have gotten scant attention in these studies [13]. The majority of the research has focused on push and pull models, looking at people's motivations for street vending and making recommendations based on emotional, economic, and legal considerations [14].

Street vending is a global phenomenon that occurs on the streets of cities and towns [15]. Despite its incredible growth, street vending has mostly gone unnoticed by planners, developers, community leaders, academicians and decision makers [16]. Few studies have examined the problems that street merchants face. Previously,

street hawking was regarded as an unpleasant and even illegal commercial activity [17]. Street vending has remained popular as a way of disposal for the poor and less able [18].

The urban environment functions as an ecosystem, digesting materials, energy and information while also supporting economic activity and human existence. It combines natural settings and the people who inhabit them [19]. Understanding the structure and operation of street vending is crucial for long-term urban development.

The study focuses on the economic, social, and environmental factors. Street vending, albeit unregulated in Factors Nigeria, is a vital component of the city's economic, social, and environmental fabric. The study concentrates on income, education, migration, and work status. Their actions are not legally restricted and are commonly carried out in undesignated areas [20].

Economic Theories and Models of Urban Development

Concentric Zone Model.

Burgess' method was mostly sociological, with a focus on labour status data rather than accurate wealth estimations[21]. However, it is vital to acknowledge that such practices pose a significant hurdle to fully appreciating Burgess' central ideology: that urban settings can be subject to many processes or stages of a society's overall development[22]. Burgess' concept of concentric zones, which portrays how cities build and expand over time, was an important advancement[23].

According to the model, urban areas go through numerous stages of growth, beginning with the core business centre. This core zone serves as the city's economic and administrative centre, with extensive commercial activity. The middle-class residential zone offers a wider range of residential homes. The commuter zone, or suburban fringe, is marked by low-density residential developments. These suburbs, with their huge houses, expansive yards, and plenty of green space, appeal to wealthy families seeking a peaceful escape from the city's noise and congestion[15]. It is important to emphasise that, while Burgess' theory captures a broad tendency in urban growth.

Economic Theories of Consumer Behaviour

The primary purpose of economic analysis is to fully comprehend consumers' complex decision-making processes. Economic factors such as money, education, and the nature of goods and services have no influence on customer preferences; economics aims to replace these assumptions with more realistic and accurate models[24]. Furthermore, economic forecasts are heavily reliant on a detailed understanding of consumer behaviour, which has a significant effect on income imbalance. The primary purpose of economic analysis is to fully comprehend consumers' complex decision-making processes. The subtleties of buyers decisions and preferences, economic composition becomes a thorough examination of the complex human mind [25].

In previous paradigms, economists were primarily concerned with the intricate convergence of the enigmatic dynamics of client wishes and the complexities of product features [26]. However, the current emphasis has obviously shifted to understanding the major impact of key human behavioural qualities such as perception, learning, and independence of the complex structure of the economy [27]. This comprehensive line of research not only improves and broadens the boundaries of urban planning concepts, but it also reveals previously unknown aspects of economics, giving light on the immense scope of human life.

Location Theories

The relationship between cost levels and their respective regions is a complex and worrying subject that must be carefully examined. Economic historians frequently point out a key mistake in economic theory: the failure to explicitly consider factor costs. This is due in part to traditional price theory's emphasis on 'equilibrium', which obscures the impact of factors such as transportation, utilities, and labour [28]. This focuses economic

theory on regional issues while also providing insight into the intricacies of economic processes. Accepting location theories and including costs into economic models [29]. Theoretical and practical barriers, helping researchers, governments, businesses, and individuals to make better decisions when presented with complicated economic challenges [30]

Location theories offer the potential to correct this mistake and redirect economic research towards the origins and consequences of element costs [31]. By widening the scope of research to include the individual benefits and problems that different locations provide, this study discovers resonance with the complexities of the real world [32]. To recap, economic theories and models serve as crucial frameworks for understanding urban dynamics, solving difficulties, and building successful cities.

METHODOLOGY

The study used quantitative research methods. A validated questionnaire was utilised to evaluate the vendors' socioeconomic status. The open-ended section of the questionnaire inquired about their income, educational background, and employment status as active participants.

Secondary sources, particularly journals, textbooks, and Google Scholar, might provide important information about unauthorised vending areas. This wide phenomenon stresses the pervasive issues of poverty and unemployment, which inspire people to pursue self-employment through micro-scale economic activities.

Thirty (30) participants were selected and interviewed, including the buyer. Respondents were carefully selected, with a focus on vendor sites that had been directly viewed. Street vendor characteristics, such as interactions with customers. Data on street vending skills and buyer engagement strength.

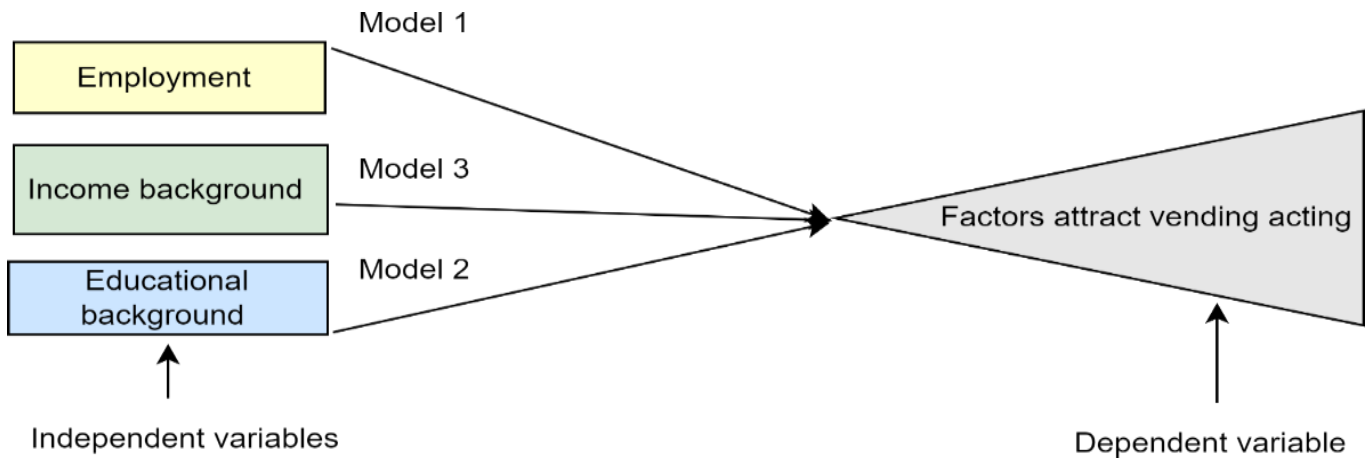
The data was examined using descriptive and inferential statistics. As a result, while vendors were carefully selected, particular care was taken to include stationary and mobile vendors roaming the streets in specific location.

Table 1: Summary of research materials and methods

Author(s)	Aims	Method	Results
Hagos et al., 2020	Analysis of street vendors on side walkways	Quantitative; descriptive and inferential statistics	Strong correlation
Hove et al., 2020	Explore the effects of illegal street vending	Quantitative; descriptive, inferential	Unemployment, pollution were the major challenges
Al-Jundi et al., 2022	Factors driving individuals into street vending in Baghdad	Descriptive and inferential statistics	Income and unemployment were the derived factors
[34]	Examine the bureaucratic structure of street vendors	Quantitative; descriptive and regression	Regression proved more accurate than Chi-square

Source: Author's adaption.

Adama, (2021) used the purposive sampling method and an open-ended questionnaire to collect information from vendors and other law enforcement agencies. In addition to the previous approaches and the validity of the measurement devices, the study employed a nonparametric statistic from the Statistical Package for Social Science (SPSS). The characteristics evaluated in the study include income, education, and employment. In this study, ordinal regression and Chi-Square goodness fit were used to identify their relationship.



Hypothesis model

Research Hypotheses

1. H₀. Street vending activities has no influence on unemployment
2. H₁. Street vending activities is the driving forces behind unemployment
3. H₀. Street vending activities have no influence on vendor’s income
4. H₁. Street vending activities have influence on vendor’s income
5. H₀. Street vending activities have no influence on vendor’s education
6. H₁. Street vending activities have influence on vendor’s education

RESULTS AND DISCUSSION

Socioeconomic Characteristics of Street Vendors

Table 2: Trends of street vendors

Duration of Street Vending (Years)	Number of Vendors	Percentage (%)	Category of Vendors
0-5 Years	10.00	34%	Food/Drinks
6-10 Years		30%	Household Goods
11-15 Years	6	20%	Electronic/ICT
16-20 Years	3	10%	Fashion/Accessories
21-25+ Years	2	6%	Books, Journals, Magazines
Total	9	100%	-

Source: Survey, 2023

The information presented above represents the duration of individual participation in the vending operation. This indicates that the majority of respondents were aged five to ten. However, 64% of this group is much

greater than the time frame covered.

Table 3: Income Distribution is

S/No.	Monthly Profit Range (Naira)	Number of Respondents	Percentage (%)
1	1,000 – 5,000	8	26%
2	6,000 – 10,000	9	30%
3	11,000 – 15,000	5	17%
4	16,000 – 20,000	3	10%
5	21,000 – 25,000	2	7%
6	26,000 – 30,000	3	10%
Total	-	30	100%

Source: Survey, 2023

The above table shows the monthly profit per vendor. This means that 83% of participants earned less than the national minimum wage. The implication is that vendors require assistance from both the government and the business sector, as well as access to local resources like community banks and savings.

Table 4: Educational qualification of street vendors

S/No.	Qualification	Number of Respondents	Percentage (%)
1	Others (Informal Education)	3	10%
2	Primary School Certificate	10	32%
3	Junior Secondary School	7	22%
4	Senior Secondary School	4	14%
5	National Diploma	4	12%
6	B.Sc. Degree	2	8%
Total	-	30	100%

Source: Survey, 2023

According to the table above, 54% of respondents hold a school leaving certificate or are in secondary school. These findings suggest that education level has a major impact on street vending activities, as long as official

employment is not accessible. However, this self-employment benefit can be used to supplement one's income.

Table 5: Sources of funds

S/No.	Source	Number/Frequency	Percentage (%)
1	Personal Savings	9	30%
2	Family Loans	5	18%
3	Family and Friends' Donations	4	13%
4	Peer Group	0	0%
5	Community Loan	3	10%
6	Cooperative	2	8%
7	Skill/Empowerment Programme	4	12%
8	Bank Loan	3	9%
Total	-	30	100%

Source: Survey, 2023



Figure.1: Vending activities along roadways

Source: Survey, 2023



Figure.2: Vending activities and traffic flow

Source: Survey, 2023

Table 6: Descriptive Statistics

	N Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Deviation Statistic	Skewness Statistic	Std. Error	Kurtosis Statistic	Std. Error
INC	30.00	3.2	4.4	3.5533	0	1.237	0.427	1.391	0.833
EMP	30	2.4	3.6	3.07	0.34	-0.198	0.427	-0.994	0.833
EDU	30	2.4	3.6	3.0533	0.34	-0.088	0.427	-1.073	0.833
Valid (listwise)	N 30	-	-	-	-	-	-	-	-

Source: SPSS analysis, 2023

Table 7: Data Validation

	N	%
Cases		
Valid	30	100
Excluded	0	0
Total	30	100

Table 8: Reliability Statistical

	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Values	0.86	0.856	3

Table 9: Model Fitting Information

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	93.917			
Final	.000	93.917	10	<.001

Link function: Logit.

Table 10: Goodness-of-Fit

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	1.125	75	1.000
Deviance	2.117	75	1.000

Link function: Logit.

Table 11: Pseudo R-Square

Pseudo R-Square

Cox and Snell	.956
Nagelkerke	.998
McFadden	.985

Link function: Logit.

Table 12: Nonparametric Tests

Hypothesis Test Summary

	Null Hypothesis	Test	Sig. ^{a,b}	Decision
1	The categories of INC occur with equal probabilities.	One-Sample Chi-Square Test	.022	Reject the null hypothesis.
2	The categories of EMP occur with equal probabilities.	One-Sample Chi-Square Test	.030	Reject the null hypothesis.
3	The categories of EDU occur with equal probabilities.	One-Sample Chi-Square Test	.048	Reject the null hypothesis.

a. The significance level is .050.

b. Asymptotic significance is displayed.

Table 13: Correlations

			INC	EMP	EDU
Spearman's rho	INC	Correlation Coefficient	1.000	.571**	.547**
		Sig. (2-tailed)	.	<.001	.002
		N	30	30	30
	EMP	Correlation Coefficient	.571**	1.000	.982**
		Sig. (2-tailed)	<.001	.	<.001
		N	30	30	30
	EDU	Correlation Coefficient	.547**	.982**	1.000
		Sig. (2-tailed)	.002	<.001	.
		N	30	30	30

** . Correlation is significant at the 0.01 level (2-tailed).

Table 14: Confidence Intervals

Confidence Intervals of Spearman's rho

	Spearman's rho	Significance(2-tailed)	95% Confidence Intervals (2-tailed) ^{a, b}	
			Lower	Upper
INC - EMP	.571	<.001	.255	.777
INC - EDU	.547	.002	.222	.763
EMP - EDU	.982	<.001	.961	.992

a. Estimation is based on Fisher's r-to-z transformation.

b. Estimation of standard error is based on the formula proposed by Fieller, Hartley, and Pearson.

Table 15: Chi-Square Test Variable Income

One-Sample Chi-Square Test Summary

Total N	30
Test Statistic	13.200 ^a
Degree Of Freedom	5
Asymptotic Sig.(2-sided test)	.022

a. There are 0 cells (0%) with expected values less than 5. The minimum expected value is 5.

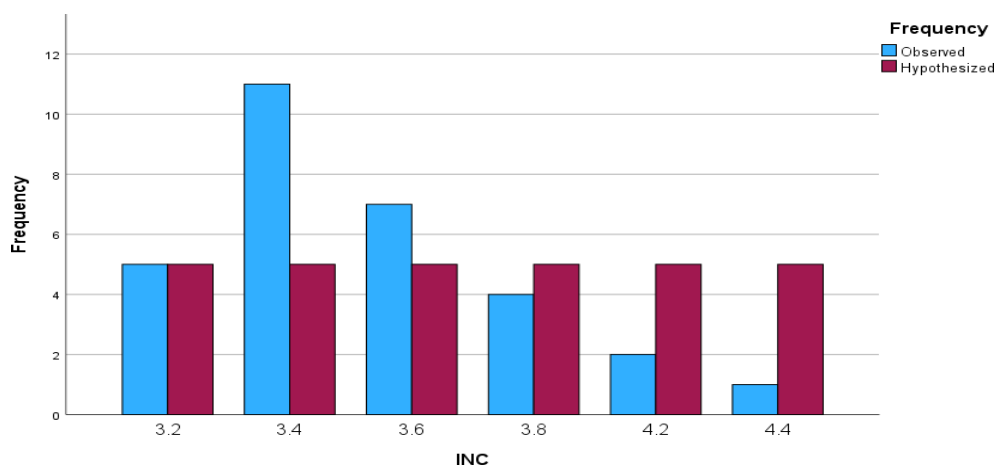


Figure.3: One-Sample Chi-Square Test Variable Income

Table 16: Chi-Square Variable Employment

One-Sample Chi-Square Test Summary

Total N	30
Test Statistic	12.400 ^a
Degree Of Freedom	5
Asymptotic Sig. (2-sided test)	.030

a. There are 0 cells (0%) with expected values less than 5. The minimum expected value is 5.

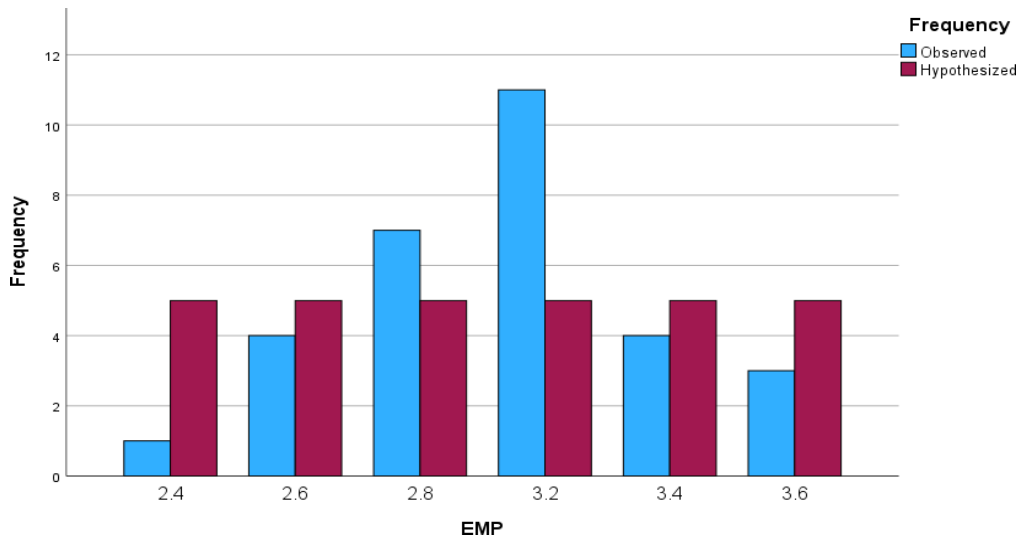


Figure.4: One-sample Chi-Square test variable employment

Table 17: Chi-Square Test Summary of Education Test

One-Sample Chi-Square Test Summary

Total N	30
Test Statistic	11.200 ^a
Degree Of Freedom	5
Asymptotic Sig. (2-sided test)	.048

a. There are 0 cells (0%) with expected values less than 5. The minimum expected value is 5.

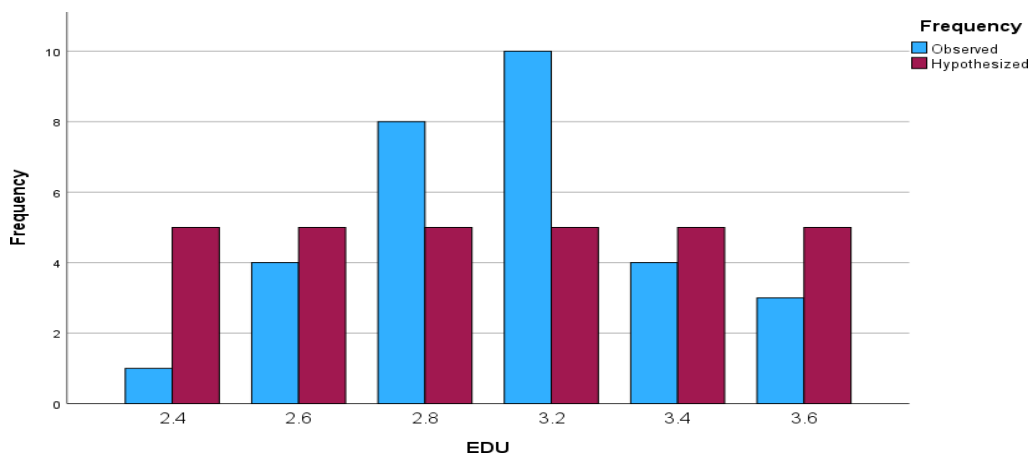


Figure.5: One-sample Chi-Square test variable employment

DISCUSSION OF RESULTS

Vendors, like workers in the street vending sector, are of various ages. According to the findings, the vast majority of traders are young people. When street vendors are classified by age, it is clear that youth (15-35) make up the bulk of street vendors, as well as the overall number of vendors interviewed. Nonetheless, their street vending activity is more noticeable. This means that vendors' strategies for accommodating different things based on gender are related to their participation, and that male and female sellers are not equally exposed to the dangers and potential benefits of their contacts with clients.

The Spearman's correlation coefficient, which describes the degree and direction of correlations between the research variables. We tested the variable measurements, and the data were 100% valid. We also tested the device to ensure dependability, and the results were accurate. All variables were input correctly, with no items missing or excluded. Every variable was entered accurately. The Cronbach's alpha of 0.861 and Cronbach's alpha based on standardised items of 0.856 suggest 100% validity and 90% reliability, respectively. The model fitting data yielded 93.917 at the 0.001** significance level. The results demonstrate that the model was appropriate for the investigation.

We utilised descriptive statistics to calculate the mean, lowest, and highest values, as well as the standard deviation, skewness, and kurtosis. As the number drops, the lowest and maximum values rise. The income value is biased to the right, indicating that poverty is a primary motivator for street hawking activities along corridor routes. We performed nonparametric tests to test our research hypothesis. The converted variables include both the dependent variable, income (INC), and two independent variables, employment and education. According to the test report, the one-sample Chi-Square test yielded results of 0.022, 0.030, and 0.048. However, this led us to reject the null hypothesis.

EMP and EDU indicate a significant positive relationship (INCM value < 1.000). The coefficients 0.458*, 0.535**, and 0.562 are statistically significant at 0.001**, 0.001**, and 0.002, respectively. INC (0.982**, p < 0.001) is significantly positively correlated with EMP (0.547**, p < 0.002) and EDU (0.571**). The EMP correlation coefficients of 0.982**, 0.571**, and 0.547 at 0.002** and 0.001** significant levels indicate that the model is fit. Independent variables explain 98% of the total variation in dependent variables.

The Spearman's correlation score for INC is 1.000, indicating that EMP and EDU together account for 98% of the change. This also shows that the model is a good fit. The ordinal regression statistic indicates that the autocorrelation relationship between the three variables is substantial, however Shapiro-Wilk said that INC is statistically significant at the 0.05 level of determination. As a result, the fitted Spearman line demonstrated positive autocorrelations, as indicated by the Shapiro Wilks test.

In vending, men and women have different goods selections and sales prices. This allows them to respond to their clients' specific needs and engage with products that match their preferences. Focus group meetings and vendor conversations revealed that managing or setting vendor norms and regulations will facilitate tax collection and the right to vend rather than security agents extorting money at will, which is unpopular with vendors. However, vendor engagement is increasing on a daily basis.

FINDINGS

Street vending typically involves the sale of low-cost goods that are insufficient due to a lack of public access to institutional finance. Vendors are drawn to selling second-hand clothing, shoemakers and vendors, vegetables, beggars, domestic cooking equipment, necklaces, wristwatches, air dressers, bread sellers and using sidewalks and pedestrian bridges in high traffic areas. This strategy allows them to avoid competition with other merchants while also eliminating the requirement for a formal retail space. By peddling in public places, they are subjected to security and law enforcement monitoring for hygiene and fire safety. Obstructing site sight is unacceptable; therefore, building a vending zone or vending location with the necessary licences or permits is vital. Many people manage their businesses with the support of family members, positioning themselves in strategic locations to foster connections with potential customers.

This type of vending appeals to a diverse spectrum of clients and is typically positioned near congested areas, making it an easy alternative for residents, buyers, and individuals from all walks of life to acquire their goods. The key incentive for street vendors to sell their wares along the roadside is the opportunity to access a larger consumer base, particularly those driving or walking along established public transportation routes. This technique has the ability to generate revenue because of the large number of potential clients. It also reduces the sellers' exposure to harassment and possibly arrest by law authorities because they are less conspicuous; therefore, they do not stay in one place for long periods of time. It should be mentioned that, unlike those selling grains and perishable commodities, they are also vulnerable if not adequately managed.

Common Observations and Interactions with Vendors

Standard of Living

According to surveys, the main root causes of selling on the street are underemployment and a lack of funds to pursue higher education. Poverty is linked to political instability, civil strife, recessions, and economic crises, and it worsens during periods of weak economic growth, inadequate economic development, and income disparity.

Illiteracy

Lack of formal education caused many city dwellers, as well as those with minimum qualifications, to frequently fail to acquire positions in the public sector, forcing them to rely on street vending. Street vending is convenient and the sole way for these people to make a living.

Joblessness

Lack of job opportunity is another motivator for street vendors. Nigeria's high unemployment rate is predicted to have a cascading effect on its subregional communities[7]. Despite that, jobless youths often relocate to cities due to the lack of employment opportunities in rural areas.

Urban Lifestyle

Street vending and begging are important aspects of Indigenous communal culture, and vendors bring this mindset to cities. The survey found that the average period of vending is short, yet the number of vendors is increasing year after year.

Impoverished Lifestyle

An impoverished lifestyle led to low business engagement due to insufficient cash for improvement. Due to limited resources, most vendors offer low-cost products.

Accessibility to microcredit's

Street sellers faced significant obstacles in obtaining small-scale loans. A vendor expressed unhappiness with banks and their exorbitant interest rates. The adverse economic climate and a dearth of official jobs were undeniable. These challenges limit vendors' ability to service daily needs while also meeting their target earnings, whether daily or monthly.

CONCLUSION

Statistical models for vending activities, changes, and remodelling in which security, as a determinant, is less aware of vendor operations than when the vending site influences daily sales and profit. To address the issue of street vending on urban streets, standards are being developed to govern and control street vending operations along three designated routes within the Keffi circle. The hypothesis investigated is that street vendors' conditions are heavily influenced by the socioeconomic characteristics.

The study routes include the federal medical centre, Abukar Burga-Bank's Road, and Post Office Road. However, the actions proved ineffective, and vending and business encroachment on the streets continued. According to the study, recommendations should centre on the themes of sustainability and security. City development standards and activity regulation are crucial for alleviating vendor economic hardship and protecting their constitutional rights. Introduction of vending permit or licence to designated locations is key findings solution, and the introduction of environmental programmes and awareness about the danger of discharging waste or garbage along roadways cannot be over emphasis if adhere and supported by innovative rules and regulations.

This study sought to evaluate factors that influence participation in street vending conducted along major transit highways, which pose danger to enterprise operators and disrupt public transit services. Results obtained revealed that enterprise operators were influenced by three main factors: accessibility to customers, competitive business environment, and existing illegal roadside vendors. Implementing vending permits or licences in specific places, as well as promoting environmental programmes and raising awareness about the dangers of depositing rubbish along highways, are critical solutions that require novel rules and regulations to be effective.

ACKNOWLEDGEMENT

I thank Professor Nasiru Idris Medigu, former director of the department of urban and regional planning and dean of the faculty of environmental science at Nasarawa State University Keffi, for his substantial contributions to the completion of this research. I would also like to thank Dr. Adam Maidodo Maiyaki of Department of urban and regional planning, Federal Polytechnic Nasarawa's for his useful input during and after the survey.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

Not applicable

Data availability statement

The data that support the finding of this study are available from the corresponding author upon reasonable request.

REFERENCES

1. M. A. Eya, g. K. Sinniah, m. Z. Shah, and a. Hashim, 'assessing measures of highway traffic flow with travel time reliability based on travel time index . An in-depth literature review .', pp. 1–9, 2019.
2. M. Eya, g. K. Sinniah, a. M. Junaidu, and m. Zubairu, 'comparing environmental management and cities sustainability as a basis for sustainable development in nigeria', plan. Malaysia, vol. 20, no. 2, pp. 359–372, 2022, doi: 10.21837/pm.v20i21.1119.
3. N. M. Covic et al., 'viewpoint : rigorous monitoring is necessary to guide food system transformation in the countdown to the 2030 global goals ☆ ', vol. 104, 2021, doi: 10.1016/j.foodpol.2021.102163.
4. H. Ridho, m. H. Thamrin, f. A. Nasution, and y. I. Indainanto, 'disposition of waste management policy implementers through the regional cooperation scheme', int. J. Sustain. Dev. Plan., vol. 18, no. 1, pp. 275–282, 2023, doi: 10.18280/ijstdp.180129.
5. M. C. A. Wegerif, 'street traders' contribution to food security: lessons from fresh produce traders' experiences in south africa during covid-19', food secur., vol. 16, no. 1, pp. 115–131, 2024, doi: 10.1007/s12571-023-01409-w.
6. N. Ide et al., 'priority actions to advance population sodium reduction', nutrients, vol. 12, no. 9, pp. 1–

- 20, 2020, doi: 10.3390/nu12092543.
7. L. O. F. Report, world employment and social outlook: trends 2022. 2022. Doi: 10.54394/dspl5113.
 8. Ilo, women and men in the informal economy:a statistical picture(third edition). 2018.
 9. M. J. Rahayu, i. Buchori, and r. Widjajanti, 'the need for the improvement of street vendors management in public spaces at surakarta city', plan. Malaysia, vol. 17, no. 2, pp. 146–157, 2019, doi: 10.21837/pmjournal.v17.i10.636.
 10. G. Hagos, m. Adnan, and a. Ul h. Yasar, 'effect of sidewalk vendors on pedestrian movement characteristics: a microscopic simulation study of addis ababa, ethiopia', cities, vol. 103, no. March, p. 102769, 2020, doi: 10.1016/j.cities.2020.102769.
 11. N. Allison, k. Ray, and j. Rohel, 'mobilizing the streets: the role of food vendors in urban life', food, cult. Soc., vol. 24, no. 1, pp. 2–15, 2021, doi: 10.1080/15528014.2020.1860454.
 12. A. Asante and r. O. Mills, 'exploring the socio-economic impact of covid-19 pandemic in marketplaces in urban ghana', africa spectr., vol. 55, no. 2, pp. 170–181, 2020, doi: 10.1177/0002039720943612.
 13. R. Kiaka, s. Chikulo, s. Slootheer, and p. Hebinck, "'the street is ours". A comparative analysis of street trading, covid-19 and new street geographies in harare, zimbabwe and kisumu, kenya', food secur., vol. 13, no. 5, pp. 1263–1281, 2021, doi: 10.1007/s12571-021-01162-y.
 14. Taheri tafti, 'assembling street vending', urban stud., vol. 57, no. 9, pp. 1887–1902, 2020, doi: 10.1177/0042098019856864.
 15. Hove, e. Ndawana, and w. S. Ndemera, 'illegal street vending and national security in harare, zimbabwe', africa rev., vol. 12, no. 1, pp. 71–91, 2020, doi: 10.1080/09744053.2019.1685323.
 16. D. N. Ogbonna, j. O. Ogbuku, s. A. Ngah, and a. Ayotamuno, 'public health problems associated with informal settlements around waterfront communities in port harcourt, nigeria', curr. J. Appl. Sci. Technol., vol. 40, no. 32, pp. 1–9, 2021, doi: 10.9734/cjast/2021/v40i3231552.
 17. Giraldo, l. Garcia-tello, and s. W. Rayburn, 'street vending: transformative entrepreneurship for individual and collective well-being', j. Serv. Mark., vol. 34, no. 6, pp. 757–768, 2020, doi: 10.1108/jsm-08-2019-0322.
 18. E. O. Igudia, 'exploring the theories, determinants and policy options of street vending: a demand-side approach', urban stud., vol. 57, no. 1, pp. 56–74, 2020, doi: 10.1177/0042098019835736.
 19. Peimani and h. Kamalipour, 'informal street vending: a systematic review', land, vol. 11, no. 6, pp. 1–21, 2022, doi: 10.3390/land11060829.
 20. S. Recchi, 'informal street vending: a comparative literature review', int. J. Sociol. Soc. Policy, vol. 41, no. 7–8, pp. 805–825, 2020, doi: 10.1108/ijssp-07-2020-0285.
 21. Y. Xu et al., 'another tale of two cities: understanding human activity space using actively tracked cellphone location data', ann. Am. Assoc. Geogr., vol. 106, no. 2, pp. 489–502, 2016, doi: 10.1080/00045608.2015.1120147.
 22. Z. A. Cheng, m. Pang, p. A. Pavlou, z. A. Cheng, m. Pang, and a. Pavlou, 'mitigating traffic congestion : the role of intelligent transportation systems mitigating traf fi c congestion : the role of intelligent transportation systems', no. May, 2020.
 23. T. Reiffenstein, 'concentric zone theory', wiley-blackwell encycl. Soc. Theory, pp. 1–2, 2017, doi: 10.1002/9781118430873.est0440.
 24. S. Ryu, 'online luxury goods with price discount or onsite luxury goods with luxury services: role of situation-specific thinking styles and socio-demographics', j. Retail. Consum. Serv., vol. 57, no. August, p. 102253, 2020, doi: 10.1016/j.jretconser.2020.102253.
 25. S. Chatterjee, n. Sreen, j. Rana, a. Dhir, and p. H. Sadarangani, 'impact of ethical certifications and product involvement on consumers decision to purchase ethical products at price premiums in an emerging market context', int. Rev. Public nonprofit mark., vol. 19, no. 4, pp. 737–762, 2022, doi: 10.1007/s12208-021-00288-1.
 26. N. S. Terblanche, c. Boshoff, and d. Human-van eck, 'the influence of cause-related marketing campaign structural elements on consumers' cognitive and affective attitudes and purchase intention', int. Rev. Public nonprofit mark., vol. 20, no. 1, pp. 193–223, 2023, doi: 10.1007/s12208-022-00338-2.
 27. Susanto et al., 'antecedents and consequences of a retailers' price image: the moderating role of pricing strategy', cogent bus. Manag., vol. 10, no. 3, 2023, doi: 10.1080/23311975.2023.2256086.
 28. M. L. Katz, 'big tech mergers: innovation, competition for the market, and the acquisition of emerging competitors', inf. Econ. Policy, vol. 54, no. Xxxx, 2021, doi: 10.1016/j.infoecopol.2020.100883.

29. Kong, r. Guo, y. Wang, x. Sui, and s. Zhou, 'home-country environment and firms' outward foreign direct investment decision: evidence from chinese firms', *econ. Model.*, vol. 85, pp. 390–399, 2020, doi: 10.1016/j.econmod.2019.11.014.
30. Calabrò, h. Frank, a. Minichilli, and j. Suess-reyes, 'business families in times of crises: the backbone of family firm resilience and continuity', *j. Fam. Bus. Strateg.*, vol. 12, no. 2, pp. 1–8, 2021, doi: 10.1016/j.jfbs.2021.100442.
31. Gilbert and d. Melamed, 'potential competition and the 2023 merger guidelines', *ssrn electron. J.*, 2024, doi: 10.2139/ssrn.4721456.
32. J. L. Arregle, f. Chirico, l. Kano, s. K. Kundu, a. Majocchi, and w. S. Schulze, 'family firm internationalization: past research and an agenda for the future', *j. Int. Bus. Stud.*, vol. 52, no. 6, pp. 1159–1198, 2021, doi: 10.1057/s41267-021-00425-2.
33. A. Al-jundi, s. Basahel, a. S. Alsabban, m. A. Salam, and s. Bajaba, 'driving forces of the pervasiveness of street vending: a data article', *front. Psychol.*, vol. 13, no. September, pp. 1–14, 2022, doi: 10.3389/fpsyg.2022.959493.
34. X. L. D. Mendoza and b. Tadeo, 'analysis of micro , small , medium enterprises : the cases of', 2023.
35. O. Adama, 'criminalizing informal workers: the case of street vendors in abuja, nigeria', *j. Asian afr. Stud.*, vol. 56, no. 3, pp. 533–548, 2021, doi: 10.1177/0021909620930740.