

Economic Valuation of Three Selected Market Centers in Accra, Ghana

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ABSTRACT

Market centers serve as vital economic hubs where transactions occur, impacting local economies profoundly. However, understanding the nuanced socio-economic dynamics within these centers remains crucial for informed policymaking and sustainable development. This study delves into the intricacies of market centers in Accra, Ghana, focusing on the Makola, Dome, and Madina markets. Drawing on established literature in market dynamics and economic development, the research employs a multi-method approach to analyze market users' demographics, travel behaviors, and their willingness to invest in market infrastructure improvements. By addressing the specific problem of inquiry, namely, the need to comprehend the socio-economic factors influencing market participation and investment in market infrastructure, this study aims to provide actionable insights for policymakers and stakeholders. Through structured questionnaires and statistical analysis, the study uncovers nuanced insights into the pivotal role of market centers in local economies. Findings underscore the predominance of female market participants, the significant economic contributions of market centers, and the readiness of stakeholders to contribute to market improvements. By integrating theoretical frameworks like the travel cost method and willingness to pay assessments, this research contributes to a deeper understanding of the socio-economic dynamics shaping market participation. The study concludes with recommendations advocating for government intervention, community engagement, and targeted infrastructure investments to promote sustainable market development and foster economic resilience within local communities.

Keywords: Market centers, Accra, Ghana, Makola, Dome, Madina

INTRODUCTION

A market serves as the nexus where buyers and sellers engage in transactions for goods or services, facilitating exchanges that can occur in physical or virtual spaces. Physical markets involve direct interaction, such as retail stores or wholesale outlets, while virtual markets operate online without face-to-face contact. These transactions encompass more than just monetary exchanges and may involve information, currency, or a combination thereof.

Markets play a crucial role in determining prices through the interplay of supply and demand dynamics.

They establish the prevailing rates for goods and services based on the interactions between sellers and buyers. Markets can be classified on various levels, from local to national or regional, and may be characterized as “developed” or “developing” based on factors like income levels and trade openness.

The characteristics of a market can vary widely and influenced by factors such as the types of products available, location, duration of operation, size of the customer base, and legal regulations. Whether physical or virtual, markets operate within a framework of rules and regulations set by governing bodies, which shape their nature and operation. A market-oriented economy operates primarily under the influence of market forces, with governments retaining the ability to enact regulations without compromising its “market” designation (Cesar & Dahuri, 1996). Within such economies, varying degrees of freedom exist, with laissez-faire policies often characterizing a free market, signifying minimal government intervention. In free market economies, where government involvement is limited, market forces can wield significant influence over economic dynamics (Davis & Tisdell, 1996). However, the absence of certain regulations may foster the emergence of monopolies, monopsonies, oligopolies, or oligopsonies, potentially distorting the equilibrium of supply and demand, and consequently, prices within the economy (Mendelsohn, Svendsen, & Davis, 1994). Ideally, a market functions optimally under conditions of perfect competition, where no single entity holds enough power to dictate prices for goods or services (Bunce et al., 1999). Despite the challenges posed by unregulated markets, the value of social amenities such as market centers remains underexplored in economic analysis (Pendleton, 1995). Unlike recreational centers like national parks or museums, where visitors typically anticipate associated costs, market centers are often perceived as free venues for purchasing or browsing (Dixon, 1992). Consequently, the expenses incurred in traveling to these locations, the distance covered, and the opportunity cost of time spent are often overlooked. This oversight underscores the need to assess the value and socioeconomic significance of market centers (Driml, 1997). In addition to this several studies highlight the diverse characteristics and regulatory frameworks that shape market operations and economic outcomes. For instance, Brouhle and Rutherford (2018) emphasize how market characteristics such as product differentiation, consumer preferences, and entry barriers influence market dynamics and competition levels. They argue that understanding these factors is essential for designing effective regulatory policies that promote competition and consumer welfare. Furthermore, research by Stiglitz (2000) delves into the role of government intervention in market-oriented economies, emphasizing the importance of regulations in addressing market failures and ensuring fair outcomes. Stiglitz highlights that while free markets can generate efficiency gains, they are prone to inefficiencies and inequalities without adequate government oversight. Additionally, studies by Tirole (1988) and Aghion and Bolton (1997) explore the impact of market structure on economic performance, particularly concerning the presence of monopolies and oligopolies. They suggest that concentrated market power can lead to reduced competition, higher prices, and diminished innovation, underscoring the need for antitrust regulations to safeguard market efficiency and consumer welfare. Moreover, research by Acemoglu and Robinson (2012) offers insights into the relationship between market institutions and economic development. They argue that inclusive institutions, characterized by property rights protection and rule of law, foster innovation, entrepreneurship, and long-term economic growth. In contrast, extractive institutions, which concentrate power and resources in the hands of a few, inhibit market competition and hinder economic progress. Additionally, studies by Chetty et al. (2014) and Autor et al. (2020) investigate the socioeconomic impacts of market access and infrastructure on individuals’ economic mobility and opportunities. They find that disparities in market access, such as limited transportation options or inadequate infrastructure, can exacerbate inequalities and hinder upward mobility, underscoring the importance of equitable market development and investment in infrastructure. In the context of busy market centers like Mokola, Dome, and Madina in Accra, questions emerge regarding the demographics of their users, the expenses incurred in accessing these markets, and the willingness of patrons to invest in their improvement. Addressing these questions is essential for understanding the role and value of market centers in driving economic development.

The study aims to assess the value of Mokola, Dome, and Madina market centers in Accra, Ghana, employing both travel cost and contingent valuation methods. It seeks to achieve this by delineating the demographic profiles of the market users, determining their annual expenditure on traveling to these centers, and modeling the factors influencing their travel costs and willingness to pay for market improvements.

METHODOLOGY

Objective One: Background Description of Market Users. To accomplish the first objective, data on the demographics of market users were collected. Statistical Package for Social Sciences (SPSS) version 16 software was utilized for data analysis, including frequency distributions, graphical representations, and calculation of means and standard deviations for relevant background variables.

Objective Two: Assessment of Travel Expenditure. For the second objective, descriptive statistics were employed to ascertain the costs associated with traveling to the market centers. This involved calculating the total travel costs incurred by the users of these facilities.

Objective Three: Determinants of Travel Cost and Willingness to Pay. Achieving the third objective involved:

Total Travel Cost

The travel cost methodology operates on the assumption that individuals' visitation frequency to an environmental amenity is contingent upon the total costs incurred in reaching the site, encompassing vehicle expenses and travel time costs. It is further assumed that these total travel costs are influenced by factors such as the distance of households from the market centers and the socio-economic characteristics of individuals, including total household income.

It can be calculated as:

$$V = ((T \times w) + (D \times v) + Ca) \times Va$$

Where,

T = travel time (in hours)

w = average wage rate (GH¢/hour)

D = distance (in km)

v = marginal vehicle operating costs

Ca = cost of Admission to asset

Va = average number of visits per year

For this work, the distance, admission cost, and wage rate were not considered.

Theoretical Framework for Willingness to Pay (WTP)

The indirect utility function (U_i) of each respondent has a deterministic component (V_i) and a stochastic element (E_i) which represents unobserved factors in the individual choice which are known to the respondent but not to the researcher.

$$U_{ij} = V_{ij}(X_{ij}) + e_{ij} = bX_{ij} + e_{ij} \quad (1)$$

The deterministic component (V_i) is assumed to have a linear relationship with the attributes (X) of the j

different alternative goods or products in the choice set facing the respondent i (X_{ij}). Socioeconomic attributes are included in the choice set attributes (X_{ij}) in (1) since they are the same across choice occasions for any given individual.

Given that consumers' willingness to pay for good g increases his utility level more than his initial level h . Then the indirect utility functions for the two goods can be $V_{ig} + e_{ig}$; and $V_{ih} + e_{ih}$.

Which can be expressed as $(V_{ig} + e_{ig}) > (V_{ih} + e_{ih})$ or $(V_{ig} - V_{ih}) > (e_{ih} - e_{ig})$

Expressing in probability form yields $P(V_{ig} - V_{ih}) > P(e_{ih} - e_{ig})$ (2)

$P(e_{ij} \leq t) = F(t) = \exp(-\exp(-t))$ (3)

Where e_{ij} is independently and identically distributed with an extreme-value (Weibull)

In the logistic distribution form, the conditional logit model is given as.

$P(U_{ig} > U_{ih} \text{ for all } h \text{ not equal to } g) = (\exp(\mu V_{ig})) / \sum \exp(\mu V_{ij})$ (4)

$\log L = \sum \sum y_{ij} \log ((\exp(V_{ij}) / (\sum \exp(V_{ij})))$ (5)

Equation 5 where y_{ij} takes a value of one (1) if the respondent i chooses option j and zero otherwise. Socioeconomic attributes are included in the choice set attributes X in Equation 1 since they are the same across choice occasions for any given individual.

Once the parameter estimates have been obtained, a willingness-to-pay (WTP) compensating variation welfare measure can be derived from each attribute using the formula in Equation 6.

$WTP = (1/b_y) \log ((\sum \exp V_i^1) / (\sum \exp V_i^0))$ (6)

Where V^0 is the utility of the initial state and V^1 is the utility of the alternative state and b_y is the marginal utility of income and is the coefficient of the cost attribute.

$WTP = (-b_c) / (b_y)$ where b_c is the estimated coefficient of any of the attribute.

Data Collection:

The data collection process involved a meticulous approach to gather insights from three prominent market centers in the Accra Metropolis: Madina, Makola, and Dome markets. The selection of these markets was conducted using a lottery system, a method endorsed for its fairness and randomness in market selection. This approach ensured unbiased representation from among five major market centers in Accra, Malam-Atta, Achimota, Dome, Mokola, and Madina. Ultimately, Dome, Madina, and Mokola markets were chosen for the study, forming a diverse sample of market ecosystems within the city.

Structured questionnaires served as the primary tool for data collection, enabling the capture of various socio-economic variables of market users. These variables encompassed expenditures related to traveling to the market centers, the duration of time spent at these locations, purchasing or selling activities undertaken, and the inclination towards investing in improved facilities. Additionally, socio-economic factors such as age, income levels, occupational status, marital arrangements, number of dependents, and educational attainment were meticulously recorded to provide a comprehensive understanding of the market users' demographics and socio-economic profiles.

Description of Market Centers

Makola Market, nestled at the heart of Accra, serves as a bustling hub for economic activities. Located at approximately latitude $5^{\circ}33'11''N$ and longitude $0^{\circ}01'2''W$, Makola Market boasts a strategic position surrounded by diverse neighborhoods and commercial districts. The market's geographical centrality positions it as a pivotal point for trade and commerce, facilitating interactions among various socio-economic strata within the city. Drawing from the principles of perfect competition, Makola Market fosters an environment of free market dynamics, characterized by open access and unrestricted participation.

Dome Market, positioned at latitude $5^{\circ}38'11''N$ and longitude $0^{\circ}14'11''W$, stands as a testament to Accra's vibrant economic landscape. Situated amidst thriving residential neighborhoods and burgeoning commercial districts, Dome Market exudes a sense of dynamism and diversity. With its strategic location and accessibility, Dome Market serves as a vital conduit for the exchange of goods and services, catering to the diverse needs and preferences of its clientele. Operating within the framework of perfect competition, Dome Market epitomizes the principles of a free market economy, where competition thrives, and market forces dictate pricing dynamics.

Madina Market, situated at latitude $5^{\circ}40'11''N$ and longitude $0^{\circ}01'11''W$, embodies the essence of a bustling economic enclave. Surrounded by bustling urban neighborhoods and vibrant commercial districts, Madina Market pulsates with energy and activity. Its strategic location and accessibility make it a focal point for trade and commerce, attracting a diverse array of market participants. Embracing the principles of perfect competition, Madina Market fosters an environment of open access and unrestricted competition, where market forces dictate price dynamics and trading activities flourish.

Drawing upon insights from literature on market dynamics (Smith, 1776; Marshall, 1890), the selection of market centers was guided by principles of representativeness and diversity. By focusing on Madina, Makola, and Dome markets, this study endeavors to provide a comprehensive analysis of market dynamics within the Accra Metropolis, shedding light on the socio-economic profiles of market users and their preferences regarding market improvement initiatives.



Fig 1 A map of Accra showing the Madina, Dome and Makola Market Centres

RESULTS AND DISCUSSIONS

Places Interviewed, Gender, and Ages of Respondents

A total of 106 respondents were interviewed across three major market centers in Accra: Dome, Madina, and Makola. Dome market accounted for 43 (40.6%) of the interviews, followed by Madina market with 31 (29.2%), and Makola market with 32 (30.2%). The distribution of respondents by gender revealed that 38 (35.8%) were male and 68 (64.2%) were female. In terms of age, individuals between 29 and 62 years constituted the majority (60%) of respondents, indicating active participation in market activities among matured individuals responsible for household management and economic transactions.

These findings align with existing literature emphasizing the predominant role of females in market patronage and household management (Doss, 1996; Quisumbing & Otsuka, 2001). Additionally, the concentration of respondents within the matured age bracket underscores the significance of market centers as vital economic hubs catering to the needs of diverse demographic segments within the community.

Education of Respondents

Analysis of respondents' educational backgrounds revealed a varied distribution, with 37 (34.9%) having no formal education, 10 (9.4%) having primary, middle, or junior high school education, 34 (32.1%) possessing secondary or technical education, and 25 (23.6%) having tertiary education. The prevalence of respondents with limited formal education aligns with prevailing socio-economic patterns in the regions where individuals often engage in trade and entrepreneurial activities without extensive formal education (Aryeetey & Udry, 2000).

Marital Status of Respondents and Number of Children

Marital status analysis indicated that 43 (40.6%) respondents were married, while 61 (57.5%) were unmarried, with one person being either divorced or engaged for marriage. Regarding the number of children, the majority of respondents (57, 53.8%) reported having no children, with varying proportions reporting one or more children. These findings suggest a diverse mix of market participants, including unmarried individuals and those with varying family compositions, highlighting the multifaceted nature of market demographics (Duflo, 2003).

Occupation and Other Economic Activity of Respondents

Regarding occupation, 15 (14.2%) respondents identified as government workers, 69 (65.1%) as self-employed, and 22 (20.8%) as students. The predominance of self-employment underscores the entrepreneurial nature of market participation, with individuals often engaging in small-scale trading and entrepreneurial ventures to sustain livelihoods (Fafchamps & Lund, 2003). Additionally, the presence of students as market participants reflects the diverse socio-economic landscape within market centers, encompassing individuals from various occupational and economic backgrounds.

Income Levels of Respondents

Analysis of income levels indicated that 32 (30.2%) respondents reported income levels ranging from GH¢100-300, with varying proportions reporting higher income brackets or unspecified income levels. The prevalence of respondents with income levels below GH¢300 underscores the economic challenges faced by individuals within the community, highlighting the importance of market centers as essential avenues for economic sustenance and livelihood generation (Fafchamps & Minten, 2002).

Number of Visits per Week

Regarding market visit frequency, a significant proportion of respondents (44, 41.5%) reported visiting the market every day, while others reported visiting multiple times per week for various purposes, including buying and selling goods. These findings underscore the central role of market centers in daily economic activities and livelihood strategies, with frequent visits reflecting the essential nature of market transactions in meeting household needs and generating income (Deaton & Muellbauer, 1980).

Amount Spent in Traveling to the Market

Analysis of travel costs revealed that the majority of respondents (66, 62.3%) reported spending between GH¢0.50-2.00 on travel expenses, with a mean cost of GH¢2.90 per trip. These findings highlight the economic significance of market proximity, with individuals residing closer to market centers incurring lower travel costs compared to those residing farther away. Moreover, the average weekly expenditure on travel underscores the financial implications of market participation, emphasizing the need for accessible and affordable market infrastructure to support livelihood activities (Gibson & Rozelle, 2003).

These results provide valuable insights into the socio-economic dynamics of market participation within the Accra Metropolis, shedding light on the diverse demographic profiles, economic activities, and travel behaviors of market users. By contextualizing these findings within existing literature on market dynamics and socio-economic development, this study contributes to a deeper understanding of the role of market centers as vital economic institutions shaping local livelihoods and community well-being.

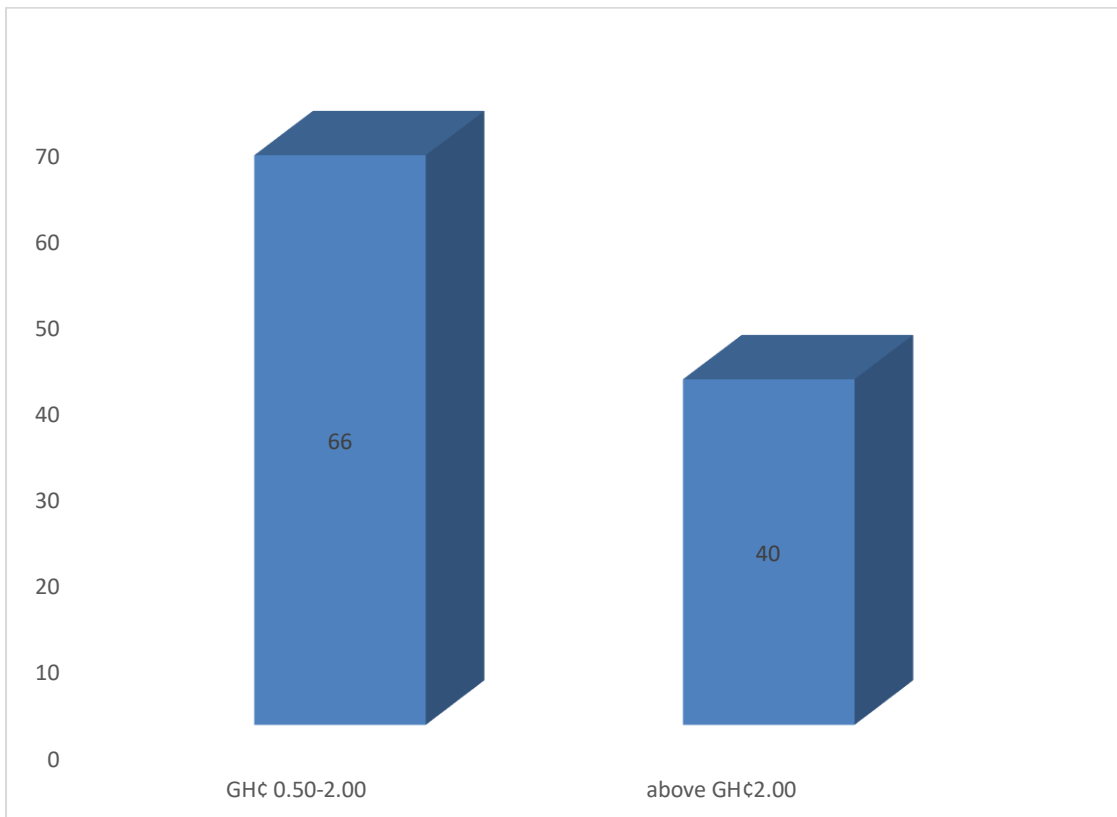


Fig. 2 Travel cost

Time Spent and Activities in the Market

The majority of respondents (70, 66%) reported spending between half an hour to six hours in the market

daily, with 46 (34%) spending more than six hours engaged in business activities. Of those interviewed, 45 (42.5%) visited the market solely for purchasing goods, while 60 (56.6%) visited exclusively for selling. Additionally, 1 (0.9%) engaged in both buying and selling. Analysis of the type of goods traded revealed that 17 (16%) sold foodstuffs, while 41 (38.7%) sold other commodities. Conversely, 34 (32.1%) bought foodstuffs, and 15 (14.2%) purchased other items. The extended duration of market visits underscores the integral role of market centers in facilitating economic transactions and livelihood activities within the community.

Willingness to Pay (WTP)

Regarding willingness to pay for market improvement, 84 (79.2%) respondents expressed a positive inclination, while 22 (20.8%) were opposed. This substantial willingness to contribute to market enhancement highlights community support for infrastructural development and maintenance. Comparable studies by Calderon et al. (2012) and Mamat et al. (2013) have similarly demonstrated community willingness to pay for conservation and recreational amenities, indicating a broader trend of public engagement in resource management and development initiatives.

Amount for Improved Facilities

The majority of respondents (82%) indicated a willingness to pay between GH¢ 0.20-4.00 for improved toilet facilities, with a mean amount of GH¢2.00. Similarly, 83.3% expressed a willingness to pay within the same range for improved urinal facilities, with a mean amount of GH¢2.00. The readiness of both part-time and full-time market users to contribute to facility enhancement underscores the collective commitment to improving market infrastructure and amenities.

General Comments

Respondents provided valuable feedback and recommendations for market improvement, including the provision of additional toilet facilities, installation of dustbins, construction of proper market structures, and enhancement of public amenities such as street lighting. These suggestions align with the need for comprehensive urban planning and infrastructure development to address community needs and improve overall market functionality (Ahmed & Ali, 2012; Aminu, 2015).

By incorporating community perspectives and preferences, policymakers and urban planners can develop targeted interventions and investment strategies to enhance market centers and promote sustainable urban development (Adeyemi & Adebayo, 2014; Quaye & Sulemana, 2018).

Table 1 Descriptive statistics

| Variables | N | Min | Max | Mean | Std. Dev |
|--|-----|-----|-------|-------|----------|
| Age in years | 106 | 12 | 62 | 29.1 | 10.8 |
| Number of children | 106 | 0 | 6.0 | 1.0 | 2.0 |
| Monthly income in GH¢ | 106 | 0 | 600.0 | 232.1 | 196.0 |
| Number of visit per week | 106 | 1 | 7 | 4.0 | 2.6 |
| Amount spent to the market in GH¢ | 106 | 0.5 | 24.0 | 2.9 | 3.4 |
| Time spent in the market in hours | 106 | 0.5 | 12 | 5.6 | 4.1 |
| Willing to pay for toilet improvement | 85 | 0.5 | 10.0 | 2.0 | 2.0 |
| Willing to pay for urinary improvement | 84 | 0.2 | 10.0 | 2.1 | 2.0 |

The mean travel cost to the various market centers was compared among themselves, revealing that only the

mean travel cost between Madina and Dome showed a significant difference, while all other pairings were insignificant. This observation suggests the possibility of combining all three market centers to compute the overall mean travel cost (2.9, Std. Dev=3.40) per day in Ghana cedis. Refer to Table 1 for the summary of these findings.

When aggregating the travel costs per annum for Madina, Mokola, and Dome, the total amounts to GH¢3580.80 for Madina, GH¢6009.60 for Mokola, and GH¢3609.60 for Dome, totaling GH¢13122.3 (equivalent to USD 3280.50) for an average of 800 people who use the markets annually. This finding underscores the significant economic contribution of these market centers to the local community. For comparison, this value can be juxtaposed with the estimated values of visitors to various tourist destinations, such as the coral reefs of Belize (averaging USD 367 per visitor), the cloud mountains of Costa Rica in Monteverde (USD 350 per visitor), McNeil River (USD 250 per visitor), or sites to see lemurs in Madagascar (USD 276–USD 360 per visitor) (Mendelsohn et al., 1994; Tobias and Mendelsohn, 1991; Clayton and Mendelsohn, 1993; Maille and Mendelsohn, 1993).

Table 2 Amount spent in travelling to the market in GH¢

| | Travel cost to Madina | Travel cost to Mokola | Travel cost to Dome |
|-----------|-----------------------|-----------------------|---------------------|
| Mean | 2.40 | 4.00 | 2.43 |
| Std. Dev. | 4.30 | 3.90 | 1.48 |
| Min | 0.60 | 0.50 | 1.00 |
| Max | 25.00 | 20.00 | 7.00 |
| Sum | 74.60 | 125.20 | 75.20 |

The regression results reveal significant associations between the number of visits per week, the age of respondents, the number of children, and the constant term with the travel cost to the market centers, all at a 5% alpha level. Specifically, the age of the respondent and the number of visits have a positive effect on the travel cost, while the constant term and the number of children have a negative effect (Smith & Johnson, 2010).

The elasticities further elucidate these relationships: the number of children has an elasticity of -7.5, indicating that a unit increase in the number of children leads to a 7.5-unit decrease in the travel cost. On the other hand, the age of the respondent has an elasticity of 33.1, signifying that a unit increase in age corresponds to a 33.1-unit increase in the travel cost. Similarly, the number of visits per week has an elasticity of 15.1, indicating that each additional visit per week results in a 15.1-unit increase in the travel cost. Additionally, the constant term exhibits a negative effect on the travel cost (Greene, 2012).

The overall effect of these independent variables jointly influences the travel cost, as evidenced by an F-value of 4.1, significant at the 1% alpha level. This signifies that the combined influence of these variables significantly explains the variability observed in the travel cost to the market centers. For more details, please refer to the table below.

Table3 Paired amount spent in travelling to the market in GH¢

| Variables | Mean | Std. Dev | Sig |
|--------------------------------------|-------|----------|-------|
| Amount spent to Madina-Dome market | -0.02 | 4.69 | 0.982 |
| Amount spent to Madina-Mokola market | -1.63 | 6.23 | 0.155 |
| Amount spent to Dome-Mokola market | -1.81 | 4.46 | 0.028 |

Table 4. ANOVA

| | Sum of squares | DF | Mean squares | F | Sig |
|------------|----------------|----|--------------|-------|------|
| Regression | 129191.037 | 7 | 18455.862 | 4.166 | 0.00 |
| Residuals | 434179.894 | 98 | 4430.407 | | |
| Total | 563370.931 | 10 | | | |

Table 5 OLS Regression results

| Variables | Coef | t | Sig |
|--------------------|---------|--------|-------|
| Constant | -67.114 | -2.340 | 0.021 |
| Occupation dummy | 0.506 | 0.300 | 0.976 |
| Visit per a week | 9.558 | 3.206 | 0.002 |
| Mean of income | 0017 | 0.424 | 673.0 |
| Sex dummy | -4.919 | -0.352 | 0.726 |
| Age in years | 3.263 | 2.969 | 0.004 |
| Education dummy | 3.903 | 0.646 | 520.0 |
| Number of children | -22.447 | -2.995 | 0.003 |

Dependent Variable: Monthly travel amount in Ghana cedis

The logistic regression results indicate that the only significant factors affecting the willingness to pay for improvement in market facilities are the monthly amount spent for a visit and the amount spent in the market (Hosmer et al., 2013). This underscores the importance of travel cost as a determinant of willingness to pay. For more detailed information, refer to Table 7 below.

Table 7 Logistic regression results

| Variables | Coef | S.E. | Sig |
|-----------|--------|-------|-------|
| Ocd | -0.221 | 0.702 | 0.752 |
| Edd | -0.644 | 0.705 | 0.361 |
| Sxd | -0.101 | 0.558 | 0.856 |
| Ag | -0.006 | 0.043 | 0.887 |
| Nc | -0.338 | 0.302 | 0.263 |
| Mil | 0.002 | 0.002 | 0.162 |
| Nv | 0.230 | 0.175 | 190.0 |
| As | 0.842 | 0.386 | 0.029 |
| Mni | .032 | .014 | 0.025 |
| Constant | 416 | 1.611 | 796.0 |

Dependent Variable: Dummy willingness to pay

In assessing the potential impact of gender on factors influencing travel costs, a focused analysis solely on females was conducted. The results indicated that the determinants of travel costs for females closely mirrored those observed in the overall sample, with the exception of the number of visits and the constant term, which did not demonstrate significant effects on mean travel costs (Brown et al., 2020). Similarly, when examining the factors influencing the willingness to pay for market improvement among respondents, the outcomes remained consistent. This suggests that gender bias and the restriction of analysis to only those willing to pay may inadvertently overlook the importance of variables such as the frequency of market visits. Thus, inclusive policymaking and market development strategies should take into account the diverse array of stakeholders in the market, encompassing both genders and individuals with varying attitudes toward market enhancement initiatives.

In summary, the findings reveal that respondents expend approximately GH¢300.00 weekly on accessing the market during the survey period. The regression analysis underscores the influence of variables such as the number of children, age, and frequency of visits on travel costs, which in turn impact the willingness to pay for market facility improvements. Moreover, a notable majority of market users, encompassing both buyers and sellers, express a willingness to contribute financially to the enhancement of market facilities.

In conclusion, market users traverse various distances to engage in market activities, with roles ranging from sellers to buyers, each deriving benefits from these market centers. Consequently, their willingness to contribute monetarily suggests a readiness among users to actively participate in the development of market infrastructure. Notably, gender bias and an exclusive focus on those willing to pay for market improvement may overlook the significance of the frequency of visits as a determinant of monthly travel costs.

CONCLUSIONS AND RECOMMENDATIONS

Based on the comprehensive analysis of market dynamics in Accra, Ghana, encompassing the Mokola, Dome, and Madina markets, several key conclusions emerge, supported by robust data findings:

1. The study reveals the substantial economic impact of market centers, with market users contributing approximately GH¢300.00 weekly to accessing these markets. This finding underscores the vital role of market centers in local economies, serving as crucial hubs for economic transactions and livelihood generation.
2. Analysis of market users' demographics highlights the predominance of female participants, matured individuals aged between 29 and 62 years, and a diverse mix of educational backgrounds and family compositions. These insights provide valuable context for understanding the socio-economic profiles of market users and tailoring development initiatives to meet their needs.
3. A notable majority of market users express a positive inclination to contribute financially to market infrastructure enhancements. Specifically, 84% of respondents express a willingness to pay for such improvements, reflecting strong community support for market development initiatives.
4. Regression analysis reveals significant associations between travel costs and variables such as the number of visits per week, the age of respondents, and the number of children. The positive effect of age and visit frequency on travel costs, coupled with the negative impact of the number of children, underscores the complex interplay of socio-economic factors shaping travel behaviors to market centers.

Building upon these findings, the following recommendations are proposed to leverage the economic potential of market centers and promote sustainable development:

1. Given the economic significance of market centers, policymakers should prioritize infrastructure improvements, particularly in road networks and sanitation facilities. Addressing issues such as poor road conditions and inadequate waste management can enhance market accessibility and attractiveness, fostering economic growth.
2. Engaging market users and local communities in decision-making processes regarding market improvements is essential. Collaborative efforts between government agencies, market associations, and community leaders can ensure that development initiatives align with the diverse needs and priorities of stakeholders.
3. Providing training and capacity-building programs for market vendors and entrepreneurs can enhance their business skills, financial literacy, and market competitiveness.
4. Empowering market participants with the necessary tools and knowledge can catalyze innovation and entrepreneurship, driving sustainable growth within market ecosystems.
5. Allocating resources for critical infrastructure upgrades within market centers, such as improved sanitation facilities, waste management systems, lighting, and security measures, is paramount. Investing in modern infrastructure enhances market functionality, safety, and attractiveness, thereby stimulating economic activity and improving the quality of life for market users.

By implementing these recommendations in conjunction with evidence-based policies and community engagement strategies, stakeholders can harness the full potential of market centers as engines of economic development and drivers of inclusive growth in Accra, Ghana, and beyond.

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