

Domestic waste management among market vendors in Kasubi market, Lubaga division, Kampala district, a cross-sectional study.

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ABSTRACT

Background: Poor domestic waste management remains a major public health concern and exposes communities to preventable environmental and health risks. Market vendors play a central role in determining the effectiveness of waste management systems. The study assessed individual, socio-economic, and environmental determinants of domestic waste management among market vendors in Kasubi market, Lubaga division, Kampala district.

Methodology: A descriptive market-based cross-sectional study design was used to obtain quantitative data from market vendors in Kasubi Market in the month of August 2025, among 30 respondents, who were obtained through simple random sampling. Data was collected using structured questionnaires and analyzed using Microsoft Excel. Findings were presented using tables, pie charts, and bar graphs.

Results: Findings show that, the most, 20(66.7%) were female, 10(33.3%) were male, 10(33.3%) were aged 25-34 years, 8(26.6%) were 35-44 years, 7(23.3%) were above 45 years. Most, 12(40%) had primary level of education, 9(30%) had no formal level of Education, 6(20%) had secondary level of Education, and 3(10%) had Tertiary level of Education. Most, 12(40%) have been in the market vending business for 1-3 years, 10(33.3%) for more than 6 years, and 8(26.7%) for 4-6 years. Two-thirds (66.7%) did not segregate waste, 24(80%) were willing to pay for improved waste collection services, and 25(83.3%) reported that they were not aware of the waste management policy. Most, 20(66.6%) acknowledged the presence of designated waste disposal areas in the market, while 12(24%) lacked adequate knowledge to handle waste generated in the market.

Conclusion: Vendors generally showed inadequate knowledge, low socio-economic capacity, limited social support, poor infrastructure, and weak policy awareness, which stifled waste management.

Recommendations: Market vendors should engage in waste segregation, participate in clean-up activities, and seek information on proper waste management. Leaders in the Market should strengthen the enforcement of waste management bylaws.

Keywords: Waste management, Market vendors, Kasubi market, Biodegradable, Sewage.

BACKGROUND

Globally, domestic waste management, especially in urban marketplaces, faces multiple challenges, including limited infrastructure, low public awareness, and weak enforcement of regulations. In response to these challenges, technological innovations are being adopted to improve efficiency in waste collection and

processing. Ghahramani, Zhou, Molter, and Pilla (2022) explored the use of IoT-enabled route recommendation systems, which optimize waste collection schedules and reduce operational costs, highlighting their potential to transform global waste management systems.

European countries have taken a proactive approach to domestic waste management through policy



frameworks that promote a circular economy. The European Union's Green Deal and Circular Economy Action Plan aim to recycle at least 65% of municipal waste by 2035 and reduce landfill usage to 10%. Companies like Renewi, which traditionally focused on waste disposal, are now transitioning towards recycling and waste-to-energy solutions. As reported by The Times (2024), Renewi attracted a £700 million bid from Macquarie Group, underscoring the growing interest in sustainable waste enterprises across Europe.

In Asia, rapid urbanization has intensified domestic waste challenges, but some countries are innovating through technology. In South Korea, Ecube Labs has developed smart waste bins equipped with solar-powered compactors and fill-level sensors, which help reduce collection costs and improve sanitation (Ecube Labs, 2023). In India, Abhay Deshpande, founder of Recykal, introduced a digital waste marketplace that links waste generators with recyclers to promote transparency and efficiency within the circular economy model (Abhay, 2024).

Latin American countries are increasingly recognizing the importance of sustainable waste management through recycling and circular economy policies. Argentina's Circular Economy Network and Colombia's Plastics Pact reflect regional efforts to reduce plastic pollution and encourage resource recovery. Nevertheless, challenges remain. In Brazil, for example, only 6.4% of municipalities operate formal recycling programs, with the majority depending on informal waste pickers for domestic waste recovery (Wecyclers, 2024).

Africa faces significant waste management issues due to high population growth and inadequate infrastructure. The continent's population is projected to reach 2.5 billion by 2050, increasing the demand for scalable and inclusive waste solutions. In Nigeria, Bilikiss Adebisi-Abiola founded Wecyclers, a company that incentivizes households to recycle waste in exchange for redeemable points, providing both environmental and socio-economic benefits (Wecyclers, 2024).

In East Africa, governments and entrepreneurs are working to address the region's growing waste crisis. In Kenya, Lorna Rutto, founder of EcoPost, pioneered an initiative to convert plastic waste into durable fencing posts, reducing deforestation and providing green employment (EcoPost, 2024). Despite such innovations, many East African markets still struggle with insufficient waste collection systems and public compliance, which hinders sustainable domestic waste management.

In Uganda, urban growth has significantly increased waste generation, especially in market areas. Market

vendors, who produce large volumes of biodegradable and non-biodegradable waste, often operate in settings where formal waste collection services are unreliable or absent. According to a study by Katusiime et al. (2024), factors such as lack of infrastructure, limited willingness to pay for improved waste services, and inadequate public awareness hinder effective domestic waste management in Kampala. While some efforts have been made through public-private partnerships and community-based interventions, market vendors continue to face major obstacles in adopting sustainable waste practices (Springer, 2024). This study assessed the individual, socio-economic, and environmental determinants of domestic waste management among market vendors in Kasubi market, Lubaga division, Kampala district.

METHODOLOGY

Study Design

A descriptive cross-sectional study design was used to obtain quantitative data from market vendors in Kasubi Market, Lubaga Division.

Study Setting

The study was conducted at Kasubi Market, located along Hoima road in Kasubi Parish, within Lubaga Division, approximately 5–6 km northwest of Kampala's central business district. It lies adjacent to other bustling neighbourhoods such as Namungoona, Naakulabye, and Makerere Hill. In 2020, Kampala Capital City Authority (KCCA), under the Kampala Institutional and Infrastructure Development Project II (World Bank-funded), constructed a modern Kasubi Market. The facility spans approximately 1.2 acres and was built at a cost of UGX 2.0–2.3 billion (approx. US \$0.5 million). It accommodates around 800–1,500 vendors, depending on social distancing protocols. The new layout includes: Individual vendor stalls and demarcated trading sections, public toilets and water-harvesting tanks, a children's day care centre for breastfeeding mothers, a police post, perimeter wall, and a shaded structure. Accessible ramps and paved pathways for Persons with Disabilities (PwDs)

Study Population

All market vendors in Kasubi Market. Eligible participants were vendors in the market who had to respond to questions about waste management.

Sample Size Determination

The sample consisted of 30 respondents who were selected from market vendors in Kasubi Market, Lubaga Division, Kampala District.



Sampling Procedure

The study sample population was selected using simple random sampling. Sixty pieces of paper were prepared. To obtain the required sample, 30 papers that bore " Yes " were folded and mixed up in a box, and the remainder that bore a "No" were folded and mixed up in a box. Each eligible participant was requested to pick one piece of paper from the box, and whoever picked a paper written on "Yes" was included in the study. This method gave equal chances to all eligible participants without personal bias.

Inclusion and exclusion criteria Inclusion Criteria

All market vendors in Kasubi Market in the month of August 2025 were included in the study after consenting.

Exclusion Criteria

Market vendors in Kasubi Market were very busy at the time of study.

Dependent Variable;

Domestic waste management among market vendors.

Independent Variables:

Individual factors: age, education level, awareness about waste management

Socio-economic factors: financial status, ability to pay for waste, lifestyle of market vendors. Environmental

factors: Knowledge of environmental waste management, maintaining environmental hygiene.

Data Collection Tools

Semi-structured questionnaires were used for data collection, developed in English and translated into

Luganda as necessary. It included: closed-ended questions to collect demographic data. Open-ended questions and sections aligned to the specific objectives:

The tool was pre-tested to ensure clarity and relevance.

Data Collection Method

Data was collected using semi-structured, interviewer-administered questionnaires. This method allowed consistent data collection while also accommodating participants with low literacy levels or limited English proficiency.

Data Analysis and Presentation

Quantitative data were entered into Microsoft Excel for analysis. Descriptive statistics such as frequencies, percentages, and mean scores were used for quantitative data. Findings were presented using tables, pie charts, and bar graphs, and interpreted in line with the general and specific objectives.

Quality Assurance

Pre-testing: The questionnaire was pretested with 10 Market vendors in Mengo Market to check on the flow of questions and to remove questions that were ambiguous.

Ethical Considerations

Approval was obtained from the Research Ethics Committee of Lubaga Hospital Training Schools. An introductory letter was presented to the Administration of Kasubi Market. Informed consent was obtained from all participants. Participants were informed of their right to withdraw at any time without penalty. All data was anonymized to protect patient confidentiality.



RESULTS

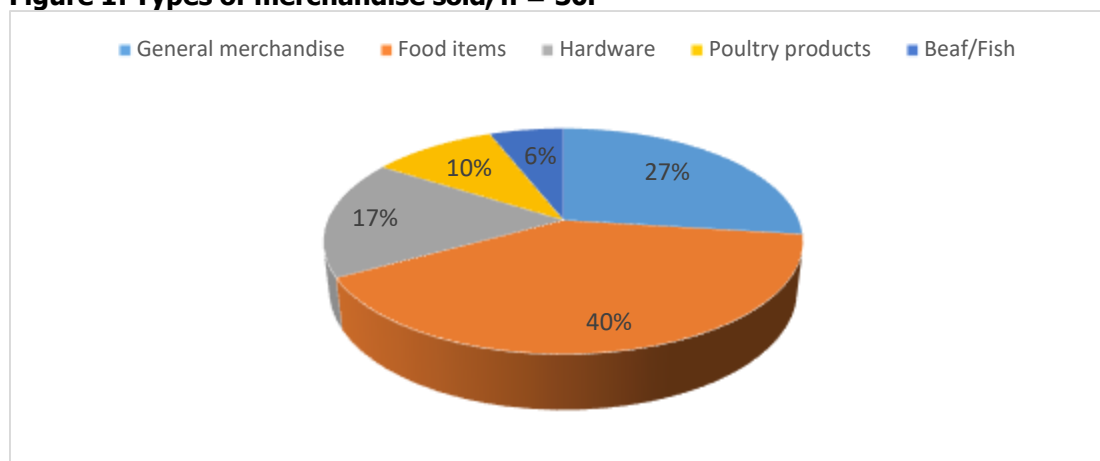
Table 1: Socio-demographic Characteristics of respondents, n = 30.

Variable	Category	Frequency (n)	Percentage (%)
Age of the respondent	Below 25	5	16.6
	25 years – 34 years	10	33.3
	35 years - 44 years	8	26.6
	45 years and above	7	23.3
Gender	Male	10	33.3
	Female	20	66.7
Education Level	No formal Education	9	30
	Primary Level	12	40
	Secondary Level	6	20
	Tertiary Level	3	10
Marital status	Single	10	33.3
	Married	14	46.7
	Divorced/widowed	6	20
Total		30	100

Many 10(33.3%) of the respondents were 25 – 34 years, 8(26.6%) were 35 – 44 years, 7(23.3%) were 45 years and above, and a small number were below 25 years. Most 20(66.7%) of the respondents were female, a few 10(33.3%) were male.

Most 12(40%) of the respondents had a primary level of education, 9(30%) had no formal level of Education, 6(20%) had a secondary level of Education, and 3(10%) had a tertiary level of Education. Most 14(46.7%) of the respondents were married, 10(33.3%) were single, 6(20%) were divorced / widowed.

Figure 1: Types of merchandise sold, n = 30.



Most 12(40%) of the respondents were dealing in food items, 8(27%) were dealing in general merchandise, 5(17%) were dealing in hardware, 3(10%) were dealing poultry products and a few 2(6%) were dealing in Beef/ fish

Table 2: Duration in Vending Business, n = 30.

Variable	Category	Frequency (n)	Percentage (%)
Duration of vending	1-3 years	12	40
	4-6 years	8	26.7
	More than 6 years	10	33.3
	Total	30	100

Most 12(40%) of the respondents had been in the market vending business for 1 – 3 years, 10(33.3%) had been in the market vending business for more than 6 years, and 8(26.7%) had been in the market vending business for 4 – 6 years.

Individual factors affecting waste management among market vendors**Table 3: Individual factors affecting waste management among vendors, n = 30.**

Variable	Category	Frequency	Percentage (%)
Respondent separates waste into categories (organic, plastic, metals)	Yes	10	33.3
	No	20	66.7
Respondents' knowledge about proper waste disposal methods	Not knowledgeable	10	33.3
	Somewhat knowledgeable	8	26.7
	Knowledgeable	7	23.3
	Very knowledgeable	5	16.7
Respondent has control over waste management	Strongly disagree	11	36.7
	Disagree	6	20
	Agree	5	16.7
	Strongly agree	8	26.6
	Total	30	100

The majority, 20(66.7%) of the respondents, were not separating waste into categories (organic, plastic, metals), and a minority of 10(33.3%) were separating the waste into categories.

Many 10(33.3%) of the respondents were not knowledgeable about proper waste disposal methods, 8(26.7%) were somewhat knowledgeable, 7(23.3%) were

knowledgeable, and a small number, 5(16.7%), were very knowledgeable about proper waste disposal methods.

11(36.7%) of the respondents strongly disagreed that they had control over waste management, 8(26.6%) strongly agree, 6(20%) disagreed, and 5(16.7%) agreed that they had control over waste management.

Table 4: Showing response on whether people around encourage management of waste properly, n = 30.

Variable	Category	Frequency (n)	Percentage (%)
People around you encourage you to manage your waste properly.	Never	15	50
	Rarely	5	16.7
	Sometimes	10	33.3
Respondent has ever participated in a community cleanup activity	Yes	15	50
	No	15	50
Total		30	100

Many 15(50%) of the respondents had never been encouraged by people around them to manage their waste properly, 10(33.3%) had sometimes been encouraged, and 5(16.7%) had rarely been encouraged to manage their waste properly. Half 15(50%) of the respondents had ever participated in a community cleanup activity, and half 15(50%) of the respondents had never participated in a community cleanup activity.

Socio-economic factors affecting waste management among market vendors**Table 5: Socio-economic factors affecting waste management, n = 30.**

Variable	Category	Frequency(n)	Percentage (%)
Average monthly income from vending	Less than 100,000 Ugandan Shillings	9	30
	100,000 – 300,000 Ugandan Shillings	12	40
	301,000 - 500,000 Ugandan Shillings	8	26.7
	Above 500,000 Ugandan Shillings	1	3.3
Was the respondent willing to pay for improved waste collection services	Yes	6	20
	No	24	80
Presence of an organized waste collection system in the market	Yes	16	53.4
	No	10	33.3
	Not sure	4	13.3
How often do people who collect waste come to the market	Daily	2	6.7
	2 – 3 times a week	10	33.3
	Weekly	14	46.7
	Rarely / Never	4	13.3
Total		30	100

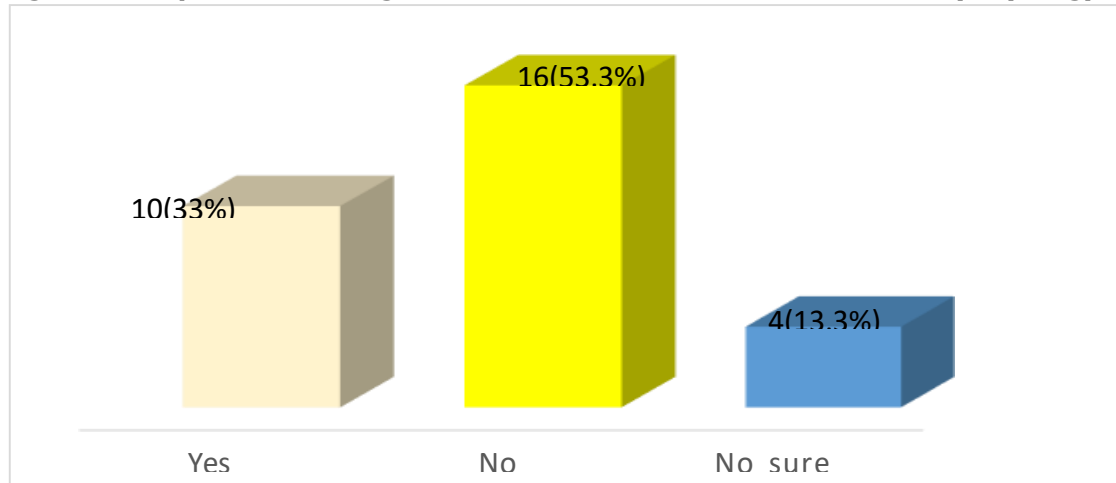
Many 12(40%) of the respondents were earning an average of 100,000 – 300,000 Ugandan Shillings, as monthly income, 9(30%) were earning less than 100,000 Ugandan shillings as monthly income, 8(26.7%) were earning 301,000 - 500,000 Ugandan Shillings as

monthly income, a small number 1(3.3%) were earning Less than 100,000 Ugandan Shillings as monthly income. Most 24(80%) of the respondents were willing to pay for improved waste collection services, while 6(20%) were not willing to pay for improved waste collection services.

16(53.4%) of the respondents said yes, there is a presence of an organized waste collection system in the market. 10(33.3%) said no, and 4(13.3%) were not sure whether there is an organized waste collection system in the market.

The majority, 14(13.3%) of the respondents said waste is collected weekly from the market, 10(33.3%) said 2 – 3 times a week, 4(13.3%) said waste is rarely collected.

Page | 7 **Figure 2: Respondents' thoughts on whether waste has economic value (recycling), n = 30.**



The majority, 16(53.3%) of the respondents said no, they thought waste has economic value, 10(33%) said yes, they thought waste has economic value, and a minority, 4(13.3%) were not sure whether waste has economic value.

Table 6: Respondents' awareness about market waste management policy, n = 30

Respondent's awareness of the market waste management policy	Frequency (n)	Percentage (%)
Yes, I am aware of the policy	5	16.7
No, I am not aware of the policy	25	83.3
Total	30	100

The majority, 25(83.3%) of the respondents said No, and were not aware of the waste management policy. Minority 5(16.7%) said they were aware of the waste management policy.

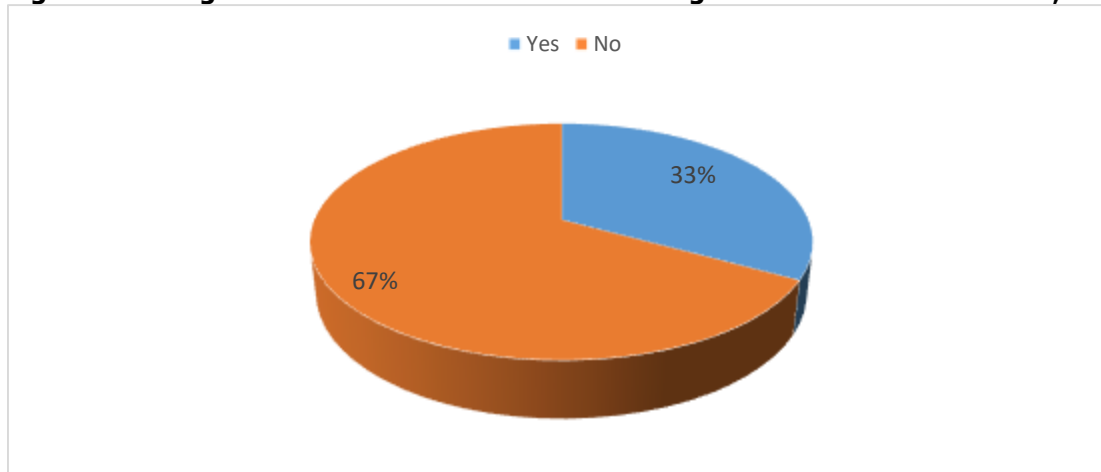
Environmental factors affecting waste management among market vendors.**Table 7: Environmental factors affecting waste management among market vendors**

Variable	Category	Frequency (n)	Percentage (%)
Presence of a designated waste disposal area in the market	Yes	20	66.6
	No	10	33.3
How respondent rate the cleanliness of the market	Very poor	9	30
	Poor	8	26.7
	Fair	10	33.3
	Good	3	10
Rain or flooding affects how waste is disposed of in the market	Yes	24	80
	No	6	20
	Total	30	100

Many 20(66.6%) of the respondents said yes, there is a designated waste disposal area in the market, and a small number, 10(33.3%) said no, there was no designated waste disposal area in the market. Most 10(33.3%) of the respondents rated the cleanliness of the market to be fair,

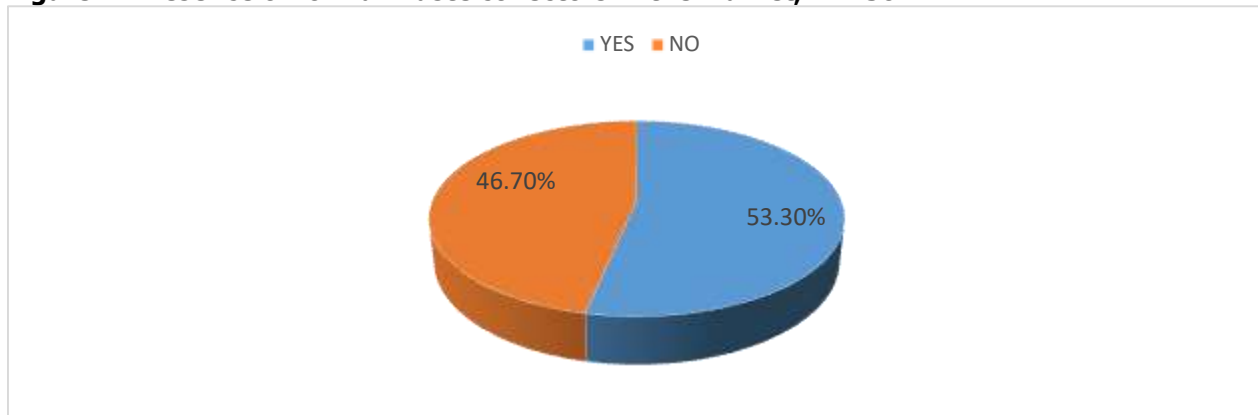
9(30%) said it was very poor, 8(26.7%) said it was poor, and 3(10%) said it was good.

Many 24(80%) of the respondents said yes, rain or flooding affects how waste is disposed of in the market, 6(20%) said no, rain or flooding doesn't affect how waste is disposed of in the market.

Figure 3: Thought on whether the market has enough bins or waste containers, n = 30.

Many, 20(67%) of the respondents thought that the market does not have enough bins or waste containers to manage waste. Minority 10(33%) of the respondents thought that the market has enough bins or waste containers to manage waste.

Figure 4: Presence of formal waste collectors in the market, n = 30.



16(53.3%) of the respondents said yes, there was a presence of formal waste collectors in the market, and a small number, 14(46.7%) said no, there was no presence of formal waste collectors in the market.

Table 8: Respondents thought improved infrastructure would help waste management, n = 30.

Variable	Category	Frequency (n)	Percentage (%)
Thought on whether improved infrastructure helps in waste management	Strongly disagree	2	6.6
	Disagree	5	16.7
	Agree	8	26.7
	Strongly agree	15	50
Main challenges faced when managing waste in the market	Too much waste is generated and cannot be handled	10	20
	Delay in emptying the waste bins	8	16
	Waste is not being segregated well	9	18
	Waste is being exposed to rain and decaying	5	10
	Lack of adequate knowledge to handle waste	12	24
	It is quite expensive to manage waste	6	12
	Total	30	100

Note: The number of respondents changed from 30 to 50 because some of the respondents gave more than one response.

Majority 12(24%) of the respondents lacked adequate knowledge to handle waste generated in the market, 10(20%) said there is a challenge of generating too much waste in the market, 9(18%) said waste is not segregated before being disposed off, 8(16%) said waste there is delay to empty waste bins, they stay full for some time, 6(12%) said its quite expensive to manage waste. Minority 5(10%) said that waste being exposed to rain and decaying is also a challenge.

DISCUSSION

Socio-demographic characteristics of respondents

The findings showed that the majority of vendors were aged 25–34 years, while the minority were below 25 years. This relatively young population aligns with literature showing that younger individuals tend to have greater environmental awareness (Alam & Zakaria, 2021), which may influence their waste practices. Most respondents were female (66.7%), which reflects broader trends in informal market trading across African cities where women dominate vending

activities. According to Kathambi et al. (2022), youth and women also tend to perceive waste as economically useful, although this was not strongly reflected in the present study, where only a minority recognized waste as having value. A minority (33.3%) of the vendors were vendors. The presence of fewer men reduced collective action in the market, since gender roles influence environmental participation. Kathambi et al. (2022) noted the same.

With regard to education, the majority had only primary or no formal education. Literature suggests that higher education improves environmental awareness and waste handling (Mutekanga & Mwita, 2025; Alam & Zakaria, 2021). Therefore, the low education levels among most respondents partly explain the generally poor waste practices observed. A few 3(10%) who had a tertiary education are an important group. This small educated group could act as change agents if supported to lead awareness activities. Literature shows that higher education improves understanding of waste policies and sorting (Mutekanga & Mwita, 2025).

Individual factors affecting waste management

The study revealed that the majority (66.7%) did not separate waste, while only a minority practiced segregation. This aligns with findings from Belsti et al. (2025), who reported that limited knowledge and awareness contribute to improper waste disposal in Ethiopia. Minority (33.3%) who were separating their waste are significant because they reflect a group that aligns with practices highlighted in studies from Ecuador (Toledo et al., 2024) and Indonesia (Amir et al., 2025), where individuals with more knowledge, positive attitudes, and supportive norms are more likely to sort waste. This minority represents an important starting point for behavior change programs.

The majority, 10 (33. %) of the respondents had low or only 8(26.7%) had moderate knowledge, of proper waste disposal. Studies in Indonesia and Uganda (Amir et al., 2025; BMC Public Health, 2024) show that environmental knowledge and perceived behavioral control strongly influence waste management behaviors. Since most respondents in the current study lacked adequate knowledge, this may explain low compliance with proper practices. The small group (16.7%) who were very knowledgeable highlights an existing resource. Literature clearly shows that individuals with strong environmental knowledge demonstrate better waste behaviors (Amir et al., 2025). This minority group could be mobilized as peer educators in the market.

A large proportion, 11(36.7%), strongly disagreed that they had control over waste management. Amir et al.

(2025) emphasized that perceived behavioral control is a key predictor of zero- waste behavior; thus, limited control among most vendors reduces their engagement in proper waste handling. Minority 6 (20%) disagreed, who strongly agreed they had control, offered a contrasting picture. In the TPB model used by Amir et al. (2025), this sense of personal control is a critical determinant of waste behavior. These few confident individuals were already engaging in better waste practices and were influencing others.

Half 15(50%) of the respondents had never been encouraged by people around them to manage waste properly. This limited social support contradicts findings in Ecuador by Toledo et al. (2024), where subjective norms (peer expectations) significantly influenced sorting behavior. The lack of social reinforcement may therefore contribute to poor practices among most vendors. Minority 10(33.3%) who reported frequent or occasional encouragement reflect the beginning of positive social norms. In contexts like Ecuador (Toledo et al., 2024), subjective norms strongly support waste sorting. This minority suggests such norms exist but are weak and need strengthening.

Participation in clean-up activities was split equally (50% yes, 50% no). Belsti et al. (2025) note that community engagement significantly improves waste behavior. In this study, the divided participation suggests mixed levels of community involvement, which may weaken collective action towards better waste management. Although participation was evenly divided, Vendors who consistently participate in clean-ups exhibit civic engagement similar to trends noted in Ethiopia (Belsti et al., 2025). These vendors may already be environmentally motivated and could form the backbone of future community waste management groups.

Social and economic factors affecting waste management

Most 12 (40%) of the respondents earned low monthly incomes, mainly between 100,000 and 300,000 UGX. Literature by Raphela et al. (2024) and Okorhi et al. (2019) indicates that low socio-economic status limits the capacity to engage in proper waste systems due to cost barriers. Despite this, the majority (80%) were willing to pay for improved waste collection, similar to findings from Lira City (BMC Public Health, 2024), where education and awareness increased willingness to pay. Minority earning above 300,000 UGX monthly could afford better waste services and may respond positively to improved waste collection models such as pay-as-you- throw (Valente, 2020).



Although most 16 (53.4%) respondents acknowledged the presence of an organized waste collection system, a significant minority, 4(13) and 10 (33.3%) were uncertain or reported none. This reflects challenges noted in Logia Town by Halale et al. (2024), where infrastructure gaps weaken consistent waste service delivery. An overwhelming majority had no knowledge of market waste policies. The small minority aware of the policy (16.7%) is important because policy awareness is often a predictor of compliance (Asare et al., 2024). This minority may already be practicing or attempting to practice proper disposal methods.

Most respondents said waste was collected weekly, though a substantial number experienced the service 2–3 times a week or rarely. Such inconsistencies mirror findings from Namirembe et al. (2023), who reported unreliable waste services in informal settings due to resource constraints.

The majority (53.3%) of the respondents did not perceive waste as having economic value. This contradicts evidence from Kampala and Kisii Town (Andersson et al., 2021; Kathambi et al., 2022), where organic waste has proven potential for composting, and many youths recognize waste's economic benefits. This gap may reflect the limited awareness observed, as most respondents (83.3%) were unaware of waste management policies. Weak policy awareness has similarly been highlighted as a barrier in Ghana (Asare et al., 2024). Minority 10(33%) who recognized economic potential reflect experiences similar to those described in Kampala and Kisii Town (Andersson et al., 2021). These few could play a role in promoting recycling and composting initiatives.

Environmental factors affecting waste management

Most respondents confirmed the presence of a designated disposal area, yet the majority (67%) reported insufficient bins. Literature consistently emphasizes the central role of infrastructure in determining waste behavior. Shepherd et al. (2023) concluded that environmental infrastructure predicts actual waste practices more strongly than individual attitudes. The shortage of bins reported by most respondents aligns with this evidence and likely contributes to poor disposal behavior.

Cleanliness was rated fair 10 (33.3%), very poor 9(30%), and poor 8(26.7%) by the majority, which mirrors findings from Bundhoo et al. (2023), who noted that inadequate infrastructure leads to unregulated dumping and resulting pollution. However, the minority who rated it good (10%) may be located in cleaner areas or nearer formal collection points. This reflects findings in South African and Nigerian cities (Ogunbode et al.,

2023), where neighborhoods with stronger infrastructure experience better environmental quality. Most respondents (80%) indicated that rain affects waste disposal, consistent with Aryampa et al. (2019), who documented seasonal spikes in uncollected waste during heavy rainfall across East African cities. The minority who reported no effect were operating in sheltered areas or stalls with better drainage.

More than half of the respondents acknowledged the presence of formal waste collectors, though a considerable minority did not. This is consistent with findings from Johannesburg (Frontiers, 2025), where integrating waste collectors, especially informal reclaimers, improves waste diversion. Where collectors are absent or inconsistent, waste accumulation increases. Minority (46.7%) who saw none of the waste collectors emphasized gaps in service coverage, an issue also noted by Namirembe et al. (2023) in informal settlements.

The majority noted challenges such as poor knowledge, excessive waste generation, lack of segregation, delayed emptying of bins, and high costs. These challenges reflect findings from Henao Rodríguez et al. (2024), who emphasized that environmental concern alone is insufficient if infrastructural and institutional support is weak. The minority who mentioned waste exposure to rain also aligns with climate-related challenges described by Aryampa et al. (2019).

CONCLUSION

Domestic waste management among market vendors is shaped by a combination of individual, socio-economic, and environmental factors. The majority of vendors demonstrated limited knowledge, inadequate segregation practices, low perceived behavioural control, and poor awareness of waste policies, all of which hinder proper waste management.

Socio-economic challenges, especially low income, inconsistent waste collection, and lack of infrastructure such as bins, further complicate waste handling. While a minority showed positive practices, such as segregation or recognizing waste as economically valuable, these behaviors were not widespread.

RECOMMENDATION

Market vendors should adopt simple waste segregation practices (organic vs. non-organic) to reduce waste accumulation. Participate actively in market cleanup exercises to improve collective hygiene. Utilize the organized waste collection system consistently rather than resorting to open dumping. Collaborate in forming waste management groups or associations that advocate for improved services. Seek information and training from health workers or local authorities on proper waste handling.



Leaders in the Market should strengthen enforcement of waste management bylaws, especially on segregation and the use of designated disposal points. Provide adequate waste bins distributed evenly across market sections to reduce indiscriminate dumping.

Lobby for financial support from the local government or NGOs to improve waste infrastructure. Organize periodic sensitization sessions for vendors focusing on waste as a health and economic resource. Develop a coordinated schedule with waste collectors to ensure timely and reliable waste removal.

Health workers should conduct regular health education sessions emphasizing risks related to poor waste disposal (e.g., cholera, vector-borne diseases). Support community-led cleanup initiatives to strengthen vendor engagement and motivate sustainable practices. Collaborate with environmental officers to disseminate information on waste policies and safe handling practices. Integrate waste management into routine market outreach activities, especially among high-risk vendors such as food handlers.

Acknowledgement

I thank God for blessing me with the gift of love and life. I take this opportunity to thank my relatives and family members for all the support and care they offered to me.

List of abbreviations

AHPs: Absorbent Hygiene Products

EPR: Extended Producer Responsibility

EU: European Union

GIS: Geographic Information System

KCCA: Kampala Capital City Authority

MSW: Municipal Solid Waste

PAYT: Pay as you throw

SES: Socio-Economic Status

SSA: Sub-Saharan Africa

TPB: Theory of Planned Behavior

UK: United Kingdom

WABI: Waste Aware Cities Benchmark Indicators

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The study was not funded.

Conflict of interest

The author declares no conflict of interest.

Author contributions

BN- Study developer and investigator

NK- Supervised the Study.

Data availability

Data is available upon request.

Informed consent

There was full disclosure; full comprehension, and respondents voluntarily consented to participate in the study.

Author biography

Barbrah Namukisa is a student of Midwifery at St. Michael Lubaga Hospital Training School.

Nelson Kakande is a tutor and research supervisor at St. Michael Lubaga Hospital Training Schools.

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