

ASSESSMENT OF ENTREPRENEURIAL SKILLS ON HOUSEHOLDS' WASTE MANAGEMENT FOR SURVIVAL AMIDST ECONOMIC HARDSHIP IN EKET LOCAL GOVERNMENT AREA OF AKWA IBOM STATE, NIGERIA

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ABSTRACT

The study assessed entrepreneurial skills on households' waste management for survival amidst economic hardship in Eket Local Government Area of Akwa Ibom State. Three specific purposes, research questions and two hypotheses were formulated to guide the study. The study adopted a survey design. The population of the study comprised of approximately 220,600 household members who were adults of 18 years and above in 63 villages in Eket from which the sample size of 384 respondents was determined using Research Advisor Sample Table (2006) and selected using simple random sampling technique. The questionnaire was validated by three experts from University of Uyo, Uyo. The consistency of the instrument was determined using Cronbach Alpha Statistical Tool, with reliability coefficient of 0.93. 346 copies of questionnaire were retrieved on a spot giving the retrieval rate 90.1%. Data collected was analysed using mean and one sample t-test statistics. Findings showed that most households possess entrepreneurial skills in waste management for survival amidst economic hardship. Furthermore, DIY ($\bar{X} = 255.47$; $p < .000$) and marketing skills ($\bar{X} = 318.53$; $p < .000$) significantly influence household waste management for survival amidst economic hardship in Eket LGA. It was concluded that the integration of Do-It-Yourself and marketing skills in waste management significantly enhance the resilience and survival of households in Eket LGA, particularly in the face of economic hardship. Based on the findings the researchers recommended among others that the local government and relevant stakeholders should invest in the development and implementation of entrepreneurship training programmes focused on enhancing the entrepreneurial skills of individuals, particularly in resource management.

Key Words: Entrepreneurial Skills, Waste Management, Households Survival, Economic Hardship.

INTRODUCTION

Economic challenges have become a global concern, impacting households in various regions and leading to shifts in traditional survival strategies. Traditional survival strategies refer to the coping mechanisms and socio-economic activities that households and communities have historically relied upon to sustain themselves during periods of hardship. These include subsistence farming, communal labor sharing, small-scale trading, reliance on extended family support networks, bartering of goods and services, food preservation, and other culturally rooted methods of meeting basic needs in the absence of formal economic support systems (Food and Agriculture Organization [FAO], 2020; United Nations Development Programme [UNDP], 2021). Across the world, rising inflation, unemployment, and economic instability have forced families to seek innovative solutions to meet their basic needs (World Bank, 2021). In many communities, effective waste management has emerged as a crucial area that can contribute to economic resilience (Kumar & Singh, 2020).

As households face economic constraints, traditional methods of coping are proving insufficient, necessitating the exploration of innovative survival strategies (World Bank, 2021). Waste management, traditionally regarded as a public service, has recently been recognized for its potential to offer economic advantages at the household level. By transforming waste into resources, households can actively participate in income generation, aligning their efforts with both financial needs and global sustainability goals (Kumar & Singh, 2020). This shift from waste disposal to waste utilization highlights the role of entrepreneurial skills in fostering resilience and sustainability.

Waste management is often perceived merely as a disposal task; however, recent literature underscores its potential as a resource for economic benefit. Studies have shown that localized “waste-to-wealth” programs in developing communities can significantly boost household income by converting agricultural or municipal waste into marketable goods or compost, simultaneously reducing environmental pollution (Akintola et al., 2019). Likewise, evidence from comprehensive waste-to-wealth initiatives in Nigeria reveals that expanding recycling and sustainable waste practices could generate substantial employment and economic returns (Onyeoma et al., 2024). Households equipped with entrepreneurial skills, such as Do-It-Yourself (DIY) techniques and marketing strategies, can transform waste into valuable products (Mazzarella et al., 2019). This practice not only reduces economic burdens by minimizing expenses but also generates additional income, thereby enhancing household sustainability. Moreover, engaging in waste management can promote environmental stewardship, aligning with global sustainability goals (United Nations, 2019).

Entrepreneurial skills are defined as the competencies that enable individuals to identify opportunities, manage resources, and create value in various contexts, including waste management (Gonzalez *et al.*, 2020). These skills are crucial for transforming waste into economic resources, alleviating financial burdens on households, and contributing to environmental sustainability and public health (Kumar & Singh, 2020). By equipping households with entrepreneurial skills, communities can foster innovative solutions to waste issues and enhance economic resilience. Among these essential entrepreneurial skills, Do-It-Yourself (DIY) techniques stand out as particularly valuable for households seeking innovative solutions to manage waste effectively and sustainably.

Do-it-yourself (DIY) skills involves the ability to create or repair items

independently using repurposed materials. In the realm of waste management, DIY skills empower households to transform discarded items into useful products, thus reducing waste and creating potential income streams. For instance, households can use DIY techniques to make furniture from pallets or crafts from plastic waste, effectively diverting materials from landfills while promoting creativity and self-sufficiency (Mazzarella *et al.*, 2019). The significance of DIY skills lies in their capacity to help households manage waste sustainably and economically. Equally important in waste management are marketing skills.

The role of marketing skills as a crucial component of entrepreneurial competencies has gained increasing recognition. Marketing skills, which encompass the ability to identify and understand customer needs, develop effective promotional strategies, and manage distribution channels, can be instrumental in enabling households to effectively commercialize their waste management-related products and services (Ezeudu and Ezeudu, 2019). By harnessing their marketing skills, households can not only generate additional income but also contribute to the overall sustainability of their waste management practices.

Marketing skills involve the ability to effectively promote and sell products. These skills allow households not only to repurpose waste but also to commercialize the results, ensuring a consistent income stream. Marketing skills help individuals identify target markets, communicate product value, and leverage strategies to build customer loyalty, all of which are crucial for selling repurposed items or recyclable materials (Adejumo & Adejumo, 2014). Effective marketing enables households to reach potential customers, build brand recognition, and create sustainable income sources from their waste management activities. Research shows that the ability to communicate the value of repurposed products plays a critical role in attracting buyers and enhancing household economic stability.

Mazzarella *et al.* (2019) found that households with strong DIY skills were more likely to engage in creative waste management practices, resulting in reduced waste and increased income from selling homemade products. Similarly, Adejumo & Adejumo (2014) emphasized that households with effective marketing strategies were better positioned to sell repurposed items, ultimately improving their economic outcomes. A study by D'Amato & Pizzi (2020) examined the impact of DIY initiatives on household waste reduction in urban areas, finding that communities that promoted DIY workshops experienced a significant decrease in overall waste generation. Furthermore, research by Arora & Luthra (2018) highlighted that marketing skills, particularly in social media, enhanced the visibility and sales of waste-derived products among young entrepreneurs. A study by Kuo *et al.* (2021) investigated the relationship between entrepreneurial education and waste management practices, revealing that participants who received training in both DIY and marketing skills exhibited more effective waste management strategies. Additionally, a study by Rachmawati & Azhari (2022) indicated that households engaged in community-based recycling initiatives, which combined DIY and marketing skills, achieved higher levels of economic stability and waste reduction compared to those that did not participate.

The current economic hardship affecting many households in Eket Local Government Area (LGA) is becoming increasingly evident through rising cost of living, unemployment, and limited income opportunities pushing many families into survival mode. As a resident and through personal interactions with several household members in Eket LGA, it is clear that many families are struggling to meet their basic needs. Conversations with some household members, shows that, many, viewed waste as a burden, while some viewed it as something to be discarded; without realizing its

potential as a resource for generating income or reducing household expenses.

Interactions suggest that the majority of households lack the entrepreneurial skills needed to effectively manage waste for economic gain. Many are unaware of how simple DIY techniques can reduce waste while creating valuable household items, or how marketing skills can help turn waste into a profitable resource.

A study by Adejumo & Adejumo (2014) on entrepreneurship and sustainable development in urban area; emphasized the potential of Do-It-Yourself (DIY) and small-scale recycling initiatives to generate income, reduce household expenses, and promote sustainability. Despite this, there is a significant gap in understanding whether households in Eket LGA possess these entrepreneurial skills and, how these skills can be effectively applied on waste management in household for survival. Thus, this study, seeks to investigate whether households possess entrepreneurial (DIY and marketing) skills, and how these skills can influence waste management in households for survival amidst economic hardship.

Objectives of the Study

The main objective of this study was to assess the influence of entrepreneurial skills on households' waste management for survival amidst economic hardship in Eket Local Government Area. Specifically, the study sought to

1. determine whether households in Eket LGA possess entrepreneurial skills (DIY and marketing) in waste management for survival amidst economic hardship;
2. determine the influence of DIY skills on household waste management for survival amidst economic hardship.
3. determine the influence of marketing skills on household waste management for survival amidst economic hardship.

Research Questions

The following questions were posed to guide this study:

1. What are the entrepreneurial (DIY and marketing) skills possessed by households in Eket for survival amidst economic hardship?
2. How do DIY skills influence household waste management in household for survival amidst economic hardship in Eket LGA?
3. How do marketing skills influence waste management in households for survival amidst economic hardship in Eket LGA?

Research Hypotheses

The two research hypotheses tested in the study at 0.05 level of significance were:

1. There is no significant influence of DIY skills on waste management in households for survival amidst economic hardship in Eket LGA.
2. There is no significant influence of marketing skills on waste management in households for survival amidst economic hardship in Eket LGA.

METHODOLOGY

The study adopted a survey design; this was considered suitable because it enables the researcher to elicit valid data using questionnaire and measures variables without manipulating any of them. The study was carried out in Eket Local Government Area of Akwa Ibom State. Eket town as popularly known is made up of four clans namely: Afaha Clan (with 22 villages), Ekid Offiong Clan (with 17 villages), Idua Clan (with 6 villages) and Okon Clan (with 18 villages) with a total of sixty three (63) villages. The inhabitants of Eket mainly rely on fishing, farming and trading for their livelihood. The study is relevant to Eket LGA due to its entrepreneurial potential and high unemployment rate.

The population of the study comprised of approximately 220,600 household members who were adults of 18 years and above in 63 villages in Eket (Akwa Ibom State: Subdivisions", 2022). The sample size for the study was 384 respondents. The sample size was determined using Research Advisor Sample Table (2006). The Research Advisor suggests the optimal sample size given a population size, a specific margin of error, and a desired confidence interval. The sample was selected using multi-stage sampling technique. First, the four clans were purposively used for the study. Thereafter, three villages were randomly selected from each of the four clans giving the total of 12 villages. Then stratified random sampling technique was used to select 384 households from each of the 12 selected villages. The instrument for data collection was structure questionnaire titled: "The questionnaire was designed on a four-point rating-scale of Strongly Agreed (SA), Agreed (A), disagreed (D) and strongly Disagreed (SD) with corresponding values of 4, 3, 2 and 1 respectively. The questionnaire was validated by three experts, one from Department of Business Education, one from Department of Home Economics and one statistician from the Department of Industrial Technology, all in University of Uyo, Uyo, Akwa Ibom State. Their corrections and suggestions were utilized to improve the initial questionnaire to produce the final version. The consistency of the instrument was determined using Cronbach Alpha Statistical Tool, a reliability coefficient of 0.93 was gotten, which made the instrument reliable and useable for the study. The researcher administered the questionnaire to the respondents, and 346 copies were retrieved on a spot giving the retrieval rate of 90.1%. Data collected was analysed using mean, standard deviation and one sample test-test statistics.

RESULTS

Research Question 1

What are the entrepreneurial skills in waste management possessed by households in Eket for survival amidst economic hardship?

Table 1a: Mean Scores showing DIY skills in waste management possessed by households in Eket LGA

S/N	Items	Mean	SD	Decision
1.	My family members usually produce items from waste for household use	2.69	.84	Agree
2.	My family members usually repair household items instead of buying new ones.	2.54	.87	Agree
3.	My family members use refillable containers for storing food items.	2.40	.72	Disagree
4.	My family members regularly find innovative ways to repurpose waste into useful items.	2.52	.90	Agree
5.	My members can create home deco from waste materials.	2.34	.72	Disagree
Grand Mean		2.50	0.81	Agree

N = 346 SD- Standard Deviation

Source: Field Survey (2024)

Table 1a shows the entrepreneurial skills in waste management possessed by households in Eket for survival amidst economic hardship. It indicates that most households produce items from wastes for domestic use (2.69), repair items instead of buying new one (2.54) and find innovative ways to repurpose waste into useful items (2.52). Grand mean of 2.50 indicates that most households possess DIY skills in waste management for survival amidst economic hardship.

Table 1b: Mean Scores showing DIY skills in waste management possessed by households in Eket LGA

S/N	Items	Mean	SD	Decision
1.	My household understands the basis of budgeting for small business activities.	2.49	.94	Disagree
2.	My household members are skilled in promoting items produced from waste.	2.34	.73	Disagree
3.	My household has understanding of customers' preference of recycled products.	2.61	.95	Agree
4.	My household is familiar with the use of social media for marketing of products produced from waste	2.79	.87	Agree
5.	My household usually develop business plan for production of recycled products.	3.44	.86	Agree
Grand Mean		2.73	0.87	Agree

N = 346 SD- Standard Deviation

Source: Field Survey (2024)

Table 1b shows the marketing skills in waste management possessed by households in Eket for survival amidst economic hardship. It indicates that most households understanding of customers' preference of recycled products (2.61), use of social media for marketing of products produced from waste (2.79) and develop business plan for production of recycled products (3.44). Grand mean of 2.73 indicates that most households possess marketing skills in waste management for survival amidst economic hardship.

Research Question 2

How do DIY skills influence household waste management for survival amidst economic hardship in Eket LGA?

Table 2: Mean Scores showing influence of DIY skills on household waste management in household in Eket LGA

S/N	DIY Skill	Mean	SD	Decision
1.	Waste recycling reduces the amount of waste generated in my household.	2.90	.30	Agree
2.	My household regularly engages in recycling to generate wealth.	3.21	.76	Agree
3.	Reusing waste products help us save money instead of discarding them.	2.83	.41	Agree
4.	Refurbishing waste in my household help lower expenses.	3.12	.88	Agree
5.	Repurposing waste materials helps contribute to the financial stability of my household.	2.67	.67	Agree
6.	Repairing broken items in my household instead of discarding them help manage expenses.	3.11	.78	Agree
7.	I am confident that DIY skills help my household to manage waste effectively to generate wealth.	3.12	.52	Agree
8.	My household use DIY skill to turn waste materials into creative products.	3.43	.81	Agree
9.	My household has significantly reduced our dependence on external waste disposal services through DIY skill.	2.83	.44	Agree
10.	The use of DIY skill in turning waste into useful items has improved the living conditions in my household.	3.27	.77	Agree
Grand Mean		3.05	0.63	Agree

N = 346 SD- Standard Deviation

Source: Field Survey (2024)

Table 2 shows responses on how DIY skills influence household waste management for survival amidst economic hardship in Eket LGA. It indicates that waste recycling reduces the amount of waste generated (2.90), households regularly engage in recycling to generate wealth (3.21), reusing waste help households save money (2.83), refurbishing waste lower household expenses (3.12), repurposing waste materials contribute to household financial stability (2.67), Repairing of broken items help manage expenses (3.11), DIY skills help generate wealth (3.12), DIY skills help turn waste material into creative waste (3.43), DIY help reduces dependence on external waste disposal services and DIY skills has improved the living conditions of households (3.27). Grand mean of 3.05 indicates that DIY skills greatly influence household waste management for survival amidst economic hardship in Eket LGA.

Research Question 3

How do marketing skills influence household waste management for survival amidst economic hardship in Eket LGA?

Table 3: Mean Scores showing influence of marketing skills on household waste management for survival amidst economic hardship in

Eket LGA

S/N	Items	Mean	SD	
1.	Direct sales of products made from waste increases household income.	2.92	.34	Agree
2.	Sale of products made from waste help manage household expenses.	3.04	.88	Agree
3.	The use of social media platforms for marketing items made from waste help my household cushion the effect of economic hardship.	2.89	.42	Agree
4.	My household has enough customers for the waste items produce	2.34	.79	Agree
5.	Selling of products made with waste items help in meeting family needs	3.28	.45	Agree
Grand Mean		2.89	0.58	Agree

N = 346 SD - Standard Deviation

Source: Field Survey (2024)

Table 3 shows responses on how marketing skills influence household waste management for survival amidst economic hardship in Eket LGA. It indicates that direct sales of products made from waste increases household income (2.92), sale of products made from waste help manage household expenses (3.04), use of social media platforms for marketing items made from waste cushion the effect of economic hardship (2.89), households has enough customers for the waste items produce (2.34) and selling of products made with waste items help in meeting family needs (3.28). Grand mean of 2.89 indicates that marketing skills greatly influence household waste management for survival amidst economic hardship in Eket LGA.

Hypothesis 1: There is no significant influence of DIY skills on waste management in households in Eket LGA.

Table 4: One sample t-test Analysis showing influence of DIY skills on waste management in households in Eket LGA

Categories	N	\bar{X}	SD	Df	t-cal	Sig-value	Decision
DIY Skills							
	346	3.05	.22	345	255.47	.000	Significant
Waste Management							
Significant at $p < 0.05$							

Source: Field Survey, (2024)

The one-sample t-test result in Table 4 shows that t-calculated is 255.47 and the Sig-value is .000 at 345 degrees of freedom. Since the Sig-value (.000) is less than the significance level of .05 the null hypothesis was rejected. Hence, there is a significant influence of DIY skills on waste management in households in Eket LGA.

Hypothesis 2

There is no significant influence of marketing skills on waste management in households in Eket LGA.

Table 5: One sample t-test Analysis showing influence of marketing skills on waste management in households in Eket LGA

Categories	N	\bar{X}	SD	Df	t-cal	Sig-value	Decision
Marketing Skills							
	346	3.09	.18	345	318.53	.000	Significant
Waste Management							
Significant at $p < 0.05$							

Source: Field Survey, (2024)

The one-sample t-test result in Table 5 shows that t-calculated is 318.53 and the Sig-value is .000 at 345 degrees of freedom. Since the Sig-value (.000) is less than the significance level of .05 the null hypothesis was rejected. Hence, there is a significant

influence of marketing skills on waste management in households in Eket LGA.

DISCUSSION OF FINDINGS

Entrepreneurial Skills Possessed by Households for Survival

Findings of the study showed that most households possess entrepreneurial skills (DIY skills and marketing skills) in waste management for survival amidst economic hardship. This implies that most households had acquired skills in producing items from wastes for domestic use, repairing items instead of buying new one and finding innovative ways to repurpose waste into useful items. Similarly, families have sought ways to market these products to earn income to meet other family needs through the use of social media for marketing and development of business plan for production of recycled products. The finding is supported by the findings of Rachmawati & Azhari (2022) who submitted that households engaged in community-based recycling initiatives, which combined DIY and marketing skills, achieved higher levels of economic stability and waste reduction compared to those that did not participate. It also align with the findings of Arora & Luthra (2018) who highlighted that marketing skills, particularly in social media, enhanced the visibility and sales of waste-derived products among young entrepreneurs.

Influence of DIY skills on households waste management for survival

Findings of the study indicated that most households possessed DIY skills such as ability to produce items from wastes for domestic use, repair items instead of buying new one, use innovative ways to repurpose waste into useful items. This implies that households utilize waste recycling, waste reusing, waste repurposing and waste refurbishing skills in managing waste in the area. Furthermore, finding revealed that waste recycling, reusing waste, repurposing and refurbishing waste materials reduces the amount of waste generated, generate wealth, help households save money, lower household expenses, contribute to household financial stability, turn waste material into creative waste, reduces dependence on external waste disposal services and improves the living conditions of households. Meanwhile, result indicated that there was a significant influence of DIY skills on waste management in households for survival in Eket LGA.

The finding is supported by the finding of Mazzearella et al. (2019) who found that households with strong DIY skills were more likely to engage in creative waste management practices, resulting in reduced waste and increased income from selling homemade products. Similarly, finding affirmed the finding of D'Amato & Pizzi (2020) who examined the impact of DIY initiatives on household waste reduction in urban areas and found that communities that promoted DIY workshops experienced a significant decrease in overall waste generation.

Influence of marketing skills on households' waste management for survival

Finding also indicated that there is a significant influence of marketing skills on waste management in households for survival in Eket LGA. This implies that households with stronger marketing competencies, such as the ability to identify target markets, develop effective promotional strategies, and manage distribution channels, were more successful in commercializing their waste management-related products and services. Specifically, the study found that households with well-developed marketing

skills were more likely to engage in activities such as the collection, sorting, and processing of household waste for resale or the production of value-added products from waste materials. These households were able to effectively identify and cater to the needs of local markets, enabling them to generate additional income streams from their waste management-related entrepreneurial activities vice versa. This finding underscores the critical importance of marketing skills in enabling households to successfully navigate the complexities of the waste management-related business environment and secure a sustainable source of income.

The finding is in agreement with the findings of Arora & Luthra (2018) who reported that marketing skills, particularly in social media, enhanced the visibility and sales of waste-derived products among young entrepreneurs. Similarly, the finding aligns with the finding of Rachmawati & Azhari (2022) who indicated that households engaged in community-based recycling initiatives, which combined DIY and marketing skills, achieved higher levels of economic stability and waste reduction compared to those that did not participate.

CONCLUSION

Waste management practices contribute to household survival by providing additional income streams, reducing environmental risks, and promoting overall well-being. Households that were able to leverage their entrepreneurial skills to create waste management-related livelihood options were better equipped to cope with the challenges posed by the current economic conditions, such as job loss, reduced income, and limited access to resources. Thus, the integration of entrepreneurial skills in waste management particularly Do-It-Yourself skills and marketing skills significantly enhance the resilience and survival of households in Eket LGA, particularly in the face of economic hardship.

RECOMMENDATIONS

Based on the findings, following recommendations were made:

1. The local government and relevant stakeholders should invest in the development and implementation of entrepreneurship training programmes focused on enhancing the entrepreneurial skills of individual on resource management.
2. Mechanisms that could improve the access of households in Eket LGA to financial resources, such as loans, grants, and microfinance should be established.
3. Ministry of Environment should conduct sustained awareness and education campaigns to inform households in Eket LGA about the importance of sustainable waste management practices.
4. Household members should adopt strategic measures to market products made from waste materials as this would serve as support source of income for household expenses.

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