



Informal Economic Learning through Scrap Work: Autonomy, Achievement, and Emotional Reward among Collectors

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ABSTRACT

This study examines how scrap collectors and traders in Nigeria experience economic learning through autonomy, achievement, and emotional reward. Qualitative data were collected from participants during an ethnographic study conducted between August and October 2025. Guided by interpretive anthropology and self-determination theory, the analysis showed that participants organized work independently, evaluated recyclable materials, managed earnings, accumulated savings, and pursued ownership goals. These work-based experiences strengthened economic self-reliance, competence, entrepreneurial thinking, and intrinsic motivation despite low income and occupational stigma. The findings indicate that informal occupations can function as practical environments for economic and management education. Educational and policy programs should therefore strengthen financial literacy, enterprise development, and worker autonomy without weakening participants' existing forms of self-direction and independence.

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1. INTRODUCTION

Informal economic activities provide livelihoods for millions of people in developing countries. They also create practical spaces where workers acquire knowledge about income generation, resource valuation, negotiation, saving, and enterprise management. Hart described the informal economy as a sphere of small-scale and self-employed activities operating outside formal state regulation [1]. In Nigeria, scrap collection represents one of these activities because it combines waste recovery, self-employment, and local trading. Although scrap work is commonly viewed as low-status labour, it also exposes participants to continuous economic decision-making.

Previous studies on waste recovery in Nigeria have mainly focused on material collection, recycling practices, environmental management, and institutional limitations [2-4]. These studies have established the economic and environmental importance of waste collection, but they have paid less attention to the learning processes that occur within the occupation. Scrap collectors must identify valuable materials, compare prices, determine suitable selling times, calculate expected earnings, manage daily expenses, and build relationships with traders. These activities represent forms of experiential economic education because participants develop practical economic knowledge through repeated participation in the market.

Economic education is not limited to formal classroom instruction. It can also occur through daily experiences that require individuals to understand value, scarcity, choice, risk, income, saving, and resource allocation. In informal occupations, such learning is often unstructured but directly connected to survival and livelihood improvement. Scrap collectors learn how discarded materials can be converted into marketable resources. They also learn how personal effort, timing, material quality, and market conditions influence income. These experiences may strengthen financial awareness, entrepreneurial thinking, and basic management competence.

The economic significance of scrap collection, however, does not fully explain why many collectors continue to describe their work positively despite low earnings, occupational stigma, and difficult working conditions. Research on informal recyclers has shown that workers may develop pride, competence, and satisfaction when they perceive their work as productive, skilled, and self-directed [5]. Such experiences suggest that scrap work involves both economic learning and psychological development.

A previous study of scrap collectors in Umudike showed that participants responded to occupational stigma by presenting scrap collection as honest and morally acceptable work [6]. That perspective explains how workers protect their dignity against negative social judgement. However, it does not completely explain how they learn to manage their economic activities or why they experience autonomy, achievement, and emotional reward through the work itself. The present study therefore shifts the discussion from stigma management alone toward informal economic learning and occupational well-being.

Self-determination theory provides a relevant framework for understanding these experiences. The theory explains that autonomy, competence, and relatedness support intrinsic motivation and psychological well-being [7]. In scrap collection, autonomy may appear through control over working hours, routes, material selection, and selling decisions. Competence may develop when collectors improve their ability to identify valuable materials, negotiate prices, accumulate savings, or expand their businesses. These processes are closely

related to management education because they involve planning, decision-making, self-evaluation, and goal setting.

This study aims to examine how autonomy, achievement, and emotional reward shape economic learning and occupational well-being among scrap collectors and traders in Umudike, Nigeria. Specifically, it investigates how participants organize their work, manage economic resources, evaluate personal progress, and interpret the emotional rewards associated with successful collection and sale. The novelty of this study lies in connecting informal scrap work with economic and management education. Unlike previous studies that have mainly discussed waste recovery, environmental management, occupational stigma, or moral legitimacy, this study interprets scrap collection as a practical learning environment. It shows how participants acquire economic knowledge, management skills, entrepreneurial attitudes, and a sense of competence through everyday work. This perspective expands economic education beyond formal institutions and highlights the educational value of informal livelihood practices.

2. LITERATURE REVIEW

Table 1 compares the major studies used in this research and identifies the conceptual gap addressed by the present study. Previous research has established the livelihood, environmental, social, and psychological significance of informal waste work. However, limited attention has been given to scrap collection as a setting for economic and management education. The present study addresses this gap by examining how autonomy, achievement, and emotional reward contribute to economic knowledge, self-management, entrepreneurial competence, and occupational well-being.

Table 1. Synthesis of previous studies and the research gap.

REFERENCE	STUDY FOCUS	MAIN CONTRIBUTION	RELEVANCE TO THE PRESENT STUDY	REMAINING GAP
Hart [1]	Informal income and self-employment	Defined informal economic activity as flexible, small-scale, and largely outside formal regulation.	Provides the general foundation for understanding scrap collection as informal economic activity.	Did not examine economic learning or occupational well-being among informal workers.
Adeyemi et al. [2]	Waste scavenging and livelihoods	Showed that scavenging supported income generation and material recovery.	Establishes the livelihood and economic value of waste collection.	Gave limited attention to learning, autonomy, and management competence.
Kofoworola [3]	Recycling practices in municipal waste management	Demonstrated the role of informal recycling in recovering materials from urban waste.	Supports the environmental and economic importance of scrap collectors.	Did not discuss scrap work as an educational or management-learning process.
Ogwueleka [4]	Municipal solid waste management in Nigeria	Identified the continuing importance of informal waste activities within weak formal systems.	Provides national context for informal waste collection in Nigeria.	Focused more on waste management than on workers' experiences and competencies.

Table 1 (continue). Synthesis of previous studies and the research gap.

REFERENCE	STUDY FOCUS	MAIN CONTRIBUTION	RELEVANCE TO THE PRESENT STUDY	REMAINING GAP
Dias [5]	Waste pickers and cities	Showed that waste workers could experience pride, productivity, and occupational recognition.	Supports the interpretation of scrap work as meaningful and socially productive.	Did not specifically connect occupational satisfaction with economic education.
Maduka and Usoro [6]	Stigma, moral economy, and symbolic inversion	Explained how scrap collectors constructed dignity and moral legitimacy around their work.	Provides the immediate social and cultural context for the present study.	Did not primarily examine economic learning, management skills, or emotional reward.
Deci and Ryan [7]	Self-determination theory	Proposed that autonomy, competence, and relatedness support motivation and well-being.	Provides the theoretical basis for interpreting autonomy, achievement, and emotional reward.	The theory has rarely been applied to informal scrap work and economic education.
Nabi et al. [8]	Entrepreneurship education	Showed that entrepreneurship education can influence knowledge, attitudes, and entrepreneurial outcomes.	Supports the link between informal work experience and entrepreneurial competence.	Focused mainly on formal educational settings rather than community-based informal work.
Wilson et al. [9]	Informal-sector recycling	Explained the contribution of informal recyclers to waste recovery in developing countries.	Reinforces the productive and economic role of informal recyclers.	Did not treat recycling activity as a context for management education.
Millar [10]	Informal waste labour and precarious livelihoods	Demonstrated how waste workers constructed meaning and continuity under uncertain conditions.	Supports analysis of persistence, uncertainty, and emotional experience.	Provided limited discussion of financial literacy and economic learning.
Billett [11]	Workplace learning	Explained that knowledge develops through participation, workplace opportunities, and individual engagement.	Supports the interpretation of scrap collection as experiential and work-based learning.	Did not specifically address informal recycling, economic education, or occupational stigma.

2.1. Informal Economy and Scrap-Based Livelihoods

The informal economy plays an important role in employment creation, income generation, and household survival. Hart explained that informal economic activities are generally small-scale, flexible, and based on self-employment [1]. These characteristics remain relevant to scrap collection because collectors usually work independently, determine their own schedules, and earn income from the materials they recover and sell.

In Nigeria, studies of waste collection have documented the contribution of scavengers and informal recyclers to material recovery and urban waste management. Waste scavenging created livelihood opportunities while supporting the recovery of reusable materials [2]. Informal recycling practices contributed to municipal waste management by diverting recoverable materials from disposal sites [3]. Informal waste activities remained important within Nigeria's waste-management system despite weak institutional support [4].

These studies demonstrate that scrap collectors perform economically and environmentally useful functions. Nevertheless, they largely treat collectors as labour actors within the waste sector. They provide limited discussion of how collectors develop economic understanding through market participation. Scrap collection requires knowledge of material categories, price differences, transportation costs, buyer preferences, and daily income targets. Therefore, the occupation also functions as an informal learning system in which economic knowledge is acquired through practice.

2.2. Economic Education through Work Experience

Economic education usually develops understanding of economic choice, resource use, income, saving, production, exchange, and market behaviour. In informal employment, these concepts are learned through direct experience rather than through a formal curriculum. Scrap collectors repeatedly make decisions about where to search, which materials to collect, when to sell, how much to save, and whether to reinvest their earnings.

This process resembles experiential learning because knowledge develops from action, observation, adjustment, and repeated participation. A collector who learns to distinguish copper from aluminium, for example, is not only acquiring technical knowledge but also learning how quality and scarcity influence market value. Similarly, a collector who delays consumption in order to save for a weighing scale or trading centre is applying principles of financial planning and capital formation.

The management dimension is equally important. Participants must organize time, coordinate labour, evaluate opportunities, and respond to uncertainty. These activities represent basic forms of self-management and microenterprise management. The occupation may therefore strengthen practical abilities that are relevant to entrepreneurship education, financial literacy, and small-business development.

2.3. Autonomy and Self-Directed Economic Activity

Autonomy refers to the experience of acting through personal choice and self-direction. Self-determination theory identifies autonomy as one of the basic psychological needs that support motivation and well-being [7]. In the context of scrap collection, autonomy is visible when workers select their own working hours, collection routes, buyers, and selling strategies.

This independence can also support economic learning. Workers who control their own activities must evaluate alternatives and accept responsibility for outcomes. They learn from successful and unsuccessful decisions. As a result, autonomy becomes both a psychological benefit and an educational process. However, autonomy in informal work should not be interpreted as complete economic freedom. Scrap collectors still face unstable prices, low social status, physical risks, and limited access to formal financial services. Their independence operates within structural constraints. Even so, the ability to make decisions may strengthen confidence, responsibility, and entrepreneurial identity.

2.4. Achievement, Competence, and Economic Progress

Competence refers to the experience of performing effectively and making progress [7]. In scrap collection, competence may be reflected in improved material identification, better price negotiation, increased daily earnings, accumulated savings, and expansion into trading or ownership.

Achievement is particularly important because informal workers may not measure success through formal promotion or professional certification. Instead, they may define progress through practical indicators such as purchasing equipment, supporting family members, increasing stock, or opening a collection centre. These goals provide evidence of economic learning because they require planning, discipline, and the management of limited resources.

Studies of waste workers have shown that occupational satisfaction increases when workers regard their labour as productive, useful, and self-directed [5]. This suggests that competence is not only related to income. It is also connected to the recognition that personal effort produces visible outcomes.

2.5. Emotional Reward and Occupational Well-Being

Economic activity can generate emotional outcomes in addition to financial returns. Scrap collectors may experience happiness when they discover valuable materials, complete a profitable sale, or reach a savings target. These emotional rewards can reinforce motivation and continued participation in the occupation.

Waste pickers often developed occupational pride when they perceived their work as socially useful and economically productive [5]. Collectors constructed moral legitimacy by describing scrap work as honest labour rather than theft, begging, or idleness [6]. These findings show that positive emotional experiences may emerge even in socially stigmatized occupations.

The present study extends this discussion by treating emotional reward as part of informal economic learning. Positive feelings associated with successful decisions may reinforce useful economic behaviour. A profitable sale may encourage better material sorting, disciplined saving, or greater attention to market prices. Emotional reward can therefore support motivation, confidence, and continued skill development.

3. METHODS

This study used a qualitative ethnographic design to examine how scrap collectors and traders experienced economic learning, self-management, achievement, and emotional reward through their daily work. The research formed part of a larger ethnographic study conducted in Umudike, Abia State, Nigeria, between August and October 2025. Umudike is a semi-urban community in Oboro, Ikwuano Local Government Area, located approximately 5.5

kilometres from Umuahia, the capital of Abia State. The presence of Michael Okpara University of Agriculture, Umudike, the National Root Crops Research Institute, residential areas, and commercial activities generated a continuous supply of recyclable materials and supported the development of an active local scrap economy.

Thirty participants who had at least six months of experience in scrap collection or trading were selected through purposive and snowball sampling. The initial participants were identified through a scrap weighing and trading centre in Umudike. They subsequently introduced the researcher to other individuals who met the inclusion criteria. This sampling approach was appropriate because scrap collectors operated through informal social and occupational networks that were not documented in an official participant list.

Data were collected through participant observation, in-depth interviews, and key informant interviews. The interviews lasted between 30 and 60 minutes and were conducted in English, Nigerian Pidgin, and Igbo, depending on each participant's preference. With the participants' consent, the interviews were audio-recorded and supported by detailed field notes. The interviews explored daily work routines, control over working decisions, material identification, price evaluation, income management, savings practices, perceptions of achievement, business aspirations, and sources of emotional satisfaction. Participant observation also involved the researcher's direct participation in scrap collection and sale. This involvement provided contextual understanding of how collectors searched for materials, assessed their value, negotiated with buyers, and interpreted the financial and emotional outcomes of their work.

The data were analysed through inductive thematic analysis. Interview recordings were transcribed, translated into English where necessary, and read repeatedly together with the field notes. Initial codes were developed from statements and observations related to independence, decision-making, ownership, income improvement, saving, business expansion, successful sales, happiness, and occupational satisfaction. Related codes were grouped into broader themes. Three principal themes emerged from this process: autonomy, achievement, and emotional reward. These themes were subsequently interpreted through self-determination theory and the concept of informal economic learning. Autonomy was examined as both psychological self-direction and economic self-management. Achievement was interpreted through competence, income progression, savings, and business aspirations. Emotional reward was analysed as an intrinsic response that strengthened motivation and continued participation in economic activity.

Trustworthiness was supported through the use of multiple data-collection techniques, including interviews, key informant accounts, participant observation, and field notes. The comparison of information obtained from these sources allowed the researcher to identify recurring experiences and reduce dependence on single statements. Direct quotations were retained to preserve participants' meanings and provide evidence for the interpretation of each theme. Detailed descriptions of the research setting, participant experiences, and analytical process were also used to strengthen the transparency and transferability of the findings.

Participation was voluntary and based on informed consent. Participants were informed about the purpose of the research, the use of their responses, and their right to withdraw without consequence. Confidentiality was protected through participant descriptions and

identifiers rather than personal names. No participant was subjected to coercion, deception, or undue inducement.

4. RESULTS AND DISCUSSION

The thematic analysis showed that scrap collection functioned as more than an income-generating activity. It also operated as a practical environment in which participants learned how to organize work, identify valuable resources, manage earnings, evaluate progress, and respond emotionally to economic outcomes. Three interrelated themes emerged from the data: autonomy, achievement, and emotional reward. These themes demonstrate how informal work can support economic knowledge, self-management, entrepreneurial competence, and occupational well-being.

Table 2 summarizes the relationship between the three themes, the forms of economic learning experienced by participants, the management competencies developed through scrap work, and their implications for economic education.

Table 2. Emergent themes and their implications for economic and management education.

THEME	EVIDENCE FROM PARTICIPANTS' EXPERIENCES	ECONOMIC LEARNING	MANAGEMENT COMPETENCY	EDUCATIONAL IMPLICATION
Autonomy	Control over working hours, routes, collection decisions, and selling activities.	Choice, opportunity evaluation, and market participation	Self-management and independent decision-making	Supports entrepreneurship and work-based economic education
Achievement	Income growth, savings, family earnings, and ownership aspirations	Financial planning, accumulation, and reinvestment	Goal setting, progress evaluation, and enterprise development	Strengthens financial literacy and entrepreneurial competence
Emotional reward	Happiness after finding valuable materials or completing successful sales	Recognition of the relationship between effort, value, and reward	Motivation, persistence, and occupational commitment	Demonstrates the motivational role of experiential economic learning

The results of this study are shown in **Table 3**. In general, this table summarizes the interview evidence and shows how participants' statements reflected autonomy, achievement, emotional reward, and practical economic learning. The findings indicate that scrap collection developed competencies related to decision-making, ownership, opportunity recognition, financial planning, and enterprise management. Detailed information is explained in the following section.

Table 3. Summary of interview findings on informal economic learning.

PARTICIPANT EVIDENCE	MAIN THEME	ECONOMIC MEANING	MANAGEMENT COMPETENCE	EDUCATIONAL INTERPRETATION
"You have to choose... when you package your goods and put them in order, you will sell them to the company."	Autonomy	The participant evaluated the advantages and disadvantages of scrap work and selected the livelihood option considered more beneficial.	Independent decision-making; work organization; material preparation	Informal work develops understanding of choice, opportunity cost, and self-management.
"Why are you touching my market?"	Autonomy	Collected scrap was understood as an economic asset with exchange value rather than as useless waste.	Ownership awareness; asset protection; market orientation	Scrap work provides practical learning about property, value, and market exchange.
"I have got another small contract of sweeping and cleaning a lodge..."	Autonomy	The participant used an existing occupational network to create an additional source of income.	Opportunity recognition; income diversification; labour coordination	Informal employment can strengthen entrepreneurial thinking and microenterprise skills.
"I have come out from where I was earning ₦20,000 to ₦60,000... I intend to own my own dumpsite one day."	Achievement	Increased earnings were used to measure economic progress, while business ownership represented a long-term goal.	Performance evaluation; goal setting; enterprise planning	Work experience supports financial awareness, entrepreneurial aspiration, and strategic thinking.
"When we work as a family, we sell every two weeks, and we make up to ₦95,000."	Achievement	Family members accumulated materials and combined labour before selling.	Cooperation; inventory accumulation; collective decision-making	Family-based enterprise provides practical lessons in coordination, scale, and income management.
The researcher earned ₦1,250, ₦1,800, and ₦700 on three collection occasions.	Achievement	Daily income varied according to the type, quantity, and value of recovered materials.	Income monitoring; adaptation to uncertainty; persistence	Informal work exposes participants to income variability, risk, and adaptive financial behaviour.
"If I stumble into copper and aluminium... I will be very happy."	Emotional reward	Higher-value materials created expectations of stronger financial returns.	Material valuation; market awareness; motivation	Emotional satisfaction reinforces learning about price differences and resource value.
"Out of dirtiness comes happiness... when my bag fills, I see that today has blessed me."	Emotional reward	A full bag represented accumulated labour, potential income, and successful resource recovery.	Persistence; effort evaluation; occupational commitment	Positive emotional outcomes can strengthen motivation and experiential economic learning.
"The market she or he brought has solved his or her problems for today or even tomorrow."	Emotional reward	Income was evaluated according to its ability to meet immediate household needs.	Budgeting; income allocation; short-term financial planning	Everyday transactions provide practical learning about income use and financial problem-solving.

4.1. Autonomy as Economic Self-Management

Participants consistently described scrap collection as an occupation that gave them independence and control over their daily activities. They determined when to begin work, where to search for materials, which items to collect, and when to sell. These decisions indicate that autonomy in scrap work was not only psychological but also economic. Participants were responsible for organizing their labour, assessing opportunities, and managing the consequences of their decisions.

One participant in his mid-30s, who had previously worked as casual staff at a bottling company and earned ₦20,000 per month, explained:

I am happy to be part of the scrap business. In the business, I have seen the good and the bad. The bad is that the smell and odors from the scraps don't give us joy, but when you think of what you want, you have to choose. The joy is that when you package your goods and put them in order, you will sell them to the company.
(*In-depth interview, October 21, 2025*)

The participant acknowledged the unpleasant physical conditions associated with scrap work, but he evaluated these conditions against the freedom and economic opportunities available in the occupation. His statement, "you have to choose," illustrates an active decision-making process. He did not present himself as a passive victim of economic hardship. Instead, he described the occupation as a choice that involved evaluating disadvantages, expected benefits, and personal goals.

This experience reflects the concept of autonomy in self-determination theory, which explains that individuals are more likely to develop intrinsic motivation when they perceive themselves as agents of their own actions [7]. In the present study, autonomy was also connected to economic education because participants learned to compare employment alternatives, evaluate opportunity costs, and select the livelihood strategy that they considered more beneficial.

A 16-year-old collector with three years of experience expressed a similar sense of control and economic ownership:

Scrap means money to me. If anybody, for instance, wants to carry my collected scraps, I will say, why are you touching my market?
(*In-depth interview, October 10, 2025*)

The expression "my market" is important because it shows that the participant did not view the collected materials simply as abandoned waste. He regarded them as personally acquired economic assets. The statement also reflects an understanding of property, exchange value, and ownership. Through repeated participation in scrap collection, the participant had learned that discarded materials could become marketable goods when they were identified, collected, sorted, and sold.

This process represents practical value education. Formal economic education often introduces students to concepts such as utility, exchange, scarcity, ownership, and market value. In scrap collection, these concepts were learned experientially. Participants observed that the value of an object depended not only on its physical condition but also on material type, market demand, weight, and buyer preference. This work-based understanding

strengthened their ability to recognize economic opportunities in materials that other community members considered useless.

Autonomy also appeared in participants' ability to create additional livelihood activities. A 19-year-old collector explained:

From picking scraps around students' lodges, I have got another small contract of sweeping and cleaning a lodge around Rancourt Phase 1. I do this work with my younger sister, and it pays me ₦10,000 per cleaning session.
(In-depth interview, October 3, 2025)

This account shows that the participant used her existing occupational network to identify another source of income. She moved from scrap collection into paid cleaning work and organized the activity together with her younger sister. The transition illustrates opportunity recognition, labour coordination, service provision, and income diversification.

From a management education perspective, the participant demonstrated basic entrepreneurial behaviour. She identified a local need, mobilized available labour, arranged service delivery, and generated additional income. These activities are similar to the competencies emphasized in entrepreneurship education, particularly initiative, opportunity identification, resource mobilization, and small-enterprise management [8].

The findings therefore show that autonomy in the scrap economy was not equivalent to unrestricted freedom. Participants remained exposed to unstable earnings, occupational stigma, unpleasant working conditions, and limited institutional protection. Nevertheless, they exercised meaningful control over several aspects of their work. This control created opportunities for learning through decision-making and responsibility.

Economic education can benefit from recognizing such informal learning. Classroom-based teaching often explains choice and opportunity cost through hypothetical examples. The participants in this study encountered these concepts in everyday livelihood decisions. They compared formal and informal employment, selected collection locations, evaluated material values, and decided whether to consume, save, or reinvest earnings. Their experiences suggest that economic education should connect theoretical concepts with the realities of informal work.

4.2. Achievement as Economic Progress and Competence

Achievement emerged as the second major theme. Participants assessed success through visible improvements in income, accumulated savings, household contributions, and aspirations for business ownership. Their experiences show that achievement in informal employment was measured differently from achievement in formal organizations. There were no promotions, certificates, or fixed salary grades. Instead, participants evaluated progress through their ability to improve earnings, meet personal needs, support family members, and expand economic activities.

A participant in his mid-30s described the improvement he had experienced after entering the scrap business:

I am happy that I have come out from where I was earning ₦20,000 to ₦60,000, and I believe that from here I will get better and better. I intend to own my own dumpsite one day.
(In-depth interview, October 21, 2025)

The participant compared his previous monthly income with his current earnings and used this comparison to evaluate occupational progress. His ambition to own a scrap collection or weighing centre also shows that he viewed his current work as a stage in a longer enterprise-development process. He was not only collecting materials for immediate consumption but also developing an ownership goal.

This finding supports the competence dimension of self-determination theory. Competence develops when individuals perceive that their efforts produce improvement and enable them to achieve increasingly difficult goals [7]. In this case, increased earnings provided evidence that the participant's knowledge and effort had economic value. His aspiration to own a collection centre further indicates that competence can generate entrepreneurial confidence.

The account also has implications for management education. The participant had developed an informal performance indicator by comparing past and present earnings. He had also formulated a long-term business objective. These practices resemble basic management functions, including performance evaluation, goal setting, and strategic planning. Although they were not learned through formal business training, they emerged from direct occupational experience.

Another participant described achievement at the household level:

All of us in the family na “akpakara” we dey do. When we work as a family, we sell every two weeks, and we make up to ₦95,000.
(*In-depth interview, October 3, 2025*)

The statement demonstrates that scrap collection could be organized as a family economic activity. Family members combined their labour, accumulated materials over two weeks, and sold them collectively. This arrangement involved cooperation, delayed sale, stock accumulation, and income sharing.

From an economic-learning perspective, the family was applying principles of aggregation and scale. Rather than selling very small quantities immediately, the members accumulated materials until they reached a larger volume. This practice may increase bargaining power, reduce transaction frequency, and create more visible income. It also requires coordination and trust among family members.

Such experiences are relevant to management education because they show how informal enterprises use household labour and social relationships as productive resources. Small informal businesses often operate without written organizational structures, yet they still require task allocation, coordination, and collective decision-making. The family-based system described by the participant functioned as a simple management arrangement adapted to local conditions.

Participant observation further supported these accounts. During fieldwork, the researcher participated in scrap collection on three occasions and earned ₦1,250, ₦1,800, and ₦700. Although these amounts were modest, they provided direct insight into the incremental character of income generation. Earnings depended on the availability, type, weight, and market value of the collected materials.

The observed variation in daily earnings illustrates an important economic lesson. Informal income is uncertain and may change from one working period to another. Participants

therefore needed to understand variability, manage expectations, and continue working despite inconsistent returns. This experience may strengthen adaptive financial behaviour, particularly when workers learn to save during more successful periods or diversify their income sources.

Studies of informal recyclers have similarly shown that workers develop practical knowledge, occupational identities, and livelihood strategies through continuous engagement with waste markets [5, 9]. However, the present findings add an educational interpretation by showing that progress itself served as a learning mechanism. When participants observed that improved sorting, persistence, or market knowledge increased their earnings, they received immediate feedback about the effectiveness of their decisions.

Achievement therefore connected economic learning with motivation. Income growth, savings, and ownership aspirations signalled that participants were becoming more competent. These visible outcomes encouraged them to continue developing their knowledge and work practices. In this sense, the scrap economy functioned as an informal learning environment in which performance was evaluated through real economic consequences.

4.3. Emotional Reward as Motivation for Economic Participation

Emotional reward emerged as the third major theme. Participants repeatedly described happiness, gratitude, and satisfaction when they found valuable materials, completed successful sales, or received income from their work. These emotional responses were not separate from economic activity. Instead, they were closely connected to participants' experiences of effort, value creation, and financial reward.

A 21-year-old collector from Ebem Ohafia explained:

Assuming I go out in a day and stumble into copper and aluminium, I will say that God has remembered me today, and I will be very happy.
(*In-depth interview, September 26, 2025*)

The participant associated the discovery of valuable materials with immediate happiness and gratitude. Copper and aluminium had higher market value than many other materials, and finding them increased the likelihood of a profitable sale. His emotional reaction therefore reflected an understanding of economic value. The happiness did not arise from the physical object alone but from the expectation that the material could be converted into income.

This experience shows how market knowledge and emotional reward interacted. The participant had learned to distinguish between materials with different economic values. When he found higher-value materials, the discovery confirmed the usefulness of that knowledge. Emotional satisfaction therefore acted as feedback that reinforced attention, persistence, and continued participation in scrap collection.

Another participant, a 19-year-old collector, described the relationship between work, valuable materials, and happiness more directly:

To me, out of dirtiness comes happiness, because when I see money I am happy. If I see heaps of sellable scraps plenty, I become happy, and when my bag fills, I see that today has

blessed

me.

(In-depth interview, October 3, 2025)

The expression “out of dirtiness comes happiness” captures the transformation that occurred through scrap work. Materials that were publicly associated with dirt and waste became sources of value and emotional satisfaction when participants recognized their market potential. The participant’s happiness increased as the quantity of collected material increased and as the possibility of earning income became more certain.

This finding has implications for economic education because it illustrates how individuals learn to connect effort, resources, production, and reward. The participant understood that a full bag represented accumulated labour and potential income. This understanding was developed through direct experience rather than through formal instruction.

The emotional response also reflects intrinsic motivation. Self-determination theory explains that individuals are more likely to persist when they experience competence and perceive that their actions produce meaningful outcomes [7]. In this study, participants experienced competence when they successfully located, sorted, and sold valuable materials. Happiness reinforced the perception that their work was productive and worthwhile.

Field observations supported the interview accounts. On October 21, 2025, the researcher repeatedly observed collectors smiling immediately after their materials had been weighed and payment had been received. The wife of the scrap weighing-centre operator explained:

That means that the market she or he brought has solved his or her problems for today or even tomorrow if it is big. But if it is small, at least it has solved their problem for today.
(Key informant interview, October 21, 2025)

This statement links emotional reward directly to the ability of income to meet immediate needs. The collectors’ smiles indicated relief, accomplishment, and temporary financial security. Payment confirmed that their labour had produced a usable economic outcome.

The observation is relevant to financial and management education because it shows that income was evaluated according to its practical ability to solve problems. Participants did not necessarily calculate economic success through formal accounting systems. Instead, they assessed whether daily earnings could purchase food, support household expenses, or provide savings for the following day. These evaluations represent practical forms of budgeting and financial decision-making.

Emotional reward also helped participants tolerate the uncertainty and physical difficulty associated with informal work. Scrap collection involved unpleasant smells, exposure to dirty materials, unstable earnings, and social stigma. Nevertheless, successful collection and sale produced positive emotions that encouraged continued participation. Similar studies have shown that informal workers may experience pride and satisfaction when they perceive their work as productive, independent, and socially useful [5, 10].

From an educational perspective, these findings suggest that economic learning is strengthened when individuals can observe the results of their decisions. Immediate outcomes make abstract economic concepts more meaningful. Participants learned that material selection, labour effort, market knowledge, and timing affected the amount of income they received. Emotional reward reinforced this learning by associating successful decisions with feelings of happiness and competence.

4.4. Interaction among Autonomy, Achievement, and Emotional Reward

The three themes did not operate independently. Autonomy allowed participants to organize work and make economic decisions. Achievement provided evidence that these decisions could produce progress. Emotional reward reinforced the motivation to continue working and improving. Together, these dimensions formed a cycle of informal economic learning.

We propose a relationship among autonomy, achievement, emotional reward, and informal economic learning. This includes:

- (i) Autonomy and self-direction: Independent economic decisions and work organization.
- (ii) Achievement and competence: Income growth, savings, household contribution, and ownership aspirations.
- (iii) Emotional reward: Happiness, confidence, motivation, and persistence. Indeed, it relates to continuation of participation and deeper economic learning.

Autonomy initiated the learning cycle because participants were required to make independent decisions. These decisions included choosing collection routes, identifying materials, selecting buyers, organizing labour, and determining how earnings would be used. The outcomes of these decisions then produced either progress or disappointment.

When decisions led to increased earnings, successful sales, savings, or business expansion, participants experienced achievement. This achievement strengthened their perception of competence. Emotional reward followed when participants interpreted the outcome as evidence that their effort had been worthwhile. Positive emotions then encouraged continued participation and further learning.

This cycle supports the idea that economic education can occur outside formal classrooms. Economic understanding developed through repeated interaction with real prices, limited resources, uncertain income, and immediate consequences. Participants were not merely performing physical labour. They were continuously learning how to recognize value, manage uncertainty, allocate income, and respond to changing opportunities.

The findings also show that economic learning was embedded in social and cultural meanings. Participants interpreted successful work through expressions such as “God has remembered me,” “my market,” and “today has blessed me.” These expressions reveal that economic outcomes were understood not only through monetary calculation but also through moral, emotional, and spiritual meanings. Such interpretations are important because economic behaviour is shaped by the cultural context in which people make decisions.

4.5. Informal Work as a Context for Economic Education

The results broaden the meaning of economic education. Conventional economic education is usually associated with schools, universities, textbooks, and structured training. The present findings show that informal occupational environments can also produce economic knowledge and management competence.

Participants learned several economic principles through work. First, they learned that discarded materials could possess exchange value. Second, they learned that materials

differed in price according to type, weight, quality, and demand. Third, they learned that income depended on effort, opportunity, information, and timing. Fourth, they learned to allocate earnings among immediate consumption, household responsibilities, savings, and enterprise development.

These forms of learning were experiential and problem-centred. Participants faced real economic constraints and had to make decisions with immediate consequences. This process corresponds with work-based learning, in which knowledge develops through participation, reflection, and repeated practice [11].

The findings also support the importance of contextualized economic education. Teaching economic concepts through examples from informal markets may make learning more relevant to students who live in communities where self-employment and informal trade are common. Scrap collection provides practical illustrations of opportunity cost, scarcity, market value, price variation, entrepreneurship, saving, and investment.

For example, a collector who chooses between selling materials immediately or accumulating a larger quantity is making a decision involving time preference, risk, and expected return. A family that combines labour and sells every two weeks is applying cooperation, inventory accumulation, and basic economies of scale. A collector who saves to own a scrap weighing centre is engaging in capital formation and enterprise planning.

These examples indicate that economic education should not treat informal workers only as individuals who lack formal knowledge. They possess practical knowledge that can support educational programs, entrepreneurship training, and community-based financial literacy. Instruction can become more effective when it recognizes existing competencies and connects them with formal economic concepts.

4.6. Implications for Management Education

The findings are also relevant to management education. Participants demonstrated several management competencies, including planning, self-organization, resource allocation, performance evaluation, labour coordination, and goal setting. Although these competencies were not acquired through formal management courses, they were developed through repeated occupational practice.

Autonomy required self-management because participants had no formal supervisor who organized their daily tasks. Achievement required performance evaluation because participants compared present earnings with previous income and assessed whether they were moving toward personal goals. Family-based collection required coordination and informal division of labour. Business aspirations required planning and the ability to imagine future ownership.

These competencies suggest that management education can benefit from incorporating informal-enterprise experiences into teaching materials. Case studies based on scrap collection can help students understand how management functions operate in small, resource-constrained businesses. Such cases may also challenge the assumption that management knowledge exists only in formal organizations.

However, the findings should not be interpreted as evidence that informal workers do not need formal support. Practical experience provided important knowledge, but participants still faced risks related to unstable prices, limited access to credit, weak occupational

protection, and inadequate financial services. Management education programs could strengthen existing competencies by providing training in record keeping, price calculation, savings, investment, negotiation, occupational safety, and enterprise growth.

This approach should preserve the autonomy that participants valued. Programs that impose excessive control may reduce the self-direction that motivated workers. Support should therefore be participatory and adapted to participants' existing work practices.

4.7. Relationship with Occupational Stigma and Moral Legitimacy

The findings complement the previous analysis of stigma and moral legitimacy among scrap collectors in Umudike, Nigeria [6]. That study showed that collectors defended the moral value of their occupation by comparing it with theft, begging, and idleness. The present study extends that interpretation by showing that positive occupational experiences were not limited to resistance against public judgement.

Participants experienced happiness through the work itself. They valued independent decision-making, visible economic progress, and successful exchange. Therefore, the statement "out of dirtiness comes happiness" had at least two related meanings. First, it challenged the public belief that scrap work was degrading. Second, it described the genuine emotional satisfaction that participants experienced when discarded materials produced income and progress.

This distinction is important. If happiness were interpreted only as a defence against stigma, the internal economic and psychological meanings of work would be overlooked. The findings show that participants' satisfaction was rooted in real experiences of autonomy, competence, and reward.

The study therefore moves beyond a deficit-based interpretation of informal labour. Scrap collectors faced economic and social disadvantages, but they also possessed agency, knowledge, aspirations, and management competence. Recognizing these strengths does not deny the difficulties of informal work. Instead, it provides a more balanced explanation of participants' experiences.

4.8. Educational and Policy Implications

The findings indicate that education and policy programs for informal recyclers should build on the knowledge that workers already possess. Training should not begin from the assumption that participants have no economic or management understanding. Instead, programs should connect formal concepts with existing practices.

Table 4 presents several practical implications derived from the findings. Economic education programs could introduce simple record-keeping methods that allow collectors to compare income, expenditure, and savings over time. Price-information systems could help reduce information disadvantages between collectors and buyers. Entrepreneurship training could support workers who aspire to move from collection into weighing, aggregation, or recycling businesses.

Table 4. Educational and policy implications of the findings.

IDENTIFIED EXPERIENCE	EXISTING PARTICIPANT COMPETENCE	RECOMMENDED EDUCATIONAL SUPPORT	EXPECTED OUTCOME
Independent work organization	Time management and route selection	Self-management and enterprise-planning training	Improved work efficiency
Material identification and selling	Recognition of market value	Pricing, negotiation, and market-information training	Better selling decisions
Income accumulation	Basic saving and budgeting practices	Financial literacy and record-keeping education	Stronger financial control
Family-based collection	Labour coordination and cooperation	Cooperative and small-business management training	Improved collective enterprise
Ownership aspirations	Goal setting and entrepreneurial motivation	Access to savings groups, microcredit, and business mentoring	Enterprise development
Emotional satisfaction from success	Intrinsic motivation and persistence	Recognition-based and participatory training	Sustained engagement in learning

Financial support should also be linked with education. Credit without financial planning may increase risk, while training without access to capital may limit business development. Integrated programs should therefore combine financial literacy, business mentoring, savings mechanisms, and appropriate financing.

Policy interventions should also recognize informal recyclers as economic and environmental actors. Formalization initiatives should avoid removing the flexibility and autonomy that participants valued. Cooperative structures should remain voluntary and should improve bargaining power, safety, and access to markets without creating unnecessary administrative barriers.

4.9. Contribution to Economic and Management Education

This study contributes to economic and management education in three ways. First, it demonstrates that informal occupations can function as sites of experiential economic learning. Participants developed knowledge about value, prices, income, savings, and market exchange through direct participation.

Second, the study connects psychological well-being with economic competence. Autonomy and achievement were not only emotional experiences. They were linked with self-management, decision-making, and enterprise development. Emotional reward reinforced persistence and encouraged continued learning.

Third, the study provides a culturally grounded perspective on economic education. Participants' economic decisions were embedded in family relationships, local markets, spiritual interpretations, and occupational identities. Therefore, economic education should recognize that learning is shaped by social and cultural contexts.

The findings do not suggest that informal experience can fully replace formal education. Rather, they show that formal economic and management education can become more inclusive when it acknowledges and develops knowledge acquired through everyday work. By connecting theoretical concepts with participants' existing practices, educational programs

can strengthen both competence and dignity. Finally, this study adds new information regarding economic and management education, as reported elsewhere [12-15].

5. CONCLUSION

This study examined how autonomy, achievement, and emotional reward shape economic learning and occupational well-being among scrap collectors and traders in Umudike, Nigeria. The findings demonstrate that scrap collection is not merely an informal livelihood strategy but also an experiential learning environment in which workers continuously develop practical economic knowledge and management competencies through everyday activities. Participants learned to organize their work independently, evaluate the market value of recyclable materials, manage income, accumulate savings, diversify livelihood opportunities, and establish long-term business aspirations. These experiences strengthened entrepreneurial thinking, financial awareness, self-management, and decision-making while simultaneously enhancing occupational satisfaction and intrinsic motivation. The study contributes to the literature by extending previous research beyond environmental management, livelihood analysis, and occupational stigma. It introduces a perspective that positions informal scrap work as a valuable context for economic and management education, where autonomy, achievement, and emotional reward interact to reinforce experiential learning and economic competence. This integrated framework highlights how practical workplace experiences can complement formal economic education by connecting theoretical concepts with real-life decision-making and enterprise development. Although the findings are limited to one qualitative case study in Umudike, they provide useful implications for educators, policymakers, and community development practitioners. Future studies should examine the proposed framework across different informal occupations, regions, and cultural contexts using mixed-methods or comparative approaches to further validate its educational relevance.

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6. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. The authors confirmed that the paper was free of plagiarism.

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