

New Report:
An Overview of
Myanmar's Recycling
Industry

December 2019



Building Markets

Connecting **Entrepreneurs**. Creating **Jobs**. Sustaining **Peace**.



TABLE OF CONTENTS

1. Introduction and Overview.....	4
2. Methodology.....	5
3. Findings.....	5
3.1 Demographics.....	5
3.2 Products and Services.....	7
3.3 Operations.....	10
3.4 Information, Communications, and Technology.....	11
3.5 Employment and Human Resources.....	13
3.6 Clients.....	15
3.7 Finance.....	17
3.8 Legal.....	19
4. Challenges.....	20
5. Conclusion and Recommendations.....	22

PREFACE

This report has been produced by Building Markets and was made possible due to the generous support of The Coca-Cola Foundation. Data analysis was led by Chelsea McKeivitt with support from Karen Hsu, Linn Nay, Jennifer Holt, and Kavya Raman.

The principal objective of this report is to provide an overview of Myanmar's waste management and recycling industry, highlighting the unique challenges and opportunities in this sector. Due to a lack of published data on the topic, Building Markets prepared this assessment through desk research, interviews with stakeholders, and analysis of data individually collected from surveying 120 micro, small, and medium-size enterprises (MSMEs) in Yangon, Mandalay, and Mawlamyine in 2019.

Building Markets, headquartered in New York, United States, is a non-profit organization that creates jobs and encourages economic growth in crisis-affected countries by connecting local micro, small and medium-sized enterprises (SMEs) and civil society organizations (CSOs) to new opportunities. Through its approach, the organization has built a network of 24,000 local SMEs and CSOs, assisted those businesses and organizations in winning \$1.3 billion in contracts and helped create over 70,000 jobs.

Building Markets gratefully acknowledges the organizations who contributed their time, experience and insights to this report. Any case studies or best practices that would strengthen this report are welcome and can be submitted along with any questions and comments to reports@buildingmarkets.org.

I. INTRODUCTION AND OVERVIEW

Myanmar has been in transition towards democracy and a market-based economy since 2011. While the country benefits from its size, location, natural resources, a young workforce and rapid urbanization, it remains one of the poorest countries in the world. Myanmar also has one of the fastest-growing urban consumer markets in Asia. As a result, waste materials are skyrocketing in volume and will soon become a major environmental and health concern. At the same time, this challenge also presents an enormous economic opportunity as there is demand for businesses across the recycling value chain to innovate, reduce, and repurpose plastic and other waste.

In any market, small and medium-sized enterprises (SMEs) are key to innovation, job creation, and economic development. However, in countries affected by crisis, SMEs are often invisible and without the necessary resources to adapt and compete. In Myanmar, SMEs represent 90% of all firms operating in the country, but they are disadvantaged by a weak enabling environment, lack of infrastructure, and insufficient access to capital, skilled labor and information. These barriers have limited local businesses from modernizing and adjusting to market changes and opportunities that will allow them to scale and respond to market demand, including the environmental and waste management crisis.

Since 2012, Building Markets has been tackling this problem by increasing SME visibility, building their commercial capacity, and connecting these businesses to new buyers. To date, the organization has developed a unique database of over 3,000 Myanmar enterprises and has helped these SMEs win almost USD \$20 million in contracts. In 2018, with funding from The Coca-Cola Foundation, Building Markets launched a program to directly support the waste and recycling industry. To inform program design and services, the first step was to map the sector, which included conducting in-depth surveys with 120 businesses across the value chain. This report presents the results of that survey, providing an overview of a critical market that is largely unresearched and unserved.

I.1 Key Findings

Key findings from this report indicate that Myanmar's recycling industry would greatly benefit from tailored support, but businesses are generally unaware of their specific challenges. Any strategy aimed to support the industry should focus on the following:

1. **Increase Business Self-Awareness through Targeted Training.** Data reveals that businesses lack knowledge about what steps they can take to increase profits and efficiency. Many are unaware of the need to improve the quality of their products, accurately calculate business expenses, and adhere to occupational health and safety standards. These topics are critical for the industry to grow sustainably.
2. **Improve Transparency and Information Sharing in the Value Chain.** There is a lack of communication within the value chain that is fueling distrust between buyers and suppliers. This limits business owners from having a broader understanding of the demand in the domestic market. Efforts to increase transparency of business practices, market information, and communication could alleviate significant obstacles to growth.
3. **Offer Pathway for more Recyclers to Enter the Market.** "Recyclers", who have ultimate control in price and demand, are relatively uncommon in Myanmar's domestic market due to the limited number of businesses that offer high-skill, value-adding procedures to their goods. Technical support to increase the number of businesses offering these services will increase demand and bargaining power for suppliers, empowering individuals in the industry.

2. METHODOLOGY

Between February and June of 2019, Building Markets surveyed 120 micro, small, and medium-sized enterprises (MSMEs) in Myanmar's waste management and recycling sector. The survey focused on the industries in Yangon, Mawlamyine, and Mandalay, three of the largest cities in the country. Data from the surveys relies on self-reported assessments from business owners and is not verified by additional data collection.

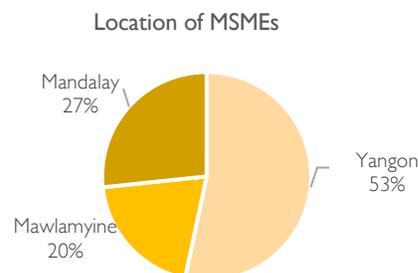
In addition to the insight from business owners, Building Markets also conducted numerous focus groups and stakeholder meetings to better understand the perceptions of other private and public sector actors regarding the challenges and opportunities in this sector. Where relevant, this information has been included in the below data analysis.

While individual waste collectors, who informally collect waste from landfills, street bins, litter, and other sources, are a vital part of this value chain, their needs and challenges are unique from larger businesses. For this reason, a separate survey was administered to individuals who collect waste. This data is largely not included in the analysis.

3. FINDINGS

3.1 Demographics

Of the 120 MSMEs surveyed in Myanmar, the majority are located in Yangon, which is estimated to generate more waste per day than any other large city in the county. Yangon's recycling industry is estimated to employ over 6,000 people and was previously the hub for the exporting of PET plastic to China.

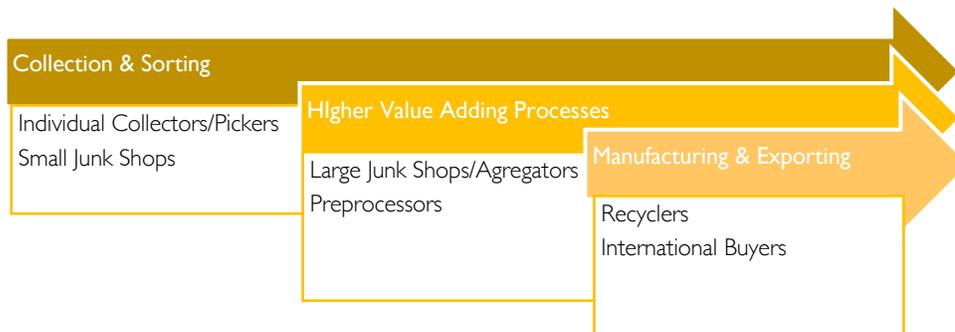


For the purposes of understanding the role of businesses in the value chain, each respondent was asked to categorize their businesses as at least one of the following:

- **Individual Recycling Picker/Collector:** Individuals whose primary source of income is from collecting and sorting recyclables from trucks, bins, households, and dumpsites.
- **Small Junk Shop:** Also known as sub-collectors, these are small businesses that purchase recyclable waste from individuals and sell it to larger shops. These businesses can be informal or formal, and may be involved in the separation, sorting, and preliminary cleaning of recyclable material. They are often run and staffed by single families in order to absorb labor costs when buying prices are low.
- **Large Junk Shop/Aggregator:** These businesses act as a middleman between smaller shops and large buyers. Given their infrastructure, they can often buy materials from across the region and have ample warehouse space and transportation.
- **Pre-processor:** Businesses, likely to be formally registered, that add value and convert recycled material into flakes, which can then be sold to recyclers.

- Recycler:** Recyclers are typically factories which repurpose recyclable material into resin or ingots for manufacturing or export it to factories abroad. They are formal businesses and are often considered the point in the value chain with the most influence over the price of the recyclable material.

Domestic Recycling Value Chain



Building Markets intentionally focused its survey on junkshops and preprocessors because these businesses remain the least transparent and formalized, while also higher in sheer number. Therefore, this survey sample is not representative of the value chain in Myanmar. However, the relatively smaller number of Recycler businesses does highlight a disproportion that is part of the industry. There is a need to identify, encourage, build or formalize more businesses in the Recycler category to build the sector as a whole, as these businesses are ultimately fueling demand.

While businesses can identify as more than one “type” based on these categories, the following shows the general breakdown of Building Markets’ survey sample:



Given that there are only a few businesses identifying as Recyclers in Myanmar’s domestic market, there is a clear tension with businesses further down the chain. Recyclers are at the top of the value chain and have the most influence over pricing and demand.

Business Ownership

The waste management and recycling industry in Myanmar disproportionately favors male ownership, with 78% of the businesses in Building Markets’ sample owned by men.

On average, companies report having 1.94 owners, so co-ownership between men and women is a possibility. Many businesses are informally linked through families or partnerships, in which storage or machinery may be in another location. This adds to the difficulty of tracking whether business owners in the industry own multiple aspects of the value

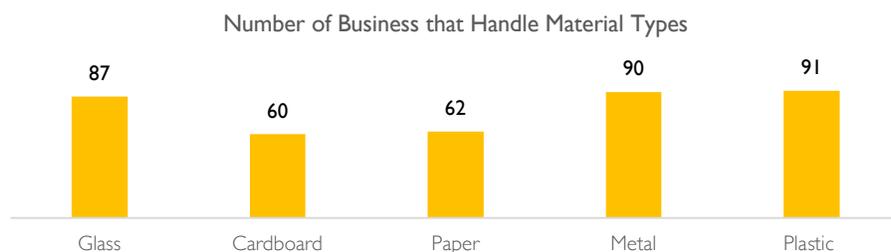
chain. However, when asked how many additional, non-waste businesses were owned, interviewees reported an average of 0.24, suggesting that most business owners in the industry rely solely on recycling and waste management for generating income.



3.2 Products and Services

Types of Recyclable Materials

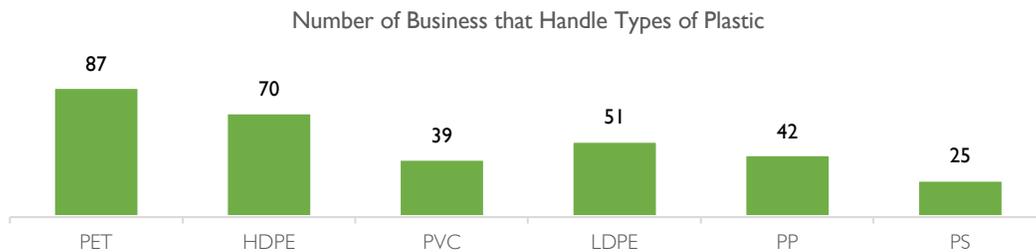
While Building Markets' survey sample intentionally focused on businesses specializing in plastic, glass and aluminum materials, businesses in this industry tend to work with multiple types of recyclable material to increase profits.



Plastics, metals, and glass materials were handled by nearly 75% of all survey respondents. Plastics, which represent the majority of single-use consumer waste, can be separated into the following categories, which determine price, availability, and potential for re-use:

- **PET/PETE (Polyethylene terephthalate):** Used to make plastic bottles for drinks.
- **PS (Polystyrene):** Used to make Styrofoam and other foams, commonly found in food containers.
- **LDPE (Low-density polyethylene):** Found in multiple products like containers, tubing, and bottles, it is most commonly used to make plastic bags.
- **PP (Polypropylene):** Resistance to heat and fatigue, this is used in many bottle tops, hinges, sheeting, and packaging.
- **PVC (Polyvinyl chloride):** Also known as vinyl, used in construction, piping, electronics, and insulation.
- **HDPE (High-density polyethylene):** Found in bottles and caps, furniture, food packaging, and pipes.

Businesses reported the following engagement with these respective plastic types:



Plastics are also separated by color, with “colored”, “clear”, and “mixed” categories further defining price and potential. Mixed plastics are a literal mix of both colored and clear plastic, and although proportions of the two can vary, the final product is closer to clear than colored plastic alone. Given the scope of this project, data for color was recorded for PET plastic only. Data shows higher prices for clear and mixed PET plastic than for color PET plastic.

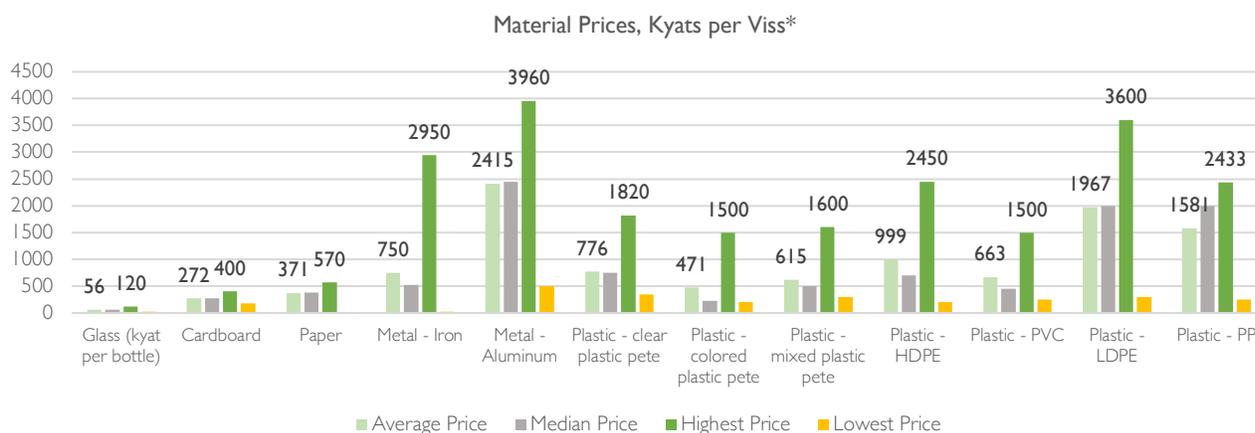
Metal recycling is most common for Aluminum and Iron, followed by Zinc and Copper products. Additionally, there are several businesses that also collect batteries, beer cans, and lead.

To further understand each business’s role in the value chain, Building Markets identified which of the following “Value Adding Procedures” were provided by each business.

Lower Value Add	Collection of recyclable materials Separation (separating plastic/glass/metal/etc) Sorting (sorting plastic into color/clear/mixed) Transporting	Low Skill
	Removing Caps/Labels Compressing/Baling Cutting Melting	
Higher Value Add	Cleaning/Washing Preprocessing (creating plastic flakes)	High Skill

The most common value adding procedure provided by businesses in the sample are separating and transporting goods. Most of the companies in this sample, which are categorized as small and large junkshops, are buying material from individual collectors/pickers. They have the operational space and vehicles to store, separate, and transport these goods to larger companies, which will complete the higher value-adding procedures.

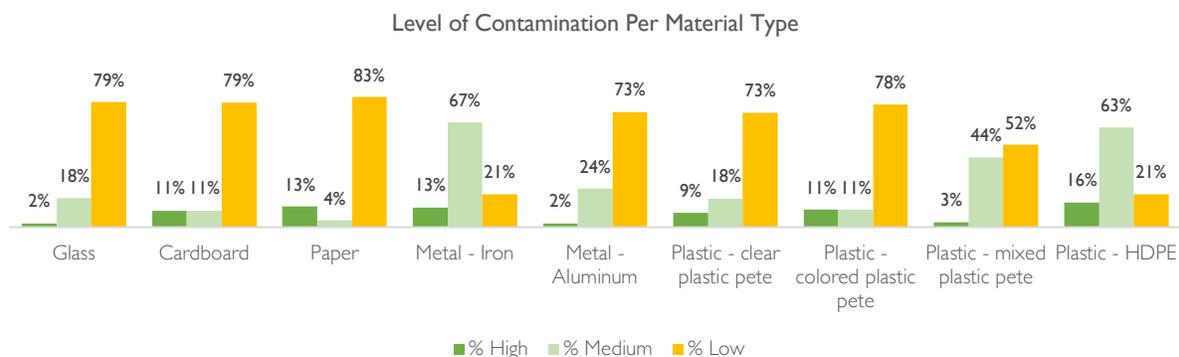
One of the biggest issues in this sector revolves around pricing. Many business owners in the sample mentioned a lack of transparency around buyers determining prices, with no set price for the value of the goods and little agency for suppliers to negotiate higher prices. When Building Markets asked for a price point for each type of material handled by a business, responses between businesses for the same materials fluctuated significantly.



*Glass is measured in Kyat per bottle, not per Viss, the standard unit of measurement in Myanmar (approx. 3.6lb)

There is a correlation between prices for goods and the businesses' standing in the value chain – with smaller junkshops reporting lower prices for buying and selling than preprocessors and recyclers. This is likely due to fewer value-added procedures done by the smaller businesses and higher levels of contamination in the product. In addition, individual collectors tend to receive the lowest prices for their goods. Collectors lack storage space to keep goods while waiting for prices to increase or bundle items in bulk to sell in higher volumes. They face competition from municipal workers and are often alienated in the community, lowering their bargaining power.

However, differences in prices also reflect a disconnect in quality between suppliers. Businesses in this industry do not believe contamination (such as dirt and mixed materials) in their product is an issue. When asked to assess the level of contamination in their product, most businesses reported low contamination in all products (with the exception of Iron and Plastic HDPE, which were reported as medium level).



In contrast, in meetings with stakeholders and buyers, contamination was highlighted as one of the biggest challenges of working with products from this industry, especially in Yangon. This disconnect may be due to the low level of

understanding and awareness among small suppliers of what constitutes contamination, what buyers are looking for, and an overall market perspective. In the current context, many suppliers believe that their product is of sufficient quality and that buyers are simply unwilling to pay adequate prices, fueling distrust in the value chain.

3.3 Operations

On average, businesses in this survey sample have been operating for approximately 18 years. All are owned by local, Myanmar owners and nearly all (97%) are majority-owned by a single family. While the current owners are also the businesses' founders in many cases, daily operations are often managed by younger family members. Businesses tend to operate from five to seven days per week. While businesses have years of experience, there have been few innovations in the industry to increase efficiency or profits.

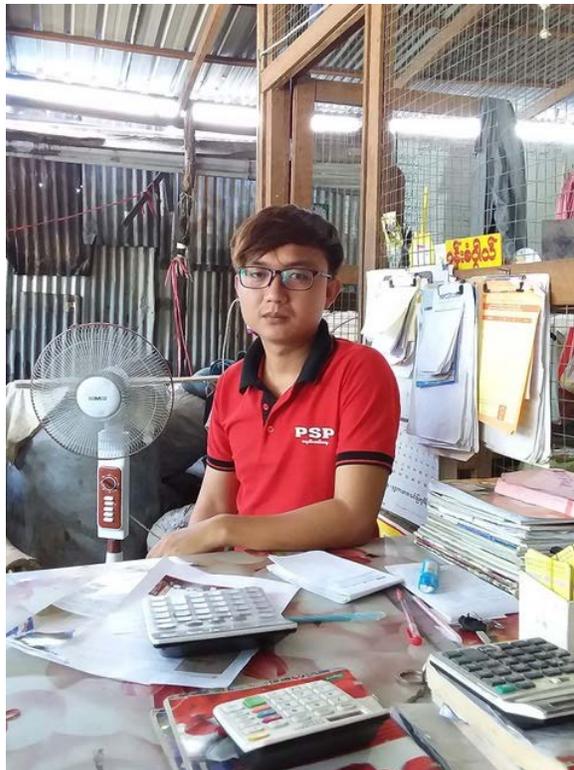
Storage Space

Relative to product type, seasonal changes, and international buyers, the turnover time for products can vary significantly. For most businesses, storage space is crucial for keeping products until buyers are able to offer acceptable prices for the goods. When asked to describe storage space for materials, 65% percent of businesses claimed that their current storage space solutions were adequate, while 34% highlighted storage space as a challenge for their business. Thirty percent of businesses noted that they utilize an offsite warehouse for storing their goods.

International Clients

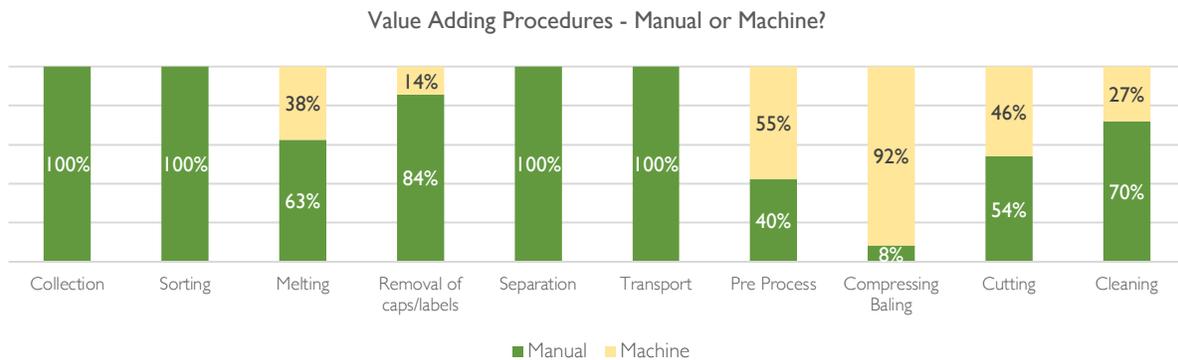
When asked if they export their products, only 4% of businesses responded “Yes”. A common challenge highlighted during surveys and focus groups was China’s recent shift in import policy, which has restricted the importing of plastic recyclables from international buyers as of January 2018. Myanmar’s PET exporters, which previously sold hundreds of thousands of US dollars’ worth of plastic to China annually, no longer have a product that meets the requirements for import into China. A few international alternatives are available, but do not meet the price and quantity demand that was offered by China. This has greatly decreased demand for most of Myanmar’s plastic industry, lowering prices.

Some businesses have chosen to store their plastic and not sell at this new lower value, hoping that China will recommence buying the material. Others have sold to local buyers and have tried to increase profits in other ways. Local buyers are less inclined to buy the goods at the price level of China due to limited domestic processing capacity. Where China was able to buy volumes and process even the most contaminated recyclables, Myanmar recyclers lack the technology for this level of processing, and are therefore largely unable to accept the level of contamination, combined with the higher price expectation, from the suppliers. Capacity building to help businesses understand this new reality, support exports to new markets, or create domestic demand for recyclables will be crucial to building sustainable capacity in the industry.



Machinery

On average, each business in the survey sample owned 0.68 machines. While this suggests low machine usage, the highest number of machines recorded in one business is 12. Machine use is associated with certain value adding procedures, such as compressing/baling. Smaller businesses that only collect or sort materials have less of a need for machines. However, their potential for selling at higher prices could be increased if efficient machine use were incorporated into their business and expanded the value adding procedures available.



While machinery can increase efficiency, it requires staff training, safety measures, and additional costs associated with water and electricity. Currently, most businesses are reporting that costs associated with water and electricity are not relevant to their business costs. Any increase in machine use will need to be accompanied by training on business accounting procedures to ensure that business owners are able to accurately analyze the costs and benefits of using machinery.

Water from preprocessing procedures is drained with other wastewater in normal drainage pipes. However, this can easily allow for small plastic particles to contaminate the water, raising additional steps businesses will need to take to ensure sustainable development for the industry.



3.4 Information, Communications, and Technology

Computers and Internet

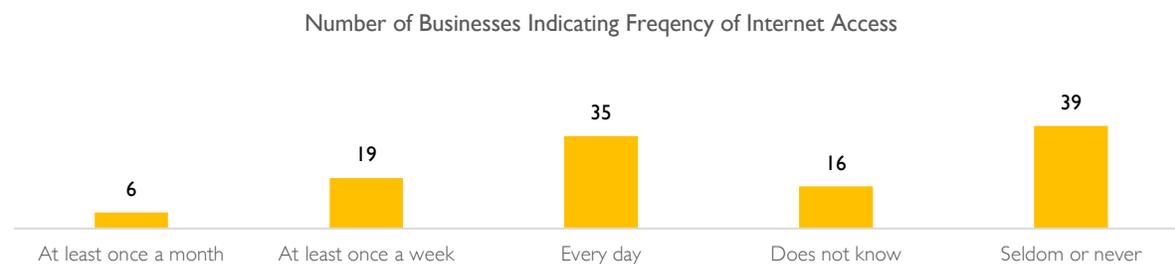
On average, businesses reported having 0.17 computers each, with 0.09 computers that can access internet. The average number of family members in each business who use computers for any reason is 0.32, with only 0.19 family members per business that are interested in being trained to use computers. Given the almost nonexistent use of computers for businesses in this industry, interviewees were asked about the main forms of communication and technology they use as an alternative.

Like computers, email is very rare. Only 17% interviewees had an email address, for either personal or business use.



Instead of email, businesses rely on phones for business communication. Seventy-nine percent report that phone calls are used as the main form of business communication, while 13% use the app Viber for business. Facebook and SMS were not found to be significant forms of communication.

Thirty-three percent of the sample claim to not access internet at all, which corresponds to follow-up questions asking about the ease of internet connectivity, in which 38% of respondents said the question did not apply to them. Fifty-four reported that connecting to the internet is “easy”.



Most businesses are accessing the internet through their phones, with only 1 of the 120 businesses reporting use of a computer or laptop to access internet, compared to 74 respondents using a mobile device. When asked what the internet is used for, most businesses (64%) reported accessing internet for communications apps, such as Skype, Viber, or WeChat. Twenty-two percent use internet for business on Facebook, and less than seven percent use internet for ordering or research related to the business.

When asked if businesses would be interested in having a website, 73% replied “No”. Given the average age of businesses in the sample is 18 years, most businesses are well-known in this small industry and do not consider visibility as a significant

challenge. Given the small number of recyclers who control overall demand and pricing for recyclable materials, the network for domestic buyers is relatively small.

Languages

The primary language reported by nearly 98% of businesses is Myanmar/Burmese. Tamil and Hindi are also listed as primary languages. Seventy-nine percent of the businesses do not employ anyone that speaks English.



3.5 Employment and Human Resources

Employment and Management

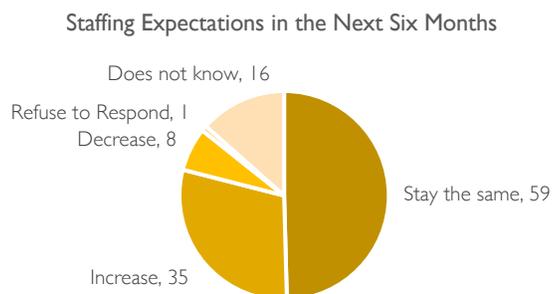
On average, businesses in the sample have less than one manager each (0.71). Of the businesses that have managers, 27% report having at least one female manager.

Businesses rely on daily-wage laborers for much of their output, as this allows for the flexibility necessary given the seasonal nature of many aspects of the industry. On average, businesses had 13 daily-wage laborers at the time of survey. The average number of female daily wage laborers is nine. Full-time staff is lower, but still significant. The average number of full-time staff per business is 4.4, with nearly half of those roles belonging to women. In general, female laborers are more common in tasks associated with light value adding processes in businesses further up the value chain, such as pre-

processors. Men are more commonly employed at junkshops and aggregators, which require more labor intensive, “heavy duty” work.

Twenty-two percent of businesses in the sample reported having employees who were also family members of the business owner. This number may be higher if businesses consider help from family members who are not paid. Businesses who employ family members have between one and three staff members who are family, although the number of total employees within this group varies significantly.

In the next six months, businesses do not expect the number of their employees to change.



Health and Safety

Given the informality in the sector, seasonal work, reliance on daily wage laborers, and the prevalence of family ownership and employment, an emphasis on human resources and health and safety in the industry is lower than in other, more formalized sectors.

When asked if businesses have safety precautions for staff that use machinery, 40% of those with machinery said “No”. Similarly, 40% also said “No” to providing training for the employees who use machinery. Given these responses, any interventions that aim to increase machine use should educate businesses on the critical importance of providing training regarding safety precautions that should be adhered to for operating machinery.

For staff who do not use machinery but handle materials manually, 69% of businesses do not have safety precautions. Consuming food and drink during work is also common, with 43% of businesses saying this happens.

The majority of businesses, especially junkshops and aggregators, do not provide proper personal protective equipment to their staff because they do not believe it is necessary. In the value chain, there is a limited understanding of the benefits and values of providing this equipment. Several respondents from preprocessor businesses did indicate providing the equipment to their employees, however, the employees’ limited understanding of the benefits to using this equipment results in its disuse. Many employees found the equipment uncomfortable and unnecessary. Injuries were reported as having occurred onsite but are treated as an anomaly. Businesses appear to prefer to react to these injuries instead of taking preventative measures to avoid them.

Although the implementation of health and safety measures is low, over 80% of interviewees reported having no health concerns or health problems that occurred due to work. This again points to low self-awareness among business owners regarding how they could improve efficiency and profits. It may also be due to the fact that interviewees were often

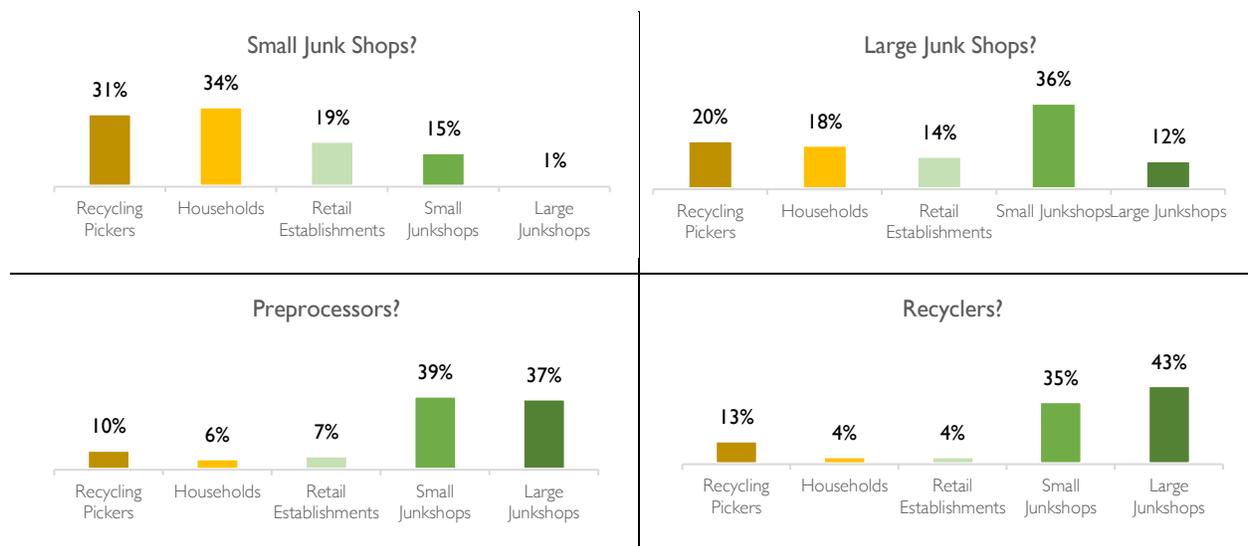
business owners/founders, but did not always manage the day-to-day operations, further lowering their understanding of actual challenges.

3.6 Clients

Suppliers

Smaller businesses like junkshops tend to source their recyclable materials from individual recycling pickers/collectors, households, and retail establishments, while also buying from other junkshops. Larger businesses, like recyclers and preprocessors, favor buying directly from junkshops, however they continue to buy from direct individual sources as well.

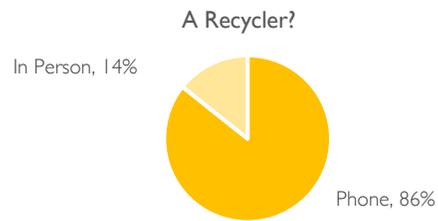
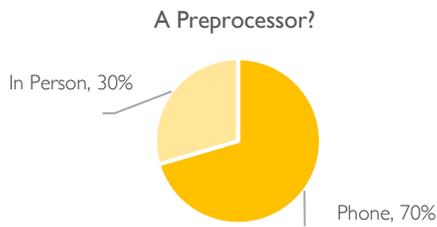
Who are the suppliers for:



On average, businesses have less than one day of notice when their suppliers contact them about buying goods. While the size and formality of the businesses determine their supplier base, all businesses rely on both in-person meetings and phone calls to contact their suppliers.

How do you contact your suppliers if you are:





Regardless of the type of business, most respondents claimed that they decide pricing when buying from their suppliers (79%). Eight percent claimed that the supplier decides the pricing, while 6% negotiate, and only 4% attempt to align their pricing with the market value.

Buyers

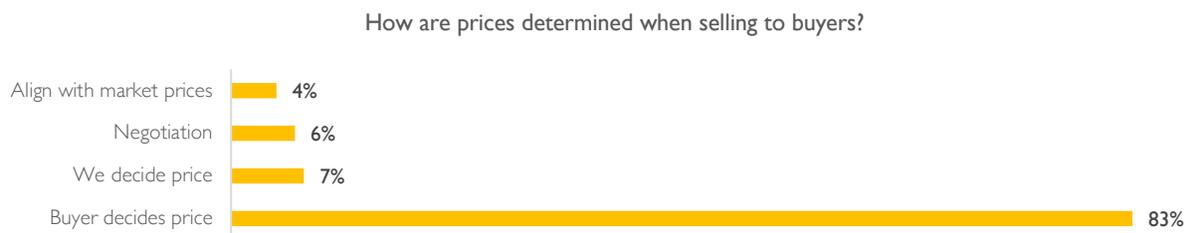
As expected, businesses that are farther along the value chain sell to other businesses at that end of the value chain. For example, most small junk shops sell to larger junk shops, while larger junk shops sell to the preprocessors and recyclers. However, the data highlights that the value chain is simply not this linear. Some small junk shops are selling directly to recyclers or preprocessors.

Who are the buyers for:



When asked if businesses bundle their goods with other companies in order to sell to buyers in higher quantities, 91% responded “No, never”. Seventy-eight percent of businesses reported that they incur the transportation costs to sell their goods to buyers, suggesting that collaboration with other businesses could lower business costs.

Regardless of the type of business, respondents were more likely to report that buyers have full determination over the prices at which their goods are bought.

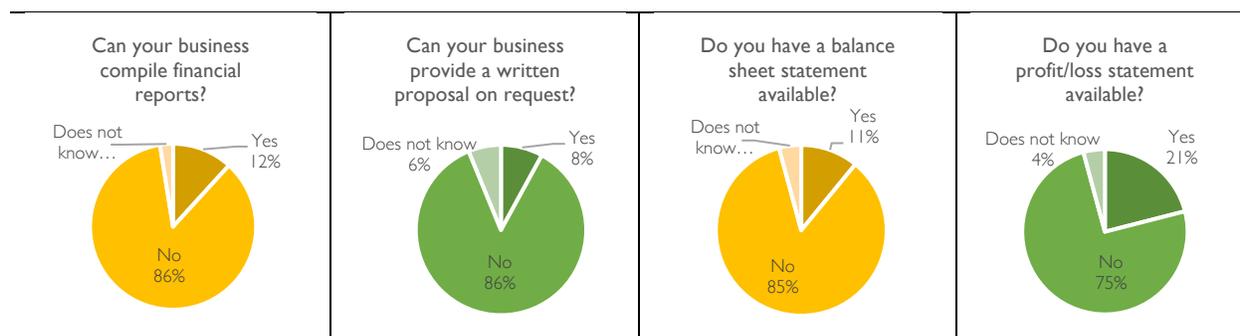


Businesses report contacting other businesses or the buyers to determine what the current selling prices are but have little to no agency to negotiate. Determining pricing in advance is done so that businesses can decide if they are willing to sell at this price or wait, hoping the price increases. Whether or not the business will wait to sell depends on their free storage space, current revenue, and the specific material, as some have seasons in which they are most profitable. Businesses claimed to wait anywhere from zero to 120 days before deciding to sell.

3.7 Finance

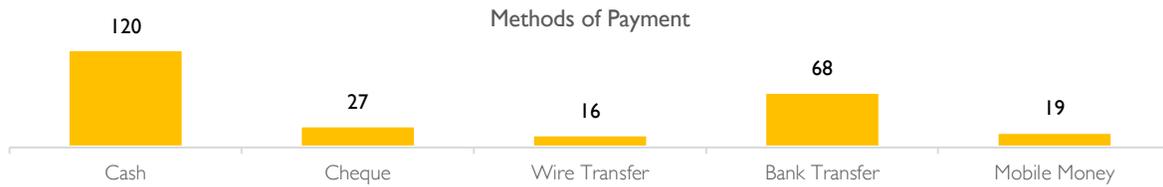
Financial Management and Accounting

Eighty-three percent of businesses designated the business owner as the employee that manages all finances, while 16% referenced having a full or part-time finance manager in-house. Businesses are generally unable to produce financial reports, written proposals on request, balance sheet statements, and profit/loss statements.



Most business (95%) also report not having a business bank account. Those who did not have a business bank account were asked if they have a personal bank account that they use for business purposes, and about half responded “Yes”. When asked why a bank account was not used, whether business or personal, most interviewees claimed that they did not have a need for an account. They did not think it would benefit their business, and many explain that they did not understand how a bank account works or what they would need to do to get one.

All businesses in the sample accept cash as a method of payment, with 39% of the businesses accepting cash only.



Ninety-eight percent of these businesses pay their suppliers within one week, with the remaining two percent paying their suppliers within thirty days.

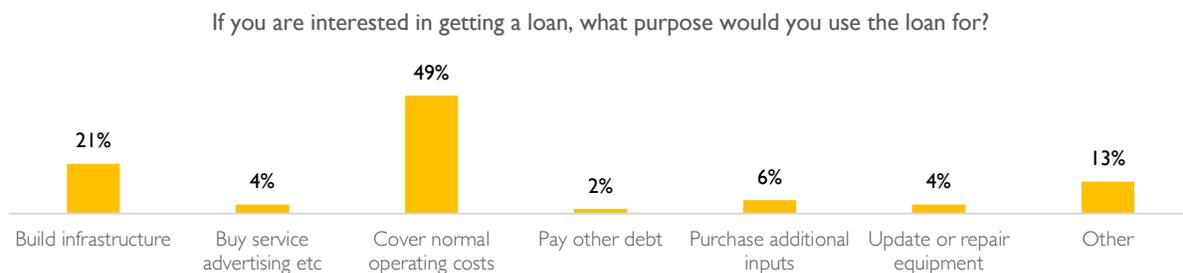
In the next six months, 46% of interviewees estimated that their business profits would increase, while 41% estimated they would stay the same, and only 13% predicted a decrease. Interviewees overwhelmingly name “staff” as their biggest cost of business, while “land rentals and purchases” trails in second place.

Access to Finance

While bank accounts are rare, many businesses do not see this as a barrier to accessing finance. Eighty-seven percent of businesses claim they have the collateral for a loan, and 55% reported that they were “Confident” or “Very confident” that their business could get a formal loan if they apply for one.



Not all businesses are interested in loans – only 50% expressed interest. Of those that did, nearly 50% reported wanting to use the loan to cover normal operating costs.



Most companies did not share information about whether or not they had received a formal loan in the past but were very forthcoming about loans from family/friends and informal lenders. Nearly one quarter (24%) had received a loan from either family or friends, with 65% of the group saying the loan was used to cover normal operating costs. Only 10% reported ever having taken a loan from an informal lender.

3.8 Legal

When asked if their business was registered, 74% responded “Yes”, with 71% of these businesses reporting no challenges in registering. For those who did mention challenges, they included high fees (sometimes under-the-table or arbitrary fees from officials), requirements to work in industrial zones or off public property, and a lack of understanding about the documents necessary to register.

Twenty-two businesses reported no benefit to being registered. However, nearly 100 other businesses responded that being registered improves the ease of doing business, protects businesses from fines and legal issues, and allows them to be eligible for opportunities such as finance and exporting, indicating a high level of understanding about the importance of formalizing their business.

While registration is reported as fairly high, most businesses hold licenses from either the Yangon City Development Committee (YCDC) or Mandalay City Development Committee (MCDC), the Yangon and Mandalay municipalities responsible for overseeing waste management. This does not necessarily equate with a business operation license from the Ministry of Investment and Foreign Economic Relations, which provides each registered business with an official Directorate of Investment and Company Administration (DICA) number. When asked to provide their DICA number, most businesses were unable to do so. This may be because owners were most often the employee being interviewed, and they do not necessarily handle the registration for their business.

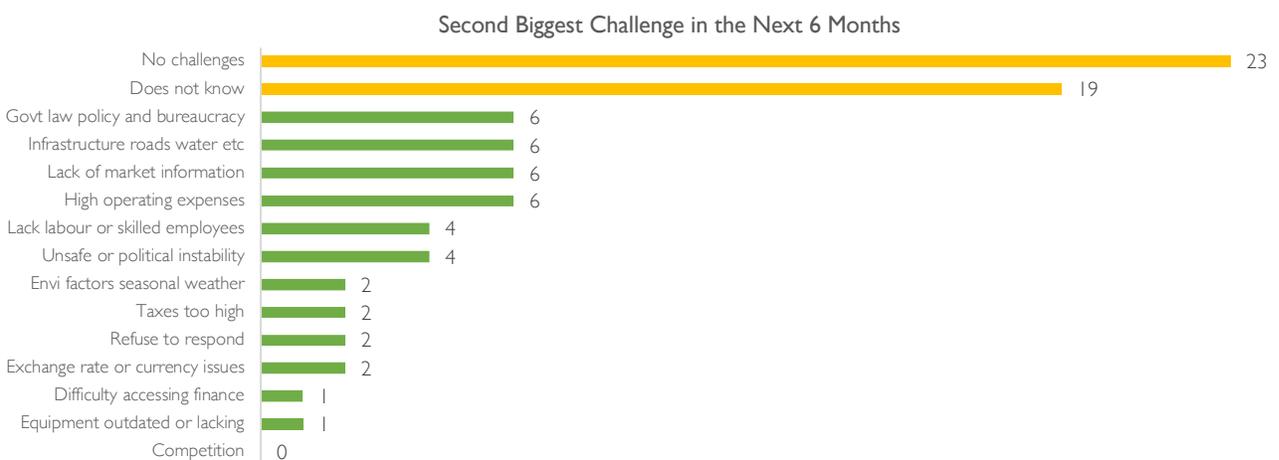
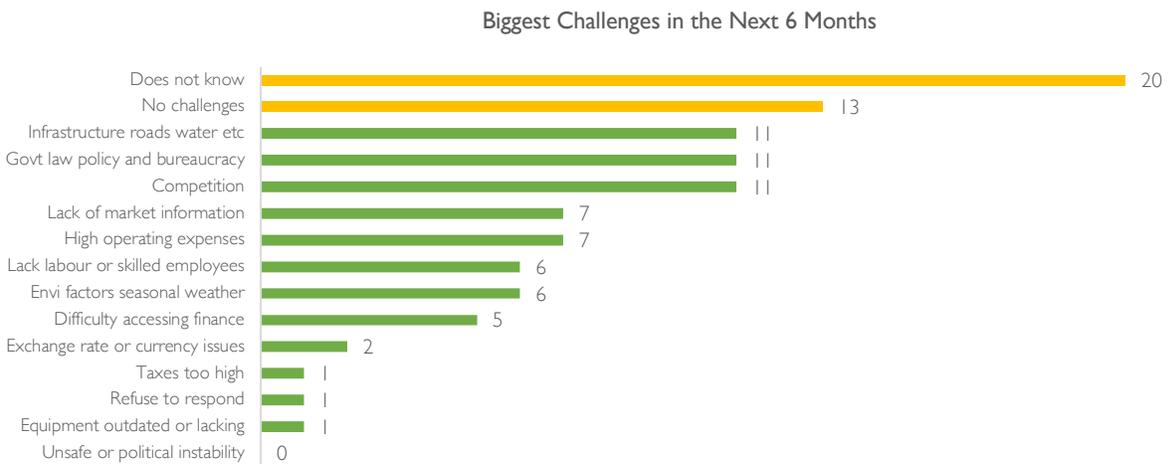
While a YCDC or MCDC license allows businesses to operate in the industry, a DICA number would be required for consideration as a legal registered entity, as well as for exporting and importing.



4. CHALLENGES

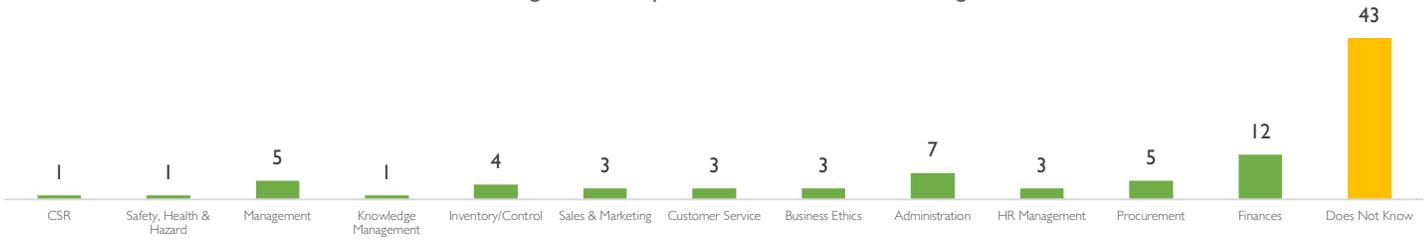
Businesses surveyed were eager for the opportunity to participate in a training program tailored to this industry. Many businesses claimed there were no business support services tailored to the recycling sector, and during a networking event hosted by Building Markets, businesses repeatedly reported that it was the first time they felt their voice and opinion was being heard by those who have influence. While this sector lacks the infrastructure for innovation, it is composed of entrepreneurs who are eager to improve efficiency and scope in their business. Ninety-three percent of respondents indicated that they would be interested in attending a future training session. Those who did not report interest in training often reported interest in networking opportunities instead.

While enthusiasm for training is high, businesses were largely unaware of their challenges and needs. To inform Building Markets' training program, the survey followed up with questions about what businesses saw as their biggest challenges and desired training curriculums. Overall, a significant percentage of businesses did not know what their biggest challenges were or reported not having any, showing a low level of self-awareness.



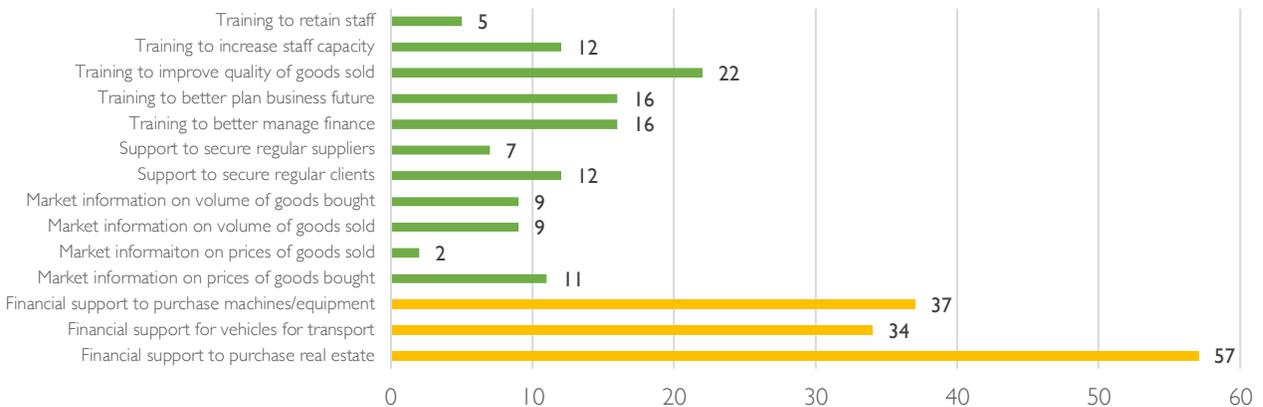
Additionally, businesses often could not identify a training session that they would prefer to attend.

Training Session Topic Most Interested in Attending



When asked more broadly for the type of support interviewees thought would best improve their business, most responded with some kind of financial support.

Number of Businesses Indicating Their Top Types of Desired Support



However, as noted previously, only about half of the survey sample indicated an interest in loans. Given the lack of awareness about their challenges and needs, businesses may be indicating a preference for financial support because it provides the simplest means of directly improving their day-to-day operations but are not willing to incur the debt from most forms of financial support.

5. CONCLUSION AND RECOMMENDATIONS

Businesses in Myanmar's recycling industry are critical to the country's potential for sustainable development. However, in addition to missing infrastructure, there is a lack of business self-awareness that is necessary for these MSMEs to innovate and scale. Since the plastic industry's biggest importer, China, stopped buying Myanmar's PET plastic in 2018, businesses have been hit with decreased demand. In general, prices are now determined by only a few businesses in the value chain – the recyclers that sit at the top of the industry. Smaller businesses have little bargaining power in the prices for which their goods are sold. Given this tension, together with low levels of self-awareness, there is little trust or communication in the value chain. This creates significant barriers to growth.

RECOMMENDATION #1: Increase Business Self-Awareness through Targeted Training.

From the data, a clear priority for building this sector is supporting business to better understand their own needs, challenges, and opportunities. To do so, business service providers, the private sector, and donors should work to increase the following:

- MSMEs need access to targeted training programs that increase their formal business management skills. This includes tailored financial management, which will help businesses better calculate their costs and revenue and identify opportunities for efficiencies.
- Businesses also require training on technical knowledge specific to the industry, as issues such as contamination could be reduced with better informed day-to-day operations. Additionally, businesses need to improve health and safety and human resources for their employees. Industry leaders and other stakeholders should highlight the importance of these topics as it does not appear to be immediately clear to many business owners how this critical issue could be holding them back from growth.

RECOMMENDATION #2: Improve Transparency and Information Sharing in the Value Chain.

Interventions in this industry should focus on increasing trust and information sharing between businesses at opposite ends of the value chain. Through a greater understanding of demand in the sector, businesses will be empowered to innovate operations and produce higher-value goods. Donors and other third party, community-led initiatives are well positioned to bring together businesses, employees, and stakeholders in the industry to encourage a focus on the following:

- Increasing transparency of business operations and practices, contributing to more market research on the industry and highlighting opportunities for suppliers to get higher prices for their goods.
- Creating space for networking, communicating, and partnering with other businesses in the industry to increase information sharing.

RECOMMENDATION #3: Offer Pathway for more Recyclers to Enter the Market.

Myanmar's recycling industry needs more buyers. Along with exporting assistance to find buyers abroad, there is ample opportunity to create more buyers domestically in the form of Recyclers. Given that most businesses do not perform high-skill, value adding processes to recyclable material before selling it, demand is determined by only the few businesses that do. Increasing the number of business that provide high-skill, value adding processes and supporting the creation of new manufacturing businesses that work with these materials will spur sustainable economic growth for the country. This can be achieved with the following support from stakeholders, government officials, and donors:

- Financial assistance to MSMEs in the form of loans, grants, and/or investments in order to purchase machinery, expand operations, and train staff for higher skill value adding procedures. This support should follow a one-on-one mentorship approach to ensure that the intervention is sustainable.
- Capacity building targeted to Myanmar's manufacturing sector, which could be shaped to offset the decrease in demand after China banned the import of certain recyclable plastic materials. While providing exporting assistance may increase profits in the short run, having a robust manufacturing industry that relies on recyclable material will ensure more sustainable and widespread economic growth, in addition to a circular economy.

Conclusion

Support for Myanmar's waste management and recycling industry requires a long-term approach that works closely with businesses to address their individual needs. In a sector that is largely unsupported and under researched, empowering businesses to understand their value in creating sustainable development in Myanmar will continue to build momentum for economic growth, zero-waste consumption, and a circular economy.