Introduction

This is the second in a series of notes designed to provide guidance to manufacturers and distributors of modern off-grid lighting products for after-sales service, maintenance, and warranty practices. Servicing warranties in rural African markets where the customer base is widely distributed, warranties are not commonly honored, and both product costs and sales are low is extremely challenging.

This note presents information from short interviews with retailers in six different towns in the Kilimanjaro and Morogoro regions of Tanzania. We interviewed 149 retailers who offer products with a market similar to that of solar lamps (Figure 1).

Figure 1. Research assistant Samiah Mshasha discusses warranty terms with a retailer.

The sample included shops that sold mobile phones, electrical supplies, electronics, hardware supplies, electrical appliances, computers, and solar equipment.

The retailer interview involved questions about current warranty practices and identified companies that are effectively offering after-sales service in the market. Though we found no companies with warranties that were consistently honored, we identified several companies that had more effective warranties than most: Nokia, Samsung, Boss, itel, Pinetech, Tronic, and a few Lighting Africa Associates. All of these companies advertised their warranties with consumer-facing information and many provided contact information with their products. Following the retailer surveys, we were able to meet with management or distributors from most of these companies to conduct more in-depth interviews about their after-sales service.

Out of the 149 retailers interviewed, 73% stated that they offered a warranty on at least one product in their shop. Unfortunately, many of these retailers did not honor all of the manufacturers’ warranties in their shop, made use of manufacturers’ after-sales service systems, or honor the full length of manufacturers’ warranties. Further, of the 41 shops that stated they did not offer a warranty on any products, 32 of the shops sold products that explicitly carried a warranty.

No distinction is made between warranties and guarantees in this note. The term warranty is used to broadly refer to the practice of replacing or repairing a defective product.

1 Lighting Africa consultants, Jeffrey Jessey and Samiah Mshasha, conducted all interviews with support from Meg Harper. Meg Harper and Dr. Arne Jacobson conducted data analysis and authored this note. Details on the towns and methods used in the study are included in Appendix A.

2 Nokia, Tecno, and itel are all mobile phone manufacturers, Samsung offers mobile phones and a range of electronic appliances, Boss offers refrigerators and small appliances, Pinetech distributes electronic and household appliances and Tronic carries a range of electrical supplies. The Lighting Africa Associates primarily offer solar lighting products.

3 These findings are based on surveys conducted with 149 retailers in April and May 2013. The information in this article builds on previous Market Intelligence Notes. See also: http://www.lightingafrica.org/resources/market-research/-market-intelligence.html
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manufacturer’s warranty. This note first presents the explanations retailers gave for why they do not offer or honor warranties. This list of barriers is followed by advice from retailers and distributors on how to overcome these obstacles to ensure that customers can effectively access a warranty. Finally, a discussion of the importance of product quality and customer-friendly instructions for use and care is included, as this was repeatedly mentioned by retailers and distributors as the primary way to avoid having to service a warranty in the first place.

Barriers to Servicing Warranties

Many retailers are motivated to offer some form of a warranty to indicate the quality of their goods and encourage customer trust in their shop. Additionally, this study suggested that retailers are more likely to honor a warranty on products that displayed a consumer-facing manufacturer’s warranty, but that retailers commonly offered return policies on products without manufacturer’s warranties as well.

Unfortunately, because of the difficulties and costs associated with providing warranties, 27% of the retailers surveyed did not offer warranties on any products and many others offered return policies on products with very short time periods. One common practice was for the retailer to offer a warranty period of one week or one month, even in cases where the manufacturer’s warranty was for two years or more. In many of these cases, the retailer would not take advantage of the manufacturer’s warranty system and would instead replace or repair products for customers directly at the retailer’s own expense. In fact, less than 50% of the products that retailers said customers returned to the shop were then returned to their distributors.

Retailers provided many reasons they did not offer a warranty or did not take advantage of the manufacturer’s warranty. The five primary reasons are presented here and discussed in more detail below.

- Distributors or wholesalers do not offer a warranty. This was the most common reason provided and was cited even for products that carried a clear manufacturer’s warranty.
- Returning products is too difficult.
- Warranties take too long.
- Customers do not know about warranties.
- Warranties are complicated and lead to arguments with customers.

Recommendations for Effective Service

In addition to identifying the barriers to providing effective warranties, retailers provided a number of suggestions for how to overcome these barriers. Additionally, distributors and service center managers for manufacturers who offer relatively effective warranties provided insights into ways companies can improve their warranty practices.

Barrier #1: Distributors do not offer a warranty
The primary reason retailers stated that they either did not offer a warranty or did not honor the full length of a warranty was because their distributor did not offer them a warranty. This issue occurred for products with consumer-facing manufacturer’s warranties as well as for products without an obvious manufacturer’s warranty. At times, the issue appeared to be the fault of an unscrupulous distributor, but in other cases, the retailer simply was not aware that the distributor

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4 These findings are particularly relevant to Lighting Africa; in the 17 shops we found selling quality-assured solar lighting products, only 41% of these shops honored warranties on these products.

5 We recognize that much of the off-grid lighting activity in Tanzania currently relies on rural distribution models through schools, churches, and community groups rather than the traditional retail chain. Though much of this research was conducted with players in the retail chain, many of these recommendations will be applicable to vertically integrated rural distribution models as well.
offered a warranty or was too intimidated to ask. Further, the more intermediaries that came between a country-level distributor and the end-consumer, the less likely it seemed that a warranty would be honored.

With this understanding, to ensure that customers can access a warranty, they need a way to bypass intermediaries in the retail chain. Providing customers with in-country contact information for the company, associated distributors, or service centers will enable customers to bypass noncompliant retailers and distributors and more easily access services. Some solar lamp distributors include stickers with their phone number, email, website, and physical address on every product. Other companies widely advertise the phone number and address of their service centers both on product packaging and promotional posters.

A key requirement for providing in-country contact information is to have at least one representative in each country where a company’s products are distributed. Depending on the company’s size and distribution model, this representative could range from a single individual to a larger office or service center. A well-advertised and stable point of contact should additionally have interest in protecting the company’s brand by offering effective after-sales service. Further, primary in-country contacts should speak regional languages so that they can communicate the warranty process to retailers and customers.

Another method used by manufacturers and high-level distributors is to build relationships with their wholesalers, distributors, and retailers. Several companies stated that they visited lower-level distributors and retailers to educate them about sales and warranty practices. Creating a direct connection between the company and the retailer helps ensure that retailers know that a warranty is genuine and understand the process to access the warranty. Some manufacturers or high-level distributors further used these opportunities to encourage retailers to offer warranties to their customers, provide the retailers with advertising supplies, educate retailers or distributors on product features and repair, check on product displays, collect data on product sales, and transport products for repair or replacement.

Barrier #2: Returning products is too difficult
Transporting products is a major obstacle to effectively servicing warranties. Most retailers said they could ship products by mini-bus, bus, or truck, which would cost between US$ 6-20 roundtrip, depending on the size and value of the product (Figure 2). This shipping cost is often greater than the purchase price of lower-cost solar lighting products, making product returns uneconomical.

Figure 2. A bus station in Moshi and a supply truck in Ruaha. Common ways of transporting individual products in Tanzania include sending them as cargo on mini-buses or buses, or adding them to a shipment of goods on a lorry truck.
Retailers and distributors provided a number of suggestions for ways to minimize the impact of shipping cost when servicing warranties:

- Trouble-shoot problems over the phone
- Train local technicians, retailers or distributors
- Establish regional service centers
- Set up regional collection points
- Permit retailers to make immediate exchanges with customers so that products can later be exchanged with suppliers on stocking runs
- Offer wholesale pricing that includes a warranty discount or provide extra stock to encourage the retailer to handle the warranty directly without returning products through the supply chain
- Include technicians in road shows to enable repair of products in rural areas

Many solar lamp distributors and mobile phone companies suggested that the most practical way to provide after-sales service is over the phone. While this will not eliminate the need to provide physical repairs or replacements, in practice, a large portion of issues can be solved by trouble-shooting over the phone with either the customer or retailer/distributor without requiring products to be shipped back and forth. When working with low-income rural customers, many distributors recommend having a mobile phone number where customers can either SMS or call and hang up (flash or miss-call) to request a call back.

Distributors also recommend training local technicians or local sales staff in basic repairs and trouble-shooting. Proper execution of this method would further require supplying these technicians with spare parts and updated technical information, as well as making products easily repairable. A more thorough look at local electronics technicians’ experience with solar lamps and interest in working with companies is provided in Market Intelligence Note 3. Though the specialized knowledge of an electronics technician may often be useful, some solar lamp distributors have found that technically-minded employees can be trained to do most solar lamp repairs.

Some larger companies, such as Tecno, itel, and Samsung, have also established regional service centers to minimize shipping distances for product repairs. These companies suggest locating service centers in areas with high sales volume and in areas that maximize accessibility to isolated markets. Service centers can again make use of either local technicians or trained distributors.

Local collection points can also help ensure that customers have a low-cost way to return products to a manufacturer while potentially bypassing the retail chain. Collection points could be trusted retailers/distributors that can either return products as they are received or accumulate products to return as a single shipment or on their stocking runs. The choice of which of these methods is acceptable will depend on the desired turnaround time for the warranty.

If the warranty offers replacements rather than repairs, a particularly cost-effective way to minimize shipping costs is to permit retailers to make instant exchanges. This practice enables to retailer to hold on to defective products to return on their normal stocking run while still fulfilling the customer’s warranty claim in a reasonable time period. Though this practice is convenient, it requires that retailers can trust that a manufacturer will accept a given return and that manufacturers/distributors feel confident in the retailer’s honesty and judgment. A “no-questions-asked” warranty, which covers any defective product, including cases of user error, can best instill this trust in the retailer and eliminate the need for distinguishing a manufacturer’s defect from other modes of failure. Anecdotes from distributors suggest that offering and honoring a “no-questions-asked” warranty can also serve as an extremely effective marketing tool.
Alternatively, some retailers stated that their distributors offered them discounted pricing or extra stock, which compensated the retailer for offering a warranty. This system greatly simplifies the warranty process, but would not provide the manufacturer/distributor with feedback on product quality and would need to be monitored to ensure that retailers are providing the warranties they claim to be.

A final method used by some solar distributors to address the barrier of shipping costs is to send a technician along on road shows and consumer outreach events. The technician can help explain proper use and care of products, install products in homes when appropriate, and service any products already in the field. Additionally, the generator used for the road show can also provide for soldering and other electrical needs for repairs.

**Barrier #3: Warranties take too long**
Many retailers stated that a reason they or their customers chose not to return a defective product to a manufacturer was because the process would take too long. In these cases, the customer would often either pay for the repair locally or purchase a new product. Many of the suggested ways to speed the warranty process echo the suggestions to minimize shipping costs.

Creating a system where retailers can instantly replace the product for the customer offers the fastest warranty service. As previously mentioned, these systems include offering discounted pricing or extra stock to retailers, or ensuring retailers that returns will be honored so that they can feel confident immediately replacing a defective product.

If a repair-based warranty is favored, keys to providing fast service include minimizing shipping time and providing a quick turnaround at repair facilities. Ensuring that spares are readily available for quick repairs requires forethought. Many distributors and service centers recommend having manufacturers ship common spare parts, especially batteries, along with product shipments. Further, they suggest that when a product model changes, repair centers should prepare by ordering sufficient spares to cover any future returns of the old model that is still under warranty. Mobile phone service centers stated that when spares are available, their technicians are typically able to provide same-day repairs. This same-day repair service is especially important for customers or retailers traveling from a distance.

**Barrier #4: Customers do not know about warranties**
Some retailers stated that they did not offer warranties because customers did not know that about warranties and did not ask for warranties. In some communities, the concept of a warranty is relatively new, yet many retailers suggest that warranties are highly desirable. One distributor of solar products noted that after honoring a “no-questions-asked” warranty for a teacher with a broken solar lantern, the positive word-of-mouth resulted in an effective advertisement and created demand from an entire network of teachers who now felt confident to purchase a solar lamp.

As warranties can serve as an effective marketing tool, retailers should be encouraged to tell customers about the warranty policy. For retailers to feel comfortable promoting the warranty to customers, they would need to be certain that the warranty is genuine and can be easily serviced. Educating distributors and retailers about the warranty policy can help them understand the warranty procedures and share this information with their customers.

Many companies advertise their warranty to ensure that customers are aware of this added-value. In addition to including warranty information on product packaging, some companies further advertise with posters, flyers, printed decorative tape, window decals, and stickers as well as in newspaper and radio ads.
Announcements during road shows and consumer outreach events offer another opportunity to create awareness.

**Barrier #5: Warranties are complicated and lead to arguments with customers**

Some retailers chose not to offer warranties simply to avoid future conflicts with customers. By making “all sales final,” the customer had no basis to argue over a failed product. Though it may be difficult to convince a retailer with this mindset to offer a warranty, several ways exist to potentially address this issue.

As previously discussed, good practices include educating the retailer about the benefits of offering a warranty, ensuring that warranties can be honored at low cost in a reasonable time period, and, if possible, permitting “no-questions-asked” warranties.

To further minimize potential conflicts between a retailer and customer, all warranty information should be presented in simple terms in a regionally-appropriate language and retailers should be encouraged to discuss the warranty terms with customers prior to purchase. (Figure 3).

**Figure 3.** An appliance manufacturer, BOSS, found that translating their warranty card and terms into Swahili increased understanding of the warranty and reduced the number of disputes related to ineligible returns.

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**Providing a clear understanding of whether a product falls within the warranty period can also help avoid disputes.** Establishing a purchase date can be particularly difficult because receipts are not often used. Several companies and retailers provided ideas of how to establish a purchase date without necessarily requiring a receipt.

Samsung uses a system where customers can register their mobile phones by sending a text message at the time of purchase. The system tells the customer that they have purchased a genuine product and tells the customer that they have a 24-month warranty, while simultaneously logging the customer in their worldwide online database. All Samsung service centers have access to the database and can tell whether a product is under warranty or not.

A lower-tech method of collecting product registration information is to include a warranty card with the product. In addition to providing clear information about the warranty, a portion of this card can be filled out and either kept by the retailer/distributor or sent to a representative of the manufacturer or service center to be entered in a company-wide database. Manufacturers or distributors can offer incentives to retailers/distributors to fill out and send in warranty cards to provide a record of purchase dates. Some retailers were doing an even simpler version of this by creating warranty cards or a purchase log for their shop in which they recorded names, product serial numbers, and purchase dates for reference should a customer have a warranty complaint.

Some companies instead base their warranty period on the model of the product. In cases where the product models change routinely and sell rapidly, these

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6 In Tanzania, an 18% VAT is charged on many products and assessed through official receipts. To avoid paying this fee, a common practice is to not offer or ask for a receipt.
companies are able to assess whether a certain model is likely still within its warranty period.

Other companies stated that to minimize disputes and promote customer loyalty they repair any genuine product, regardless of whether it still falls within the warranty period. Several retailers and distributors stated that most people do not abuse the warranty system and that being more lenient in servicing warranties helps to protect the brand.

Data from the retailer interviews supports this idea by suggesting that, aside from cases of widespread manufacturing defects or obvious product flaws, rates of return are low for most consumer goods. The retail shops interviewed stated that they received an average 4 returns per month across all of their products, while a few retailers and distributors quoted an average return rates ranging between 0.01% - 1% of total sales. One medium-scale distributor of quality-assured solar lamps stated that in the past 5 months they had had only 15 products returned, while another quoted a rate of 170 repairs in the past 3 years.

A Preventative Solution: Provide High-Quality Products and Ensure Proper Use and Care
Retailers and distributors both emphasized that the best way to minimize after-sales issues is to improve the quality of your products. The solar lamp distributors we interviewed stated that they only dealt with products that had been verified by Lighting Global Quality Assurance. Similarly, many retailers suggested that instituting effective government regulations on product quality would allow them to offer higher-quality products and be more confident in their sales.

Other distributors said they ensured their products were good-quality by tracing the supply chain back to the manufacturers. Identifying quality manufacturers in China involved working with certified facilities, following European supply chains to locate factories with good quality control and using consultants, such as SGS, to verify manufacturing quality.

In addition to checking the quality of the supply chain, distributors also recommend checking products for common failures before selling to retailers or end-consumers, both to minimize warranty claims and to improve the company’s image.

Solar lamp distributors in particular emphasized that consumer education and, when appropriate, in-home installation of products at the time of purchase prevents most after-sales complaints. Distributors found that training dealers or technicians additionally enables the dealers to properly instruct customers on installation, use and care of the lamp, and, if installation is offered as an optional service, the service provides technicians with an extra source of income. Proper installation includes the placement of solar panel, hanging lights so water doesn’t enter, running wires so rats are less likely to chew on them, and demonstrating basic functions and troubleshooting techniques.

Conclusions
Warranties can offer benefits to stakeholders throughout the retail chain. Warranties that are implemented effectively can promote sales and brand loyalty, indicate the quality of goods, and encourage consumer trust in a product, shop, or distributor. Warranties further offer a way to monitor product quality. Manufacturers, distributors and retailers can use this direct feedback from customers to improve manufacturing processes, evaluate suppliers, and make better purchasing decisions.

7 Manufacturing defects refer to cases of an entire shipment including units with a failed component, while product flaws suggests poor product design, such as a solar lantern found in the market that was designed without a blocking diode, which allowed the batteries to discharge every night.
Unfortunately, warranties can be difficult to effectively honor in the retail chain, as distributors and retailers do not always offer the full warranty, product returns are often expensive and time-consuming, and both retailers and customers are not always aware of warranties and effective ways to access them.

This note provided a list of suggestions provided by retailers, distributors, and service centers on how to best provide effective warranties. These included:

- Provide a way for customers to bypass the retail chain and reach an in-country company representative who has interest in protecting the brand by offering after-sales service and speaks regionally appropriate languages.
- Check in with distributors and retailers further down the retail chain to establish a relationship and explain warranty practices.
- Enable troubleshooting of product complaints over the phone.
- Train local technicians or technically minded retailers and distributors in basic product repair.
- Establish strategically located regional service centers and local collection points.
- Permit retailers to make instantaneous exchanges by assuring that they will be able to return the product or by offering discounted pricing and/or additional stock.
- Send a technician along on road shows and consumer-outreach events to offer repair services.
- Provide a quick turnaround at repair facilities by guaranteeing trained staff and adequate spare parts.
- Advertise the warranty and encourage retailers and distributors to tell their customers about the warranty.
- Offer a “no-questions-asked” warranty to avoid disputes in distinguishing between manufacturer and customer fault.
- Present warranty terms in simple, regionally appropriate language.
- Create a clear system for determining whether a returned product is still within the warranty period.
- Repair or replace any genuine product, regardless of the warranty period.
- Offer good quality products.
- Encourage retailers and distributors to educate customers as to proper use, care and installation of products.

While all of these suggestions are in use by one or more companies, not all of these recommendations will be appropriate for every manufacturer, product, or distribution strategy. Though not universal, we hope that some of these resonate with your business and enable you to offer more effective warranties.
Appendix A: Methods

Surveys were conducted in six towns in Tanzania (Figure 4). Three towns were selected from each of two different regions to incorporate both regional diversity and differences in population size in the sample. Each of the towns was large enough to have a central retail area, yet all towns were distant enough from each other so that their markets and clientele were distinct. Representative pictures of the towns are presented in Appendix B.

Interviews with retailers were conducted in Moshi, Same, and Himo in the Kilimanjaro Region and Morogoro, Ifakara, and Ruaha in the Morogoro Region. Moshi is the most populated town in the Kilimanjaro Region, which is the most electrified region of the country. Himo and Same are both smaller towns located near the highway between Moshi and Dar es Salaam. Morogoro is the sixth largest municipality in Tanzania and has a thriving retail sector. The town of Ruaha is located next to the Kilombero Sugar Company plantation and is therefore often referred to as Kilombero. Ifakara serves as the headquarters for the Kilombero district and has a relatively large population and retail area, despite only being accessible by dirt road and the Tanzania-Zambia railway. Population estimates from the 2012 Tanzania Census are listed for each town in Table 1.

Table 1. Towns in sample (Tanzania Census 2012).

<table>
<thead>
<tr>
<th>Region</th>
<th>Town</th>
<th>Approximate Population</th>
<th># of shops surveyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kilimanjaro</td>
<td>Moshi</td>
<td>144,000</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>Himo</td>
<td>22,000</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>Same</td>
<td>9,000</td>
<td>13</td>
</tr>
<tr>
<td>Morogoro</td>
<td>Morogoro</td>
<td>316,000</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>Ifakara</td>
<td>56,000</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Ruaha</td>
<td>28,000</td>
<td>16</td>
</tr>
</tbody>
</table>

In the larger towns of Moshi and Morogoro, areas of town with high densities of retail shops were selected for the study. In the smaller towns, the study included the entire “urban” region of the town. Once study areas were delineated, all shops selling mobile phones, electronics, appliances, hardware supplies, solar equipment and electrical supplies in the study area were approached (Figure 5). Shops or street vendors selling low-cost, disposable, or consumable goods were not included in the sample.
Figure 5. A display of the diversity of shops interviewed. Clockwise from the top right is an appliance shop, a mobile phone shop, an electrical supply store, and a general shop selling appliances, electrical equipment, and housewares.

The interview asked retailers about current warranty practices including whether they offer a warranty, who services their warranties, how long the service takes, and how common it is for customers to use the warranty. An example of the semi-structured interview form is included in Appendix C.
Appendix B: Images of Towns Included in Survey

Below are pictures of the surveyed towns to help provide context for the study (Figures 6-11). These are the same images as those presented in Technical Note 3.

Tanzania Kilimanjaro Region: Moshi, Himo and Same

Figure 6. Retail mall and busy central street in Moshi, Tanzania. (Picture credits Maina Mumbi)

Figure 7. Both the central town of Himo and the roadside area called Himo Junction were included in the Himo sample. (Picture credits Meg Harper)

Figure 8. The main street and bus station in Same. Same was the smallest town sampled in Tanzania. (Picture credits Meg Harper)
Tanzania Morogoro Region: Morogoro, Ifakara and Ruaha/Kilombero

Figure 9. Major retail areas of Morogoro. Morogoro was the largest municipality surveyed during the study. (Picture credits Maina Mumbi)

Figure 10. The main street and market area of Ifakara. (Picture credits Meg Harper)

Figure 11. The main street of Ruaha/Kilombero. Most commercial activity in the town occurred along the main street or in a small market on the side streets. (Picture credits Meg Harper)
Appendix C: Semi-structured Interview Form

The semi-structured interview below was administered to retailers of consumer goods in Tanzania. Every retailer was first asked if they offer warranties on any products. If they did offer warranties, the full interview was conducted, if they did not, prior to ending the interview, they were asked why they did not offer warranties. Participants were presented with an information sheet explaining the purpose and background of the study and asked to give verbal consent to participate in the study.

Retailer Warranty Interview

Surveyor Name(s) __________________________________________

Observed Data:

<table>
<thead>
<tr>
<th>Date</th>
<th>Town</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Shop Name</th>
<th>Location</th>
</tr>
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<tbody>
<tr>
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<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GPS Point #</th>
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</table>

|----------------------------|-----------------|----------------------------|------------------|-----------------|

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<table>
<thead>
<tr>
<th>Offer off-grid lighting products?</th>
<th>N [0]</th>
<th>Y [1]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offer quality-assured solar products?</td>
<td>N [0]</td>
<td>Y [1]</td>
</tr>
</tbody>
</table>

1. Do you offer warranties on any products?  N [0]  Y [1]
   If Yes, present introduction and conduct interview.
   If No, ask 1A and then end interview.

1A. If not, why not?
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<table>
<thead>
<tr>
<th>Shop Name</th>
<th>Box #</th>
<th>Phone #</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact Information</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

|-------------|---------|---------|----------|---------|

**Interviewee**

<table>
<thead>
<tr>
<th>Name</th>
<th>Gender</th>
<th>Position</th>
</tr>
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<tbody>
<tr>
<td></td>
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</tbody>
</table>

|-------|-------|-----------|------------|----------|

1. **What products** do you sell that come with a warranty?

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Brand</th>
<th>Length of Warranty</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 2. **How do you service these warranties?** |
| (IF the retailer offers multiple warranties, ask about the two most commonly used. Get as much detail as possible: Are products repaired or replaced? How are products returned to the company or distributor? Who pays for the return?) |
3. Do you think these are good warranty plans? Why or why not?

4. On average, for each warranty, how long does it take for a customer to receive either a repaired or new product after returning a product?

5. In an average month, how many products do customers return to your shop?

6. In an average month, how many products do you send to manufacturers or distributors to redeem a warranty for the customer?

7. In cases where the product is not returned to the manufacturer or distributor, why is it not returned? (Check all that apply).

<table>
<thead>
<tr>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>The product was damaged from user error, which voided the warranty</td>
</tr>
<tr>
<td>The customer does not want to wait for the warranty service</td>
</tr>
<tr>
<td>Customer chooses to pay for the product to be fixed here</td>
</tr>
<tr>
<td>The customer chooses to purchase a new product instead</td>
</tr>
<tr>
<td>The customer chooses to re-sell the product to your shop instead</td>
</tr>
<tr>
<td>I (the retailer) replaced the product without redeeming the manufacturer’s warranty</td>
</tr>
<tr>
<td>The distributor/manufacturer does not honor warranty</td>
</tr>
<tr>
<td>Other:</td>
</tr>
</tbody>
</table>
8. What do you think could be done to improve warranty services in Tanzania?

9. Do you sell any solar off-grid lighting products?

   a. Are you interested in selling solar off-grid lighting products?