

Social Purpose Increases Direct-to-Borrower Microfinance Investments by Reducing Physiologic Arousal

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Websites offering microfinance loans have become an increasingly popular form of investment. However, it is unclear why some projects offered on sites such as Kiva.org, Microplace.com, and Lendforpeace.org are more successful at meeting funding goals than others. The present article reports the results of an experiment to test if communicating social purpose enhances investment appeal and the neurophysiological mechanism through which this effect occurs. By connecting physiological and behavioral responses to microfinance requests for 101 participants, we found that investments with a social purpose, compared with those that were self-focused, received 25% more loans. Social purpose requests were associated with a significant reduction in two measures of physiologic arousal, resulted in greater empathic concern, and produced stronger negative affect compared with self-focused requests. These factors were largely driven by responses by women, who invested 90% more money to requests overall and 97% more to social purpose requests than did men. Our findings indicate that communicating social purpose is an effective way to attract more investment to entrepreneurs in developing countries.

Keywords: lending, developing countries, neuroeconomics, physiology, prosocial

Personal loans from family and friends are the traditional first source of investment capital, especially for small-scale entrepreneurs (Reamer & Downing, 2016). A significant in-

novation in finance occurred in the 1970s when institutions like Grameen Bank began to facilitate loans to individuals or small businesses that the lender did not know. In the subsequent decades, this approach to lending, now known as microfinance, has surged in popularity. Recent estimates of annual microfinance lending, whose recipients are almost exclusively in developing countries, exceed \$87 billion (Microfinance Information Exchange, 2016). Loans help poor households meet basic needs, insure against risks, support women's empowerment, improve individual well-being, and enhance enterprise stability (Mercy Corps, 2006). Despite its popularity, microfinance still reaches <20% of its potential market. Matching the demand for funds by potential borrowers to the pool of available lenders is currently done inefficiently (International Finance Corporation, 2016). As

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this form of finance grows, it is important to understand why some projects at microfinance facilitators such as [Kiva.org](#), [Microplace.com](#), and [Lendforpeace.org](#) meet funding goals, whereas others do not.

Kiva.org is the largest online microlending platform, facilitating direct-to-borrower microfinance. Since its founding in 2005, its lenders have provided more than \$825 million in loans to more than 1.9 million people. The average loan received by borrowers is \$411.26. Kiva has 1.5 million active lenders and 2 million active borrowers, of which 75% are female (Kiva, 2016). Even though Kiva loans are uncollateralized, 97% are repaid (Galak, Small, & Stephen, 2011).

Kiva, and similar microloan facilitators, provide a platform where entrepreneurs post solicitations for loans. Posts include the borrower's profile, personal information about the entrepreneur(s), reasons for the loan, and information on the field partner that sources and manages the loan. Lenders who register on microfinance sites select borrowers by browsing a list of sortable loan requests. Once a loan has been selected, the lender chooses an amount to lend (typically \$25–\$500), and the loan is made only if the entire request is fully funded, usually by multiple lenders. Borrowers are required to repay the loan on a predetermined schedule. At Kiva.org, neither lenders nor Kiva itself receive interest payments for loans, unlike at some other microlending organizations (Galak et al., 2011). This makes Kiva's direct-to-borrower microfinancing closer to a charitable donation and similar prosocial behaviors. As a result, the factors that influence Kiva lenders' decisions may be similar to those that motivate charitable giving.

There are multiple reasons people give to charity, including beliefs about self-efficacy, outcome impact, moral obligation, need, and attribution (Cheung & Chan, 2000). Donating money can also signal one's status (Glazer & Konrad, 1996), help establish a reputation for generosity, and can generate a "warm-glow" utility flow (Andreoni & Payne, 2013; Barraza, McCullough, Ahmadi, & Zak, 2011). The latter, a prominent explanation for charity, claims that individuals receive a direct benefit, namely, feeling good from doing good, after giving. Neuroimaging studies support the existence of a

warm-glow from giving to charity (Hare, Camerer, Knoepfle, Rangel, & Rangel, 2010; Harbaugh, Mayr, & Burghart, 2007). Individuals may unconsciously adapt their behavior to reflect what others in one's social group are doing (Chartrand & Bargh, 1999). Some research has found that women may be more prone to match behaviors of their social groups than are men (Doherty, Orimoto, Singelis, Hatfield, & Hebb, 1995).

Although charitable donations provide givers with indirect value, they appear to activate similar neural systems as receiving rewards oneself (activity in the mesolimbic dopaminergic system; Harbaugh et al., 2007; Moll et al., 2006). Charitable donations also produce activation in the subgenual cingulate cortex (Brodmann area 25) that projects to dopaminergic, oxytocinergic, and serotonergic pathways mediating social attachment (Hare et al., 2010; Moll et al., 2006). Requests for help and donations to charity stimulate the brain to release oxytocin (OT; Barraza & Zak, 2009; Zak, Kurzban, & Matzner, 2004, 2005). OT is a neuromodulator that motivates prosocial behaviors toward strangers (Zak, 2012). Synthetic OT infusion has been shown to increase charitable giving relative to placebo (Lin, Grewal, Morin, Johnson, & Zak, 2013). Indeed, those given synthetic OT donate more to charity irrespective of their earnings (Barraza et al., 2011), showing its powerful effect on giving behaviors. OT does this by increasing concern for others, shifting the self–other balance (Barraza & Zak, 2009, 2013; Lin et al., 2013; Morhenn, Park, Piper, & Zak 2008; Zak, 2011).

Although OT is typically measured through blood draws (Zak et al., 2005), OT also changes cardiac activity by binding to receptors on the heart and vagus nerve, reducing sympathetic tone. The use of an electrocardiogram (ECG) provides a noninvasive way to measure if the brain has produced OT (Kemp et al., 2012; Norman et al., 2011; see Method). The release into the blood stream is calming, and this can be measured through a decrease in heart rate (HR) and increased activity of the vagus nerve that innervates the heart.

Previous research has shown that neurologically engaging narratives that include a social purpose are an effective way to motivate charitable giving (Barraza, Alexander, Beavin, Terri, & Zak, 2015). We hypothesized that micro-

lending requests that included a social purpose would be fulfilled at a higher rate than those without it. If this were the case, then understanding the neurologic mechanisms driving purpose-motivated microfinance lending would be of value so that more effective requests can be written and funded.

Current Study

The present research measured neurophysiologic responses while individuals read requests for microfinance loans adapted from Kiva.org and decided whether to fund these requests. When reviewing requests on Kiva's website, we found that some borrowers sought support to aid others (e.g., benefitting women in their village), whereas others were self-focused (e.g., wanting to expand their businesses). To test the hypothesis that socially focused requests would be more engaging and garner more investment, we created comparable requests for loans with and without a social purpose. Social purpose loan requests focused on empowering women, providing clean water to one's village, or improving nutrition in one's community as part of their business aims. Nonsocial purpose requests were identical except we removed the discussion of social goals, although women's empowerment, clean water, and nutrition continued to be mentioned. Neural measures were included because they are an objective measure of how engaging requests were, are comparable across participants, and often predict donation behaviors more accurately than self-reports (Barraza et al., 2015).

Method

Participants and Procedures

We recruited 101 participants (60% female) from the Claremont colleges and the surrounding community through an existing online recruitment pool (ages 18–56, $M = 24.7$, $SD = 8.80$, ethnicity: 48% Caucasian, 16% Hispanic, 17% Asian, and 4% African American). The sample size was determined assuming a medium effect size before the start of data collection. The institutional review board of Claremont Graduate University approved this study, and it was conducted at the Center for Neuroeconomics Studies.

Participants were informed that the study investigated how people respond to advertise-

ments. After obtaining written informed consent, participants completed a questionnaire that assessed demographics as well as psychological states and traits (detailed later in the text). Once finished, participants were fitted with autonomic physiology sensors and seated privately in a dimly lit room in front of a 15" MacbookPro (Apple, Inc.). All tasks were presented in PsychoPy v1.81.02. (Cupertino, CA).

After acquiring basal physiologic data for 5 min, participants were given 180 s to read each of six edited microloan requests from women in Africa and answer a set of questions about each request, including their assessment of the likely success of the business. These requests were taken from Kiva.org and edited to contain roughly equal content (text of requests is presented in the Appendix). Half of the participants saw loan requests that were self-focused, whereas others saw requests that had a social purpose. After reading a request, participants were asked a content question to incentivize them to attend to the stimuli and create a sense of effort for the money they could earn. Participants earned \$5 for reading each request if they correctly answered the content question. They were also asked to rate the likelihood of success of each business and then given the option to invest some or all their earnings as a loan to the African entrepreneur they read about. Participants were then asked to rate their emotions as their concern for the person requesting a loan using 12 adjectives previously used to assess empathic concern and personal distress (Batson et al., 1997). This was then repeated for the remaining loan requests. Figure 1 shows the timeline of the experiment.

Peripheral nervous system activity was recorded throughout the stimulus presentation. After participants concluded the study, they were told that the loan requests were taken from the microfinance nonprofit Kiva.org and they were given a brief description of Kiva's activities. Participants were then offered the option in private to support Kiva using their earnings from the study by filling in a donation form. Participants were then privately paid their earnings, less any donation, and dismissed. At the end of the study, all donations were sent to Kiva.org.

Self-Report Measures

Besides demographics, the surveys also included the Interpersonal Reactivity Index (Da-

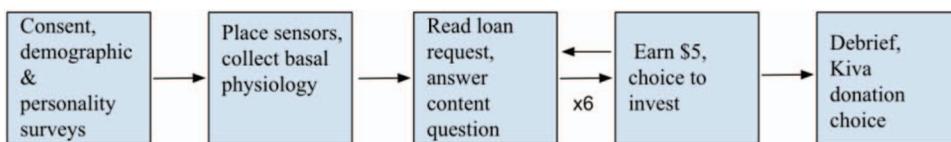


Figure 1. Timeline of the experiment. See the online article for the color version of this figure.

vis, 1980) to measure empathetic concern and personal distress, and the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) to assess basal mood. The PANAS asks participants to rate how much they identify with a set of adjectives on a 5-point Likert scale. The adjectives are as follows: active, alert, ashamed, attentive, determined, distressed, enthusiastic, excited, guilty, hostile, inspired, interested, irritable, jittery, nervous, and upset. We added two additional terms, *empathy* and *concern* to assess possible changes in empathetic concern. After each loan request, participants were asked to rate the PANAS adjectives again to assess acute changes in mood.

Autonomic Measures

Cardiac (sampling rate 1 kHz) and electrodermal (EDA) activity (sampling rate 250 Hz) were collected using a Biopac MP150 data acquisition system and BioNomadix transmitters. Data were recorded with AcqKnowledge software Version 4.2 (Biopac Inc., Goleta, CA). To measure skin conductance, participants were fitted with two disposable Ag–AgCl EDA electrodes on distal phalanx surfaces of the middle and index fingers of their nondominant hand. To measure cardiac activity, three disposable Ag–AgCl ECG electrodes were placed on participants using a Lead(III) configuration.

After collection, the data were manually inspected using AcqKnowledge software. Visual inspection was used to detect brief periods of signal loss in EDA waveforms. Data drop-offs that were shorter than 1 s in length were replaced with interpolated values from adjacent parts of the waveform. Experimenter-observed movement was corrected using mean-value replacement from adjacent parts of the waveform. Then, a 10-Hz low-pass filter was applied to the waveform to remove high-frequency noise (Norris, Larsen, & Cacioppo, 2007), and a square root transformation was applied to adjust

for skew inherent in EDA data (Dawson, Schell, & Filion, 2007; Figner & Murphy, 2001). Following these transformations, the average skin conductance level (SCL) was extracted for the 5-min baseline as well as the six 180-s microloan request periods. The SCL values were used to calculate percent change in SCL from baseline to the microfinance request.

For cardiac data, ECG artifacts were manually removed from the data. A finite impulse response bandpass filter was used to remove high- and low-frequency noise. R–R intervals (amplitude peaks of the cardiac cycle) are more accurately measured at high frequency than is HR, so the former are used in the analysis. R–R intervals were identified and extracted from Biopac, after which Kubios software (University of Eastern Finland) was used to derive heart rate variability (HRV). Linear trend components were removed from the data before HRV analysis. High frequency (HF) HRV, in the 0.12 to 0.4 Hz band, captures vagal tone, so this was extracted and log-transformed for normalization (Lewis, Furman, McCool, & Porges, 2012). The R–R interval and HRV values were baseline corrected to account for individual variation.

Results

Behavior

The likelihood of investing was nearly twice as high for requests that were made with a social purpose ($M = 59\%$, $SD = 49\%$; $p = .0065$) than for those that were self-focused ($M = 33\%$, $SD = 47\%$). In addition, social purpose requests received 25% more loans than did self-focused requests (social purpose, $M = \$2.37$, $SD = \$1.47$; self-focused, $M = \$1.89$, $SD = \$1.30$; $N = 606$, $p = .04$; Figure 2). The social purpose request focused on clean water had the largest average loan amount ($M = \$2.65$, $SD = \$1.57$) and generated 33% more loans than a related

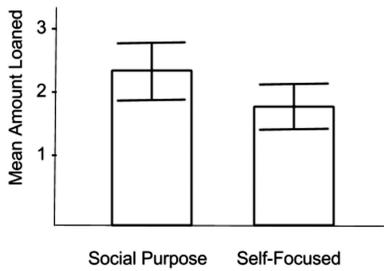


Figure 2. The average amount loaned by participants reading social purpose requests was 25% more than loans made to self-focused requests. Bars shown are standard errors.

self-focused request to help a business build a water filtration system ($M = \$1.75$, $SD = \$1.46$; $p = .002$). Even though social purpose requests received more money, the average earnings from the experiment of those reading social purpose versus self-focused loan requests were statistically identical (social purpose, $M = \$37.40$, $SD = \$1.42$; self-focused, $M = \$36.90$, $SD = \$1.29$; $p = .12$).

Women invested an average of 90% more than their male counterparts ($M_{\text{female}} = \$2.13$, $SD = \$0.386$; $M_{\text{male}} = \$1.15$, $SD = \$0.302$; $p = .047$; Figure 3a). Women were also marginally more likely than men to invest in projects following requests, $\text{Prob}_{(\text{female invest})} = 55\%$, $SD = 6\%$; $\text{Prob}_{(\text{male invest})} = 39\%$, $SD = 7\%$, $\chi^2(1) = 2.65$, $p = .10$. Comparing social purpose investments to self-focused investments, women gave significantly more than

men ($M_{\text{female}} = \$2.60$, $SD = \$3.51$; $M_{\text{male}} = \$1.15$, $SD = \$1.56$; $p = .06$; Figure 3b).

Physiology

Baseline-corrected physiologic data were analyzed as participants read social purpose and self-focused loan requests. Participants, on average, had a statistically higher percent change in their R–R intervals (lower HR) while viewing social purpose loan requests, compared with self-focused requests (social purpose, $M = 0.731$, $SD = 3.64$; self-focused, $M = -0.5611$, $SD = 5.47$; t test $p = .10$; Figure 4). Previous studies have shown that R–R intervals are positively correlated with feelings of concern for others (Barraza et al., 2015). Analyzing physiologic responses for each of the three social purpose loan request types, we found that the percent change in R–R intervals following social purpose requests was strongest for women’s empowerment ($M = 0.982$, $SD = 5.326$; $p = .095$). No difference in SCL was found comparing social purpose requests with self-focused requests ($p = .41$).

To confirm that social purpose requests reduced physiologic arousal, we checked if HF-HRV, a measure of parasympathetic tone, increased for social purpose requests compared with self-focused requests. Our analysis shows that HF-HRV during social purpose requests was ~ 10 times higher compared with that during self-focused requests (social purpose, $M = 92.10$, $SD = 399.5$; self-focused, $M = 9.488$, $SD = 75.23$; $p = .081$). The largest increase in HF-HRV

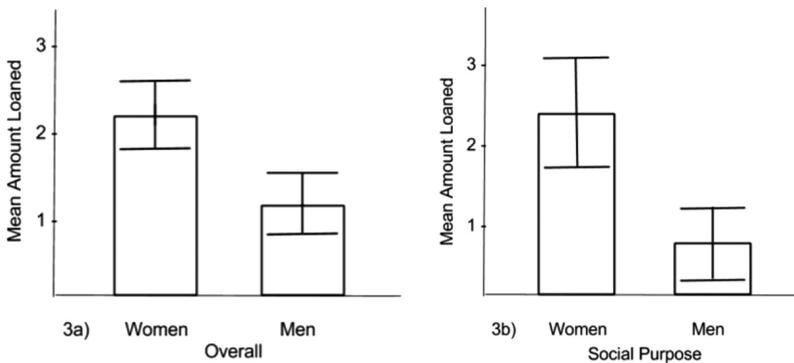


Figure 3. The average amount loaned by women versus men for (a) all requests and for (b) social purpose requests. Bars shown are standard errors.

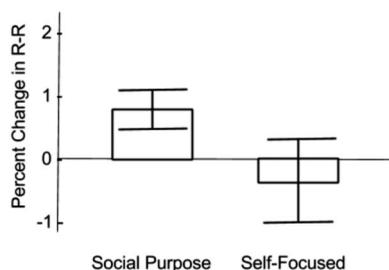


Figure 4. The change in the cardiac R-R interval was larger for social purpose loan requests compared with self-focused loan requests. Bars shown are standard errors.

was for clean water requests ($M = 92.28$, $SD = 431.8$; $p = .053$).

Psychological Responses

Greater empathetic concern was reported for requests that were presented with a social purpose than for those that were self-focused (social purpose, $M = 2.94$, $SD = 0.80$; self-focused, $M = 2.54$, $SD = 0.76$; $p = .007$). Women's greater investments in all projects trended with empathetic concern for those requesting help ($r = .26$, $p = .11$). Using the emotional rating survey, social purpose requests produced stronger negative emotional responses than did self-focused requests (social purpose, $M = 1.6$, $SD = 0.055$; self-focused, $M = 1.4$, $SD = 0.087$; $p = .02$). As with loan amounts, women had stronger negative emotional responses when viewing social purpose requests than did men ($M_{\text{female}} = 1.67$, $SD = 0.63$; $M_{\text{male}} = 1.39$, $SD = 0.42$; $p = .008$). Negative affect was marginally correlated with investments in social purpose requests ($r = .17$, $p = .09$).

In response to all requests, women reported more empathetic concern than men ($M_{\text{female}} = 2.89$, $SD = 0.66$; $M_{\text{male}} = 2.47$, $SD = 0.90$; $p = .0030$), and had more concern when considering social purpose requests ($M_{\text{female}} = 3.06$, $SD = 0.66$; $M_{\text{male}} = 2.55$, $SD = 1.09$; $p = .031$). Interestingly, social purpose requests produced stronger positive affect for women ($M_{\text{female}} = 2.64$, $SD = 0.66$; $M_{\text{male}} = 2.24$, $SD = 0.72$; $p = .049$).

A Model of Kiva Investments

We tested overall impact of the significant predictors identified earlier that were associated with loans made in response to Kiva requests by estimating a logistic regression with a positive

or zero investment as the dependent variable. The independent variables were sex, positive affect, change in R-R interval, and a social purpose indicator (negative affect and empathy were not included because of the multicollinearity between multiple self-report items). Social purpose continued to be significantly related to the likelihood of investing in projects ($\beta = .0943$, $p = .037$). All other variables were insignificant. Social purpose continues to be positive and significantly related to the likelihood of investing if negative affect is included rather than positive affect ($\beta = .904$, $p = .047$). Next, we assessed the ability to accurately predict Kiva investments using the same independent variables. The model correctly classified 65.22% of responses to Kiva requests, a significantly better than chance finding ($p = .013$).

Donations to Kiva

Fully 47% of participants made donations to Kiva at the end of the study (average donation among donors \$3.64, $SD = \$3.08$). Those who read social purpose requests, as we hypothesized, were more likely to donate to support Kiva (social purpose, $M = 0.59$, $SD = 0.50$; self-focused, $M = 0.33$, $SD = 0.49$; $p = .006$). Reading social purpose requests did not significantly affect the magnitude of donations to Kiva (social purpose, $M = \$1.94$, $SD = \$3.10$; self-focused, $M = \$1.46$, $SD = \$2.50$; $p = .20$). There were no gender or age differences in the decision to donate ($ps > .26$) or the amount chosen to donate ($ps > .47$), and none of the physiologic measures were associated with donations to Kiva.

Discussion

Microfinance works (Armendáriz & Morduch, 2010). It has lifted many families out of extreme poverty around the world, though not uniformly (Banerjee, Duflo, Glennerster, & Kinnan, 2015). This article collected neurophysiologic data to identify why some microfinance loan requests are fully funded, whereas other requests are left wanting. We found that loan requests with social purpose were associated with lower physiological arousal using both R-R intervals and HF-HRV and received 25% more funding compared with requests that were self-focused.

The reduction in physiologic activation after social purpose requests is consistent with the brain's synthesis of OT during loan requests that has been shown to increase charitable donations (Barraza & Zak, 2009). OT shifts one's attention toward other-focused concerns (Lin et al., 2013), something that social purpose loan requests appear to do as well. OT binds to the vagus nerve and reduces sympathetic tone. This somatic relaxation response may be the reason social purpose requests receive more investments than self-focused requests—Donors may simply feel more comfortable with those requesting social purpose loans.

The responses to social purpose loan requests were largely driven by responses by women. Women invested 90% more money in response to all requests than did men and invested 97% more than men in response to social purpose requests. Women reported 20% greater negative affect and 20% more empathic concern than men after reading social purpose requests. This partially explains their larger investments in all loan requests, but especially social purpose requests, than those made by men. That women gave more than men is consistent with previous reports showing that women tend to be more generous than men (Baron-Cohen, Knickmeyer, & Belmonte, 2005; Barraza & Zak, 2009; Ben-Ami Bartal, Decety, & Mason, 2011; Hoffman & Maier, 1961). The larger loans by women also matches findings showing that women tend to be stronger conditional cooperators than men; in the present study women appear to be influenced by a desire to help female African entrepreneurs, perhaps presuming other women are similarly choosing to support them (Oberholzer-Gee, Waldfogel, & White, 2003). Women even cooperate significantly more than men in single-round strategic decisions (Ortmann & Tichy, 1999). At the same time, participants of both genders reported an increase in positive mood after reading, and in most cases investing in, social purpose requests.

The framing of loan requests as having social purpose appears to strongly influence physiology and behavior. Framing can affect the perceived value of actions such as contributing to charitable donations (Das, Kerkhof, & Kuiper, 2008). Message framing can influence decisions by focusing one's attention on the positive consequences of an action or the negative consequences of not completing the action. For example, a "warm-glow" utility flow (Andreoni, 1990) can be added to a

call to action by using a "helping others" framing (Chang & Lee, 2010) as was done in the social purpose requests in the present study. Indeed, an effective way to promote prosocial behaviors is to use campaigns that cause viewers to respond empathically (Albouy, 2017). Requests with narrative arcs that drive tension and drama evoke stronger emotional responses and increase charitable actions when compared with appeals that present statistical information (Green, 2006; Green & Brock, 2000; Green, Brock, & Kaufman, 2004). Narrative-driven changes in physiology, similar to that reported here, were found in a study of video requests for donations to a childhood cancer charity (Barraza et al., 2015). Indeed, microlenders might be more effective in framing requests and presenting narratives about the need for loans if they used higher bandwidth communications such as videos.

Putting all the components from the present study together indicates donors attended to the requests for help, felt physiologically comfortable making loans, and had a lift in positive mood after they had made them. Reading social purpose loan requests had an additional effect: They stimulated donations to Kiva.org. Human beings are often prompted to help others when requests are made with sufficient emotional content. Our findings here show that both microloan requests and donations to Kiva are associated with a kind of Goldilocks result: higher empathic concern and lower physiologic arousal. This suggests that effective microloan requests must tread a fine line between attracting emotional attention and making donors sufficiently comfortable with the purpose of the loan. The combined effect that social purpose requests can have on entrepreneurs, as well as the microfinance organizations that they use, shows the impact of request design on the ability to serve others.

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Appendix

Text of Video Microfinance Requests

Women's Employment

- (1) My name is Anastasia and I am a hairdresser in Elmina, Ghana. I cut hair for women in my city and I sell hair extensions, hair pomade, and hair relaxers. I have worked in my business for four years and have regular customers. I plan to use the profits to hire more hair dressers to expand my business.

Social Purpose Condition

I know the importance of improving the self-image of women. Having a job has helped me feel good about myself. Women in my town have difficult lives and are not always treated with respect. I have a strong desire to improve their self-image by providing jobs for women and increasing their income. I want my sisters and daughters to achieve self-respect from working and providing for their children.

Self-Focused Condition

I provide products and services that help women be beautiful. I am busy and need to hire more women so I can increase my sales. I will use the loan to purchase additional equipment and inventory. With more employees and equipment I can grow my business.

- (2) Hi. I am Catherine. I live in Kisumu, Kenya. It is a lakeside city. I operate a retail store where I sell clothes. I have been doing this business for seven years. My primary customers are local residents. I will use the funds to expand to sell at other stands in the city.

Social Purpose Condition

By hiring women to help me, it will allow them to meet their obligations to their families. I understand the fears women have and their challenges. A job will provide them with the security of a stable income that will help them avoid being out on the streets and not being able to provide for their children.

Self-Focused Condition

I began my business because I wanted to maintain my family's source of income. The main challenge to my business is to meet my obligations to my customers before my food spoils. If I can get an additional cart, I can secure the success of my business.

Clean water

- (1) My name is Fatuma. I own a house in a village called Gede in Kenya. We have no piped water in our village and the water that is available is dirty. I assemble parts for small water filtration machines in my home. I need more money to expand my home and buy more parts for the machines.

Social Purpose Condition

I will use the loan to grow my business to increase how many filtration units I can assemble. Many people in my village get sick because there is a lack of clean water. Hand operated filtration units can provide clean water for entire villages, and this would improve the health of everyone in my community. I want to increase my community's access to clean water.

(Appendix continues)

Self-Focused Condition

I will use the loan to purchase more soft drinks and equipment for purifying water. If I can purify my own water this will increase my sales and I can send my three children to school. An education will give my children more opportunities in life.

- (2) My name is Zainab from Waterloo Western rural area in Freetown. My business is to sell purified water and soft drinks to sell to people in my city. I buy my water and soft drinks from the city and bring it out to my village work where clean water is not available. I need a loan to buy equipment to purify my own water and expand my business.

Social Purpose Condition

I will use the loan to purchase parts for the filtration units I sell. In my village, clean water will help families avoid diseases. They will not have to lose time at work due to sickness. By making clean water easily available, people in the community also will stop wasting time traveling to the city to get clean water.

Self-Focused Condition

I sell water and soft drinks to pay my bills and feed my family. I need to start purifying or I will lose sales to my competitors who can sell water for less money. If I cannot maintain my business my three children will not be able to go to school.

Food/nutrition

- (1) My name is Madu and I live with my family in a village outside of Lagos, Nigeria. Five years ago I decided to set up my own business selling local foods, most based on cassava root. I sell food and deliver my merchandise to my customers' homes. I will use the loan to

stock higher quality foods to sell and to expand my business.

Social Purpose Condition

I have a strong desire to help children in the village become healthier by expanding who can eat my fruits and vegetables but I need a cart to help me deliver the food. More fruits and vegetables will improve the health of children.

Self-Focused Condition

Selling food is a good business. In my business I make enough to get by but I would like to achieve more. I will use the loan to get a cart, so I can increase my business sales. I hope to expand to add breads and meats if I am successful.

- (2) I am Isatu is Freetown, Sierra Leone. I started a food stand business to create a source of income. I buy food from farmers to sell at the market. I work at my business six days per week. I require a loan in order to purchase more food and grains to expand my business.

Social Purpose Condition

Many children in my village are not healthy because of poor food quality. My business of distributing food can keep children in my village from getting sick. If I can get an additional cart, I can make sure all the food I purchase is delivered and is not lost due to spoilage.

Self-Focused Condition

I can lose money if I cannot sell all the food I purchase. I get very tired carrying all the food to the stand and out to my customers. Using the loan to buy a cart will help me sell all my food before it spoils and will save me money and energy.

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