



An asset approach to increasing perceived household economic stability among families in Uganda

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ABSTRACT

In this study, we examine whether participating in an asset building intervention leads to higher perceived household economic stability among a group of Ugandans. After controlling for possible selection bias using propensity score matching, perceived household economic stability is tested using difference-in-differences. Results suggest that participating in the asset intervention has a statistically significant positive effect on the treatment group's perceived household economic stability. Policy and research implications are discussed.

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This paper focuses on rural areas in Uganda, a relatively small country in Sub-Saharan Africa (SSA). In 2006, the Ugandan Bureau of Statistics (UBOS) reported that there were just over 27 million people living in Uganda. The literacy rate among Ugandans 10 years of age or older was 69% (2006), and the average monthly per household income was only 170,891 Ugandan shillings, the equivalent of 90.42 U.S. dollars (UBOS, 2006). Subsistence farming remained the primary source of income for Ugandans (49.2%). Only about 21% of Ugandans earned income via paid employment (UBOS, 2006). Poverty rates in Uganda declined from 39% in 2002 to 31% in 2005. However, at 31% poverty is still a serious problem in Uganda (UBOS, 2006). Solving the problem of poverty in Uganda and around the world will likely require more than policies that focus exclusively on increasing income or consumption (Sherraden, 1991). Consumption tends to rise and fall with income levels (Sherraden, 1991). The inability to overcome unexpected reductions in income may reduce the level of confidence people have in their ability to get out and stay out of poverty.

Over the last decade, developmental agencies and researchers have become increasingly aware of the potential role that assets play in reducing poverty and enhancing well-being among individ-

uals, households, and communities in developing countries (see e.g., Chowa, 2006; Lesorogol, 2009; Sewamala, 2006; World Bank, 2002). Assets are tangible resources that can be stored over time for the purpose of generating future income or for passing wealth on to the next generation (Cronk, 1991; Lybbert et al., 2000; Randela, 2003; Schreiner and Sherraden, 2007). Asset policies aim to increase the capabilities of the poor to live the lives that they want (Schreiner and Sherraden, 2007). In addition to such things as livestock, houses, bikes, and land, financial savings are also perceived as assets, both in rural and urban areas of SSA. However, only 15% of households in Uganda reported that at least one of its members has a savings account with a formal institution (UBOS, 2006). This does not mean that Ugandans do not desire to save. There are few banks in Uganda, and they are often hard to access for people living in rural areas (UBOS, 2006). As a result, people living in Uganda and more generally in SSA, have found alternative means to save. For example, Rutherford (1999) report that people in SSA often save small amounts of money in a hole in the ground or under their beds.

This study uses data from a pilot project in Uganda that is part of the AssetsAfrica program, a demonstration and research initiative designed to test asset building innovations in Africa.¹ The

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¹ More information on the AssetsAfrica program can be found at <http://gwbweb.wustl.edu/CSD/about/gap.htm>.

Uganda pilot project takes place in Masindi, a district in the western part of Uganda, 130 miles from Kampala, the capital city. The asset building project is modeled after matched savings programs in the United States. However, it has several unique features tailored to meet cultural and circumstantial conditions in Uganda. For example, because of the absence of banks in the villages and the inconvenient distance to the bank in the Masindi business district, the international Stanbic Bank, which is headquartered in South Africa has established a mobile bank that visits the village every week to collect savings.

1. Theoretical framework

Assets are fungible and can offer a quick source of income in times of disaster. Unlike income which is used for consumption, assets are stored over time (Sherraden, 1991). As a result, when income is interrupted, assets can be cashed in, reducing the effect of a disruption in income (Sherraden, 1991). Reducing the negative effects caused by disruptions in income is important in Uganda and other African countries. UBOS (2006) reports that nearly two thirds of all Ugandan households experience a disruption in income in 2005 and 2006 due to disasters, such as droughts, floods, death of family members, pest attacks, robbery, and civil strife. Ugandans also report that they rely on savings to mitigate the effect of income shocks caused by disasters (UBOS, 2006). Given this, we suggest that programs designed to increase savings among low-income families, such as Individual Development Account (IDA), may help reduce poverty in Uganda and other SSA countries by smoothing out disruptions in income.

IDAs, are a type of matched savings account that is similar to a 401k but for the poor (Sherraden, 1991). They have been the main financial vehicle used for asset building among the poor in the United States (see e.g., Schreiner et al., 2002). IDAs enable the poor to gain access to mechanisms for saving and investment that improve their future prospects. Specifically, Sherraden et al. (2003) identify five institutional constructs that encourage people to save: access, incentives, information, facilitation, and expectations. Access provides a structured mechanism for engaging in desired behavior. Incentives attract and keep people engaged and help them meet desired outcomes. Information helps people understand the processes required and how they lead to desired outcomes. Facilitation provides support to help people meet desired behaviors. Expectations make the desired behaviors clear and reinforce the link between behavior and desired outcomes. What asset theorists find is that the poor can and will save when given access to institutions for saving (Schreiner and Sherraden, 2007).

Sherraden (1990, 1991) proposes that in addition to direct effects, such as cashing in savings to buy a bike, assets may also have indirect effects in the form of psychological, social, and economic effects. He refers to indirect effects as *asset effects*; that is, impacts that result from the act of saving (Sherraden, 1991). Specifically, Sherraden (1991) hypothesizes that the process of accumulating assets improves household stability, increases personal efficacy, increases political participation, creates an orientation toward the future, enables focus or specialization, and provides a foundation for risk taking. Further, Sherraden (1990) hypothesizes that asset effects may occur in response to positive expectations about the amount of assets a person expects to have in the future. From this perspective, expectations about the amount of assets a person may have in the future maybe equally or more important than the actual amount of assets he or she currently possesses (Sherraden, 1990).

In this paper we focus on the role that accumulating assets in an asset building intervention may play in creating positive perceptions about household economic stability. Most studies in the asset literature focusing on positive expectations examine edu-

cational expectations of parents and children. For example, Zhan and Sherraden (2003) find that among single-mother families, savings is associated with the parent's educational expectations for their children. Zhan (2006) conducted a separate study where she tested the relationship between assets and parental expectations and finds a positive significant association between the two. Similarly, Elliott (2008) finds an association between children who have savings and their own educational expectations. More generally, Sherraden et al. (2005) find qualitative evidence that participants in an asset building intervention express more hopeful ways of thinking about their futures. We could find no studies directly related to asset building interventions and perceived household economic stability. This study builds on existing research by testing the role that accumulating assets in an asset building program may play in creating positive perceptions about perceived household economic stability among Ugandans. We therefore hypothesize that: participants in the asset building intervention will have higher perceived household economic stability than the participants in the comparison group.

2. Study design and data

2.1. Project site description

The Uganda pilot was conducted Kigumba and Pakanyi sub-counties in Masindi district in Uganda. The implementation of the asset building intervention in this study was conducted with 200 people in Kigumba, a sub-county in the Kibanda County. Kigumba has three parishes, 45 villages and a total number of 4791 households. It has a population of 17,466 males, and 15,319 females. Forty percent (17,391) of the population in Kigumba lives below the poverty line (UBOS, 2006). The furthest village in the Kigumba intervention group, Kemezu village is 35 km from Masindi district. The distance of the closest village in the intervention in Kigumba from the main road is 1.8 km. The major means of livelihood in this sub-county is agriculture. The main food crops in Kigumba are maize (corn), sweet potatoes, and cassava. The main cash crops are coffee, sesame, and rice. The main livestock are cattle, pigs, goats, and chickens.

The comparison group in the study was with two hundred people from Pakanyi sub-county in the Buruli County. Pakanyi sub-county has 3 parishes, and 54 villages, with 4687 total numbers of households. The population of Pakanyi sub-county is 18,190 males and 17,214 females. 44% of people live below the poverty line, which adds up to 17,702 people (UBOS, 2006). Pakanyi is 15 km north east of Masindi town and is about 1.6 km from the main road. The trading center which carries the main name has among other facilities a health center, a market, schools, agricultural center, an agricultural college and a grocery store. Similar to Kigumba, the food crops in Pakanyi are maize (corn), sweet potatoes, and cassava. The cash crops are coffee, sesame and rice. The main livestock are cattle, pigs, goats and chickens. The geographical tips of Kigumba and Pakanyi sub-counties are approximately 20 miles apart.

2.2. Selection process

Kigumba sub-county was identified by ICR and the local government officials as a sub-county that had been marginalized in terms of economic investment for sometime therefore needed some attention. This intervention was perceived as one step towards improving the well-being of the people in the villages of Kigumba. Due to the nature of the project, a comparison group was needed, and Pakanyi was identified as a sub-county that was similar to Kigumba in terms of the infrastructure, agricultural undertakings, presence of a market, schools, presence of development projects.

Both the Masindi local government officials and ICR agreed that these two sub-counties are similar.

Each sub-county has an existing Local Parish Councils (LPCs) which was created by the local government for purposes of development in the counties. These LPCs in conjunction with ICR used criteria provided by the researchers to select participants to the intervention group in Kigumba and the comparison group in Pakanyi. The two main guiding criteria for selection to the group included the person being poor and in need of assistance, previous participation in an ICR project (this was included for ease of identification). Other logistics included having similar samples in terms of gender, age (ICRs main target group are the youth), regularity of income receipt. In terms of gender, due to the gender bias in asset accumulation, there was needed to ensure that not only men were selected to the groups. It was important for women to be included in the study to investigate the impacts of the intervention on women as well. In terms of age, ICRs main target group are the youth. In this project older people were also included. Most of the older people in this part of Uganda are taking care of orphans and they need some financial and economic stability in their households as care givers. As previously stated, the main livelihood in this area of Uganda is agriculture which means income is seasonal. In this study regular income earners were also selected to understand the savings habits of regular income earners versus seasonal incomes earners savings habits. At the time of enrollment, each research participant signed a letter of consent, agreeing to participate in the study for five years.

2.3. Project design

Two hundred people were selected to the treatment group. This was not a random assignment. Using the criteria explained above the LPCs, in conjunction with ICR and the researchers guidance, selected these 200 people to the treatment group. In Pakanyi, the LPCs there selected 200 people to the comparison group using the same criteria.

Participants in the treatment group received mandatory financial education on making deposits and withdrawals, reading bank statements, and understanding interest and fees. In addition, the training taught participants how to manage their individual assets using business planning and management, bookkeeping, goat herding, chicken farming, and modern farming techniques.

After opening an account, participants deposited their money for a minimum of six months before they were eligible for a match.² Restrictions were made for lump sum deposits to encourage more regular savings over the participation period. The match cap, which is the maximum amount of money a participant can save, was 500,000 Ugandan Shillings (UGS), or about 285 U.S. dollars. Participants who successfully reached their goal had their savings matched at a ratio of 1:1 after which each participant purchased their desired asset. To encourage sustainability and viability participants were only allowed to purchase assets that would generate income, including livestock such as chickens, goats, cows, and oxen. Other acceptable assets included transportation such as bicycles or motorcycles used to transport others for a fee, land for growing crops or building a home, materials to build commercial or personal houses, and items such as sewing machines or grinding mills to start a small business.

The comparison group did not receive any training nor did they participate in the intervention. We collected the first wave of data in August 2005 using a face-to-face survey administered by local interviewers, and the second wave of data in September 2006. The survey consisted of more than 100 questions, most of which were

adopted from the American Dream Demonstration (ADD) study that measures wealth accumulation and wealth effects and from the World Bank's Living Standard Measurement Survey (LSMS), which measures asset thresholds for families. Additional items included measures of perceived household stability.

3. Data analysis

The two methods of analysis that were used in this study; propensity score matching (PSM), and difference-in-differences (DiD). The use of a quasi-experimental design in this study raises the evaluation problem of how to identify causal effects – selection bias problem. For example, in this study, we do not know if the outcome is a direct result of the asset building intervention and not a result of the person's gender, age, prior wealth, education and health factors that have been associated with asset accumulation and established in literature. Therefore, a counterfactual has been introduced, a comparison group of individuals who have not received treatment. However, a problem still has remained; individuals from the treatment group may have had a higher probability of achieving greater results from the intervention. In this study the problem of selection bias has been addressed by matching treatment and comparison cases on relevant pre-treatment characteristics so that the differences in the outcomes between the two groups can be attributed to the intervention.

Rosenbaum and Rubin (1983) have suggested using a matching procedure based on a balancing score known as the propensity score, (i.e. the probability of participating in a program given observed characteristics X). Matching involves pairing treatment and comparison cases that are similar on a given number of observable characteristics. This method is called PSM, which is used when there are more than two observable variables or characteristics used to match the cases from the treatment and comparison groups. PSM methods provide a natural weighting scheme that yields estimates of the treatment scheme. The weights are formed as the inverse of the predicted probability that an individual would choose to participate in the treatment. The resulting predicted probabilities are used to create weights for subsequent analyses.

DiD is a method that compares observed outcomes for two groups for two time periods. The treatment group is exposed to an intervention in the second period but not in the first period, while the comparison group is not exposed to the intervention at all. The sampling units in both groups are observed in each time period, and the average gain in the comparison group is subtracted from the average gain in the treatment group.

PSM and DiD methods both have been commonly used to analyse causal effects of treatment from observational data and for reducing selection bias in non-randomized field experimental research. Caliendo and Kopeinig (2008) have suggested steps in establishing a method that combines PSM and DiD.

The first step conducted was estimating propensity scores using a logistic regression model. The logistic regression model estimates the probability of participation versus non-participation. The dependent variable is a binary variable: treatment = 1 and comparison = 0, and the independent variables in the model are age, gender, education level, employment type, marital status, prior wealth, and number of children in the household.

The second step was the matching or resampling based on the estimated propensity scores. In this study nearest neighbor with caliper was used. This method combines traditional nearest neighbor matching and caliper (Cochran and Rubin, 1973). The treated and the non-treated cases were randomly ordered then a treated case was selected and matched with closest propensity score within a predetermined common support region called the caliper (Guo and Fraser, 2010). The pair was removed from the sample, mean-

² Participants generated money from selling food that they cooked. Examples of the food sold include, doughnuts, corn, sweet potatoes, and cassava.

ing that matching was done without replacement. The caliper size is a quarter of the standard deviation. In this study the caliper was XX. Heckman et al. (1998) have reported that violating the common support condition is a major source of treatment effects bias as conventionally measured. Therefore, checking for the overlap of the region of common support between the treatment and comparison groups is important. To determine the common support region in this study, trimming has been conducted using 5% and 10% and has excluded treated cases in this propensity score range, producing more reliable results.

The third step was a bi-variate analysis was conducted to compare the outcomes between the treated and the untreated group to determine the treatment effects for the treated group. Kernel based matching was conducted in this study. This method combines the matching in step 2 into an analysis that calculated the mean difference between the treated and the non-treated resulting in the 'average treatment of the treated' TT. Confidence intervals have been directly observed from the actual distribution of the parameter estimates around the mean. According to Guo et al. (2006), bootstrapping has been the only available method in software packages that can offer an alternative to testing whether or not the group difference is statistically significant.³ Bootstrapping in this case has been used to estimate the standard error of the sample mean difference between treated and non-treated cases.

Sensitivity analysis was conducted by testing the sensitivity of estimated treatment effects using common support. Sensitivity analysis was used because it is impossible to estimate the magnitude of selection bias with non-experimental data. Therefore, in this study, the problem was addressed by Lechner-bounds for significance levels and confidence intervals (Aakvik, 2001; Rosenbaum, 2002).

4. Research variables

4.1. Asset building intervention

The asset building program was the intervention. Therefore, the asset building intervention variable was measured 1 if the case received intervention and 0 if the case did not receive the intervention.

4.2. Personal characteristics

Gender was measured at the nominal level; age was measured as a continuous variable, and marital status was measured at a nominal level with 5 categories: single never married, married, divorced, widowed, separated, and other. Education was measured at the ordinal level; however, this variable was changed into a continuous variable by assigning the number of year's equivalent to the level of education. Health was a continuous variable with a scale of 1–7.

4.3. Perceived household economic stability

All the items measuring perceived household economic stability had a scale of 1–7, with 1 being "extremely worse" and 7 being "extremely better." To arrive at respondents' perceived household economic stability, questions were asked about expectations for

food supply, asset stock, expectations for children's financial situation, and expectations for children's entrepreneurial situation.

5. Results

5.1. Descriptive statistics

The sample for Wave 1 was predominantly male. However, because women were targeted in the project, there were more females than males in the treatment group. Across both groups, there were more married participants than unmarried participants. Most respondents had a household size of 4 or fewer people. Overall, nearly half of the Wave 1 sample had a primary education equivalent to attending elementary school in the United States. Altogether, most respondents had no college education, although among those with some college experience, most were in the treatment group rather than in the comparison group.

Respondents were also asked about the type of work they had performed for most of their lives. The responses included trading, farming, clerical work, construction, managerial/professional work, and services such as cleaning. These ranges of employment status were dichotomized into two variables, namely self-employment and formal employment. Informal or self-employment was the norm across the board. The high rate of informal employment was reflective of Uganda's national economy, in which the informal sector was the largest employer, especially in rural areas (Kraybill and Bashaasha, 2006).

Table 1 presents the demographic and socio-economic characteristics of the research sample for Wave 1. The first column of the table shows the variables discussed. Each variable is dichotomized into two categories except for age. Prior wealth has five categories. The 2nd and 3rd columns of the table also present the total numbers for each category of the variables for the treatment and comparison groups in the research project. The 4th column presents the totals for each category in that variable. The percentage for each category is in parentheses and attached to the actual counts on the right side. The 5th column which is bifurcated into two columns presents results of the *t*-tests before and after propensity score matching. These results show the nearness of matching of the groups on these variables. The last column on the far right of the table presents the probabilities of bi-variate chi-square test. As discussed earlier, the first step in this procedure was to match cases in the intervention group with similar cases in the comparison group based on covariates that would influence expectations outcomes. The covariates used to match cases in this study are based on prior discussion from literature, namely gender, age, marital status, education, health, and prior wealth.

Table 2 shows the average effect estimates for the perceived household economic stability factor. Perceived household economic stability shows significant results. This signifies that the intervention affected the perceived household economic stability factor for the treatment group. The sensitivity analysis results show slight differences when adjustment is conducted on bandwidth and when trimming is done. Particularly, for the perceived household economic stability bandwidth (0.5 and 10%) trimming produces insignificant DiD point estimates. This could mean that the matching at these points is problematic. Therefore, some caution should be used when interpreting these results. However, overall, the analysis shows some stability.

6. Discussion

The World Bank (2002) has suggested that interventions that seek to increase asset holdings among populations living in devel-

³ Local linear estimation provides weighted average outcomes of non-treated cases. Asymptotic distributions of these weighted averages are complicated. Currently there is no procedure available in any software package that offers parametric tests to discern whether or not group difference is statistically significant (Guo et al., 2006).

Table 1
Wave one demographics and socio-economic characteristics of research sample.

Variable	Treatment group number (%)	Comparison group number (%)	Totals number (%)	T-tests for nearness of matching before and after matching [*]		Probabilities of bi-variate χ^2 test
				Before	After	
Gender				$t = 6.5$	$t = 0.4$	$p < 0.0001$
Male	82(40.4)	141(73.2)	223(45.3)	df = 360	df = 239	
Female	121(59.6)	49(26.8)	170(54.7)	$p = 0.00$	$p = 0.69$	
Age				$t = 5.3$	$t = 0.7$	$p < 0.0001$
15–30	84(42.2)	29(17.7)	113(31.1)	df = 360	df = 239	
31–45	84(42.2)	78(47.6)	162(44.6)	$p = 0.00$	$p = 0.44$	
46–60	24(12.1)	47(28.7)	71(19.6)			
61 and older	7(3.5)	10(6.0)	17(4.7)			
Marital status				$t = 1.1$	$t = 1.1$	$p < 0.160$
Married	152(76.0)	139(80.8)	291(78.2)	df = 354	df = 235	
Unmarried	48(24.0)	33(19.2)	81(21.8)	$p = 0.25$	$p = 0.25$	
Household size						$p < 0.051$
Four or less	127(64.1)	95(55.2)	222(60)			
More than Four	71(35.9)	77(44.8)	148(40)			
Educational level				$t = 7.1$	$t = 2.2$	$p < 0.0001$
No college	151(75.9)	166(96.5)	317(85.4)	df = 360	df = 239	
Some college	48(24.1)	6(3.5)	54(14.6)	$p = 0.00$	$p = 0.02$	
Employment status				$t = 2.6$	$t = 0.1$	$p < 0.229$
Self-employment	154(77.4)	149(80.1)	303(78.7)	df = 355	df = 234	
Formal employment	45(22.6)	37(19.9)	82(21.3)	$p = 0.00$	$p = 0.43$	
Expectations for education						$p < 0.0001$
No college	9(5.7)	29(19.9)	38(12.5)			
Some college	148(94.3)	117(80.1)	265(87.5)			
Prior wealth (In US\$)				$t = 5.4$	$t = 0.1$	$p < 0.001$
0–1	10 (17.2)	48 (82.8)	58 (15.4)	df = 343	df = 233	
2–49	15 (28.8)	37 (71.2)	52 (13.8)	$p = 0.00$	$p = 0.44$	
50–200	53 (42.1)	73 (57.9)	126 (33.5)			
201–499	37 (75.5)	12 (24.5)	49 (13)			
500–1000	32 (84.2)	6 (15.8)	38(10.1)			
1001 and Above	41 (77.4)	12 (22.6)	53 (14.1)			

* Note: two tail t -tests are provided only for variables that are included in propensity score weighting.

Table 2
Estimated average treatment effects of perceived household economic stability: difference-in-differences estimation by local linear regression.

Treatment and comparison	Outcome measure: perceived household economic stability
Mean difference between 13 months and baseline	
Participants in the asset building intervention ($n = 103$)	0.21
Comparison group who did not receive any Intervention ($n = 111$)	–0.42
Unadjusted mean difference	0.64
Adjusted mean difference, DiD point estimate (Bias Corrected 95% Confidence interval)	0.52 (0.03, 1.04)
Sensitivity analyses, DiD point estimate (Bias Corrected 95% Confidence Interval)	
Changing bandwidth:	
Small – bandwidth = 0.01	0.53 (0.04, 1.06)
Small – bandwidth = 0.05	0.52 (–0.01, 1.03)
Large – bandwidth = 0.8	0.52 (0.03, 1.04)
Trimming:	
5% (8 cases excluded)	0.53 (0.14, 0.91)
10% (11 cases excluded)	0.53 (–0.02, 0.97)

oping countries are an important aspect of a social development strategy. These interventions are valued, at least in part, because of the potential indirect effects that assets may have in the form of psychological, social, and economic effects (Sherraden, 1991). The aim of this study was to examine the potential psychological effects that an asset intervention may have on people living in a developing country. In particular, we examined the perceived household economic stability of a group of rural Ugandans. Previous studies have found evidence of a significant association between assets and expectations (Elliott, 2008; Sherraden et al., 2005; Zhan, 2006; Zhan and Sherraden, 2003). However, none of the previous studies examined the relationship between assets and people's per-

ceived household economic stability. In this study of Ugandans, we were able to use a quasi-experimental design to find evidence that participating in an asset intervention has a statistically significant effect on their perceived household economic stability relative to a comparison group.

6.1. Limitations

This study has several limitations. A limitation of this study is that the sensitivity analysis showed some instability. That is, results show slight differences when adjustment is conducted on bandwidth and trimming for perceived household economic stability.

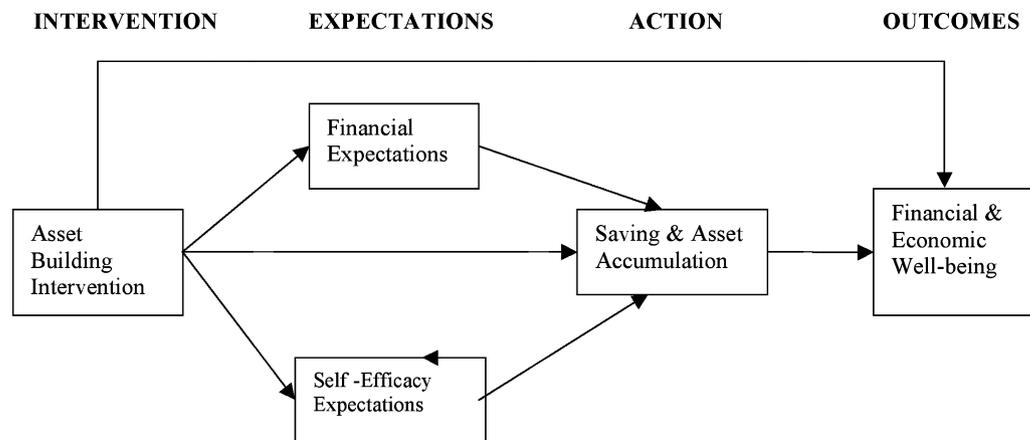


Fig. 1. Conceptual model for assets, expectations, action, and outcomes.

Therefore, some caution should be used when interpreting results. However, overall, the analysis shows some stability. Another limitation is the potential for selection bias. Individuals who were selected in the treatment group may have had a higher probability of achieving higher effects from the intervention. We addressed this problem by matching the treatment and comparison cases on relevant pre-treatment characteristics so that the differences in the outcomes between the two groups could be attributed to the intervention. Moreover, the sample size was relatively small. Small sample size may reduce the overall potential for generalizing the findings. These are only a few limitations that the reader should consider as he or she attempts to understand the practical significance of these findings.

6.2. Policy implications

Practically, high perceived household economic stability may be important in increasing savings among populations living in developing countries such as Uganda (Engelberg, 2005; van Raaij, 1991). Through savings, Ugandan's mitigate the effects of income shocks caused by disasters (UBOS, 2006). Income shocks often prevent Ugandans from exiting poverty or thrust them into poverty (UBOS, 2006). Policies that create asset interventions may be important in increasing perceived household economic stability among Ugandans, which in turn, may have the practical effect of increasing savings.

6.3. Research implications

Additional research is needed to examine the relationship between asset interventions, perceived household economic stability and savings behavior. Few theoretical or empirical research studies exist that explore how asset effects may occur. Shobe and Page-Adams (2001) attempt to identify the method in which asset effects may occur. They suggest, "... that future orientation may play an intermediate role in the relationship between assets and other positive social and economic outcomes," and "... that savings first provide people with otherwise unattainable opportunities to hope, plan, and dream about the future for themselves and their children" (italics in original, Shobe and Page-Adams, 2001, p. 119). In a test of the indirect effects of assets, Yadama and Sherraden (1996) find evidence that having assets may increase expectations; in turn, increased expectations may result in more asset accumulation. Other asset researchers have found evidence of the potential mediating effects of expectations (Elliott, 2008; Sherraden et al., 2005; Zhan, 2006; Zhan and Sherraden, 2002). It may be that asset interventions lead to positive perceptions about household eco-

omic stability, resulting in increased savings and overall positive economic well-being (see Fig. 1).

Future research may want to examine whether perceived household economic stability act as a mediator between asset interventions and asset accumulation.

7. Conclusion

While more research is needed, asset interventions show promise of having a positive impact on Ugandan's perceived household economic stability. Policies that create asset interventions may be an important component of a social development strategy for developing countries such as Uganda.

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