LENDWITHCARE ASSESSMENT PROJECT

THRIVE REPORT

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Summary

This report is part of LENDWITHCARE (LWC) assessment project and focuses on the evaluation of LWC partner in Zimbabwe, THRIVE Microfinance. The report was prepared by the University of Portsmouth (UoP), partner in the project, after a second wave of a household survey to a sample of THRIVE clients who have been supported by the LWC crowdfunding platform.

The study sample includes 341 new THRIVE clients and 157 non-clients, first interviewed in 2016 (April to June) by a team of interviewers recruited from a local university. The second wave of interviews took place approximately one year later (June to August), when some of the clients were starting to repay their third loan. 245 clients and 110 non-clients were available to be interviewed.

The report offers an initial snapshot of how the lives of LWC supported entrepreneurs have changed since they have become THRIVE clients. While reading the report, it is important to take into account the exceptional economic and political circumstances in the country during this period. On May 2016, the Reserve Bank of Zimbabwe announced the launch of an internal currency to cope with the cash crisis faced by the country. The introduction of bond notes, although reducing the immediate effects of the lack of cash in the daily economic operations, did not solve the problem and created a double standard for the currency, with bond dollars rapidly depreciating to the US dollar, and instigating fears of a new hyperinflationary period. The situation has brought also political consequences culminating in the military intervention on November 2017.

From THRIVE Microfinance and its clients' perspective, the deterioration of the economic situation and the cash crisis impacted businesses and daily lives. It became more difficult to pay, get paid or undertake any type of monetary transaction, forcing the institution and its clients into the 'digital sphere'. As consequence, loan disbursements as well as repayment of loan instalments are now almost totally done by mobile payments.

The survey results show that THRIVE/LWC clients - who are all female - are mainly married (72%) and educated (91% attended secondary education or above). They live mostly in family houses (44%), in households with an average of 4.8 members. The average age is 42 years old and they have relevant business experience (8 years). 59% work alone in the business and they report working an average of 60h/week. Their first loan was, on average, $334 and was destined mostly to fund working capital. By the time of the second interview, 29% of the clients were on their third loan cycle, 35% had finished repaying a second loan, and 37% had completed repaying the first loan.

Looking at the overall results, some indicators seem to reflect a deterioration in living standards during the year. There was an increase in the number of clients reporting an external shock during the previous 12 months (from 29% to 44%), as well as health problems in the household (from 10% to 16%). Consumption declined, with a lower number of clients buying household fixed assets or making house improvements, and equally, income and expenditure indicators, including average personal and household incomes and average household expenses, decreased during the period.

Mixed results were also obtained from the analysis of the variation of THRIVE-PAT (poverty assessment tool). Half of the clients (50%) have seen their household total score increase between 2016 and 2017, implying an improvement in the economic circumstances of their households, but there was a relevant percentage (42%) who have experienced a deterioration of the score.

Despite the difficulties, 81% of the clients reported higher or similar sales compared with the previous year (before receiving THRIVE loan), and 64% considered their quality of life to be overall better. Looking at the same survey questions for the comparison group, only 47% of the sample non-clients declared business revenues to be growing or stable and 29% considered their life to be better at the time of the second survey.

Moreover, there was a significant change on the savings practices among clients, even in a short period of time. 80% reported saving regularly, mainly using informal savings groups (ROSCAs). The development of a savings culture is one of THRIVE's objectives and it is an important component of the training provided by the institution, which was highly valued by clients (99% considered it to be useful or very useful). Besides the training, there were two other institutional factors much appreciated by the clients: flexible repayment conditions and customer service. 77% of the clients stated that they would be willing to maintain their relationship with THRIVE and apply for future loans. Finally, the survey shows that clients in general had a positive attitude and demonstrated resilience in face of adversity.

Recommendations:

The two surveys implemented offer valuable data on the changes observed in the lives of THRIVE clients during the period of analysis. Household surveys, *per se*, do not provide definite explanations for the changes, but they allow for the identification of correlations between different factors and their results prompt some suggestions regarding the programme and the continuation of the evaluation project:

- The aggravated economic and political situation in Zimbabwe between the two surveys, and the uncertainty associated with this context, make it more relevant the continuation of the evaluation project and the possibility of repetition of the survey after a more stable period.
- Training was highly appreciated by the clients, but some of them complained about the number of sessions, implying opportunity costs associated with the time spent on the sessions and longer loan approval processes. Considering also the costs of training for the institution, the suggestion will be to reduce the number of sessions. Complementary actions may be used to reinforce the main messages to the clients, including the use of short phone messages.
- The report gives some detail on the existence of differences between the sample clients. These can be further explored to identify client segments with distinct needs in terms of training and prepare specific sessions. Among the potential training topics is digital literacy aiming to help clients adapt to the mobile money economy emergent from the cash crisis.
- The comparison between clients and non-clients included in the report alerts for the existence of a segment of poorer female entrepreneurs who are not being fully served by THRIVE. If the social mission of the institution includes reaching the poorest segments of women entrepreneurs, then it will be necessary to better understand the reasons for this exclusion and identify the best ways to respond to the needs of these potential clients, which may require changes in the main loan product or the design of new financial or non-financial products and services.

Introduction[1]

LENDWITHCARE assessment project started in 2014 with the main objective of assessing the experience of the borrowers supported by the crowdfunding platform. By the end of 2014, Akhuwat in Pakistan had been chosen as the first field partner to participate in the evaluation, and the University of Portsmouth became also a partner in the project. In 2016, THRIVE Microfinance in Zimbabwe joined the project.

THRIVE Microfinance is a private financial company that started operations in 2012 offering business loans to low income entrepreneurs. The institution is among the few in the country with an explicit social mission, with its microcredit programme following a microfinance plus approach with a gender perspective. The MFI targets only female entrepreneurs, whose access to the loans is dependent on the formation of a group with 3 to 10 members, the completion of a training programme and compulsory savings.

THRIVE has been LWC partner since August 2015. By 31st October 2017, 553 (group) loans reaching 1,820 entrepreneurs have been funded, corresponding to a lending amount over $850k. The institution has five branches – Willowvale (Harare), Chitungwiza, Whitecliff (Harare), Juru and Marondera. The last three opened during 2017 and, for that reason, are not included in the study.

During the months of April to June 2016, a sample of 341 THRIVE new clients and 157 non-clients were interviewed by a team of independent interviewers recruited from a group of Bulawayo University finalists. The interviewers received training from the UoP/LWC team to apply the questionnaire, which was prepared by UoP with the support of LWC and THRIVE. The baseline survey allowed for the characterisation of the respondents and established the basis for comparative analysis in 2017, after the implementation of a second wave of the survey.

The second questionnaire was to be applied to the same clients and non-clients. The period between interviews was little over one year, although by this time some of the clients had already been granted a third loan due to the institution's short loan cycle. The second survey included some questions identical to the first questionnaire, new queries about the changes in a selection of outcomes (at business and household level), and additional open questions aiming to capture the perception of the interviewees regarding the observed changes. In both surveys, data were collected to compute THRIVE-PAT, an internally developed poverty assessment tool.[2]

Longitudinal studies present several challenges, one of the most significant being attrition. In the context of the aggravated economic situation in the country, the expectation was of increased difficulties to locate and interview some of the participants, especially those who have experienced negative evolutions of their businesses. The final dataset included valid data for the two periods for 245 clients and 110 non-clients.[3] The geographical distribution of the survey sample is shown in Table 1.

Table 1 – Sample geographical distribution

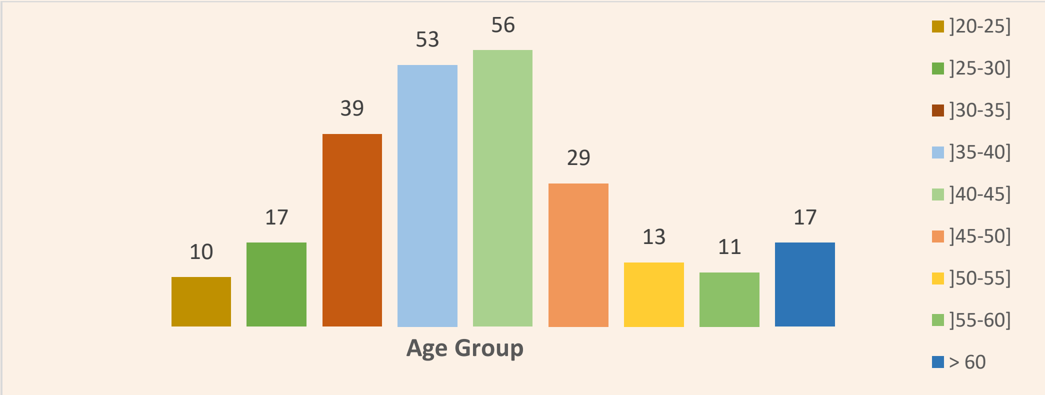
Branch	Clients 2015	Clients 2017	Non-clients 2015	Non-clients 2017
Willowvale	180	133	117	89
Chitungwiza	161	112	40	21
Total	**341**	**245**	**157**	**110**

[1] All figures and tables included in the report are based on survey data.
[2] THRIVE-PAT is a poverty scorecard developed internally by the institution in the absence of externally ratified poverty scorecards for Zimbabwe.
[3] Interviews took place between June and August 2017. 3 respondents included in the client baseline sample did not receive their loans as their group disintegrated after signing the contract. These entrepreneurs were re-classified as non-clients in the data analysis.

Part I - The clients and their businesses

All THRIVE clients are women. The average **age** of the clients in the sample is 42 years. Figure 1 illustrates the distribution of the clients by age groups and the concentration on the segments between 35 and 45 years. The focus is, therefore, on experienced entrepreneurs, which reflects also on the average **business time** (8 years for those with active businesses in 2017).

Figure 1 - Clients Age Distribution 2017



A common characteristic to most clients is their **education level**. 84% of the clients has completed 9 or 11 years of schooling (O-Level); a reduced number has progressed to A-Level and higher studies (7%), and similarly, a relatively small part of the clients has just attended primary school (9%). Data from the Census 2012 shows high literacy rates in Zimbabwe generally (99% in Harare), as well as a high percentage of students completing secondary or above education levels (68% for Harare).

Other common feature to most clients is their **marital status** - 72% are married. There is, however, a relevant number of widows (15%), while divorced/separated and single comprise 8% and 5% of the sample, respectively. The sample **households** have, on average, 4.8 members; a figure which is slightly higher than the data for the Harare province (3.9) in the 2012 Census. On average, the number of active workers in the sample households is 1.9. In 73 cases (30%), the client is the only source of income for the household.

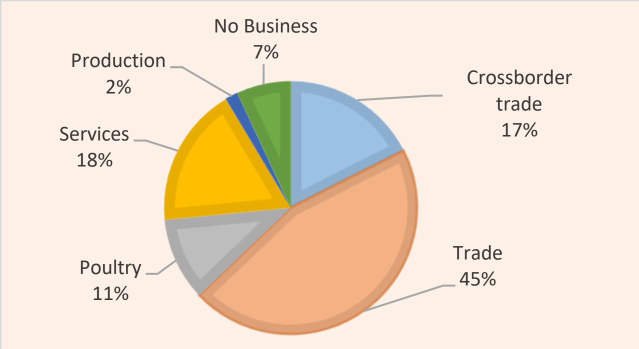
House tenure is diversified in the sample. 44% of the clients live in **houses owned** by family members, 26% are home owners, and 27% live in rented property. The interesting result, most likely linked to the economic context, is the decrease observed in both the number of clients renting and living in their own houses (29% and 31% in 2016, respectively) in favour of living with family.[4]

Decision making regarding how the household income is spent and how household activities are organised did not change significantly in the (short) period: 37% of the clients make decisions related to the household income on their own; 66% decides on household activities independently. Coincidentally, 37% is also the proportion of clients who hold leadership positions in community organizations. These organisations are in most cases linked to religious groups.

[4] The question regarding house tenure distinguishes between clients with property rights (either with or without a formal property title) from those clients living in houses owned by their husbands but where they have no ownership right. These later cases (60) were considered as living with family in both surveys.

The majority of THRIVE clients run **activities** in the trade sector (62%). As Figure 2 illustrates, among them, 17% are cross border traders, buying and selling different products (mainly clothes, footwear and food) in the neighbour countries (South Africa, Zambia, Mozambique and Botswana). As could be anticipated, the currency crisis and changes in the requirements at the South African border led to a decrease of the number of entrepreneurs in this type of activity, which represented 22% of the sample in 2016. Between the two surveys, 29% of the clients have changed their primary activity. No significant differences were identified between the two branches regarding the type of activities conducted by the clients.

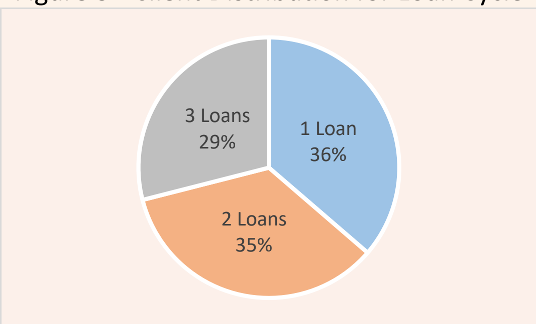
Figure 2 – Business Activities in 2017



59% of the clients stated **working alone** in the business in 2017. Those who have **employees** report providing paid jobs to a total of 60 persons and occupation to 64 additional unpaid employees. In the 2017 survey, data was also collected on the **working time** of the entrepreneurs. For the 190 THRIVE clients who replied to the question, the average working load was 60 hours/week. Only 29 entrepreneurs declared working less than 40 hours/week, which suggests that part-time dedication to the business is clearly not predominant, despite an expectation that most women accumulate business and household tasks.

Given the short duration of THRIVE loans (typically 6 months), by the time of the second survey the clients who consecutively renewed their loans were already in their third **loan cycle.** This was the case for 71 clients, while 85 had completed their second loan, and 89 had finished repaying the first loan and did not receive further loans by THRIVE (Figure 3). On each loan cycle, the average loan has increased slightly from $334 on the first loan to $435 and $540 on the second and third loans, respectively. As is often the case with simple averages, this increase disguises different client funding strategies. The loan amounts range from $200 to $1000, with a part of the clients opting to apply for similar or even lower amounts in the follow-up loans.

Figure 3 - Client Distribution for Loan Cycle



It is interesting to note that, independently of the number of loans received, 77% of the clients expressed their desire to apply for future loans at THRIVE. They present two main motivations. One is related to the business financial needs, which was mentioned by those clients who seek to continue funding working capital (39%), as well as by those who plan to expand their business or venture into new businesses (12%), albeit adverse economic conditions. Curiously, only three clients explicitly stated they were waiting for improvements in the economic situation to apply for further loans. The second main group of reasons, expressed by 45% of the clients, is associated with the institution performance and includes flexible repayment schedules, lower interest rates, training and good customer service.

As in the first wave of the survey, there was a low number of clients declaring **other active loans** (5%). Only 4 clients had successfully applied for loans in other MFIs or Banks, and none reported resorting to moneylenders. These results seem to corroborate Global Findex data for 2014, which shows that informal lending (5%) and formal financial institutions (4%) are a resource used by a minority; family and friends were the main borrowing source.[5]

Of significance is that almost one third of the sample (31%) has admitted to facing **repayment problems** at some stage. In a few cases (7), illness of the client or a close relative led to less time dedicated to the business or increased medical expenses, but in most cases the reasons presented for defaulting were linked (directly or indirectly) to the economic situation and the cash crisis:

- Not enough sales or difficulties receiving timely from clients;
- Money or stocks stolen, or stocks confiscated by costums agents;
- Need to repay for other members of the group;
- Misappropriation of the instalment money by the treasurers of the group, or others in charge of making the repayment in the name of the client.

The difficult context seems also to be reflected in the survey on the higher proportion of clients that declared suffering an **external shock** during the previous year (44% of the client sample compared with 29% in 2016), and the prevalence of health problems in the household (16% compared with 10%). Death and illness of relatives are the main cause of external shocks (78%).

On a positive note, the **training** provided by THRIVE is undoubtfully one of its distinctive features and, in the two waves of the survey, it is possible to understand that it is widely appreciated by the clients. At baseline, clients had just finished the compulsory initial training, with 99% and 91% evaluating positively the contents and format of the training, respectively. The ones not satisfied with the format complained mostly about the long duration of the training, extending the loan approval time.

In the second questionnaire, clients were asked if they had received further training from the institution and how they globally evaluated the training. 66% had received further training, and 99.5% considered it useful or very useful. The appreciation of the training provided by THRIVE is also noticeable in the qualitative data collected through the survey open questions, with several clients linking their decisions or performance to the lessons learnt during the training sessions.

[5] Data from the 2014 Global Findex survey (http://datatopics.worldbank.org/financialinclusion/country/zimbabwe). Adults (15 years+) total borrowing during the previous year, independently of motif and channel, was 62.4%, a figure considerably higher compared with the average for Sub-Saharan Africa (54.5%) and Low-Income Countries (52.5%).

Part II – The Changes after 1 year

From a theoretical perspective, links can be established between microfinance and a wide range of socio-economic and well-being indicators. However, considering the logistical challenges associated with the project, only a few of the potential outcomes were selected to ensure manageably short questionnaires. The selection was made considering relevant impact studies in the sector, and the comments and suggestions from the field partner.[6] The questionnaires included both business and household level outcomes.

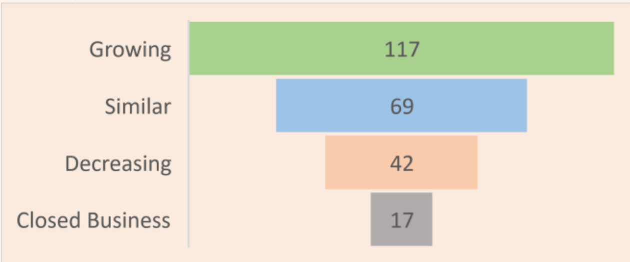
In the interpretation of the results, it is important to keep in mind that a longitudinal survey of this nature does not give definite explanations for the identified changes but provides critical data on the lives of microcredit clients and the existence of relations between the factors studied. In this sense, it can become the foundation of a more in-depth analysis, and an important incentive to establish continuous evaluation processes in the MFI involved in the project.

Business outcomes

Microcredit clients run small informal businesses, often with no organised accounting, making it more challenging to collect quantitative data on the businesses.[7] The decision was to include in the questionnaire a qualitative appreciation of sales growth for the previous 12 months in both surveys, which enables the comparison of the **sales/revenues level** at the time of the two interviews.

The results are overall positive, with 51% of those with active businesses at the time of the second survey declaring growing sales, and further 30% reporting similar sales compared with the previous year. There are, notwithstanding, a group of clients for whom the business year was not positive, resulting in decreasing sales and business closures as illustrated in Figure 4.

Figure 4 - Comparison Sales Revenues in 2017 vs Baseline (No. Clients)



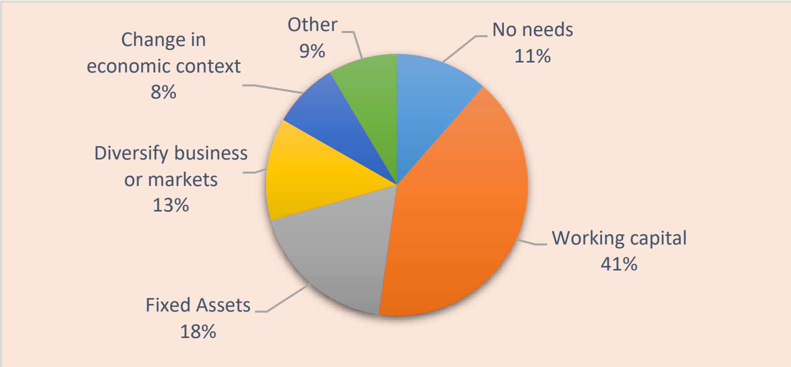
The majority of businesses in the sample (53.5%) managed to maintain the same level of **employment** (in many cases, the client's own job), and 20.5% hired additional workers during the period. This was not enough, however, to compensate for those clients closing their businesses (7%) or reducing staff (19%), which resulted in a small net decrease of the total sample employment (-8 workers), and a slight increase in the proportion of clients working alone (from 54% in 2016 to 59%). It is interesting to note that, while most cases of business closure refer to situations of business failure, there are two clients whose sales were stable, but decided to shut down their businesses because they managed to secure formal jobs.

[6] For further development see Duvendack *et al.* (2011), Odell (2015) and Banerjee *et al.* (2015).

[7] Contributing also for the difficulties measuring business outcomes is the fact that it is common for the clients to change activity, or accumulate multiple activities, to adapt to the needs of the markets and maintain the household income level. In the characterisation of the businesses, in both questionnaires was considered the main activity as declared by the clients.

The questionnaires included an open question on the **constraints for the businesses** to grow. 'Missing capital' was the most frequent constraint identified in both years, but answers were, in general, more detailed in the second survey. Figure 5 shows the different needs, identified by the clients in the 2017 survey, for their businesses to survive and be able to grow.

Figure 5 - Business Needs in 2017



There were naturally more clients whose businesses were growing or stable reporting that they did not have any constraints and their businesses were performing well. In general, all clients provided detailed answers, with the economic conditions being mentioned by a more significant number of clients (compared with baseline), independently of their sales performance.

In Figure 5, the category 'other' includes those with no business (17), with four of them stating they need capital to re-start their business or venture into a different activity. It includes also three clients who refer to the need of changing their business strategy, increasing the time dedicated to the business or changing the rules to provide credit to their clients in order to reduce the number of debtors.

The changes at business level were also included in the questionnaire through a second open question, aiming to understand the **perception of the entrepreneurs** on the changes and how they valued them. Table 2 shows the most common answers, which are not mutually exclusive and reflect mixed feelings regarding the business experience during the period.

Table 2 – Client Perception on Business Changes

Change in Business	No Respondents	%
Diversification or Change of Activities	60	24%
Increase in Sales and/or Profits	99	40%
Increase in Number of Clients	19	8%
Increase in Business Assets	11	4%
Increase in Number of Employees	6	2%
Working More Hours	10	4%
Difficulties Receiving from Clients	12	5%
External Shocks	4	2%
Business Closure	17	7%
Decrease in Sales and/or Profits	53	22%
Decrease in Number of Clients	9	4%
Working Less Hours	6	2%
Business Stable	27	11%

The data analysis shows that, in many cases, the increase of sales and profits was associated with the diversification to new activities, complementing or replacing the main business at the time of the first loan. The cash crisis has refrained consumption and made it more difficult for the entrepreneurs to get paid, especially for those who were not able to install SWIPE machines. The coexistence of two or more activities appears to be one of the most adopted strategies to cope with these challenges, often associated with creative strategies such as trading clothes and blankets for maize in the rural areas, and then sell the maize in the urban areas. For those clients with growing businesses (or combination of businesses), a common expression used is "she now restocks more (frequently, volume, diversity of products)".

Household outcomes

At the household level, data was collected on **personal income** from business, total personal income (including income from other sources such as pensions or remittances), income from other household members and **household total income**, as well as food, education, health and total **household expenses**.[8] These are indicators prone to error, especially in informal contexts, so particular attention was put on formulating the questions to minimise errors and missing values.

Looking at the main indicators in Table 3, it is easy to realise the negative effects of the cash crisis, aggravating an already difficult economic environment. Clients' income and consumption average levels have decreased in the period 2016-2017.

Table 3 – Main Income and Expense Indicators

	2016	2017	Variation
Personal Business Income	$343.94	$298.47	-13%
Personal Total Income	$424.72	$373.16	-12%
Other HH Members Income	$318.91	$261.22	-18%
Household Total Income	$799.10	$635.50	-20%
Total Consumption Poverty Line (5 persons)[(1)]		$501.00	
Food Poverty Line (5 persons)[(1)]		$164.00	
Food Expenses	$110.69	$109.69	-1%
Education Expenses	$144.62	$60.09	-58%
Health Expenses	$19.94	$27.11	36%
Other HH Expenses	$83.23	$124.18	49%
Household Total Expenses	$356.27	$321.22	-10%

(1) Poverty Lines in June 2017 for the Harare province published by ZIMSTAT (*http://www.zimstat.co.zw/prices-statistics-zimbabwe*)

The effects of the crisis seem to be especially strong on education expenses (-58%), but it is important to highlight that this decrease does not translate into less households sending their children to school. In fact, out of the 245 clients, 204 report expenses with education, a higher number than in 2016 (197), which implies that the reduction is linked to the average amount spent by family. Contrarily, health and other expenses have increased on average.

The apprehension felt by the clients due to the economic environment reflected as well in the slight decrease of the share of clients willing to make **house improvements** (29% compared to 33% at baseline) or acquire **household fixed assets** (51% compared to 55% in 2016). It was probably also a factor contributing to the

[8] The values are all considered at current values since inflation was not significant during the study period. The annual inflation rate in June 2017 was 0.3% (http://www.zimstat.co.zw/prices-statistics-zimbabwe). Speculation about a new inflationary period started after the second interviews were completed.

noteworthy change in **savings.** There was a strong reduction of the clients reporting never saving, from 57 to 22 clients (approximately half of them corresponding to clients who have closed their businesses). Even more relevant is the increase in the percentage of clients declaring to save regularly (80% compared to 53% before applying for the loan). For those saving regularly or occasionally, ROSCAs are the main savings channel (81% in 2017), followed by saving at home (19.5%).

At the household level, data was collected to calculate a **poverty scorecard**. Poverty scorecards externally developed, such as the PPI® (Poverty Probability Index) or PAT® (Poverty Assessment Tool), were not available for Zimbabwe at the time of the interviews.[9] Given this reality, THRIVE managers have decided to develop their own poverty assessment tool, reproducing the methodology adopted by Mark Schreiner's team when developing the PPI. THRIVE-PAT lacks, however, the extensive testing required in refining a complex statistical process such as the construction of a poverty scorecard, and for this reason the external validity of the tool must be considered as limited.

This fact does not undermine its usefulness at internal level to compare clients and assess changes in their situation over time. In addition, THRIVE-PAT has an advantage compared with PPIs developed for other countries, as it uses local benchmarks (Zimstat data for the Harare province), and not national data, when defining the scores for each question. In this way, the accuracy of the analysis is enhanced with respect to the geographical context, which is significant in a country with strong regional inequalities.

THRIVE-PAT includes 8 multiple-choice questions about household characteristics and assets ownership. The answers to these questions have associated scores, and their sum gives the total score for the household. It ranges from 1 to 49 and, the higher the score, the lower is the probability of the household being consider poor. In the context of this study, THRIVE-PAT was used mainly to track household changes over time, complementing other indicators. No conclusions were drawn exclusively from the scores regarding the absolute poverty level of the respondents.

The average THRIVE-PAT for the sample clients increased from 23.5 at baseline to 24.2 in 2017, with the small increase in the score indicating that the probability of the clients being considered poor became slightly lower. The aggregate picture conceals, however, a diversity of situations that are best identified when looking at the variations of the individual scores. For half of the sample (50%), THRIVE-PAT has increased between 2016 and 2017, implying an improvement in their economic circumstances, but there is also 8% of the sample for whom there was no change, and 42% who have experienced a deterioration of the score. An important follow-up on this report will be the analysis of which factors (questions in THRIVE-PAT) contributed the most for the variations in both directions, as well as the amplitude of variation.

The existence of differences among clients regarding THRIVE-PAT scores, and respective variation, was further explored by using statistical tests, namely Mann-Whitney tests, to compare client sub-groups (according to some defined characteristic).[10] The main results of these non-parametric tests include:

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[9] Further information on PPI® and PAT® available at https://www.povertyindex.org/ and https://www.povertytools.org/, respectively.

[10] The initial step in the analysis was the calculation of the main descriptive statistics as well as the computation of the Jarque-Bera test of normality for the variables of interest (list of variables in annex I). Given that for almost all tested variables, the hypothesis of normal distribution was rejected at a 5% significance level, the decision was to perform nonparametric tests, namely Mann-Whitney tests, less demanding in the assumptions regarding the population studied (statistically significant results are listed in annex II).

- There were no significant differences between clients of the two branches for the average absolute scores, but there were significant differences when looking to their variation during the period. THRIVE-PAT score increased, on average, 15% for Willowvale clients and 6% for Chitungwiza clients.
- Clients with education levels above O-Level achieved higher THRIVE-PAT scores than the other clients, in both waves of the survey. In the second survey, the score for those with 'higher education' was 26.6, on average, compared with 24.0 for the other clients. There were, however, no differences in the variation of the scores.
- In both waves of the survey, the differences of THRIVE-PAT scores for those clients who are house owners, those who are renting and those who have made house improvements during the period between questionnaires were statistically significant.

Table 4 – THRIVE-PAT scores

	House Owners	*Other Clients*	*Renting House*	*Other Clients*	*Home Improvements*	*Other Clients*
2016	27.0	22.3	18.2	25.5	25.6	22.6
2017	28.4	22.8	22.7	24.8	26.2	23.4

Parallel to the question on business changes, clients were also asked how the household had changed since the first interview. Table 5 presents the changes explicitly mentioned by the clients showing how diversified were the experiences and the focus of the clients.

Table 5 – Client Perception on Household Changes

	No Respondents	%
Increased Consumption/Meeting All Needs	51	21%
Improvements in Food Consumption	59	24%
Improvements in Education	29	12%
Improvements in Housing Conditions	28	11%
Improvements in Clothing and HH Assets	46	19%
Satisfaction and Happiness	23	9%
Ability to Contribute to HH Income and Help Family	9	4%
Better Self-Esteem	15	6%
Decrease in Food Consumption	19	8%
Decrease in Other Consumption	25	10%
Increased stress/less autonomy	11	4%
No changes	47	19%

As could be expected, food, education and housing, either improving or deteriorating, were the aspects most mentioned by the clients. In any of these areas, clients referred to changes in quantity (being able or not to fulfil these basic needs), and/or quality of the services. For instance, improvements in education include not only being able to pay school fees and keep the children at school (avoiding being "chased away"), but also moving the children to better schools. These, however, were not the only changes valued by the clients. It is interesting to note how clothing is mentioned by several clients as an important change, often associated with self-esteem and status.

Part III – Comparison with non-clients

One of the objectives of the project was to evaluate the 'impact' of the loans funded by LWC lenders. For this purpose, it was considered critically important to set up a comparison group of non-clients with characteristics similar to the client group. This was not an easy task from a logistical perspective. To achieve it, commercial areas in the neighbourhoods where clients lived and worked were used as basis to recruit participants. In 2016, 157 non-client female entrepreneurs were interviewed. The focus on commercial areas led, however, to the sample of non-clients to be different from the THRIVE clients in the sample in several variables, including those related to income and poverty levels. Nonetheless, the comparison results still provide relevant information to better understand the changes experienced by THRIVE clients.

To compare the two sub-samples of clients and non-clients interviewed at both waves of the survey, statistical tests (Mann-Whitney) were performed to identify statistically significant differences between the two groups regarding the variables included in the study (see Annexes I and II).

The results show that, on average, non-clients in the sample tended to be younger (36 years) compared with the clients (42 years). They lived in smaller households (4.3 members compared with 4.8 for the clients), and they more frequently lived in rented houses (65%), which sharply contrasts with the housing situation of most clients, with 70% living in family or their own houses and only 27% renting.

Other substantial difference between clients and non-clients refers to the average number of working hours per week. Non-clients seem to have a higher workload (66h compared with 60.2h for the clients). This finding, at least partially, derives from the prevalence of trade activities within the non-client sample (86% compared with 62% for the clients), and the fact that non-clients are more likely to work alone in their businesses (74% compared with 59% for the clients).

The differences between the two sub-groups are also significant regarding income, expenses and THRIVE-PAT scores. Table 6 summarizes the average results for the income, expenses and poverty scores.

Table 6 – Income, Expenses and Poverty Scores

Variable	Average Client	Average Non-client
Personal Business Income 2016	$343.94	$197.07
Personal Business Income 2017	$298.47	$144.90
Personal Total Income 2016	$480.19	$218.00
Personal Total Income 2017	$373.16	$156.83
Household Total Income 2016	$799.10	$407.47
Household Total Income 2017	$635.50	$429.29
Household Total Expenses 2016	$356.27	$238.24
Household Total Expenses 2017	$321.22	$213.43
THRIVE-PAT 2016	23.5	14.1
THRIVE-PAT 2017	24.2	20.9

The figures show that non-clients in the sample were, on average, poorer than clients in 2016, and they have continued to be in 2017. Both groups were affected by the economic context, with most of the indicators decreasing in the period.[11] Interestingly, the reduction in the average personal business income was stronger for non-clients (-28% compared with -12% for the clients), which suggests that the access to the loan(s) possibly acted as a 'cushion' for the effects of the economic crisis. Further analysis is required to confirm this finding. The contraction in consumption was similar for the two groups (-10%).

Despite the economic context, THRIVE-PAT scores increased, on average, for both groups, which indicates a potential improvement in the economic condition of the households (i.e. they are less likely to be considered poor). However, non-clients seemed to have performed better in this indicator, with an increase of 78% in the average score compared with 11% for the clients. This statistically significant difference implies a reduction on the poverty gap between the two groups, but to confirm and better understand this result, further analysis of the scorecard components and other eventual explanatory factors is necessary.

Departing from the statistical tests, and looking at other relevant findings of the surveys, there are two indicators that should be emphasized. There is a clear difference on savings practices, with the percentage of clients saving regularly (80%) being much higher than in the first survey (59%) and much higher than the same indicator for non-clients (59%). Inversely, those declaring to have never saved during the previous 12 months are more significant among non-clients (27%) compared with the clients (9%).

Equally interesting is the comparison of answers to the question on how the respondents qualified the overall change in their lives (compared with the time of the first interview). Most clients considered their life to be better than before (64%), with 24% stating the situation was similar, and just 13% of those interviewed declaring being in a worse moment of their lives. Non-clients, in turn, had a gloomier perspective about the evolution of their lives during the period, with 36% considering to be in a worse position, 34% reporting no changes and only 29% declaring a positive change.

The analysis so far provides some interesting findings, but these are based on simple averages, thus not necessarily representative of all clients and non-clients. If, as expected, there is heterogeneity in the samples, these results will not tell the whole story. To start exploring this idea, the total sample was divided in 4 equal sub-groups (quartiles) based on the variation (change) of the personal business income during the period. This variation was calculated dividing the personal business income reported in the 2017 by the personal business income from 2016. The resultant new indicator (PI Bus 2017/PI Bus 2016) is larger than 1 for positive variations of the personal business income in the period, and between 0 and 1 for negative variations. Table 7 shows the quartiles 1 to 3 (the 4th quartile corresponds to the maximum value of the indicator).

Table 7 – Sample Quartiles for Variation Personal Business Income

Quartile	PIBus17/PIBus16
1 (0.25)	0.44
2 (0.5)	0.80
3 (0.75)	1.50

[11] Unlike the comparison of indicators for the two groups at each of the surveys, the variation of income and expenses during the period for the two groups were not statistically significant, which seems to indicate that the adverse economic conditions influenced equally clients and non-clients.

Survey respondents (clients and non-clients) in the lower quartile are those for whom the personal business income in the 2017 survey represented 44% or less than the personal business income reported in the 2016 survey. Inversely, those in the upper quartile have reported in the 2017 survey personal business incomes higher 150% or more relatively to the personal business income in 2016.

To understand which factors are statistically significant to explain the variations in the personal business income, a quantile regression model was implemented, using the variable 'PI Bus 2017/PI Bus 2016' as the explained variable.[12] The potential explanatory variables included age, marital status, location (branch), educational level, house tenure, business time, working hours/week, working alone, THRIVE-PAT score and Personal Business Income in 2016 (baseline), external shocks and participation in the programme (access to THRIVE business loans).

The regression results can be consulted in annex III. They show that, at a level of confidence of 95%, there are different factors associated with the variation on the personal business income depending on the quartile. Here are highlighted the main results:

- There is a negative relationship between the initial personal business income ('PI Bus 2016' at baseline) and the variation of the personal business income during the period, common to all quartiles. Therefore, a respondent with a higher initial personal business income was more likely to have a lower variation of income compared with another respondent with a lower initial income.
- Being more experienced in the business ('Business Time') and having a lower poverty score at baseline ('PAT_2016') seems to have had a positive impact on the variation of the personal business income for those respondents which experience negative variations of personal business income (quartiles 1 and 2).
- Programme participation was found to be statistically significant for respondents in quartile 1. The access to a THRIVE loan seems to have functioned as a cushion for those clients more severely affected by the economic crisis, (those with personal business incomes lower than 44% of the income reported in the previous year), preventing the decrease of their income being greater compared with the non-clients. Being client or non-client did not have a significant impact on the variation of business income for the respondents in the other quartiles.

The quantile process was replicated using the variation of THRIVE-PAT score (PAT_2017/PAT_2016) as explained variable, and the same explanatory variables mentioned above.

Table 8 – Sample Quartiles for Variation THRIVE-PAT Scores

Quartile	PAT_2017/PAT_2016
1 (0.25)	0.92
2 (0.5)	1.12
3 (0.75)	1.47

In this case, only quartile 1 corresponds exclusively to respondents who experienced negative variations of their poverty scores. The first conclusion from the regression analysis (see Annex IV) is that programme participation (access to THRIVE loan) is not statistically significant to explain the variation of the poverty scores during the period, for any of the sample quartiles.

[12] Quantile regression is an econometric model which allows to overcome issues regarding the variable behaviour (including not normal distributions) and get further insight on the sample heterogeneity. For methodological reasons, all the quantitative variables were transformed into their logarithmic version for the analysis.

There are, however, five other variables which were found to be statistically significant at a confidence level of 95% for all quartiles - 'Age', 'Own house', 'Working hours per week', 'Saving Regularly' and 'PAT_2016'. For the initial four indicators, the regression coefficients have a positive sign, signifying that being older, owning a house, working more hours per week and saving regularly likely had a positive impact on the variation of THRIVE-PAT scores. Inversely, the relation between initial THRIVE-PAT score and variation during the period is negative, which indicates that lower scores at baseline (the poorer respondents) were more likely to have higher variations of the scores, potentially reducing the initial poverty gap.

Conclusions and Recommendations

This report gives an insight into the changes in the lives of THRIVE clients after a period slightly over one year. Although THRIVE loan cycle is short, which meant that some of the clients in the sample were already repaying their third loan, several authors suggest that one year is insufficient to capture changes in poverty levels.[13]

Adding to the short period of analysis is the fact that the period was in many respects extraordinary in Zimbabwe. There were several negative consequences of the economic and cash crisis (reduced incomes, contraction of consumption, increase of external shocks and health problems), which presented important challenges for both clients and institution. Given that few financial institutions in Zimbabwe are willing and capable of working with the more vulnerable populations, demand will continue to exist, but risks are considerably higher in these uncertain conditions.

Nonetheless, clients, in general, have maintained a positive attitude, despite all the difficulties, and have looked for strategies to cope with the challenges raised by the cash crisis. Most clients, with active businesses by the time of the second interview, reported higher or similar sales in 2017 and 64% of all clients considered their life to be better than before applying for the business loan; interestingly, only 29% of the interviewed non-clients replied similarly to this question.

Other positive indications, identified in the survey, were the willingness of most clients to apply for further loans; the valorisation by the clients of the training provided as well as the loan conditions and customer service; and, finally, the increase of savings frequency, implying the further development of a savings culture among the clients.

The two surveys implemented provided valuable data that, in many cases, not providing definite explanations for the changes in the lives of THRIVE clients and how they compared with non-clients, allow for the presentation of a number of recommendations regarding the programme and the continuation of the evaluation project:

1. The extraordinary circumstances of the period make it more relevant to repeat the survey and identify (and attempt to explain) changes in a period expected to be more stable. The suggestion is that the repetition occurs after a period between one year to one year and six months, preferably. The definition of the timings should accommodate the need to ensure that local interviewers are available to start the implementation of the survey during the training period.
2. Although training was globally appreciated by the clients, several of them stated in the first survey that the duration of the initial training was excessive. Considering that the 6 plus 2 training sessions received by the sample clients contributed to a longer loan approval process and represented a relevant cost for the institution, the recommendation is to shorten the number of sessions, focusing on the crucial elements of the training. The main messages to the clients may then be reinforced by the loan officers in their visits and by phone messages, an instrument which has proven to be effective in different contexts.[14]

[13] See Chen *et al.* (2010)

[14] By the time of the second survey there were already changes in THRIVE training programme for the new clients (namely on its duration).

3. Linked to the shortening of the initial training is the idea of preparing additional training sessions on specific topics designed to meet the needs of particular segments among the clients. The report gives some detail on the differences between sub-groups of clients, and between clients and non-clients, which can be further explored for this purpose. Among the new subjects to be consider is digital literacy given that the use of mobile money is one of the permanent changes emerging from the cash crisis.
4. The differences between clients and non-clients in the baseline survey for a significant number of income and poverty related indicators suggest that THRIVE is not fully reaching poorer segments of female entrepreneurs, running mainly trade businesses and most often living in rented houses. The recommendation is to better understand why this exclusion occur – to what extent is this an auto-exclusion by the entrepreneurs who do not feel confident to take the risk associated with the loan or is it linked to the characteristics of the credit product offered by THRIVE or yet if the exclusion derives from a tendency of loan officers to pursue not-so-poor clients perceived as safer in terms of loan repayment. If the institution intends to work as well with these group of clients, it may be necessary to design new products, which not necessarily have to be business loans.

One final note should be on the importance of THRIVE participation in the project. The institution is working in the implementation of a continuous social performance management process, in which LWC assessment project is a valuable component. The evaluation project can potentially benefit all stakeholders involved - providing evidence to LWC on the performance of its partner as well as relevant management information to THRIVE managers on their clients; and ultimately, benefiting the clients with an improved programme that better suits their needs. Moreover, the lessons learnt throughout the process have the potential to be useful not only in the context of THRIVE but other LWC partners.

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Annex I

List of quantitative variables tested using Mann-Whitney Tests

Variable	Description	Unit
Age 2017	Age in 2017 (survey 2017)	No.
Household Size 17	Household members in 2017 (survey 2017)	No.
Workers 2017	Number of workers in the household (survey 2017)	No.
Business Time 17	Years owning the business in 2017 (survey 2017)	No.
Working Hours/Week 17	Average hours/week in 2017 from original data on 'working hours/day' and 'working days/week' (survey 2017)	No.
First Loan Amount	First loan amount (survey 2017)	USD
Second Loan Amount	Second loan amount (survey 2017)	USD
Third Loan Amount	Third loan amount (survey 2017)	USD
PAT_2016	THRIVE-PAT score at baseline (survey 2016)	No.
PAT_2017	THRIVE-PAT score in 2017 (survey 2017)	No.
PI Business 16	Monthly personal income from business in 2016 (survey 2016)	USD
PI Business 17	Monthly personal income from business in 2017 (survey 2017)	USD
PI Total 16	Monthly personal income from other sources in 2016 (survey 2016)	USD
PI Total 17	Monthly personal income from other sources in 2017 (survey 2017)	USD
HHI Other Members16	Monthly income of other household members in 2016 (survey 2016)	USD
HHI Other Members17	Monthly income of other household members in 2016 (survey 2016)	USD
HHI Total 2016	Monthly household total income in 2016 (survey 2016)	USD
HHI Total 2017	Monthly household total income in 2017 (survey 2017)	USD
HH Total Expenses 16	Monthly household total expenses in 2016 (survey 2016)	USD
HH Total Expenses 17	Monthly household total expenses in 2017 (survey 2017)	USD
Weight Food/ HHE 17	Proportion of food expenditure in the household total expenses in 2017 (survey 2017)	No.
Weight Education/ HHE 17	Proportion of education expenditure in the household total expenses in 2017 (survey 2017)	No.
THRIVE-PAT Relative Variation	Percent difference between THRIVE-PAT scores in 2016 and 2017 (survey 2016 and survey 2017)	%
Total Employment Absolute Variation	Absolute difference between total employment in 2016 and 2017 (survey 2016 and survey 2017)	No.
PI Business Relative Variation	Percent difference between personal income from business in 2016 and 2017 (survey 2016 and survey 2017)	%
PI Total Relative Variation	Percent difference between total personal income in 2016 and 2017 (survey 2016 and survey 2017)	%
Household Income Relative Variation	Percent difference between household income in 2016 and 2017 (survey 2016 and survey 2017)	%
Household Expenses Real Variation	Percent difference between household expenses in 2016 and 2017 (survey 2016 and survey 2017)	%

Note: All monetary indicators are presented in USD (United States Dollars) at current values. Inflation during the study period was not significant.

Annex II

Non-parametric Tests

The analysis was carried out for all the variables included in Annex I. Mann-Whitney tests were used to test the null hypothesis of the distribution of the selected variables being equal for defined sub-groups. The sub-groups are associated with clients' characteristics and they were chosen considering the results from the baseline survey and qualitative information collected throughout the project. In order to apply the tests, dummy variables were constructed for:

- Location (Willowvale; Chitungwiza)
- Marital Status (married; widow)
- Educational level (primary education – grades 1 to 7; secondary education – O' Level, form 1 to 4; higher education – A' Level and university)
- Type of activity (trade; crossborder trade; production; services; agriculture and animal creation);
- Savings Frequency (regularly saving; never saving)
- House ownership (home owner – with or without property title; renting house)

The table below shows the results statistically significant at a significance level of 5% (**) or 1% (***), demonstrating the existence of differences between the sub-groups for the studied variable. As guidance in reading the table, here is an example:

- Clients developing trade activities were found to be different from clients with other type of businesses in terms of the first loan amount with 'trade' clients accessing lower amounts, on average ($314.87 compared with $350.37).

Location			
Variable	Average **Willowvale**	Average Chitungwiza	U statistic
PI Business Relative Variation	0.00	0.56	5,449 ***
PI Total Relative Variation	0.06	0.53	5,883 ***
THRIVE-PAT Relative Variation	0.15	0.06	6,092.5 **
First Loan Amount	$319.92	$351.35	5,880 ***
Working Hours/Week 2017	56.4h	64.2h	3,428.5 **
HHI Other Members 17	$356.74	$145.73	5,259.5 ***
Marital Status			
Variable	Average **Married**	Average Other status	U statistic
Age 2017	39.9	46.7	3,841 ***
Household Size 2017	5.1	3.9	3,661 ***
Workers 2017	2.1	1.6	3,782 ***
PI Total 2017	$363.64	$397.96	4,878 ***
HHI Other Members 2016	$396.83	$116.09	2,686.5 ***
HHI Other Members 2017	$342.86	$51.10	1,664.5 ***
HHI Total 2016	$873.62	$605.15	4,461.5 ***
HHI Total 2017	$707.94	$449.06	3,941 ***
HH Total Expenses 2017	$325.94	$308.92	4,938.5 **

Variable	Average **Widow**	Average Other Status	U statistic
THRIVE-PAT Relative Variation	-0.06	0.14	2,478.5 ***
PAT_2016	27.3	22.8	2,323.5 ***
Age 2017	53.7y	39.7y	1,108 ***
Household size 2017	4.1	4.9	2,630 ***
Workers 2017	1.6	2.0	2,678 ***
Business Time 2017	13.3y	7.5y	2,249 **
PI Total 2016	$542.56	$404.43	2,933.5 **
PI Total 2017	$463.53	$357.60	2,644 ***
HHI Other Members 2016	$128.56	$351.70	1,963.5 ***
HHI Other Members 2017	$43.33	$299.11	1,478.5 ***
Educational Level			
Variable	Average **Secondary Educ.**	Average Other Education	U statistic
THRIVE-PAT Relative Variation	0.13	0.01	3,128 **
Age 2017	40.3y	49.8y	2,389 ***
First Loan Amount	$328.40	$365.38	3,163 **
HH Total Expenses 16	$343.33	$423.97	3,129.5 **
PAT_2016	23.0	25.7	3,045 **
Variable	Average **Primary Education**	Average Other Education	U statistic
Age 2017	53.6y	40.7y	1,067.5 ***
Business Time 17	14.1y	7.8y	1,502 **
HHI Other Members 17	$85.24	$277.86	1,508.5 ***
Variable	Average **Higher Education**	Average Other Education	U statistic
First Loan Amount	$388.24	$330.27	1,253 **
PI Total 2016	$581.59	$413.03	1,220 **
PI Total 2017	$687.65	$349.71	1,330.5 **
HHI Total 2016	$1,130.71	$774.38	1,158.5 ***
HHI Total 2017	$1,163.53	$595.78	1,130.5 ***
HH Total Expenses 2016	$475.94	$347.27	987.5 ***
HH Total Expenses 2017	$518.12	$306.54	1,080 ***
PAT_2016	27.8	23.1	1,160 ***
PAT_2017	26.6	24.0	1,276.5 **
Economic Activity			
Variable	Average **Crossborder**	Average Other Activity	U statistic
Employment Absolute Variation	0.3	-0.1	3,201.5 ***
Second Loan Amount (1)	$468.75	$426.61	3,346.5 **
PI Business 2016	$440.77	$323.33	3,273.5 **
PI Business 2017	$425.86	$271.35	3,154.5 ***
PI Total 2016	$506.47	$407.32	3,469 **
PI Total 2017	$492.60	$347.74	3,509 **
(1) Average for clients who have applied for a second loan			
Variable	Average **Trade**	Average Other Activity	U statistic
PI Business Relative Variation	0.50	0.06	6,086 **
PI Total Relative Variation	0.47	0.11	6,259 **

THRIVE-PA Relative Variation	0.17	0.05	6,078.5 **
Working Hours/Week 2017	64h	55.4h	3,186.5 ***
First Loan Amount	$314.87	$350.37	5,648.5 ***
PI Business 2016	$305.00	$376.20	5,888.5 ***
PI Total 2016	$352.10	$484.88	5,738.5 ***
HHI Total 2016	$667.70	$907.95	6,286 **
Weight Food/Total Expenses 17	0.36	0.41	6,168 **
PAT_2016	21.9	24.7	5,517 ***
Variable	Average **Agriculture/Animal**	Average Other Activity	U statistic
THRIVE-PAT Relative Variation	-0.09	0.13	1,682 ***
Age 2017	48y	41y	2,020.5 **
Working Hours/ Week 2017	49.9h	61.5h	1,098 ***
First Loan Amount	$396.15	$326.95	1,908.5 ***
Second Loan Amount	$505.26	$425.55	2,151.5 **
PI Total 2016	$619.81	$401.56	1,894 ***
PI Total 2017	$462.46	$362.56	2,088.5 **
HHI Total 2016	$1,268.19	$743.41	2,176.5 **
HHI Total 2017	$838.77	$611.14	2,117.5 **
HH Total Expenses 2016	$481.35	$341.29	1,882 ***
HH Total Expenses 2017	$388.87	$313.19	2,138.5 **
PAT_2016	29.1	22.8	1,365.5 ***
Variable	Average **Services**	Average Other Activity	U statistic
Business Time 2017	11.3y	7.6y	2,883 ***
HHI Other Members 2017	$817.26	$596.42	3,427 **
Savings Frequency			
Variable	Average **Regularly Saving**	Average Not Regularly Saving	U statistic
Employment Absolute Variation	0.1	-0.4	3,608.5 ***
THRIVE-PAT Relative Variation	0.13	-0.01	3,534 ***
Workers 2017	2	1.7	3,584 ***
Third Loan Amount	$543.38	$466.67	3,365.5 ***
PI Business 2017	$325.14	$188.98	2,907.5 ***
PI Total 2017	$401.25	$257.90	3,146.5 ***
HHI Total 2017	$655.73	$553.31	3,470.5 ***
Variable	Average **Never Saving**	Average Saving	U statistic
Employment Absolute Variation	-0.8	0.0	1,273.5 ***
HHI Total Relative Variation	-0.29	0.32	1,733 **
THRIVE-PAT Relative Variation	-0.10	0.13	1,378.5 ***
Workers 2017	1.5	2	1,448 ***
Working Hours/Week 2017	76.9h	59.4h	453.5 **
Third Loan Amount	$600.00	$539.29	1,806.5 **
PI Business 2016	$241.68	$354.03	1,753.5 **
PI Business 2017	$121.36	$315.94	1,112.5 ***
PI Total 2017	$176.82	$392.53	1,166.5 ***
HHI Other Members 2017	$117.73	$275.50	1,777 **

HHI Total 2017	$294.55	$669.44	896 ***
HH Total Expenses 2017	$370.61	$316.34	1,727.5 **
PAT_2017	21.8	24.5	1,654 **
House Ownership			
Variable	Average **House Owner**	Average Non-house owner	U statistic
HHI Total Relative Variation	0.43	0.21	4,238 ***
HH Total Expenses Relative Var.	0.47	0.10	4,432.5 ***
Age 2017	46y	40y	3,973.5 ***
Business Time 2017	10.3y	7.5y	3,911.5 **
First Loan Amount	$363.49	$324.17	4,355 ***
PI Total 2017	$520.92	$321.58	4,440.5 ***
HHI Total 2017	$774.65	$587.28	4,373.5 ***
PAT_2016	27.0	22.3	3,221 ***
PAT_2017	28.4	22.8	1,971 ***
Variable	Average **Rented House**	Average Non-rented house	U statistic
THRIVE-PAT Relative Variation	0.35	0.02	3,046.5 ***
Age 2017	37y	44y	3,656 ***
Household Size 2017	4.4	5.0	4,852 **
First Loan Amount	$306.72	$344.77	4,406.5 ***
PI Total 2017	$287.12	$405.58	4,858 **
HHI Total 2017	$483.52	$693.26	4,715 **
Weight Food/Total Expenses17	0.42	0.38	3,791.5 ***
Weight Education/Total Expenses17	0.18	0.16	4,534.5 ***
PAT_2016	18.2	25.5	2,129 ***
PAT_2017	22.7	24.8	4,406 ***
Variable	Average **Clients**	Average Non-Clients	U statistic
Age	41.8y	36.1y	5.363152***
Household Size	4.8	4.3	2.443083**
Working Hours/Week	60.2h	68.8h	3.204275 ***
Personal Business Income 2016	$343.94	$197.07	5.739680 ***
Personal Business Income 2017	$298.47	$144.90	6.658736 ***
Personal Total Income 2016	$480.19	$218.00	6.842681 ***
Personal Total Income 2017	$373.16	$156.83	8.431286 ***
Household Other HH Members Income 2016	$318.91	$187.29	3.798804 ***
Household Total Income 2016	$799.10	$407.47	6.985092 ***
Household Total Income 2017	$635.50	$429.29	6.281863 ***
Household Total Expenses 2016	$356.27	$238.24	3.519882 ***
Household Total Expenses 2017	$321.22	$213.43	5.266460 ***
Thrive-PAT 2016	23.5	14.1	10.280615 ***
Thrive-PAT 2017	24.2	20.9	5.945824 ***
Thrive-PAT Relative Variation	0.11	0.78	8.574786 ***

Annex III – Quantile Regression 1

Dependent Variable: PI Business 2017/ PI Business 2016 (Ln)
Method: Quantile Regression
Sample: 355
Included observations: 272

Independent Variable	Type	Quartile 1 (0.25)	Quartile 2 (0.50)	Quartile 3 (0.75)
		Coefficient		
Age_LN	Q	0.1128	**0.3858 ****	**0.7216 *****
Loan (Client)	D	**0.5686 *****	**0.3276 ***	0.1124
Willowvale	D	0.0183	0.0135	0.0491
Married	D	-0.0712	0.0109	0.0062
Widow	D	-0.1892	-0.1905	-0.18567
Primary School	D	0.0360	-0.0242	-0.4442
Secondary School	D	0.0611	0.0902	-0.2455
Rented House	D	0.0594	0.0255	0.1186
Own House	D	0.0387	0.0652	0.2079
Business Time_LN	Q	**0.1134 *****	**0.1546 *****	0.0507
Working Hours/Week_LN	Q	0.1955	**0.2073 ***	**0.1985 ***
Work Alone	D	-0.0464	-0.1866	-0.1700
Shocks	D	-0.0485	-0.0865	**-0.2424 ****
Saving Regularly	D	0.2096	0.1998	0.2179
PAT_2016_LN	Q	**0.4382 *****	**0.3363 ****	**0.3193 ***
PI Business 2016_LN	Q	**-0.6917 *****	**-0.7299 *****	**-0.7556 *****

Notes: Q – quantitative variable, D – dummy variable (1,0)
*** significance level of 1%, ** significance level of 5%, * significance level of 10%

Annex IV – Quantile Regression 2

Dependent Variable: PAT_2017/ PAT_2016 (Ln)
Method: Quantile Regression
Sample: 355
Included observations: 273

Independent Variable	Type	Quartile 1 (0.25)	Quartile 2 (0.50)	Quartile 3 (0.75)
		Coefficient		
Age_LN	Q	**0.2612 *** **	**0.3043 *** **	**0.4326 *** **
Loan (Client)	D	-0.0014	0.0122	0.0411
Willowvale	D	0.0612	0.0520 *	0.0344
Married	D	0.0812	0.0700	0.0660
Widow	D	-0.0043	-0.0281	-0.09104
Primary School	D	0.0465	**0.1630 ** **	0.0649
Secondary School	D	**0.1533** **	**0.2371 *** **	0.1382
Rented House	D	**0.1411 ** **	**0.1283 *** **	0.0297
Own House	D	**0.1648 *** **	**0.2043 *** **	**0.2053 *** **
Business Time_LN	Q	-0.0191	-0.2191	-0.0405 *
Working Hours/Week_LN	Q	**0.1457 *** **	**0.1162 *** **	**0.1306 *** **
Work Alone	D	0.0539	0.0275	-0.0023
Shocks	D	0.0166	-0.0277	-0.0470
Saving Regularly	D	**0.1209 ** **	**0.0809 ** **	**0.1202 *** **
PAT_2016_LN	Q	**-0.6578 *** **	**-0.6561 *** **	**-0.7302 *** **
PI Business 2016_LN	Q	0.0367	0.0167	0.0271

Notes: Q – quantitative variable, D – dummy variable (1,0)
*** significance level of 1%, ** significance level of 5%, * significance level of 10%