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Barriers to Micro-Enterprise Development

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Abstract

The lack of knowledge concerning business practices and saving habits in developing countries is still very significant. This paper analyzes the relation that record keeping and saving habits have on business profits and revenues. A survey was conducted among micro-entrepreneurs (grocers) in the city of Maputo, in Mozambique, in order to evaluate their business practices and what their saving habits were. It was found that record keeping and saving habits are strong determinants of business profits and revenues, particularly when used together – an indication of potential synergies between these two variables.

Keywords: Determinants of Probability, Record Keeping, Saving Habits, Micro-Enterprises.

I. Introduction

Most developing countries are characterized by small and household businesses, usually managed by the poorest section of the population. For instance, in Sub-Saharan Africa, over 80 percent of the workforce is self-employed in small and households enterprises (Gindling and Newhouse, 2012). These enterprises become particularly important, not only due to the jobs they create but also because they may be an instrument of “participatory development” since they enable a wider section of the population, mainly poor, to participate in the process of development (Hussain, 2000). These businesses are usually run by people with low levels of education and skills, and handle relatively simple products. As a result, most of these micro-enterprises have shown low survival rates, low growth levels and low

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investment level (Hussain, 2000). In developing countries, migration from rural areas to urban areas has grown and so the competition in informal markets (where these businesses are usually placed) has intensified too.

An increasing number of works in the literature has analyzed how business training (including record keeping) can improve micro-enterprise performance, not only in Africa (e.g. Karlan, Knight and Udry, 2012), but also in Asia (e.g. Bloom, Eifert, Mahajan, McKenzie and Roberts, 2013) and South America (e.g. Fischer, Drexler and Schoar, 2010). The lack of good business practices and financial literacy and its negative consequences have been highlighted by most of these studies. From experiments that provided business training to micro-entrepreneurs (including record keeping), most saw an increasing number of firms adopting new business practices. Furthermore, studies have suggested that introducing micro-entrepreneurs to basic business practices may improve business performance, though no significant impact was identified yet.

Additionally, other experiments have been conducted in these developing countries to micro-entrepreneurs. For example, Dupas and Robinson (2012) show how saving habits might improve when free bank account access is given. Note that in Africa most entrepreneurs do not have access to bank loans when they intend to open their business and access to bank is still quite constrained. Moreover, in Mozambique specifically, informal services remain the most important way of saving and borrowing for both poor and rich individuals. These services have been largely provided by mainly urban-based groups such as “*xitiques*” (rotating saving groups), according to the FinScope Mozambique Survey (2009). In the study depicted in this report, only 12% of the entrepreneurs stated they were

borrowing money from a bank at the time of the survey, and 9% opened their business using a bank loan. This presents a high contrast regarding informal ways of borrowing – 14% claimed to have borrowed money from family, and 23 % stated they borrowed money from friends and family to open their business.

McKenzie and Woodruff (2012) highlight the lack of literature concerning the impact of both saving and business practices on enterprise development. As a result, this report aims at analyzing how record keeping and saving habits might be correlated to a better or worse business performance (in terms of profits and revenues). In order to collect information concerning record keeping and saving habits, a survey was conducted among 109 entrepreneurs in urban markets in the city of Maputo, Mozambique. We expect this work to be useful by explaining how business practices and saving habits might influence these entrepreneurs' business profitability. To achieve this, a correlation to determine the impact of record keeping and saving habits on business profits and revenues will be used.

In what concerns the effectiveness of business training (including record keeping) in business profitability, evidence so far has revealed weakly significant results (McKenzie and Woodruff, 2012), nonetheless leaving room for a positive impact of business training on business performance. Several reasons might justify this weak statistical significance. Firstly, the small sample size used in the treatment and control groups for homogeneous samples (Bruhn, Karlan, and Schoar, 2012; Karlan, et al. 2012; Bloom, Eifert, Mahajan, McKenzie and Roberts, 2013), and for heterogeneous samples (Mano, Iddrisu, Yoshino and Sonobe, 2011; Dupas and Robinson, 2012). And secondly, the high rates of attrition (Karlan and Valdivia, 2010; Dupas and Robinson, 2012).

Despite of studies having shown how saving habits and improved business practices might have impact on business performance, none of these studies has looked at the joint impact of the introduction to business practices and savings habits on business performance, including examining any potential synergies as the present study does.

Because this report is not based on a randomized control trial or field experiment, unlike the other studies reviewed this paper, it will only claim to present the correlation between record keeping and saving habits with business profitability and not make any definite statements about causal relations between these variables.

The results of this study show that when the impact of business practices and saving habits on profits are analyzed together, they become more statistically significant than when examined individually. Moreover, this study will demonstrate that record keeping of sales has a positive relation in the business profits; however, it is possible to observe that records on entry stock present a negative and statistically significant impact on business profits. Regarding records on credit sales, these do not show any significant impact on revenues or profits, but show a positive impact on leaving stocks out. Additionally, records on sales presented a negative impact on leaving stocks out, a relationship only significant at the 10% level though.

As in record keeping, contradictory findings were also observed on savings. For the entrepreneurs participating in saving groups, at a weekly and daily basis, they tend to present higher profits than those who do not participate. Nevertheless, it is observed that the larger amount one puts on the saving group, the less profit the business will have. This relation will be explained further, as 42% of the entrepreneurs stated to have a bank account

and to participate in saving groups at the same time. For the use of bank accounts, this fact showed a positive relation to business profits, significant at 10% level though.

The next section will review several studies conducted in developing countries that analyzed the effect of business training and consultancy services (which include record keeping) on business profits. Thereafter, Section 3 will describe the theoretical hypothesis and Section 4 the econometric framework used in this study. Finally, Section 5 and Section 6 discuss the results and what can be concluded from these results, respectively.

II. Literature Review

Micro-enterprises are usually presented in informal markets which are characterized by being easy to enter, using local resources, being family businesses, constituting small-scale operations, being labor intensive and unregulated and competitive markets (Hussain, 2000). When these firms grow in size, they contribute more to economic growth and poverty reduction, being recognized as a major source of employment and income in developing countries (Mano et al. 2011). In recent years, literature concerning management practices in developing countries has increased and most defended that the lack of skills stands as a key of major social problems (Attanasio, Kugler and Meghir, 2011).

In the experiment of Mano et al. (2011), the percentage of firms keeping records (after training) in the control group increased by 6%, while in the treatment group it increased by 36%. After providing business training and consultancy services, Fischer et al. (2010) and Karlan et al. (2012), found an increase of 11% and 45%, respectively, in the number of

firms keeping records, at a 1% level of significance. However, the studies that used more than one survey after training, the significance of keeping records was lost over time.

According to McKenzie and Woodruff (2012), when micro-entrepreneurs do not apply business practices, such as record keeping, it may lead some inventory to sit on shelves for years at a time, while more popular items are frequently out of stock.

The statistical significant impact of records on firm's performance has still been very weak (a p-value equal or higher than 10%), with some authors presenting negative results: Mano et al. (2011); and, Karlan et al. (2012) showed negative results on income (at 10% level) for entrepreneurs receiving capital. Only three studies found some effects on business performance. Bruhn et al. (2012) showed an increase in firm's productivity (evaluating ROA) but argued that the significance of consulting services on profits and sales would depend on the measure of trimming. Attanasio et al. (2011) found a 23% and 33% increase in wages for men and women, respectively, in the groups receiving business training. Finally, Fischer et al. (2010) found a 30% increase on sales during bad weeks on female owned businesses (at 5% level), but no effect was found on average sales¹- the authors explained these results should be interpreted with some caution as this group reported lower revenues than the control group. However, it is possible to see that these studies do not show any impact on profitability.

After analyzing several studies, McKenzie and Woodruff (2012) found a zero or slightly negative impact in start-up female owned businesses and some weak impact on male-owned business for survivorship of existing business. Nonetheless, throughout our

¹ These results were found on a group receiving *rule-of-thumb* business practices. For the group receiving basic business practices, no impact was found.

literature review, opposite findings were observed. In a mostly female group, Fischer et al. (2010) found significant effects on record keeping, revenues and a 6% increase on total savings –this last result is on significant at 10% level . Dupas and Robinson (2012) provided access to bank accounts and observed an increase in the total savings (at 5% level) and in the use of bank accounts² by women (at 1% level). Only Karlan et al. (2012) found an increase in a men’s group receiving both grants and consulting services (significant at 5%) and an increase in investment for the group receiving capital grants (significant at 10% level). Dupas and Robinson (2012) showed an increase on the daily amount investment in a mixed group, significant at 10% level.

Although the literature analyzed has not shown any statistical significant impact of the introduction of business training on business profitability, it has revealed important information for other future studies. Mano et al. (2011) concluded that entrepreneurs are quite unfamiliar with basic business practices and that participation in a simple management training program improves business practices. Still, Karlan and Valdivia (2012) found evidence, though weak evidence, that training could help entrepreneurs to identify strategies to reduce the downward fluctuations in their sales. Bloom et al. (2013) presented results supporting that changing management practices at least could lead to substantial improvements in the firm’s performance.

Cho, Kalomba Mobarak and Orozco (2013) argued that experimental evolutions of training in developing countries are still scarce. In fact, these authors did not find any statistical significant impact of business practices on the firm’s profitability. The low statistical power of these studies is mostly due to: small samples, high heterogeneity (thus, requiring a

² Non-bearing interest bank accounts

bigger sample), high attrition rates and contamination. Just Fischer et al. (2010) presented statistical significant impact of a “*rule-of-thumb*” training (given to mostly female owned business) on sales and whose sample was composed by 1,193 observations.

Concerning savings, Dupas and Robinson (2012), after providing access to bank accounts, observed an increase in total savings (for the women treatment group) and an increase in the daily amount invested in business for a mixed gender treatment group. But, regarding studies where both business training and saving habits were introduced to a treatment group, no literature is found. Thus, another relationship seems quite important to analyze as business becomes profitable – to understand how and what entrepreneurs are doing with money coming from business profits, i.e. where and how they save the money. As a result, the relationship between business practices and saving habits will be tested in this paper to understand how they impact business profits.

III. Theoretical Hypothesis

Most of the studies searched for impacts of business training (including record keeping) on profits, but they did not look at the simultaneous impact of both saving habits and record keeping, on business profits. If business training is effective but entrepreneurs maintain their savings habits based on saving groups or are not aware of how to use bank accounts, money coming from the business will be lost as it is applied in risky informal saving groups, thus jeopardizing future investments. As a result, this report will test the hypothesis that good saving practices might improve business profits.

Previous literature has showed that the number of firms keeping records after training increased, although this effect lost its statistical significance over time. Moreover, note that

there is no statistically significant impact of either business training or adoption of business practices on firm's profitability. Considering this, this work examines the hypothesis that micro-entrepreneurs keeping records might present higher business profits than those who do not keep records. Such records will be divided into the following aspects: credit sales; sales; and stock entry. Through this paper I hope to reinforce that business practices are in fact essential to micro-entrepreneurs and to strengthen the need to continue these experiments. Thereafter, it will be analyzed how keeping records might be related to not leave stocks out based on the hypothesis that micro-entrepreneurs who do not keep records tend to leave stocks out.

Most works in the literature applied their experiments to male or female owned businesses, but few were based on a mixed group. For that reason, this study will be based on a mixed gender group. McKenzie and Woodruff (2012) found more evidence that business training has more impact on business performance for male owned business than for female, but in this paper, the analyzed literature led us to different findings. This gives food for thought to analyze whether business profits, revenues and record keeping are indeed related to the gender of the business owner.

Few literature has presented a statistically significant impact of business training on business performance, mostly due to: small samples; high heterogeneity among firms (with small samples); high attrition rates; contamination; a small difference between treatment and control or by the fact that training was not given to the people most likely would benefit from it due to the introduction of fees. Although this study is not a treatment and control experiment, which immediately prevent us from establishing any causality, it will try to leave room for other authors to improve their researches regarding the impact of

record keeping and better saving practices on business performance. In a nutshell, this study aims at showing how daily basis business practices and saving habits may be related with business profits and revenues. Considering this, this paper tests the hypothesis that the adoption of record keeping and good saving practices may influence positively profits and revenues.

IV. Economic Framework and Estimation Strategy

In order to analyze how record keeping and saving habits, may each influence business profits, the following relations will be estimated:

$$P_i = \alpha_0 + \alpha_1 I_i + \alpha_2 B_i + \varepsilon_i$$

$$P_i = \alpha_0 + \alpha_1 I_i + \alpha_2 S_i + \varepsilon_i$$

The first equation presents the relation that record keeping has on profits and the second one, the relation that saving habits have on profits. According to the first model, profits of each individual business, P_i , are explained by the: individual features of each business owner, I_i , and the records that each business owner keeps, B_i . I includes gender, years of schooling, experience before and after opening the business. Variable B contains a vector of dummy variables for sales records, credit sales record, stock entry records; business owner who leave stocks out; and for entrepreneur who invested in the business in the last 6 months.

For the second equation, business profits are explained as a function of individual features of each business owner, I_i , and saving habits of each business owner, S_i . I includes the same information considered in the first equation. S_i includes a vector of information

concerning the business owner savings habits, such as: participation in several saving groups (dummy variables); the amount of money is put on saving groups; and the frequency the bank account is used (dummy variables). Note that, as 42% of business owners uses both bank account and saving groups, we used independent variables that show how frequently people use their bank accounts. This measure was used in order to ensure that despite of having bank accounts, entrepreneurs are in fact using them on a daily/weekly basis. For these two regressions, the parameter of interest will be α_2 (firstly, record keeping and secondly, saving habits).

After analyzing the impact that record keeping and saving habits, individually, have on business profits, we studied how these two practices may jointly influence business profits and revenues. The following model will be considered to study this relation:

$$P_i = \alpha_0 + \alpha_1 I_i + \alpha_2 B_i + \alpha_3 S_i + \varepsilon_i$$

$$R_i = \alpha_0 + \alpha_1 I_i + \alpha_2 B_i + \alpha_3 S_i + \varepsilon_i$$

According to this model, profits and revenues of each individual business, P_i and R_i , respectively, are explained by the: individuals features of each business owner, I_i ; records that each business owner keeps, B_i ; and, saving habits of each individual, S_i . I_i , B_i and S_i include the same information as in the previous regressions. But, here, α_2 and α_3 will be our estimates of interest, which will tell us how strong record keeping and saving habits are related to business profits.

Concerning stocks, actions that might lead stocks to be out might be described as follows:

$$St_i = \alpha_0 + \alpha_1 I_i + \alpha_2 B_i$$

Variable I_i presents the same information as in the previous regressions. B_i is a vector of dummy variables for the three types of record keeping. The point estimate of interest will be α_2 as it presents the records that might be related with leaving stocks out. In the first and third regression, St_i will be analyzed as an independent variable in order to see whether leaving stocks out may have a significant impact on business profitability and revenues.

V. Data and Descriptive Statistics

The data used in this study was collected the city of Maputo, capital of Mozambique, which has one million of inhabitants. As most African cities, Maputo presents a vast number of informal markets and in the area of Maputo this number stands at approximately 100^3 . Almost all kinds of services are provided in these markets, from sales of vegetables or meals (usually produced at home by women) to all kinds of imported products (groceries, fruits and clothes). The entrepreneurs, easiest to find among several markets were grocers. To be able to collect private data through a unique baseline survey (conducted between August and September of 2013), it was asked some grocers if they would answer some questions regarding their business practices, guaranteeing that personal information would not be revealed.

The final sample size was of 109 observations. Due to the small sample size, we tried to ensure that the sample would be as homogeneous as possible. Thus, grocers participating in the survey showed the same characteristics: they worked in an informal market for which they pay municipal taxes; they sell the same type of groceries (eggs, flour, juices, soaps,

³ Perfil Estatístico do Município de Maputo, Concelho Municipal de Maputo (2010)

rice); they do not sell alcoholic drinks; and grocery shops were not built of cement or expensive materials. The survey was collected while entrepreneurs were at the grocery shop.

The survey included basic questions such as gender, experience, business and saving habits of the shop owner. Concerning businesses, it was asked for: any record keeping (record on sales, sales on credit and on stock entry); expenses; sales; employees; hours of working; how frequently they bought new products; and, the investments made in the business in the last 6 months. The survey also collected financial information, including whether individuals had a bank account, participated in saving groups (known in Mozambique as “*xitiques*”) and obtained loans. Most of the entrepreneurs did not know exactly their profits and thus, to compute them, the following formula was used:

$$\text{Weekly Profits} = (\text{Daily revenues} \times \text{number of days worked per week}) - (\text{Fixed Monthly Expenses} / 4 \text{ weeks}) - (\text{Last expenses with inventory})$$

Furthermore, results concerning monetary values will be given in Metical (Mt), the Mozambican currency⁴.

The surveys were answered by 41 women and 68 men. The reason why women represented only 38% of the sample is due to the fact that more women refused to participate in the surveys than men. The interviewed presented an average of 9 years of schooling (standard deviation of 2.85 years) and 10 years of experience on sales (standard deviation of 6.58). On average, business owners operated on their own business for 7 years (standard deviation of 5.84). These small businesses, on average, were opened 11 hours per day (with a standard deviation of 0.18) and had one employee per business (standard deviation is 1.59).

⁴ At the time of writing, 40 Meticals are equivalent to 1 Euro

The money spent by these entrepreneurs to open the grocery was on average 35,827 Mt, although this value had a standard deviation of 65,825 Mt.

Notwithstanding groceries have showed average weekly sales of 45,543 Mt with a standard deviation of 114,198 Mt, it was possible to note that throughout the surveys, there were some differences regarding sales. Some entrepreneurs presented huge values, but then others presented below average values, i.e. it was not seen a mid-term value between average and the higher results. It gives food for thought to analyze if in fact, the lack of good business practices might determine the firm's performance.

In what concerns good business practices, from the 109 micro-entrepreneurs interviewed, 62% stated to keep at least one type of record. Still, from the micro-entrepreneurs inquired, 26% kept records on sales, 51% kept records for credit sales and 38% kept records on stock entry, for 109, 106 and 107 observations, respectively.

Moreover, it is likely that results concerning monetary values might be underestimated, as this survey came up close to the elections period and most of these entrepreneurs had afraid this survey could represent any kind of inspection from the city hall .

VI. Empirical Results

This section aims to discuss and interpret the results generated by the equations presented above that will allow us to understand existing relations of record keeping and saving habits on firm's profitability. Additionally, practices that may lead stock to be out will be studied.

Profits: record keeping

The relation that record keeping alone could have on business profit is presented in Table 1. Out from our point estimate of interest, two results stand out: higher profit is positively related to years of experience on sales and years of schooling, significant at 5% level. Records on sales presented a positive impact on business profits but, a negative and more significant impact is found on entry stock records (p-value of 7% and 3%, respectively). This might be related to the fact that 54% of the entrepreneurs keeping record on sales had a maximum of 5 years of experience on sales and most of these entrepreneurs with low levels of experience presented higher levels of education (43% of the entrepreneurs with an experience on sales lower or equal to 5 years stated to have at least 12 years of schooling). On the other hand, only 37% of the entrepreneurs who stated to keep records on entry stock had a maximum of 5 years of experience on sales (only 39% of the entrepreneurs with an experience on sales higher than 5 years stated to have at least 12 years of schooling). This might suggest that records on entry stock are kept by people with more experience but with low levels of education. Records on credit sales did not present a significant impact although it has a negative point estimate. The endogenous variable concerning investment on business shows a positive and significant impact.

Profits: savings

Table 2 describes the regression explaining how savings habits alone might be related to business profits. Out of our coefficient of interest, a significant impact, at 5% level was found on gender – female owned business tend to present higher profits. Regarding saving habits, only significant results were found at 10% level, with exception for endogenous variables. Those participating in a saving group at a daily basis presented a positive relation

with high level of profits. This positive relation might be related to a new way of informal saving: *xitique de cartão* (*xitique* based on a card) which reduces the risk of being stolen. The *xitique de cartão* is based on a loan or an advance of money, whose maturity tends to be one month. This does not require social relations, since the owner of *xitique* collects individually, every day, the money and notes it on a card with 31 squares when each payment is made – note that this does not necessarily requires a daily payment, one can pay for the equivalent of two days in one day. In the end of the month, money returns to the one making the deposits minus a fee paid to person who collects the money⁵. Nevertheless, a negative impact of the amount put in a weekly saving group on profits was found, meaning that the more money is put in the saving group the less profit one might expect from the business. Despite of contradictory, these results make sense if one considers that those having bank accounts still use somehow the saving groups but do not use them as the main source of savings. Note that, 42% of the entrepreneurs stated to use both bank accounts and saving groups. The same pattern (but not significant) is found on *xitique* at a weekly and monthly basis – positive coefficient for those in the group, but negative coefficient for the amount put in the same group. As a result, it is expected to find entrepreneurs with high level of profits that participate in saving groups but who might contribute with small amounts of money. Also, for a 10% level of significance, a new relation can be noticed: the positive impact of owning a bank account on business profits. The only statistically significant result points to the endogenous variable concerning the frequency of using the bank account.

⁵ “Mecanismos Informais de Protecção Social em Moçambique – O Caso do Xitique”, Nhatsave (2011)

Profits: record keeping and saving habits

Table 3 presents the impact that both record keeping and saving habits might have on business profits. Before, looking at our estimates of interest, one can observe that being female presents a positive impact on profits, for a p-value equal to 6%. For a significance of 5%, records on sales presented a positive impact on business profits but, the negative impact of entry stock records on profits remains. Records on credit sales did not present a significant impact although it has a negative point estimate. Again, the same line of thought taken in the first regression concerning record keeping, might also be considered in this sub-section.

Regarding savings, a positive impact was found for those using *xitique* at a weekly basis (p-value of 5%), but the amount of money put on it has a negative relation with profits (p-value of 6%) – this means that the more money is put in the saving group the less profit one might expect from the business. As in the second regression, the same conclusions may be taken concerning savings, but with a higher level of significance.

The endogenous variables, which are positively correlated to profits, are the following: the weekly use of bank accounts and investments made in the last 6 months, significant at 5% and 10% level, respectively.

Revenues: record keeping and saving habits

Table 4 shows the impact that record keeping and saving habits might have on business revenues. With a significance at a 10% level, a positive effect of the amount of years of schooling and years of experience on sales on revenues is observed. Regarding record keeping, records on sales presents a positive and a statistically significant impact on

revenues (p-value of 4%). Again, entry stock records have a negative impact on revenues (as previously), but only significant at 10%. In what concerns savings, there is only a positive impact of using *xitique* at a weekly basis, with a p-value of 10%. Contrary to the previous regression, no impact was found on the amount of money put on the saving group. Additionally, significant results were found for the endogenous variable concerning the frequency with which the bank account is used.

Stocks: record keeping

Table 5 presents how record keeping might be related to entrepreneurs who leave stocks out. It is possible to identify that years of schooling and working experience are positively related to not leaving stocks out, significant at a 10 % level and a 5% level, respectively. From this table is possible to enhance that those keeping records on credit sales are positively correlated to the fact of leaving stocks out (p-value of 4%). This relation might be explained because by allowing credit sales, micro-entrepreneurs will not be able to recover their money at the right time to purchase the missing products. Furthermore, a negative impact of records on sales on leaving stocks out was found for a p-value of 6%. This means that those who present records on sales tend to not leave stocks out. In this subsection, it is possible to observe that records on entry stock presents a negative coefficient, but it is not significant.

VII. Conclusion

This paper shows that that record keeping and saving habits are correlated to a better business performance (profits and revenues). Regarding record keeping, it is possible to

identify that almost half of the entrepreneurs interviewed tend to keep records on credit sales and on entry stock but only one fourth stated to keep records on sales. Records on credit sales do not show a statistically significant impact either on profits or on revenues; its impact is only significant on leaving stocks out. However, none of the regressions presented a significant impact of leaving stocks out on profits and revenues.

In what concerns records on sales and records on entry stock, it is possible to see significant, even if seemingly contradictory results, of both on business profits and revenues. In the four hypotheses tested, record on sales presented a positive impact on business profits; however, record on entry stock always shows a negative coefficient (both results significant at 5% level). This might be explained by the fact that the ones keeping records on sales tend to present higher education levels but low levels of experience – an opposite pattern coming from those keeping records on entry stock. Moreover, it is possible to observe that years of schooling have in fact a positive and more statistically significant impact on profits than experience (although experience presents a positive and significant point estimate in some regressions). Despite of records on credit sales and entry stock are being used by almost half of the firms, micro-entrepreneurs are still unfamiliar with other kind of records. For instance, if they only have records on entry stock, they will not be able to identify what products are being sold more, becoming more difficult to manage stocks.

Regarding saving habits, it is possible to observe that the use of saving groups is related to a more profitable business, but the larger the amount of money put in those saving groups the lower business profits should be expected by micro-entrepreneurs. This may be explained as, throughout the interviews, some entrepreneurs stated to participate in *xitique*

as a social matter and thus, they only invested small amounts of money on it. Additionally, at 10% level of confidence, it is observed that owning a bank account was positively and significantly related to business profits.

The main evidence of this study is related to the fact that when the relation of record keeping and saving practices is analyzed on business profits, jointly, more significant results are found than when record keeping or saving habits are examined separately. In short, results show that record keeping and saving habits become more important to business profits when they are considered together. This leaves room to think that instead of giving diversified training on management, some authors should consider the introduction of the most doable and easy business practices (including record keeping) and the introduction of the best ways of saving. Note that, the best results were achieved by Fischer et al. (2010) who gave a *rule-of-thumb* training to entrepreneurs.

While business practices might be taught through business training, changing saving habits seems more difficult – 42% of the entrepreneurs stated to have both bank accounts and saving groups. As 79% of entrepreneurs already own a bank account but some barely use it, it should be advisable for banks to create specific products as a substitute of *xitique* to give response to this sector of the population and become part of their social behavior. The entrepreneurs, who stated not to have a bank account, justified it by saying they did not have enough money to put on bank or time to stay the queue to open an account. According to my experience in the field, it seems that is not difficult to make people use or create bank accounts once long queues and constrains related to missing documents are overcome.

This study presented positive relations of sales recording and better saving habits on business profits but its causality needs to be tested. Moreover, this study contributes to a better understanding of the need to offer financial products that can replace Mozambican (and of other developing countries) saving traditions. Finally, this study shows us that there are still some challenges: creating banking products as a substitute of traditional saving groups; create simplified ways to avoid queues (such as the creation of more branches and ATM's in informal markets); and, create experiments based in the most basic business and saving practices (including record keeping) to more easily measure their impacts on profits and, therefore make it easier for micro-entrepreneurs to understand and adopt them. The main message this study gives is that when record keeping and better saving habits are adopted together, they tend to play a more powerful role in the business performance than when saving practices or record keeping are adopted alone.

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Appendices

Table 1: Relation of Business Practices on Business Profits

	Coeff.	Std.Error	t	P > t	[95% CI]	
<i>Business Characteristics:</i>						
Record on Sales	38,477	20,662	1.86	0.066*	-2,565	79,520
Record on Credit Sales	-8,334	17,381	-0.48	0.633	-42,860	26,192
Record on Entry Stock	-38,874	17,258	-2.25	0.027**	-73,514	-4,594
Invested in business (in the last 6 months)	24,758	12,371	2.00	0.048**	185	49,331
Leaves stocks out	8,682	22,868	0.38	0.705	-36,743	54,106
<i>Owner's Characteristics:</i>						
Male	-22,412	15,580	-1.44	0.154	-53,360	8,536
Years of experience	4,003	1,714	2.34	0.022**	598	7,408
Years of Schooling	7,620	2,875	2.65	0.009***	1,909	13,332
Years in own business	-2,326	2,014	-1.15	0.251	-6,327	1,675
Cons	-60,193	37,332	-1.61	0.11	-134,348	13,963
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Number of observations	101	R-squared		0.2117		
F (9, 91)	2.71	Adjusted R-squared		0.1337		
Prob > F	0.0076	Root MSE		72875		

Note:

* Denotes significance at the 10%-level, ** at the 5%-level, and *** at the 1% level.

CI stands for Confidence Interval.

Part. stands for Participation

Coeff. stands for Coefficient

Std.Error standas for Standard Error

Table 2: Relation of Saving Practices on Business Profits

	Coeff.	Std.Error	t	P > t	[95% CI]	
Saving Practices:						
Part. in daily <i>xitique</i>	45,437	24,230	1.88	0.064*	-2,716	93,590
Part. in weekly <i>xitique</i>	32,191	20,993	1.53	0.129	-9,529	73,911
Part. in several times per month <i>xitique</i>	20,179	48,037	0.42	0.675	-75,285	115,644
Part. in monthly <i>xitique</i>	8,103	16,378	0.49	0.622	-24,444	40,651
Money put on daily <i>xitique</i>	-143	133	-1.07	0.287	-407	122
Money put on weekly <i>xitique</i>	-38	22	-1.71	0.091*	-81	6
Money put on monthly <i>xitique</i>	-8	5	-1.39	0.168	-18	3
Owens a bank account	33,624	20,175	1.67	0.099*	-6,470	73,717
Withdraws money several times a week from bank	149,448	29,576	5.05	0.000***	90,671	208,225
Withdraws money once a week from bank	9,571	24,069	0.40	0.692	-38,261	57,702
Owner's Characteristics:						
Male	-28,613	14,340	-2.00	0.049**	-57,110	-115
Years of experience	1,792	1,567	1.14	0.256	-1,323	4,906
Years of Schooling	2,262	2,506	0.90	0.369	-2,718	7,242
Years in own business	-1,596	1,782	-0.90	0.373	-5,137	1,946
Cons	-27,271	33,408	-0.82	0.417	-93,662	39,121
Number of observations	103	R-squared		0.4038		
F (14, 88)	4.26	Adjusted R-squared		0.3090		
Prob > F	0.0000	Root MSE		64702		

Note: Observe notes on Table 1

Table 3: Relation of Business and Saving Practices on Business Profits

	Coeff.	Std.Error	t	P > t	[95% CI]	
Business Practices:						
Record on Sales	40,744	20,153	2.02	0.047**	597	80,892
Record on Credit Sales	-17,249	16,637	-1.04	0.303	-50,392	15,893
Record on Entry Stock	-38,954	15,659	-2.49	0.015**	-70,149	-7,758
Invested in business (last 6 months)	20,387	11,816	1.73	0.089	-3,151	43,926
Leaves stocks out	22,108	21,813	1.01	0.314	-21,345	65,562

Saving Practices:						
Part. in daily <i>xitique</i>	28,749	25,071	1.15	0.255	-21,196	78,694
Part. in weekly <i>xitique</i>	44,098	21,922	2.01	0.048**	426	87,769
Part. in several times per month <i>xitique</i>	-616	49,030	-0.01	0.990	-98,289	97,057
Part. in monthly <i>xitique</i>	8,308	17,061	0.49	0.628	-25,678	42,295
Money put on daily <i>xitique</i>	-11	143	-0.08	0.937	-296	274
Money put on weekly <i>xitique</i>	-44	23	-1.90	0.062*	-90	2
Money put on monthly <i>xitique</i>	-6	6	-1.04	0.301	-17	5
Owns a bank account	20,965	21,133	0.99	0.324	-21,133	63,063
Withdraws money several times a week from bank	149,120	30,213	4.94	0.000***	88,932	20,937
Withdraws money once a week from bank	19,943	25,185	0.79	0.431	-30,228	70,114
Bank Loan	-21,191	24,274	-0.87	0.385	-69,547	27,164
Family Loan	-24,047	21,200	-1.13	0.260	-66,281	18,187
Owner's Characteristics:						
Male	-28,826	14,800	-1.95	0.055*	-58,309	657
Years of experience	2,057	1,781	1.15	0.252	-1,492	5,605
Years of Schooling	4,268	2,935	1.45	0.150	-1,580	10,115
Years in own business	-698	2,062	-0.34	0.736	-4,806	3,410
Cons	-42,313	40,856	-1.04	0.304	-123,703	39,076
Number of observations	97		R-squared		0.4979	
F (21, 75)	3.54		Adjusted R-squared		0.3574	
Prob > F	0.0000		Root MSE		64006	

Note: Observe notes on Table 1

Table 4: Relation of Business and Saving Practices on Business Revenues

	Coeff.	Std.Error	t	P > t 	[95% CI]	
Business Practices:						
Record on Sales	64,206	31,184	2.06	0.043**	2,084	126,329
Record on Credit Sales	-16,062	25,743	-0.62	0.535	-67,345	35,221
Record on Entry Stock	-43,533	24,231	-1.80	0.076*	-91,803	4,737
Invested in business (in the last 6 month)	20,522	18,283	1.12	0.265	-15,900	56,944
Leaves stocks out	39,841	33,752	1.18	0.242	-27,397	107,078
Saving Practices:						
Part. in daily <i>xitique</i>	47,642	38,794	1.23	0.223	-29,640	124,924
Part. in weekly <i>xitique</i>	57,463	33,922	1.69	0.094*	-10,112	125,038
Part. in several times per month <i>xitique</i>	33,153	75,867	0.44	0.663	-117,982	184,287
Part. in monthly <i>xitique</i>	14,949	26,399	0.57	0.573	-37,640	67,537
Money put on daily <i>xitique</i>	-75	221	-0.34	0.735	-516	366
Money put on weekly <i>xitique</i>	-23	36	-0.66	0.513	-94	48
Money put on monthly <i>xitique</i>	-11	8.7	-1.25	0.214	-28	6

Owns a bank account	34,342	32,699	1.05	0.297	-30,799	99,482
Withdraws money several times a week from bank	210,488	46,750	4.50	0.000***	117,358	303,618
Withdraws money once a week from bank	21.172	38.970	0,54	0,589	-56.460	98.804
Bank Loan	-21.997	37.560	-0,59	0,560	-96.820	52.826
Family Loan	-22.960	32.805	-0,70	0,486	-88.310	42.390
Owner's Characteristics:						
Male	-37.035	22.901	-1,62	0,110	-82.656	8.586
Years of experience	4.625	2.756	1,68	0,098*	-866	10.115
Years of Schooling	8.831	4542	1,94	0,056*	-217	17.879
Years in own business	-1.629	3.192	-0,51	0,611	-7.985	4.727
Cons	-106.973	63.219	-1,69	0,095	-232.912	18.965
Number of observations	97	R-squared		0.4747		
F (21, 75)	3.23	Adjusted R-squared		0.3276		
Prob > F	0.0001	Root MSE		99040		

Note: Observe notes on Table 1

Table 5: Relation of Business Practices on Leaving Stocks Out

	Coeff.	Std.Error	t	P > t	[95% CI]	
Business Practices						
Record on Sales	-0.175	0.092	-1.89	0.062*	-0.358	0.009
Record on Credit Sales	0.163	0.077	2.10	0.038**	0.009	0.316
Record on Entry Stock	-0.019	0.079	-0.25	0.806	-0.175	0.137
Invested in business (in the last 6 month)	-0.016	0.056	-0.29	0.772	-0.128	0.096
Owner's Characteristics:						
Male	-0.090	0.070	-1.28	0.205	-0.230	0.050
Years of experience	-0.018	0.008	-2.39	0.019**	-0.033	-0.003
Years of Schooling	-0.024	0.013	-1.87	0.065*	-0.050	0.001
Years in own business	0.006	0.009	0.69	0.490	-0.118	0.025
Cons	0.531	0.161	3.30	0.001	0.212	0.851
Number of observations	101	R-squared		0.1579		
F (8, 92)	2.16	Adjusted R-squared		0.0846		
Prob > F	0.0381	Root MSE		0.33225		

Note: Observe notes on Table 1