



MILLENNIUM
CHALLENGE CORPORATION
UNITED STATES OF AMERICA

IMPACT EVALUATION OF THE PILOT PROJECT TO SUPPORT SMALL BUSINESSES AND IGAs

Small businesses and IGA Comparative Paper

**Innovations for Poverty Action (IPA) for the
Agency of Partnership for Progress (APP)**



**Agence du Partenariat
pour le Progrès**
M C A — M A R O C

المبادرة الوطنية للتنمية البشرية
Initiative Nationale pour le Développement Humain

November 2013

Table of Contents

Introduction	3
Section 1: Differences in results between small businesses and IGA	4
Section 2: Methodology used to explain these differences	6
Section 3: Results of the comparison between small businesses and IGAs	8
I. Comparison of characteristics of IGAs and small businesses	8
II. Possible link with the difference of impact of the support program	11
<i>Conclusion</i>	<i>14</i>
Tables of comparison between IGAs and small businesses	15
Table 1: Human capital	15
Table 2: Managerial capital	16
Table 3: Physical and financial capital	17
Table 4: Economic Environment	18
Table 5: Economic performance	19

Introduction

The impact evaluation of the program supporting Income Generating Activities (IGAs) and small businesses conducted from 2009 to 2012 has evidenced significant differences between the results of the program on the two populations studied. This paper aims at exploring the reasons that can explain that the same program, implemented by the same provider according to the same methods and in the same period, has proven to be effective for improving economic performance of IGAs without however providing tangible benefits to the small businesses.

The first section of this paper supplies a summary of differences of results observed on small businesses and IGAs. It simply compares the main observations supplied by the two reports concerning respectively the small businesses and the IGAs.

The second section of this paper presents the methodology used to explore the reasons that could explain the differences in the program's impact.

The third part of the report presents elements of comparison that might be at the origin of the differences of the program results. Two types of explanations are revealed: the first explanation could involve the fact that IGAs evolve in an environment with less risk than that of small businesses, i.e. less competitive and more protected which could have given them more flexibility in changing their methods of production, distribution and management, that resulted in their improved economic performance. A second possible explanation could be that IGAs at the onset – as opposed to small businesses - have less favorable characteristics in terms of economic success, which could have made it possible for the support program to provide more added value. In fact, in a context where difficulties are heightened, the margins of progress are also often more significant.

It is important to underscore that these two ways of explaining the differences in the program's result are not mutually exclusive and that in the context of this impact evaluation, it is not possible to break them down. These explanatory factors are moreover only suggestive because they do not rule out the confounding factor problem, i.e. that they themselves may not be the cause of the differences in the program's results and simply be correlated with the “true” explanatory factors (not observed in our data).

Section 1

Differences of results between small businesses and IGA

The evaluation reports of the projects supporting IGAs and small businesses have precisely described the program's impacts on a significant number of variables related to the performance factors of IGAs and small businesses, to their economic performance as well as to the impact at the household level of the beneficiaries and the small businessmen. The variables studied in both cases are not always comparable considering the specificities of the context. However, this comparison can be made over a large number of variables.

The second and third follow-up surveys have shown relatively similar evolutions in the effects identified for IGAs and small businesses. Training courses have made organizational changes possible at the production and distribution level without however affecting the economic performance measured by sales and profits. During the third follow-up survey, IGAs seem to have begun increasing their production with a hike in the expenses of inputs that still at this stage were insignificant. This was not the case for small businesses for which the effect on the expenses was close to zero.

Eighteen months after the implementation of the program, we observe significant differences of impact from the training courses between IGAs and small businesses. During the endline survey, the effects on the organizational change have disappeared for IGAs as well as for small businesses; however, we observe a significant difference in the impact of the training courses on the performance and the economic factors. IGAs have increased certain expenses, sales (for only a part of the distribution) and their profits due to the training whereas again for small businesses, the effects are almost null. On the other hand, the program seems to have a similar effect on the probability of survival of IGAs and small businesses increasing the probability for both to around 5 percentage points with respect to both groups. One last noteworthy characteristic is the positive effect that the economic performance of IGAs has had on the living conditions of the beneficiaries with an increase in the purchasing power for certain consumption items and an improvement in personal satisfaction. Here again such efforts from training have not been detected with regard to the small businesses.

It is important to note that these differences of effect do not seem to be connected to the way that the support was implemented. In fact, the program supplied 41 hours of training to IGAs and 35 hours for small businesses. Moreover, the probability of receiving ES2 training for IGAs and small businesses increased by 71% and 68% with respect to the corresponding control groups. These orders of magnitude are remarkably similar. Moreover, it can

reasonably be supposed that the quality of training was the same, considering that it was the same provider that supplied the support operations to the two populations¹. Although the differences do not derive from a change in the implementation of the training courses between IGAs and small businesses, another possible explanation might be a change in the context and the characteristics between IGAs and small businesses.

¹ We have no information on a possible distribution of instructors between IGA and small businesses. If instructors assigned to the small businesses were different from the instructors assigned to IGAs, a possible explanation might be to explore if the instructors assigned to IGA were systematically of a better quality than those assigned to the small businesses.

Section 2

Methodology used to explain these differences

—

The results of the impact evaluation suggest that the support program was implemented similarly on the IGA and small business populations. The differences in results could therefore be caused by differences between the two populations themselves and not between the interventions they benefitted from.

We have therefore sought to identify the inherent differences between the small business and IGA populations. To do this, only the situation of the small businesses and IGAs *with no support program* is relevant because we are trying to understand the differences between the small businesses and IGAs that existed prior to the establishment of the support program, independently of the differences produced by the support program itself.

Following the standard economic model of the production of small businesses, we have tried to gather as much information as possible in the five following categories:

1. Human capital: characteristics of the small businessman and the coordinator (level of education, age, sex, cognitive capacities), time invested in the production entity
2. Managerial capital: quality of the management, training received (outside of the program itself), entrepreneurial spirit of the small businessman and of the coordinator, maturity of the production entity
3. Physical and financial capital: possession of fixed capital, debt level
4. Economic environment: business sector, intensity of the competition, social network
5. Economic performance: production costs, sales, financial profitability

Two sources of information have been used: on one hand, the baseline survey conducted in autumn 2009; on the other hand, the endline survey conducted at the end of 2012 – beginning of 2013. For information from the baseline survey, all small businesses and

IGAs are considered because the support operations that had not started in both populations were therefore unaffected by the support program. This assures that differences observed between the small businesses and IGAs are inherent differences in the two populations and not differences caused by the program itself. Concerning the endline survey, only the small businesses and IGAs of the control group are considered, since they had not received the support operations linked to the support program. In fact, the differences between the small businesses and IGAs that benefited from the support program are in part due to the program and therefore they cannot be considered within the context of the question concerning us.

Information from the baseline survey has been chosen because it has the advantage of having been gathered before the establishment of the program and therefore makes it possible to take the entire sample of small businesses and IGAs into consideration. However, the questionnaire administered during the baseline survey contains weaknesses with regard to the measurement of economic performance of IGAs because only the coordinators were interrogated on sales and expenses of IGA. Accordingly, in situations where the beneficiaries make their own sales, only a part of the economic performance is observable². During the first and second follow-up surveys, only the coordinators were interrogated and therefore the same problem arises. Lastly, although beneficiaries were interrogated within the context of the third follow-up survey, the questionnaire followed the same logic as the baseline survey and did not make it possible to measure sales and expenses specific to the beneficiaries. Only the endline survey makes it possible to observe all sales and expenses, both group and individual. This is why we have decided to use the data from the endline survey (but only for small businesses and IGAs of the control groups): they enable us to make a comparison between the two populations over a broader set of indicators. The value of using two moments in time that are fairly far apart to compare IGAs and small businesses also enables us to check whether the differences observed in 2009 existed three years later and thus to focus on the most noteworthy and persistent differences that truly reflect the structural differences between IGAs and small businesses.

² In situations where only beneficiaries make sales and where the IGA does not make group sales, no production expense or sale is observed.

Section 3

Results from the comparison between small businesses and IGAs

Tables 1 through 5 present descriptive statistics obtained on IGAs and the small businesses not involved with the support program during the baseline survey and during the endline survey. The analysis of these descriptive statistics reveals points of similarity but also significant differences. Initially we will compare the characteristics and environments of the small businesses and IGAs, before then trying to understand how these differences affect the program's impact.

1. Comparison of the characteristics of IGAs and small businesses

Human Capital

The human capital evident in IGAs appears lower than that in the small businesses. In fact, the level of education of the coordinators is clearly lower than that of the small businessmen. On average, coordinators have stated they have a level of education equal to 12 which corresponds to the first year of high school, whereas small businessmen declare an education level equal to 60 which corresponds to the second year of advanced studies. This difference in education level is slightly reflected in the memorandum scores that are a little higher for small businessmen than for coordinators.

The amount of work invested in the small businesses is also more than the work invested in the IGAs. The total time worked by all members of the IGA during the year is equal to a little more than 8,500 hours versus almost 1,300 hours worked by small business personnel (according to the baseline survey). This is also reflected in the lower percentage of IGAs employing full and part-time staff.

Managerial Capital

Although the activity of IGAs began 20 months before that of the small businesses (i.e. more

than two times earlier at the time of the baseline survey), the managerial capital of IGAs seems lower than that of the small businesses. In fact, the use level of a written accounting method is slightly lower, and above all, the professionalism of the accounting is clearly lower: while approximately 60% of small businessmen have their accounting done by a professional accountant, less than one IGA out of four uses the services of an outside accountant.

Moreover, it clearly appears that the demand for training is much more significant for coordinators than it is for small businessmen (since coordinators seem to have received at least as much or even more training in the past): while only 40% of small businessmen say that they need a training course at the time of the baseline survey, 95% of the coordinators declare that they need a training course. This suggests that coordinators feel they have fewer IGA management skills than small businessmen. When we look at the breakdown of training needs in accounting, computer science, human resources or technical support, we again find coordinators demanding twice as much training as small businessmen with regard to the number of hours that the respondent would like to receive per month (measured in the baseline survey). This deviation is more significant with coordinators (40 hours per month) than with small businessmen (only 31 hours per month). This very significant gap in terms of demand for training probably relates to a real need, reflecting a lower level of managerial skills and a more significant desire that might translate into a more significant commitment and openness with regard to training courses. In fact, when we interrogated small businessmen and coordinators about their satisfaction with regard to the training received during the endline survey, we found a significant deviation in the satisfaction level: coordinators were 89% satisfied whereas only 55% of small businessmen were satisfied.

Lastly, we find no significant difference with regard to the state of mind and optimism of small businessmen and coordinators. These measurements of self-confidence (feeling of being able to overcome problems and perform required tasks), of personal satisfaction and positive or negative mindset do not show significant and consistent differences. The coordinators seem a little more adverse to the risk outside of the baseline survey, but this difference no longer appears during the endline survey. It would seem that coordinators are a little less biased with regard to the present rather than small businessmen or less impatient: they are also more capable of sacrificing a present benefit for a future, more significant benefit (this difference was however less clear when we used data from the endline survey).

Physical and Financial Capital

The first blatant difference concerning the physical and financial capital is the source of initial investment: for IGAs, 75% of the initial capital was received in the form of a subsidy while for small businesses, 74% of the initial contribution was borrowed (in both cases, the remainder was provided by the small businesses and beneficiaries themselves).

We therefore observe a perfect symmetry between the portion borrowed and the portion received in the form of a subsidy. The loan structure of IGAs and small businesses is therefore radically different.

This fact is among the characteristics related to credit. The number of active lines of credit taken out by IGAs is six times smaller than that taken out by the small businesses in 2009 as well as in 2013. With regard to the amounts borrowed, they were around 10 times less for IGAs than for the small businesses during the baseline survey, and 100 times lower during the endline survey. The amounts to be reimbursed are similarly lower for IGAs than for small businesses: 75 times smaller at the time of the baseline survey and 100 times smaller at the time of the endline survey.

Lastly, the debt situation with regard to suppliers and outstanding debt with regard to clients is also very different, the outstanding debts and obligations were much higher for small businesses than for IGAs for the baseline survey as well as for the endline survey. The cash situation seems more complicated for small businesses than for IGAs.

Overall, the comparison of the physical and financial capital showed that IGAs and small businesses have completely different financing structures, with IGAs being very little exposed on the credit market using short-term payment terms on one hand and small businesses that are very indebted and using longer payment terms on the other.

Economic Environment

The economic environment of IGAs and small businesses also seems very different. At first glance, the business sectors are fairly far apart: IGAs are clearly more involved in livestock and agriculture (54% of IGAs versus 10% of small businesses). Whereas small businesses are clearly more involved in services and building (67% of small businesses versus 11% of IGAs). This distinct difference with regard to the type of business seems to imply very different problems encountered by small businesses and by IGAs. The difficulties linked to logistics and to strategy are more significant for IGAs: coordinators are significantly more numerous than small businessman to say they have problems in making their products known, in transporting goods, in increasing the number of customers and increasing production. Inversely, small businesses are subject to a more severe competition than IGAs: the number of competitors present in the same district or *douar* was 50% higher for small businesses than for IGAs during the baseline survey and this deviation clearly grew by the time of the endline survey. This result is confirmed by the proportion of small businesses and IGAs for whom the main competitor is close by: this proportion was twice as large for small businesses at the time of the baseline survey and it became three times larger by the endline survey. The level of competition to which small businesses are exposed was therefore higher than for IGAs in 2009, and this significantly grew between 2009 and 2013.

To conclude with the economic environment of IGAs and small businesses, it is important to note that coordinators benefit from a more broader social network than small businessmen: approximately three out of four coordinators receive informal advice from their entourage (friends, family members, professional acquaintances) whereas only one out of two small businessmen receives this type of advice (at the initial survey). Recent research on business has revealed that informal exchanges during which people transmit experience, information

and good practices can play a decisive role in the success of a small business.

Economic Performance

The performance analysis of IGAs and small businesses does not show a very significant difference between the two populations. The volumes of costs, sales and benefits are close to each other on average and the significant dispersion within IGAs and small businesses does not make it possible to discard the possibility that differences observed are null. The level of added value and the rates of margin are also very close to each other.

However, the survival rate of small businesses is significantly lower than that of IGAs: while small businesses began doing business later than IGAs, 27% of them ceased business at the time of the endline survey versus only 8% of IGAs.

2. Possible link with the difference in impact of the support program

How can these differences of characteristics explain the difference in impact measured between IGA and small businesses? Although the method used does not permit us to causally identify the effect of certain characteristics on the difference in the result, we can however propose some likely explanations.

A different level of human capital between small businesses and IGAs before training

The main motivation of the training programs is to offset a need in human capital and managerial capital that could limit the development of economic activities. In fact, this type of capital can also be as significant as financial capital. The comparison made in section 3.1 very clearly shows that human and managerial capital requirements were much more significant for IGAs than for small businesses. The education level of coordinators is much lower at the beginning, IGAs have less-developed management tools and their requirements in terms of training are also higher. Coordinators also declare that they have more problems in conducting their business. All of these elements show that knowledge was lower at the beginning for IGAs.

In this context, it is probable that the yield from an addition in human capital is much higher for those who lack it the most. The added value of this item was therefore stronger for IGAs that started off much farther away. In fact, we observe that the training enabled IGAs to make changes that made it possible to increase

certain expenses, sales and benefits. It is important to note that the higher impact of training for IGAs does not come from a lower level of economic performance regardless of the training (the performance in the control groups is remarkably similar between IGAs and small businesses) but from a lower level of human capital at the onset.

Moreover, IGAs seem to be capable of increasing their work offering for activities, which may be needed to make changes after training. We observe that the amount invested in the activity is lower for IGAs and that the effect from training on the work (essentially members of the household) is only positive for IGAs³.

In the end, the proposed training probably met the expectations and needs of IGAs better than those of small businessmen. As described in the previous section, we also observed that the degree of satisfaction in this regard is much more important for coordinators than for small businessmen, with a difference of more than 30 percentage points.

The environment of small businesses is riskier than that of IGAs

Small businesses are faced with a higher level of risk than IGAs. This risk can limit the impact of the training in two ways. On one hand, a larger exposure to risk can affect the mindset and the conduct of individuals, specifically in terms of decisions for their business. This can lead to a poorer use of input supplied by training. Moreover, when risks materialize, they can somewhat void benefits from training.

Overall, small businesses seem to be exposed to a higher risk from a much more significant debt level, a higher level of competition and a business level that is more unstable.

As described in section 3.1, IGAs and small businesses began their activity with an important capital but with a very different type of financing. IGAs received a subsidy from the INDH whereas small businesses took out a loan within the framework of the Moukawalati program. Just before starting the ES2 training project, the outstanding debt of small businesses was around 237,000 compared to 26,000 for IGAs. We also observed that the time needed to clear up debt for small businesses is long. During the endline survey, Small businesses of the control group were still in debt in the amount of 145,000 dirhams. We also observed problems of reimbursement at the initial survey, among the 25% of small businessmen who had to begin reimbursing a line of credit,

³ We do not have information on the work offering of household members of small businessmen. We observe however that they do not increase their work time within the farm.

50% of them had delays in reimbursement. The risk of non-reimbursement can affect the investment decisions of small businessmen. A number of research studies also show that the effort in the investment project can diminish with the load of reimbursement (considering that it is necessary to reimburse a larger part to the lender). In both cases, the risk generated by the debt level can negatively affect the training.

Then, solutions proposed in the context of training are probably more difficult to implement in a context of high competition. Small businesses deal with this to a greater extent than IGAs.

Lastly, small businesses seem to be subject to more significant upsets. We observe in the control groups during the endline survey that 27% of small businesses had disappeared versus only 9% of IGAs. Even though the survival of the business can be determined by a number of factors (including human and managerial capital), this difference shows that small businesses are exposed to greater risks that can have very significant consequences. In this context, the results from training can therefore be affected considerably by upsets. In comparison, the environment of IGA seems to be much more stable.

Conclusion

The “support for the IGA” and “support for the small business” programs did not have the same effects. IGAs were able to increase certain of their expenses and their economic performance improved. On the other hand, the situation of small businesses did not significantly evolve due to the program (not including the survival rate). This result is noteworthy considering the training was implemented in the same way with the two populations with the same provider and the same intensity.

How can we explain this difference in results? This supplemental paper provides several possibilities of interpretation by focusing on differences in the characteristics and environments of IGAs and small businesses. Regardless of the training, we observe that IGAs and small businesses have economic performance that are very similar to each other, but human and managerial capital requirements - as well as exposure to the risk - that are very different. In fact, the education level of coordinators is much lower at the onset, and IGAs have management tools that are less elaborate and their needs in terms of training are also lower. Small businesses seem to be exposed to a higher risk due to a debt level that is much higher, a higher level of competition and a more unstable business situation.

In these different contexts, the results from training seem to diverge. The yields seem to appear higher when needs are more significant (for IGAs) and yields can be considerably reduced when the exposure to the risk is strong (for small businesses). These possibilities of interpretation are naturally suggested since they do not include the problem of confounding factors. However, they provide a credible explanation to the differences in impact observed between IGAs and small businesses.

Tables

Table 1: Human capital

	<u>Baseline survey</u>		<u>Endline survey</u>	
	IGA	Small businesses	IGA of the control group	Small businesses of the control group
Characteristics of the small businessman/of the				
Age (year)	42	34	45	37
Gender (1 if man)	0.69	0.83	0.69	0.82
Level of education (scale from 1 to 19)	12	16	-	-
Memorandum score (scale from 0 to 9)	4.9	5.3	-	-
Quantitative score (scale from 0 to 2)	1.5	1.5	-	-
Employment				
Work time in hours during the year (all employees together)	8,528	12,916	-	-
Employment of full-time personnel	0.33	0.63	0.24	0.6
Time worked by full-time personnel in the year	6,211	7,545	-	-
Use of temporary personnel	0.35	0.15	0.23	0.50
Time worked by temporary personnel in the year	800	1,885	-	-
Monthly work time invested by the household	-	-	102	-

Table 2: Managerial capital

	<u>Baseline survey</u>		<u>Endline survey</u>	
	IGA	Small businesses	IGA of the control group	Small businesses of the control group
Management quality				
Uses a written accounting	0.77	0.82	0.68	0.74
Uses a written accounting done by an accountant	0.22	0.58	0.24	0.62
The accounting ledger was seen	0.20	0.09	-	-
Frequency of stock outage (1=never, 4=frequently)	1.9	2.2	-	-
Frequency of production surplus (1=never, 4=frequently)	1.9	1.6	-	-
Training				
<i>Since the creation of the IGA/Farm</i>				
Attended a training course	0.57	0.48	-	-
Attended a course in accounting	0.12	0.13	-	-
Attended a course in computer science	0.06	0.06	-	-
Attended a technical course	0.27	0.13	-	-
Attended a course in human resources	0.12	0.03	-	-
Training requirements				
Needs a course	0.95	0.40	-	-
Needs a course in accounting	0.47	0.29	-	-
Needs technical support	0.53	0.25	-	-
Needs a course in computer science	0.40	0.25	-	-
Needs a course in human resources	0.39	0.15	-	-
No. of course hours desired per month	40	31	-	-
Maturity of the IGA/Farm				
Number of months since creation	69	22	-	-
Number of months since startup of business	38	18	-	-
State of mind and optimism				
Number of months waiting for 250 dhs versus 200 dhs today	0.77	0.37	0.47	0.7
No. of months waiting for 250 dhs 300 dhs v. 200 dhs today	0.98	0.60	0.55	0.4
Prefers the option w/o risk to the lottery 1	0.57	0.44	0.67	0.7
Prefers the option w/o risk to the lottery 2	0.55	0.49	0.68	0.5
Score at the self-efficiency scale I (scale from 10 to 40)	-	-	31.0	27.6
Score at the self-efficiency scale II (scale from 6 to 30)	-	-	23.0	31.0
Score at the personal satisfaction scale (scale from 1 to 10)	-	-	6.5	6.0
Score at the negative feeling scale (scale from 1 to 4)	-	-	2.9	2.9
Score at the positive feeling scale (scale from 1 to 4)	-	-	2.5	2.7

Table 3: Physical and financial capital

	Baseline survey		Endline survey	
	IGA	Small businesses	IGA of the control group	Small businesses of the control group
Fixed capital				
Initial investment (dirhams)	390,000	231,182	-	-
Share of subsidies in the initial contribution	0.75	0.02	-	-
Share borrowed in the initial contribution	0	0.74	-	-
Purchase value of the fixed capital held at baseline	154,522	205,303	-	-
Purchase value of the fixed capital acquired in 2009 (baseline)/in 2012 (endline)	47,353	50,215	7,756	2,984
Credit				
Number of active lines of credit	0.21	1.3	0.18	1.03
Amount borrowed from active lines of credit	26,314	237,354	1,329	144,853
Total to be reimbursed	8,717	649,128	1,386	141 200
If has an active line of credit, obtained the amount requested		0.89	0.69	-
		-		
If the reimbursement has begun, has a delay in the reimbursement	0.21	0.5	-	-
Business debt and outstanding payables				
Outstanding business payables (dirhams)	8,699	35,707	6,211	28,938
Outstanding business payables (dirhams)	7,141	17,436	3,616	10,367

Table 4: Economic Environment

	Baseline survey		Endline survey	
	IGA	Small businesses	IGA of the control group	Small businesses of the control group
Business sector				
Agriculture	10.1	2.5	-	-
Crafts	16.5	14.3	-	-
Other	9.8	3.2	-	-
Construction	1.2	16.3	-	-
Trade	5.5	5.2	-	-
Livestock	44	7.4	-	-
Fishing	2.8	0	-	-
Service	10.1	50.2	-	-
Problems encountered				
Advertising (getting the product known) is a problem	0.35	0.12	-	-
Shipping is a problem	0.54	0.32	-	-
Increasing the clientele is a problem	0.40	0.27	-	-
Increasing production is a problem	0.46	0.18	0.56	0.52
Score at the scale of problems encountered linked to the business (0 to 3)	-	-	1.32	1.7
Competition				
No. of farms with same type of activity in the <i>douar</i> /district	3	4.7	1.66	4.3
The main competitor is in the proximity	0.22	0.41	0.22	0.6
Social network				
Benefits from advice from the entourage (family, friends, etc.)	0.71	0.57	-	-

Table 5: Economic Performance

	Endline survey	
	IGA of the control group	Small businesses of the control group
Cost structure		
Value of inputs (in 2012)	26,537	39,048
Value of salaries of full-time and temporary employees (in 2012)	10,829	45,602
Total production costs	204,517	148,898
Total sales		
Sales in 2012	202,050	208,539
Financial profitability		
Added value = sales/production costs	22,939	21,899
Profit in 2012	49,740	38,517
Margin = profit/production costs	0.34	0.26
Still in business at endline	0.92	0.73