Contributions of IMF Programs in the Financial Resilience of Households: Analysis of Satisfaction and Well-Being of Households from Rural Areas—Case of Malagasy IMFs

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Abstract
Explicitly considering the level of household financial resilience raises new questions about the role of financial services in development. Development and well-being can be reflected in the satisfaction of basic household needs. As a tool for development, the role of financial services takes on particular relevance in the fight against poverty. But the problem that arises is the extent to which IMF programs contribute to the satisfaction and well-being of households. The objective of this research is therefore to evaluate, through studies carried out on a sample of 200 households from rural areas, the impacts of the actions of microfinance institutions on the financial resilience measured by the satisfaction and well-being of these households. The results show the contributions of IMF programs to the improvement of the satisfaction and well-being of member households.

Keywords
Microfinance, Development, Beneficiary, Welfare
1. Introduction

The natalist analysis of development assures that each additional being is capable of creating even more wealth than it needs to live. Underdevelopment as well as poverty is a situation in which the basic needs of people cannot be met (Traoré, Bocoum, & Tamini, 2020). This state of underdevelopment or poverty generally appears in life as a vicious circle on two levels on the supply and demand side. This leads to the evaluation of development by taking the satisfaction or not of basic needs as an indicator.

Microfinance is still considered, in underdeveloped countries, as one of the tools implemented to serve as a lever to alleviate the burden of poverty and bring about development. Through its various offerings and services, IMF programs have the mission to accompany members towards economic developments that logically lead to financial satisfaction and well-being. The well-being of an individual is generally reflected in the satisfaction of his or her basic needs. It is in this context that this research focuses on analyzing the impacts of IMF programs on the financial resilience of member households.

Following the example of Grameen Bank of the famous Dr. Yunus, one of its founders, Madagascar has always made a big deal of improving and expanding microfinance for poverty reduction and development (Conso, 1992). This is still one of the reasons, in fact, for the emergence of various microfinance institutions. But the question is, to what extent do IMF programs contribute to the financial well-being and satisfaction of beneficiaries?

The objective of this study is to analyze the impacts of microfinance institutions' actions on the satisfaction and financial well-being of rural households.

The methodological approach is based on the verification of the hypothesis that IMF programs, by satisfying basic needs, contribute to the satisfaction and well-being of member households. Indeed, the analysis is based on the results of research carried out on a sample of 200 households in rural areas. Based on a hypothetical-deductive approach, the data collected will then be statistically processed using SPHINX software to produce interpretations related to the theme.

2. Conceptual Base

An alternative approach has been developing over the past decade through the concept of human development, based on A. Sen’s capability approach. “Human development and related policies aim to increase the ability of individuals to function better, that is, to live better and to flourish” (Sen, 2005). People are the real wealth of a nation. Development must therefore be a process that leads to the expansion of opportunities for everyone. Its fundamental objective is to create an environment that offers people the opportunity to live long and healthy lives, to acquire the knowledge that will help them make choices and to have access to the resources that ensure a decent standard of living (UNDP, 2005). To this end, through social and financial intermediation, the IMF helps its
member households to broaden the scope of their knowledge, especially in the areas of financial management, health and food security, and strengthens their skills and know-how. Indeed, A. Sen’s capability approach considers that each person has capabilities that he or she can use to live in a state of well-being. Capacities take many forms (economic, human, social, financial, etc.); monetary income is only one component. Each person combines his or her capabilities, playing on their properties and limits, in order to assume his or her responsibilities, while remaining reasonable towards his or her community. This combination defines his or her capacity structure. This capacity structure is fragile; it can evolve positively or negatively under the impact of exogenous factors: natural disasters, accidents of life, but also public policies or development actions.

Beyond their function as financial intermediaries, a large number of microfinance institutions (IMFs) play a social intermediation role. Thus, microfinance is often defined by the two functions of social and financial intermediation (De Lima, 2007).

The microfinance sector in Madagascar includes three types of organizations:
- “Member-based” and/or self-managed institutions, mostly mutualist, which collect savings and grant loans to their members.
- Client-based” institutions, which are organizations whose main activity is the distribution of loans and which do not link borrowing to the constitution of prior savings.
- Projects with a “credit component” and NGOs or associations that do not consider credit to be their main activity, as credit is often considered one component among others in the projects implemented.

Using the satisfaction or otherwise of basic needs as an indicator of development requires the translation of country-specific social indicators based on the theory that there is a strong correlation between the economy and the social data of a country.

We will try to analyze the indicators most often used to characterize an underdeveloped economic structure. They correspond more or less to the criterion for evaluating the satisfaction of basic physical needs. The dissatisfaction of these needs constitutes the most striking and significant character of underdevelopment. The most important of these indicators is of course the one concerning health, but alongside this, researchers have drawn up a whole list of criteria that they have deemed significant in defining underdevelopment, namely nutrition, education, and observers from industrialized countries who are interested in development tend to include among the basic needs to be satisfied in an underdeveloped economy that of work or productive activity.

Microfinance, on the other hand, is one of the tools used to leverage poverty alleviation and development. It serves to break the vicious circle. Even if it is not a panacea, it plays a very important role in the fight to reduce poverty and promote development. Far from being a simple banker’s business, microfinance is above all a development tool (Joanna, 1996).
3. Results

3.1. Integration into Programs IMF

3.1.1. Degree of Household Dependence on Programs IMF

In the face of the whole range of financial services offered by the IMFs, intended for the population groups in difficulty in rural areas, such as microcredits, small savings, microinsurance or other services whose objective is either to promote access to financial services for those excluded from the banking circuit, or to encourage them to save more, the table of results below, the results in Table 1, which relates in a general way the interest of the households surveyed in the IMF programs, shows significantly according to the chi-square tests of the differences in proportions, on the one hand, that the vast majority of these people, representing 84%, adhere to the proposed plan, although a fairly large proportion, 16%, abstain from the offers. On the other hand, the same table shows that a little less than half of the respondents, i.e. 48%, declared having frequent recourse to financial products and that only 10% rarely had to make use of financial offers from IMFs. Moreover, it is also clear that access to IMF services is no longer new. Indeed, a little more than one household out of three, i.e. 34%, has already had to contract IMF programs for more than 4 years and 15% for 2 to 4 years.

3.1.2. Household Familiarity with the Types of IMF

As for the familiarity of households with the types of programs offered by the IMFs, our study, through the chi-square test of independence, establishes a significant dependence between the opinions of the respondents and the different financial services offered by the IMFs.

Thus, the illustration of these opinions through the correspondence factor analysis in Figure 1, where the inertia is represented at 97.94% on the first factorial axis, allows us to deduce the behavior of the contracting households surveyed. The first salient result reflects the general reluctance of rural households to use insurance contracts, with 90% of them expressing that they have never used this type of financial product. However, the other types of program interest more or less half of the members, and they claim to have often had to contract them. It should be noted, however, that the credit contract remains the flagship service of the IMFs with a percentage of 56% of clients stating that they have often dealt with this program.

| Trend                          | No answers | Most cited modality, in no. 1 | Modality cited in no. 2 | Least cited modality |
|--------------------------------|------------|-------------------------------|-------------------------|---------------------|
| Contract IMFs program          | 0 = 0.0%   | Often: 48 = 48.0%             | Never: 16 = 16.0%       | Rarely: 10 = 10.0%  |
| Dependence on IMF Programs     | 16 = 16.0% | More than 4 years: 34 = 34.0% | Less than 1 year: 19 = 19.0% | 2 to 4 years: 15 = 15.0% |

Source: Authors 2021.
3.1.3. Reasons Given by Participants in the IMF
In addition, analysis of the responses given by rural households in our survey shown in Figure 2, establishes significantly via the chi-square test of independence and the factorial correspondence analysis that the first motives often given by the latter during IMF program contracts concern above all the extension of activities (47%) followed by new investment (46%).

This situation evokes the need for development of rural households in terms of professional activities and is also confirmed by our analyses since the financial problem is moderately advanced by slightly less than the majority of respondents as a reason for requesting assistance from IMFs. Construction and renovation are rarely mentioned, although they were mentioned as reasons for requesting program contracts from the IMFs by slightly less than the majority of respondents (Table A1).

3.1.4. Allocation of Contracted IMF Programs
As previously stated in the analysis of the opinions of rural households, overall, the motives for requesting IMF programs concern above all new investments and the expansion of activities. The rest of our analysis is shown in Figure 3, using the chi-square test of independence between the opinions of the respondents and the allocation of the programs put forward by the IMFs and the factorial correspondence analysis, establishes significantly that, according to the 47% of respondents, the allocation of the IMFs’ support is always to agriculture and often, according to the 47.5%, to savings. However, according to the same analysis, one household out of two surveyed is either buying inputs or school supplies or transport and moderately in real estate.

3.2. Level of Satisfaction and Well-Being of Rural Households
As our study looks at the proponents of the welfare approach to evaluate the effectiveness of IMF programs. The aim is to measure the impact of the services offered by these institutions on the living conditions of the target population. The aim is to assess the situation before and after joining the IMF. To this end, we are interested in the evolution of the level of income, the capacity to save and the financial satisfaction of households before the actual evaluation of the well-being of the latter.
3.2.1. Household Financial Situation

1) Monthly income

According to Table 2, in terms of financial income, according to the 95% confidence interval of the percentages of the classes of income of the respondents, it is clear that the overall trend of income of rural households, declared by 38.2% to 57.8% of the respondents, is from 500,001 Ar to 1,000,000 Ar. It should be noted that income here is considered to be the crops consumed and the profits from the activities.

It should be noted, however, that there is a considerable number of at-risk households, like 12.2% to 27.8% of respondents in our survey admit that they cannot exceed an income of 200,000 Ar.

2) Savings opportunity

As for the possibility of saving in rural households, Table 3 shows our analysis results, always according to the confidence interval established at 95%, show a fairly positive general trend in the ability of households to save. In fact, 46.3% to 65.7% of the people interviewed in our survey think they often have this possibility
Table 2. Monthly income of farmers.

| Monthly income                  | Confidence intervals |
|---------------------------------|----------------------|
| From 500,001 Ar to 1,000,000 Ar | 38.2% < 48.0 < 57.8% |
| Less than 200,000 Ar            | 12.2% < 20.0 < 27.8% |
| From 200,01 Ar to 500,000 Ar    | 9.6% < 17.0 < 24.4%  |
| More than 1,000,000 Ar          | 8.0% < 15.0 < 22.0%  |

Source: Authors 2021.

Table 3. Savings opportunities for farmers.

| Possibility of saving | Confidence intervals |
|-----------------------|----------------------|
| Never                 | 7.2% < 14.0 < 20.8%  |
| Rarely                | 9.6% < 17.0 < 24.4%  |
| Often                 | 46.3% < 56.0 < 65.7% |
| Very often            | 0.0% < 2.0 < 4.7%    |
| Always                | 4.9% < 11.0 < 17.1%  |

Source: Authors 2021.

to save. This situation may reflect the serenity of life of this social stratum in rural areas. In fact, the different percentages, which differ significantly according to the Chi-square test, show that saving is an obvious part of the lifestyle of the respondents, with more than the majority (56%) saying that they often have this opportunity.

3) Household financial satisfaction

The evaluation of household financial satisfaction at the end of our study is summarized in Table 4, which presents the opinions of the households surveyed regarding their satisfaction in terms of source of income and their security, property, agricultural assets and real estate assets. It is worth noting first of all the dependence of these two characteristics studied according to the indicators of the Chi-square test, which gives a $p$-value of 0.001 lower than the risk of error of 0.05 rejecting the hypothesis of independence. In addition, the results generally show that the opinions of the respondents are oriented towards fairly sufficient or even insufficient satisfaction for about half of them, except for the satisfaction mentioned by 50% of the respondents concerning the security of sources of income.

3.2.2. Assessment of Household Well-Being

Similarly, the assessment of household well-being in our study is based on the opinions of the households regarding their housing, health, nutrition and education. The results obtained revealed the dependence of the two study traits, according to the chi-square test (Table A2). The associated factorial correspondence analysis highlights the trends in opinions illustrated in Figure 4.
Table 4. Household financial satisfaction.

| Opinions Satisfaction in terms of: | Not at all adequate | Not adequate | Somewhat adequate | Adequate | Very adequate | TOTAL |
|-----------------------------------|---------------------|--------------|-------------------|----------|---------------|-------|
| Source of income                  | 4.0%                | 24.0%        | 51.0%             | 12.0%    | 9.0%          | 100%  |
| Security of income sources        | 10.0%               | 12.0%        | 19.0%             | 50.0%    | 9.0%          | 100%  |
| Material of assets                | 9.0%                | 18.0%        | 50.0%             | 16.0%    | 7.0%          | 100%  |
| Agricultural assets               | 10.0%               | 51.0%        | 17.0%             | 14.0%    | 8.0%          | 100%  |
| Real estate assets                | 12.0%               | 52.0%        | 15.0%             | 10.0%    | 11.0%         | 100%  |

Source: Authors 2021.

From this illustration, we can deduce that only nutritional well-being is mentioned by the majority of respondents as being sufficient. Children’s education and housing bring them very little well-being. Health in rural areas remains a recurrent problem, as the survey reveals that the associated well-being is judged not at all sufficient by 53% and even very insufficient according to 5% of respondents.

4. Discussions

Contribution of IMF programs to household satisfaction and well-being

In light of the results indicating that rural households’ opinions regarding their satisfaction and well-being were mixed, our analyses addressed the direct effects of the motives for accessing the IMF programs in the area concerned.

The results shown in Table 5 are unequivocally positive for those who have used the financial services of the MFIs with motives of either building a house and new investment or expanding their activities. The impacts of these programs are indeed reflected in the sufficient well-being of households in terms of housing according to the statements of 87.5% of contractors who always put forward construction as a motivation for obtaining financial offers from IMFs. In addition, the IMF members who often put forward new investment as a pretext for obtaining IMF programs, at least 90% of them claim to have sufficient satisfaction in terms of their source of income. In the same way, for those who have
Table 5. Educational well-being via program allocated to schooling.

| Education Welfare/Program assigned to schooling | Not at all sufficient | Not sufficient | Somewhat sufficient | Sufficient | Very sufficient | TOTAL |
|-----------------------------------------------|----------------------|---------------|---------------------|------------|----------------|-------|
| Never                                         | 4.8%                 | 33.3%         | 33.3%               | 28.6%      | 0.0%           | 100%  |
| Rarely                                        | 0.0%                 | 5.9%          | 80.4%               | 9.8%       | 3.9%           | 100%  |
| Moderately                                    | 40.0%                | 20.0%         | 0.0%                | 10.0%      | 30.0%          | 100%  |
| Often                                         | 28.6%                | 14.3%         | 42.9%               | 0.0%       | 14.3%          | 100%  |
| Always                                        | 9.1%                 | 18.2%         | 18.2%               | 36.4%      | 18.2%          | 100%  |

Source: Authors 2021.

often mentioned the extension of their activities in their IMF loan applications, the securing of their sources of income is judged sufficient by 87.2% of respondents. On the other hand, our analyses show that the granting of IMF programs via the schooling mobile does not ensure the stability of the education of children in rural households. Indeed, 80.4% of those who mention having rarely advanced schooling in their credit file, declare a fairly sufficient living standard in terms of education, whereas more than the majority who always support their application to IMF programs by sending their children to school testify to a sufficient or very sufficient living standard.

Regarding the contributions of IMFs to the health of rural households, Table 6 shows that the situation of the latter remains alarming because whether they contract IMF programs, under the motive of allocating credit to medical expenses, never, rarely or always, the perceived well-being of households in terms of health remains at best sufficient. The 70% of the respondents, who declare to have always submitted applications for financial services support, affirm an insufficient or even inadequate level of well-being.

With regard to the program attributed to food, it was mentioned in the results section that only nutritional well-being is mentioned by the majority of respondents to be sufficient.

The statistics in Table 7 concerning the direct impacts of the opinions of the contracting households to the IMF programs by food motive confirm very significantly according to the Chi-square test of independence the tendency of the respondents to notice their nutritional wellbeing, whatever the occurrences of these occasions with the exception of those who rarely supported their application to the IMF programs where at best the level of nutritional wellbeing is judged to be fairly sufficient by more than 80% of the rural households interviewed.

However, it should be noted that food does not hinder the nutritional well-being of rural households too much. In fact, according to the results in the table below, 70.1% of the households surveyed that have never had opportunities
from IMF programs to allocate to food claim to have a sufficient level of well-being with regard to food.

In short, of all the benefits that IMF programs can bring to rural households, the opinions of the latter regarding their level of satisfaction with the goods or assets obtained as a result of IMF programs are judged to be dependent on the Chi-square test indicators. Generally, the level of satisfaction of beneficiaries is quite negative.

Table 8 shows that more than the majority of the rural households surveyed in our sample survey evoke a fairly sufficient or not sufficient satisfaction trait, especially with regard to the agricultural assets or real estate assets acquired as a result of the IMF programs that they have contracted.

Table 8. Level of satisfaction with goods or assets from IMF programs.

| Level of satisfaction with goods or assets from IMF programs | Not at all sufficient | Not sufficient | Somewhat sufficient | Sufficient | Very sufficient | TOTAL |
|-------------------------------------------------------------|-----------------------|---------------|--------------------|------------|----------------|-------|
| Assets                                                      | 9.0%                  | 18.0%         | 52.0%              | 14.0%      | 7.0%           | 100%  |
| Agricultural assets                                         | 10.0%                 | 51.0%         | 17.0%              | 14.0%      | 8.0%           | 100%  |
| Real estate assets                                          | 12.0%                 | 52.0%         | 15.0%              | 10.0%      | 11.0%          | 100%  |

Source: Authors 2021.
5. Conclusion

Microfinance activities are not limited to the simple business of banking; their programs are essentially a tool for development. The social intermediation of an IMF is therefore a determining component in the transformation of the lives of member households, in addition to financial intermediation.

The results of a survey of a sample of 200 households from the rural environment showed the contribution of IMF programs to household satisfaction and well-being. Indeed, the analysis of the dependencies of the integration to these programs and the satisfaction and well-being of the families brought out significant results, especially at the income and real estate levels. However, the effect of resilience still remains an issue.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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## Appendix

### Table A1. Impact of the different IMF programs on the well-being of the contractors.

| Reasons given in IMFs and impacts                          | Occurrence | Opinions                      |        |        |        |        |        | TOTAL |
|-----------------------------------------------------------|------------|-------------------------------|--------|--------|--------|--------|--------|-------|
| Construction as a reason/Housing welfare                  | Rarely     | Not at all sufficient 4.1% | 2.0%  | 87.8%  | 6.1%  | 0.0%  | 100%  |
|                                                           | Moderately | 0.0%  | 12.5% | 50.0%  | 25.0% | 12.5% | 100%  |
|                                                           | Always     | 0.0%  | 0.0%  | 0.0%   | 85.7% | 14.3% | 100%  |
| Program allocated to schooling/Education welfare          | Rarely     | 0.0%  | 5.9%  | 80.4%  | 9.8%  | 3.9%  | 100%  |
|                                                           | Always     | 9.1%  | 18.2% | 18.2%  | 36.4% | 18.2% | 100%  |
| Program allocated to medical expenses/Health welfare      | Rarely     | 0.0%  | 16.7% | 50.0%  | 33.3% | 0.0%  | 100%  |
| Program allocated to food/Nutritional well-being         | Never      | 10.4% | 7.5%  | 9.0%   | 70.1% | 3.0%  | 100%  |
|                                                           | Rarely     | 28.6% | 14.3% | 42.9%  | 14.3% | 0.0%  | 100%  |
|                                                           | Moderately | 33.3% | 16.7% | 0.0%   | 33.3% | 16.7% | 100%  |
|                                                           | Often      | 23.1% | 0.0%  | 23.1%  | 15.4% | 38.5% | 100%  |
|                                                           | Always     | 0.0%  | 14.3% | 28.6%  | 42.9% | 14.3% | 100%  |
| New investment as a reason/Satisfaction of income sources | Often      | 2.2%  | 2.2%  | 87.0%  | 6.5%  | 2.2%  | 100%  |
| Expansion of activity as a reason/Securing sources of income | Often     | 6.4%  | 0.0%  | 2.1%   | 87.2% | 4.3%  | 100%  |
|                                                           | Always     | 0.0%  | 0.0%  | 50.0%  | 33.3% | 16.7% | 100%  |

Source: Authors 2021.

### Table A2. Household welfare assessment table.

| Opinions Wellness in     | Not at all sufficient | Not sufficient | Somewhat sufficient | Sufficient | Very sufficient | TOTAL |
|--------------------------|-----------------------|----------------|---------------------|-----------|----------------|-------|
| Housing                  | 3.0%                  | 11.0%          | 60.0%               | 22.0%     | 4.0%           | 100%  |
| Health                   | 14.0%                 | 16.0%          | 12.0%               | 53.0%     | 5.0%           | 100%  |
| Nutrition                | 14.0%                 | 8.0%           | 14.0%               | 55.0%     | 9.0%           | 100%  |
| Education                | 8.0%                  | 15.0%          | 53.0%               | 16.0%     | 8.0%           | 100%  |

Source: Authors 2021.