

**Achievement of Market-Friendly Initiatives and Results Program
(AMIR 2.0 Program)**

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List of Acronyms

AMIR	Achievement of Market-Friendly Initiatives and Results
MEI	The Microenterprise Initiative
MFI	Microfinance Institutions
AMC	Ahli Microfinancing Company
JMCC	Jordan Micro Credit Company
MFW	Microfund for Women
JACP	Jordan Access to Credit Project.

Executive Summary

The Microenterprise Initiative (MEI) of AMIR (Achievement of Market-Friendly Initiatives and Results) provides microenterprises, particularly those owned by women and the working poor, with greater and more reliable access to sustainable financial and business services through assistance to four Microfinance Institutions (MFI) namely AHLI Microfinancing Company (AMC, Jordan Micro Credit Company (JMCC), Microfund For Women (MFW), and Jordan Access to Credit Project (JACP)/CHF.

The objective of this consultancy is to examine the impact-indicators defined to be reviewed annually within the MFIs, these impact indicators are:

- Annual percent increase in employment of credit clients
- Percent of new jobs filled by women
- Annual percent increase in sales

In order to assess the above indicators, a survey to collect their baseline measures should be conducted and a future system for measuring change should be established. To that end, AMIR Program contracted Community Development Group to implement this annual indicator review survey and assess the change in the values of the above mentioned impact indicators within the four MFIs (JMCC, AMC, JACP/CHF and MFW) over the period of Jan 2002 –December 2002.

The concept behind the methodology of this study is to assess the situation of active MFIs' clients regarding their employment and monthly sales as of the start of AMIR II on January 2002 and again by the end of December 2002/January 2003 thus allowing a one year period for a loan impact. Accordingly clients who were active borrowers in the first quarter of 2002 at each of the four MFIs were targeted. A 3% sample was drawn from the total number (12,425) of active borrowers amounting to a sample size of 379 borrowers. Those were then stratified by MFI and size of loan within the ranges: JD1000 or less, between JD1000-JD3000, and JD3000 or greater. More emphasis was placed on strata of loan size greater than JD1000.

In order to obtain information of the active clients' status as of January 2002 and not rely on recall, files of such clients were randomly pulled out and relevant information recorded. Towards the end of December 2002, the loan officers at each MFI contacted the same selected clients and obtained their current status in terms of monthly sales and employment figures as of December 2002.

The major obstacles in the course of the field work were that the information and papers within clients' files were not organized, clearly written, or easily accessible, and no women employment data was recorded by any MFI. For the purpose of this study loan officers and sometimes clients were contacted to obtain the information.

Analysis of Results

In summary, the obtained results of the statistical analysis of the above indicators' measures are not reliable, and cannot be used for estimating the population average or totals. This is mainly due to lack of sufficient information about the clients base necessary to construct a solid sampling frame. As such the sampling had to depend on information of the clients population size categorized by their loan amount versus by

their annual sales and employment; with a background assumption that amounts of sales and employment are related and have a dependency relationship to the acquired loan size, as would have been the case in other types of borrowing, but not in the Jordanian microfinance market as it turned out.

The only available population distribution at MFIs is the number of clients per loan size. There is no distribution of the population of clients in terms of monthly sales or employment. This ruled out obtaining a proper sampling frame compatible with the required statistics of the concerned indicators. Such a sampling frame would have considered two samples, one drawn based on stratified sales figures, and another based on stratified employment figures, to estimate the population statistical measures (mean, variance) of sales and employment. . But since the population and distribution is not known for both indicators, these samples could not be drawn and consequently used to estimate the population statistics.

Moreover, the analytical results of the collected information clearly show that there is no relationship between the loan size and the indicators under measure namely the monthly sales, employment, and women employment, rendering this assumption not valid. In fact, the sales and employment data within any loan size strata is very dispersed; that is its variance is very large, leading to the fact that estimation of the population mean cannot be based on the sample mean, and any calculated measure would not be accurate at all.

Conclusions

Two major issues are at hand:

- 1- The applicability of the adopted indicators in measuring the microfinance impact in Jordan: As explained above, the involved MFIs do not collect enough information to allow for proper sampling and analysis of results. Also, collection of such information is not an easy task in Jordan, and would require strict reporting standards, very close follow up, and rigorous verification of obtained information. All requiring time and effort.
- 2- The relevance of the adopted indicators in the assessment of the impact of microfinance: Based on this study, it was found that sales figures do not reflect an increase in income nor assess the impact on the financial situation of the entrepreneur. Other information such as purchases and fixed assets must be considered alongside the sales information to interpret and improvement in the economic situation of the clients' community. Also, employment in Jordan at the micro enterprise level revolves around self-employment and unpaid family help, whether from females or males of the extended family, versus increase in salaried employment; therefore accurate follow up of this indicator is not easily achieved.
- 3- The current process of assessing the impact on a single point-in-time to prove whether or not the microfinance programs are having impact on the community, cannot provide trend analyses, and the collected information cannot be used for any other purpose.

Firstly, a shift in paradigm should occur upon considering the development of a system to measure the impact of microfinance services in Jordan. This system should be a tool incorporated into the loan application system and focusing on improving data use for measuring progress and effects rather than proving results. It should be adopted as an ongoing internal impact monitoring tool for management to analyze

data on a regular basis. This impact data would be used to make critical strategic decisions and for lobbying for funding from donors.

Secondly, currently monitored indicators should be reviewed and new ones should be adopted. These must better reflect the economic impact of a microfinance loan on a Jordanian entrepreneur, and their measure could be easily gathered by the loan-officer.

Thirdly, a consistent data collection methodology should be set, preferable based on automated techniques and computerized input.

1. Methodology

The concept behind the methodology of this study is to assess the situation of active MFIs' clients regarding their employment and monthly sales as of the start of AMIR II on January 2002 and again by the end of December 2002/January 2003 allowing a one year period for a loan impact.

Preliminary visits

Preliminary visits to the four MFIs were important to take a look at their files and find out the type of information that is kept and how it is recorded in their application forms. Each MFI has its own application form layout, and information collection period.

What was found out is that except for JMCC the sales and employment data gets recorded most of the time only at the very first time a client submits an application for loan; MFW's individual and group loan information is kept in different formats; CHF currently provides only individual loans, group loans were stopped before January 2002; AMC provides two types of loans, individual and corporate loans, both above JD1,000; MFW keeps their client files at their different branches around Jordan and so does AMC; None of the MFIs had their sales and employment figures entered in their MIS, none records women employment separately; MFW records most of its clients' sales information as per 'good' day and 'bad' day figures, while the rest as per month.

Sampling

Accordingly clients who were active borrowers in the first quarter of 2002 at each of the four MFIs were targeted. A 3% sample was drawn from the total number (12,425) of active borrowers amounting to a maximum sample size of 379 borrowers. Those were then stratified by MFIs and size of loan within the ranges: JD1000 or less, between JD1000-JD3000, and JD3000 or greater. More emphasis was placed on strata of loan size greater than JD1000.

In order to obtain information of the active clients' status as of January 2002 and not rely on recall, files of active clients as of January 2002 were randomly pulled out and relevant information recorded. The file that did not include recorded information of sales and employment as of the first quarter of the year 2002 was discarded and an alternative was pulled out.

The following client sample was actually reached:

MFI	Loan size range			Total No. of Clients
	JD1,000 or Less	Between JD1,000 and JD3,000	JD3,000 or Greater	
MFW	105	-	-	105
AMC	-	49	17	66
JMCC	28	50	3	81
CHF	43	49	35	127
Total no. of clients	176	148	55	379
% of pop	2%	5%	5%	3%

All of the 379 clients were active borrowers as of January 2002 and have received a loan during the first three months of the year.

Data Collection of January 2002

In order to apply a unified approach to data collection, a data collection form compiling the application forms of the four MFIs was designed and used in filling in data pulled out from the randomly selected files of each MFIs. The form included data that would be necessary for locating and contacting those same clients upon following up their status by end of 2002 and later periods. As such, information in terms of telephone numbers, location map, and address was recorded.

Actual visits to MFI branches took place. Active client files were randomly selected using the electronic list of file numbers. The loan officer or the authorized person with access to clients' files pulled out the randomly selected file numbers. Priority in completing the targeted sample was for clients receiving loans in January. If the number of clients was not sufficient, researchers were obliged to compensate the shortage from clients receiving loans in February, and March of 2002 respectively. Also, any file that did not contain information of loan officer name, loan amount, monthly sales, or number of employees was ignored and was replaced by an alternative. This was the case for most of CHF files referred to as gold loans.¹

Any further information related to contact information and number of female employees were obtained from the loan officer in most cases.

Jordan Access to Credit Project (JACP)/CHF

CHF main branch, located in Amman, also keeps files of clients of their other eight branches, namely: Kerak, Madaba, Irbid, Ma'an, Tafileh, Aqaba, Wadi Mousa, Jerash. Herein, only the main branch was visited. For all application forms that did not include information of how many women employees were working in the business the loan officer helped the researcher in obtaining this figure since s/he personally knows the clients and their businesses. CHF has stopped their group loans before January 2002, therefore no group loans were taken into consideration in the sample.

Ahli Microfinancing Company (AMC)

The researchers visited the main branch located in downtown Amman and the Middle East branch to cover the sample of AMC. AMC refused to provide researchers with contact information related to their clients. File numbers were recorded instead of names to facilitate annual reviews when needed. The loan officer or the office manager provided the following information: name of loan officer, loan amount, monthly sales, number of employees, and how many employees were women.

Jordan Micro Credit Company (JMCC)

Randomly selected files from an electronically printed list of clients as of January 2002 were selected. The authorized person who has access to files was asked to pull the files out for the researchers to record the needed information into the data-collection form. The sample was from the main branch located in Amman and from the branch of Baqa'a (the only two offices of JMCC).

¹ *Gold loans are loans that are guaranteed by the value of gold that is under the authority of a bank until the debt is fully paid

Microfund for Women (MFW)

Individual and group loans clients were targeted; however, members of the group loans were treated individually, meaning that each member in the group was treated as a different client of MFW. A distinct questionnaire with her own loan amount and employment and sale information and was filled. MFW branches of Rusaifa, Irbid and Nazal were the source of most MFW sample of clients since they serve the largest population of clients and cover the widest areas.

Also, since MFW records its clients' sales information as per 'good' day and 'bad' day figures, the monthly sales were calculated as the average multiplied by 30 days.

Compilation of Data

Clients were identified either by their form number, group number, or name. The loan officer of each client was also identified. In fact the loan officer has been the main source for obtaining women employment, and was responsible for obtaining status of client as of end of December 2002.

By the end of this data collection phase. All clients' information was digitally entered. In specific, data of client's identifier, coordinates, name, loan size, and the employment and sales figures were recorded in an Excel sheet.

Data Collection of December 2002

The loan officers at each MFI were responsible for contacting the same selected clients and obtaining their current status in terms of monthly sales and employment figures as of December 2002.

To facilitate this process, CDG provided for each loan officer a list with the selected clients that s/he are following up with, as well as the actual forms filled with all relevant loan information, coordinate and contact information.

The loan officers were asked to fill in their clients' information of December 2002.

Again this data was entered for all clients into the Excel spreadsheet.

The following data collection criteria were adopted for December 2002 status:

- If the client closed his/her business then the employment and sales figures were recorded as Zero amount
- If the client has stopped borrowing and is no longer a client of the MFI, and could not or would not provide information, then figures of December 2002 were reported as missing.

Obstacles

- Information and papers within clients' files are not organized, clearly written, or easily accessible. Retrieving contact information as well as the three elements of information was not always possible. In some cases files did not have the complete set of contracts and application forms needed to gather this data.
- No women employment data is recorded by any MFI. For the purpose of this study loan officers and sometimes clients were contacted to obtain the

information. For female clients, a minimum of one woman is considered employed.

2. Study Results

The results of the statistical analysis of the gathered information indicate that **there is no relationship between the loan size and the indicators under measure namely the monthly sales, employment, and women employment.**

The following issues are at hand:

Annual percent increase in sales indicator

- 1- The sales data recorded by MFI is not proportional to the obtained loan, in fact there is no relation between the size of loan and the amount of sales. This is due to the fact that the sales maybe large but purchases are large too and so the net profit is small, as such a client may have obtained a loan for JD1000 while his sales are JD10,000, and vice versa.²
- 2- This also indicates that “increase in sales” indicator value may not be an accurate measure for the increase in income of population.

Annual percent increase in employment indicator

- 3- The employment data recorded by MFI is not proportional to the obtained loan; in fact there is no relation between the size of loan and the number of employed persons.

Population figures

- 4- The only population distribution available at MFIs is the number of clients per loan size. There is no distribution of the population of clients in terms of monthly sales or employment.
- 5- This in turn rules out obtaining a proper sampling frame compatible with the required statistics of the concerned indicators which is adopting two samples to estimate the population statistical measures (mean, variance) of sales and employment, where one sample would be drawn based on stratified sales figures, and another based on stratified employment figures. Since population and distribution is not known, these samples cannot be used to estimate the population statistics.

Based on the above, the obtained statistical results for the employment and sales indicators are not reliable estimates. The major cause of this is the fact that the sampling had to depend on the loan size population of clients while the required statistics of sales and employment have no dependency relationship on the loan size. In fact the analytical results show that the sales and employment data within any loan size strata is very dispersed; that is its variance is very large. This indicates that estimation of the population mean cannot be done using the sample mean, and the measure will not be accurate at all.

Statistical Results:

The following statistical results help explain the above discussion. Please note the large standard deviation values in all cases.

² As explained by the loan officers at the different MFIs

*Statistics of January 2002***January 2002 Statistics by Loan Size**

Loan Size range (JD)	Statistics			
<=1000		No. of Employees	No. of Women Employees	Monthly Sales (JD)
	Sample Size	176	176	176
	Mean	1.25	0.8579545	628.8920455
	Standard. Deviation	0.831521841	0.8330627	889.6852058
	Variance	0.691428571	0.6939935	791539.7654
>1000- <=3000		No. of Employees	No. of Women Employees	Monthly Sales (JD)
	Sample Size	148	148	148
	Mean	1.621621622	0.3243243	2540.236486
	Standard. Deviation	1.012879007	0.6411747	4899.31511
	Variance	1.025923883	0.411105	24003288.55
>3000		No. of Employees	No. of Women Employees	Monthly Sales (JD)
	Sample Size	55	55	55
	Mean	3.509090909	0.5272727	6098.181818
	Standard. Deviation	4.090968948	2.3558795	7513.510754
	Variance	16.73602694	5.5501684	56452843.86

*Statistics of December 2002:***December 2002 Statistics by Loan Size**

Loan Size range (JD)	Statistics			
<=1000		No. of Employees	No. of Women Employees	Monthly Sales (JD)
	Sample Size	176	176	176
	Mean	1.125	0.7329545	506.25
	Standard. Deviation	0.95991071	0.9147954	808.7036363
	Variance	0.921428571	0.8368506	654001.5714
>1000- <=3000		No. of Employees	No. of Women Employees	Monthly Sales (JD)
	Sample Size	144	144	144
	Mean	1.590277778	0.3194444	1665.840278
	Standard. Deviation	1.073607046	0.6105458	1775.625802
	Variance	1.15263209	0.3727661	3152846.988
>3000		No. of Employees	No. of Women Employees	Monthly Sales (JD)
	Sample Size	55	55	55
	Mean	3.436363636	0.6727273	4602.727273
	Standard. Deviation	3.531674854	2.3652934	5239.119397
	Variance	12.47272727	5.5946128	27448372.05

Unreliable Measure of Population Estimate for January 2002

	Employment (person)	Women employment (person)	Monthly sales (JD)
Estimated Population Mean	1.553582108	0.699798	1603.929437

Unreliable Measure of Population Estimate for December 2002

	Employment (person)	Women employment (person)	Monthly sales (JD)
Estimated Population Mean	1.455789414	0.6290915	1172.019086

3. Conclusion and Recommendations

Based on the above discussion, three major issues are at hand:

- a. The applicability of the adopted indicators in measuring the microfinance impact in Jordan: As explained above, the involved MFIs do not collect enough information to allow for proper sampling and analysis of results. Also, collection of such information is not an easy task in Jordan, and would require strict reporting standards, very close follow up, and rigorous verification of obtained information. All requiring time and effort.
- b. The relevance of the adopted indicators in the assessment of the impact of microfinance: Based on this study, it was found that sales figures do not reflect an increase in income nor assess the impact on the financial situation of the entrepreneur. Other information such as purchases and fixed assets must be considered alongside the sales information to interpret and improvement in the economic situation of the clients' community. Also, employment in Jordan at the micro enterprise level revolves around self-employment and unpaid family help, whether from females or males of the extended family, versus increase in salaried employment; therefore accurate follow up of this indicator is not easily achieved.
- c. The current process of assessing the impact on a single point-in-time to prove whether or not the microfinance programs are having impact on the community, cannot provide trend analyses, and the collected information cannot be used for any other purpose.

Therefore, a shift in paradigm should occur upon considering the development of a system to measure the impact of microfinance services in Jordan. This system should be a tool incorporated into the loan application system and focusing on improving data use for measuring progress and effects rather than proving results. It should be adopted as an ongoing internal impact monitoring tool for management to analyze data on a regular basis. This impact data would be used to make critical strategic decisions and for lobbying for funding from donors.

Moreover, currently monitored indicators should be reviewed and new ones should be adopted. These must better reflect the economic impact of a microfinance loan on a Jordanian entrepreneur, and their measure could be easily gathered by the loan-officer.

Thirdly, a consistent data collection methodology should be set, preferably based on automated techniques and computerized input.

4. Recommendation for Next Steps

Suggested Methodology of Information Collection

Developing an instrument to reliably measure impact on a regular basis will require that we change the paradigm we use when we think about impact measurement. The current paradigm is that of assessing the impact on a single point-in-time to prove whether or not the microfinance programs are having impact on the community. This cannot provide trend analyses and collected information cannot be used for any other purpose. Therefore, a shift in paradigm should occur to develop an impact monitoring tool that is incorporated into the loan application system and focus on improving data use for measuring progress and effects rather than proving results, and to adopt an ongoing impact monitoring as an internal tool of management that will analyze data and on a regular basis. This impact data may be used to make critical strategic decisions and lobby for funding from donors.

As such the line tend to blur between impact monitoring and impact assessment, where impact monitoring is the assessment of the performance of a project against its internal targets by gathering ongoing or current information on a regular basis, while impact evaluation is assessment of a project against its main objectives at a particular point.

To achieve this continuum:

- Data collection tools must be incorporated into the regular routine of data collection in the MFI and become part of the regular information system of the institution
- Data will be collected and analyzed by staff members
- Data collected and analyzed will remain consistent over time and location, allowing for trend analysis and comparisons with previous impact data and data of different geographic areas and periods of time
- Information will be stored in a MIS (database) which allows for a wide variety of reports and comparisons between various
 - input factors such as loan size, business type, location, and
 - subsequent impact indicators such as changes in income, sales, durable household goods, equipment, assets, salary of owner and employees, expenses, number of employees etc., and
 - cross-sectional comparison of clients and non-clients, multi-year clients and one-year-or-less clients; etc.)
- The analyses results will be reviewed on a regular basis and become a key part of the planning process.

The process of impact monitoring should start with a good base of information that is tracked regularly in a form that can be assessed in many different ways. Information should be standardized so that it can be audited on a regular basis.

Data Collection Scenarios

The MFI's staff members would collect baseline information on important financial data needed to assess the loan as well the adopted impact indicators for their clients at the time of the first loan as a part of the loan application process and at subsequent points thereafter (Staff may enter the information directly into the database). When clients reapply for loans, the data is collected again. This allows for tracking changes in these indicators over the time that the client borrows from the MFI. Also, this data could be updated on an annual basis and upon exit or departing of client.

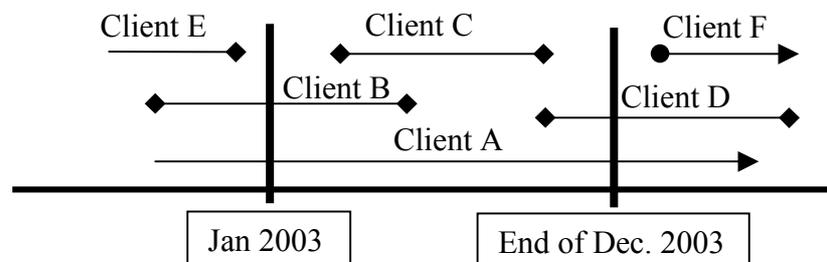
This process will keep longitudinal data on the business as well as personal income, but it also means the system does not track clients who have left the program, and data is kept for irregular intervals of time. But since it is computerized in a database, information may be analyzed based on different conditions and for different time periods as mentioned above.

On a periodic basis (semi-annually or annually) the MFI would analyze this data to determine trends amongst its clients and may later conduct deeper investigation into the issues raised in this analysis through client surveys or focus groups.

Consultants and experts could be involved to suggest improvements in the information collection process, and assist MFIs to think through the implications of the impact analysis on their activities.

Computer based methodology

Scenario for MFI's impact monitoring through their MIS:



- 1- Considering the time period of Jan 2003 – December 2003 as an example, MFI may collect data of needed impact monitoring information for persons that were clients at the start date of the monitoring period (e.g. Jan 2003). This will provide the base for later information updates.
- 2- What will annually be assessed is the change in the indicators collected (e.g. employment and income figures) of clients that were existing during the period of Jan 2003 till Jan 2004 regardless if active or not by end of December 2003. Therefore, these indicators may be updated for example every time a client is followed upon, performs a payment, visits the MFI, apply for a repeat loan, etc.

Considering the span of the time period there will be the following types of clients:

- a. Active clients by end of time period (e.g. December 2003) who:
 - i. Started borrowing during 2003 – Client type D
 - ii. Started borrowing during 2002 – Client type A
- b. Inactive clients by December 2002 who:
 - i. Started borrowing in 2003 and stopped being clients/loan closed before end of Dec. 2003 – Client type C
 - ii. Started borrowing in 2002 and stopped being clients/loan closed before end of Dec. 2003 – Client type B

- 3- If frequent data collection is not possible, then at least the following should be recorded into the MIS for all existing clients during the time period (e.g.2003):
 - a. Indicators data as of period start (January 2003) are entered in MIS for all clients existing during Jan 2003 - Client types A and B.
 - b. During period follow up where indicators data is collected for all clients during 2003 at least twice: upon first becoming clients - Client types D and C, and upon loan closure during 2003 - Client type C and B.
 - c. Annual follow up for all existing clients at end of period (December 2003), Client types A and D, to update indicators data as of end of period.
- 4- Change in indicators values (e.g. employment and sale figures) during the time period (Jan. 2003 till end of December 2003) will be calculated for the total population of existing clients during 2003. For our example, it will be as follows:
 - a. Annual increase in sales is the SUMMATION of all following values:
 - i. Client A sales = Sum(Sales reported at start of period Jan. 2003 – Sales as of Dec 2003) for all Client A borrowers
 - ii. Client B sales = Sum(Sales reported at closure of loan – Sales as of Jan 2003) for all Client B borrowers
 - iii. Client C sales = Sum(Sales reported at closure of **last** loan taken – Sales reported at first becoming a client) for all Client C borrowers
 - iv. Client D sales = Sum(Sales as of Dec 2003 – Sales reported at first becoming a client) for all Client D borrowers
 - b. If project has been canceled or stopped then, employment and sale figures must be reported as ZERO

The same is repeated for the employment and for women employment.

Three major obstacles will be faced:

1. The current MIS software should be modified to accept periodic tracking of the specified indicator values (e.g. sales and employment) instead of a one time entry field, and may even hook them to the application and payment forms.
2. Initial data entry of clients' information will be the major obstacle encountered during 2003, but it is not insurmountable. Similar processes such as that adopted by the researchers for this study could be followed and specified indicators values entered directly into the MIS. This initial effort may be done through external help.
3. Instilling new processes for continuous collection of monitoring data by the field officers, as well as for entering this information to the MIS database. This is necessary for a continuous impact monitoring and could be made more efficient and less costly if loan officers are trained to enter this information by themselves to the database.