

Working Paper  
in Economics and  
Development Studies



Department of Economics  
Padjadjaran University

No. 200601

**The Impact of Microfinance to Micro  
and Small Enterprise's Performance  
and the Improvement of Their Business  
Opportunity**

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August, 2006

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# **The Impact of Microfinance to Micro and Small Enterprise's Performance and the Improvement of Their Business Opportunity**

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## **Background**

Small and Medium Enterprise (SME) are perceived to have a role in developing the national and regional economics; moreover, since the Indonesia economic turbulence that start in third quarter of 1997. A year after the turbulence, data on the number establishment and the SME ability to absorb the workforce show an increasing trend. This has causing the nominal value of the SME to Gross Domestic Product (GDP) are increasing from 39.8 % become 59.4 % (CBS and Bank Indonesia Report). These development shows that in general the existence of the MSE has the capabilities to increased it role to the economics, despite the external condition result from the economic turmoil are not entirely recover. The Indonesia economic crisis also show that Big Scale, including conglomerates, have a fragile structure, one of the main cause is their weighed debt, contrast with the SME. With all this facts, it is logical if the attention to SME business development have to be increased.

In 2003, number enterprise that is documented in Indonesia by the official statistics is 7,059,268 unit, and 99 percent of that figure are classified as small scale business, while the other type of business only show a very small portion compared to the small scale business. (FYI, only 0.12 percent of the figure shows medium scale enterprise and the least is the big scale enterprise). These figures indicate a huge of potential form the MSE if it is run optimally. Base on that fact, from now on, this study will discuss part of SME, which is called Micro and Small Enterprise (MSE).

From the financing side, it seem that the change in the number of MSE also accompanied by the increasing in credit<sup>2</sup> supply from the banking sector, the data show that this figure show an increasing trend from period to period. Data by Bank Indonesia documented, until the first quarter 2005, a nominal of credit to the MSE have shown a growth 2.8% compared to the last year.

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<sup>2</sup> From now on we will use the term loan and credit interchangeably.

**Table 1.1. Outstanding Small Enterprise Credit of the Commercial Bank in West Java Province 1998-2005**

Year	Outstanding credit (million rupiah)	Growth of Credit (%)
1998	8,493,386	-
1999	8,891,079	4,68
2000	9,152,910	2,94
2001	10,708,475	17,00
2002	10,904,923	1,83
2003*	9,542,782	-12,49
2004	9,590,793	0,50
2005 <sup>+</sup>	9,859,743	2,80

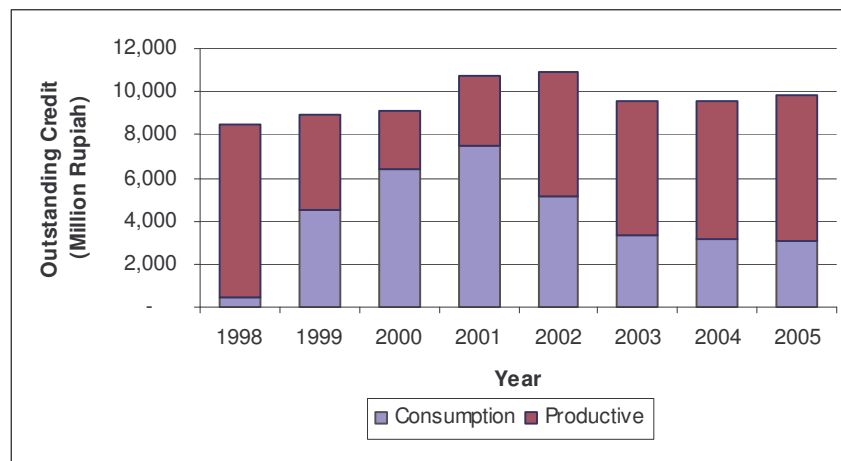
Source : Regional Economics and Financial Statistics of the West Java Province Bank of Indonesia, May 2005

Note : \* Since August 22003 excluding Banten

+ Until April 2005

If it sees more thoroughly, the outstanding credit figure by the banking sector to small scale business between 1999 until 2001 are use not for the productive ones. But since 2002 share of the productive credit slowly increase. A more complete picture about the share of productive (that is credit for working capital and investment) and the unproductive can be shown in chart 1.1

**Chart 1.1. Share of Consumption and Productive Credit In West Java 1998-2005**



Source : Regional Economics and Financial Statistics of the West Java Province, Bank of Indonesia, May 2005, processed.

The need for banking infrastructure that fit with MSE characteristics is prerequisite for the optimal intermediary's role by banking sector. Several studies show that there is a difference in credit valuation process that is adopted by the conventional bank with MSE characteristic, this finding considered as one of the factor that discouraging the credit transmission process. LP3E FE UNPAD (2003) studies conclude that the factor can reducing MSE willingness to propose a credit to bank is the collateral condition. On the other hand, the conventional bank doesn't make any special treatment to all credit proposals regarding the size of their business. For them as long as the business can meet the criteria then the bank will give credit to that business (prudential banking rule).

As mention in the above, that banking infrastructure is needed to increase the intermediary's function of the bank. But in the real world, bank faces some difficulties in form of geographical factor, so they have limited capabilities to give a credit to outreach area. This condition will make them to expend a huge cost to make banking infrastructure in those area.

Because of that reason then it seem plausible that there some kind financial institution (both formal and informal) in the outreach area that trying to grabs a benefit from the potential the demand of credit for MSE. According to the preliminary studies by the World Bank in Indonesia states explicit that in the outreach area found several financial institution that take the role of the banking sector, such as BRI Unit, BPR, KUD and private financial institution and loan shark.

Literature called that those activities as microfinance phenomena. Since story from the successfulness so far are Grameen Bank (Bangladesh), BanoSol (Bolivia), and BRI (Indonesia).

For Indonesian case, BRI and BPR are the backbone of the microfinance scheme. Furthermore BRI is become the example for the country that are going to develop their microfinance activities with a source of fund that is originated from the ability of the people in rural area. Table 1.2 shows number of BRI Unit and BPR in West Java and in Indonesia by the year 2003.

**Table 1.2. Number of BRI Unit Office and Rural Credit Bank (BPR)  
In West Java and Indonesia 2003**

<b>Region</b>	<b>BRI</b>	<b>BPR</b>
West Java	550	612
Indonesia	4,755*	3,442

Source: Indoensia Financial and Economic Statistic, Bank Indonesia, 2004  
BRI Website ([www.bri.co.id](http://www.bri.co.id))

Note: \*including one branch office in the abroad and eight syariah branches.

BRI has become the part of the history of the development of the Indonesian Financial Institution that are formed and evolved from the bank that specialized in giving agricultural credit, BIMAS, into the the bank that the most dominant in running and managed money from the rural people.

In Bandung area-including some area in West Java Province consisting Bandung City and District and region like Cimahi City- the amount of micro credit (in BRI term Kupedes) that can be transmitted is approximately 12 million rupiah

The city of bandung which are the capital city of the West Java Province are part of the Bandung region which consist Bandung City, Bandung Municipality, and Cimahi City. Each of these districts has their own characteristic that makes them unique. This study only includes two out three possible areas that classified as Bandung region. Cimahi city is excluding considering the area is still new and unstable.

Bandung city is populated by 2.3 million people (Regional Socio Economic Survey, 2004) have the capabilities in producing 7.17 trillion rupiah in terms of Gross Regional Domestic Product (GRDP). The activities dominated by trade sector that is 31.9%, manufacturing sector 30.8%, and other sector (beside those two sector) are 37.24%.

From the financing side of conventional bank, in Bandung City, the amount of credit which can be transmitted is 11.4 trillion rupiah, from at least 52 banks. The share of small scale credit at 2003 is 20.13% from the total of outstanding credit.

**Table 1.3. Seleted Regional Economic Indicator  
of the West Java, Bandung City and Bandung District 2003**

Indicator	Unit	Region		
		Bandung City	Bandung District	West Java
<b>GRDP Constant 1993</b>	Million Rp	7,173,857	6,754,825	68,486,252 <sup>a</sup>
<b>Population<sup>b</sup></b>	People	2,290,464	4,134,504	39,140,812
<b>Area<sup>b</sup></b>	Km2	167,27	2,000,91	34,816,96
<b>Outstanding Credit of the Commercial Bank<sup>c</sup></b>	Million Rp	11,143,448	5,561,323	47,769,478
<b>Outstanding Small Enterprise Credit<sup>c</sup></b>	Million Rp	2,243,572	243,495	9,290,975
<b>Number of Bank<sup>d</sup></b>	Unit	68	81	651

Note :  
a. excluding Banjar City, tahun 2003  
b. Data 2005  
c. Without foreign currency credit, 2003  
d. Data 2002, include BPR

Source : West Java in Figures, various edition  
[www.jabar.go.id](http://www.jabar.go.id) (regional socio-economic survey, 2004)  
Regional Economic and Financial Statistic West Java, Bank Indonesia, January 2004 edition

Meanwhile in Bandung District, with the area size 2000 km <sup>2</sup>, the amount of the economies activities that can be produced is about 6.75 trillion rupiah. If we see in per sector, more than half the economics activities contributed by manufacturing sector while the other two sector can only contributed a modestly.

From the financing source, the amount of credit that flow to the Bandung District until the end of 2003 is 5.6 trillion rupiah source from 17 banks. The amount of the credit that the small scales get from the banking sector reaches 243 billion rupiah.

Based on that facts and study, then we interested to know the relation between the microfinance scheme (BRI) to MSE business. The areas of the study only cover two region that is Bandung City and Bandung District.

The organization of the paper will came as follows. Section 2 will describe the statistical description of the variable that we try to explore in this study. In section three we will employ an empirical examination of the relationship between the microfinance scheme and the MSE performance. Concluding remark will come at the last section.

## Section Two: Statistical Description

### Respondent

From the sampling criteria that had been set in the beginning of this study, two BRI branches are selected to represent the Bandung City and Bandung Municipality region. BRI Unit Cijerah is used to represent the former while BRI Unit Padalarang represent the latter.

Number of respondent, that are using as a unit analysis, are 273 business unit consisting 106 respondent in BRI Unit Cijerah and 167 business unit in BRI Unit Padalarang. From the administrative side, those sums of the respondents are spread out in 39 *desa* which are grouped in 10 *kecamatan*. The two study areas are represented by five *kecamatan* each. Bandung District is represented by 16 *desa* while Bandung City represent by 23 *desa*.

**Table 2.1 Number of Respondent, Villages and District**

**by BRI Respondent Residential**

Description	Unit	Cijerah	Padalarang	Total
Number of respondent	unit usaha	106	167	273
Number of Village		16	23	39
Number of District		5	5	10

Source: author calculation.

Name of the *desa* that Bandung District respondent situated are Bojongkoneng, Campaka Mekar, Ciburuy, Cilame, Cimanggu, Cimareme, Cimerang, Cipeundeuy, Citatah, Gadobangkong, Jaya Mekar, Kertajaya, Kertamulya, Laksana Mekar, Mandalasari, Margajaya, Mekarsari, Ngamprah, Padalarang, Pasirhalang, Sukatani, and Tagogapu. *Kecamatan* that include include in BRI Unit Padalarang are Cikalong Wetan, Cipatat, Cisarua, Ngamprah dan Padalarang.

Meanwhile for BRI Unit Cijerah, respondent name of *kecamatan* are Andir, Babakan Ciparay, Bandung Kulon, Bojongloa Kaler, and Cicadas. *Desa* in Bandung City are Babakan, Caringin, Cibuntu, Cigondewah Kaler, Cigondewah Kidul, Cigondewah Rahayu, Cijerah, Garuda, Gempol Sari, Maleber, Mandalajati, Margasuka, Sukaasih, Sukahaji, and Warung Muncang.

### Loan Characteristics

Respondent of BRI these two BRI Unit can classified into several criteria. One of the criteria that would like to discuss in this section is loan characteristics. During the 2001-2004 average loan that the BRI Unit Cijerah respondent gets from the bank is 12.62 million rupiah. The maximum amount of loan in this BRI Unit is 50 million rupiah. Average loan period from these two figures are 12 and 24 month. Meanwhile the smallest loan realization is 2 million rupiah with 12 month period. Further calculation process show the standard deviation from the entire loan is 8.63 million rupiah. A relative wide of the deviation can be seen as the varieties of the loan realization giving by BRI to it's customers. Beside the varieties of the loan, BRI himself had a determined policy to carry micro credit scheme that is targeted for MSE. This has cause loan from a small into a huge one have to realize (smallest nominal amount loan is 2 million rupiah).

**Table 2.2 Description of the Respondent By Several Loan Criteria**

Description	Unit	Cijerah	Padalarang	Total
Average of Loan submission	Number	2.82	2.72	2.76
Average of Loan	Million Rp	12.62	7.01	9.26
Average of Loan Period	Month	17.68	16.95	17.24
Average of the ratio between realize per propose loan	%	83.69	80.55	81.85
Average of basic loan payment per month	Million Rp	0.77	0.44	0.57
Average of the interest payment per month	Million Rp	0.25	0.14	0.18
Average of the Total Loan Payment per month	Million Rp	1.02	0.58	0.76

Source: Author calculation

Because of BRI Unit Padalarang is also represented Bandung District administrative are then the selection of this BRI branch can represent the economic characteristic of Bandung District are appropriate. Using the same criteria as in BRI Unit Cijerah, then the respondent can be described as follow. Average loan that a respondent get from BRI Unit is 7.01 million rupiah, with its deviation on average is 3.77 million and the highest loan among respondent in BRI Unit Padalarang is 25 million rupiah (with 18 month loan maturity). The smallest amount of loan that receive by these group of respondent from BRI Unit Padalarang is 1 million rupiah (with loan maturity is 12 and 18 month). Difference in nominal of the average of loan in these two BRI branch are 5 million rupiah, this findings indicate that there is a difference characteristics between Bandung City and District. These include a difference in living standard, cost of production and many more.

During the period of 2001 until 2004, average number of proposed loan -that also realize- in BRI Unit Cijerah is 3 times (2.82 is the exact number). Details from these are there are 42 respondents that are proposed 2 times, as for 43 respondents are 3 times proposed a loan to BRI. In BRI Unit Padalarang average number of proposed loan have the same figure with in BRI Unit Cijerah. 70 respondents proposed 2 times loan to BRI Unit Cijerah, 75 respondents proposed loan 3 times, 21 respondents proposed loan 4 times, and there is one respondent thar proposed loan five times. These findings show that one average the respondent, in this case is MSE, have the ability to repay its loan with the one number of proposed loan per year as an indicator. These facts force the BRI to incorporate the high demand of the loan by managing loan maturity that is grouped as a small criterion. Findings from the field show that this 'managing' effort compensated by BRI with its loan repayment. These conclusions based on the amount of loan repayment (see table 2.2) monthly are 1.02 million rupiah, consist 770 thousand rupiah for the base loan and 250 thousand rupiah for interest payment. During 2001-2004 BRI set policy rate of interest fixed at the two percents. After these period BRI start to implement rate of interest that is endogenous with the nominal of loan and period of repayment.

One of the indicator that are useful using as an indicator to valuing credit worthiness is capital that is constructed from the business activities that debtor of credit had. (Rose, 2002). Business performance can be described by the flow of its revenue and expenses that can create business enterprise net income which can be accumulated into capital. Average respondent revenue -proxy by monthly sales- in BRI Unit Cijerah is 31.88 million rupiah and in BRI Unit Padalarang is 14.81 million rupiah. Standard deviation of these two numbers is 26.73 and 9.14 million rupiah. Standard deviation figure also can be represented the varieties of business scale in the respondent. These findings clearly show that it will affecting the loan repayment ability by the debtor. Expenditure side also show a similar conclusion that is the expense carried by the respondent on average is 30.28 million rupiah per month for BRI Unit Cijerah with 13.97 million as the standard deviation number for respondent in BRI Unit Padalarang 25.51 million rupiah and its deviation is 8.81 million.



One of the part of the expense that MSE, that are become the respondent of this study, have is the cost of good sold component. Cost of good sold are constructed by the summation of the expense that is pay for buying raw material, labor wage, cost for paying the utility service (include in this are electricity, phone bills, and water expense), tax or use fee that paid by the MSE, Household expense and other cost. All of this component of the cost of good sold can only be informative for MSE that have core business in non services. The nominal of the cost of good sold for respondent in BRI Unit Cijerah on average is 28.42 million (total 102 respondent that are include in the calculation) and BRI Unit Padalarang on average is 14 million rupiah (came from 14 respondent). Other cost component that is exclude from the cost of good sold cannot be identified further inasmuch of the data availability (BRI Form 70b).

**Table 2.3 Respondent average income and  
the cost of production (Million Rupiah)**

<b>Description</b>	<b>Cijerah</b>	<b>Padalarang</b>	<b>Total</b>
Average Income (as measured by sales)	31.88	14.81	21.61
Average of Expense	30.28	13.97	20.47
Average of the cost of good sold	28.42*	14.00**	20.63
Rata-rata pendapatan neto	1.58	0.88	1.16

Source: Author calculation

Note: \* n = 102 respondent

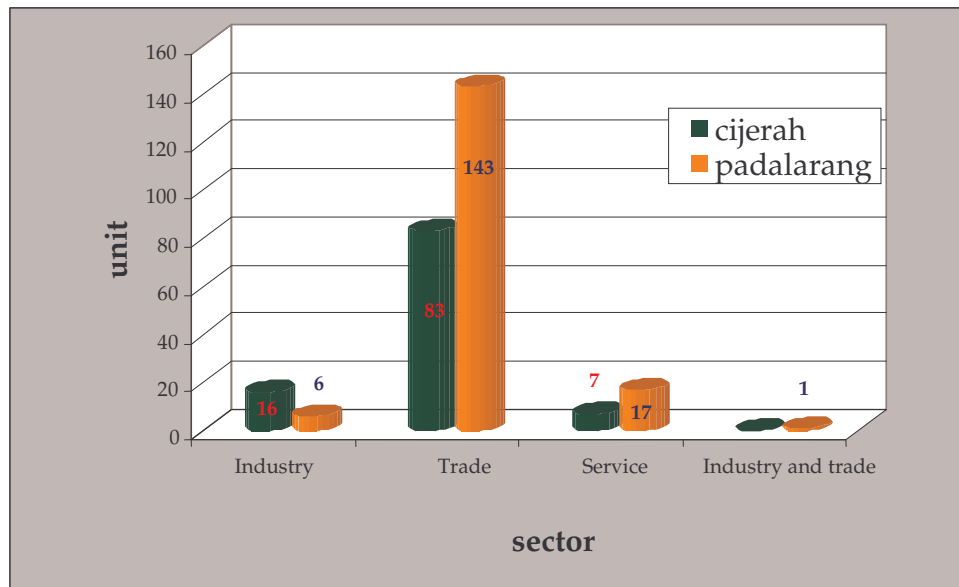
\*\* n = 148 respondent

Information on the revenue and expense side of the MSE are then use as proxy to find out MSE net income component. Average net income respondent in BRI Unit Cijerah is 1.58 million rupiah and respondent in BRI Unit Padalarang is 880 thousand rupiah. Part of the net income receive by the respondent then it will use as payment of the loan to BRI. Information about the respondent net income on the other side for the creditor (in this context is BRI) will useful to know how much the consumer ability to repay its loan, known as Repayment Capacity (RC). The RPC can only be calculated after BRI had the information about the estimated increasing in net income as cause by the loan that the customer gets. Tolerable RC is 75% from the estimated increasing net income due to the loan that they receive.

### **Respondent Other Characteristics**

A BRI customer that is selected as the respondent in this study can also be classified of by its business sector. Industrial, trade and service sector are the most common that we find in the respondent business sector. Most of the MSE didn't concentrate on one type of business sector. This pattern shows that the MSE have the capabilities to change its business in least of time (flexibility in term of business sector).

**Chart 2.1 Number of Respondent Group by Sector in  
BRI Unit Cijerah and BRI Unit Padalarang**

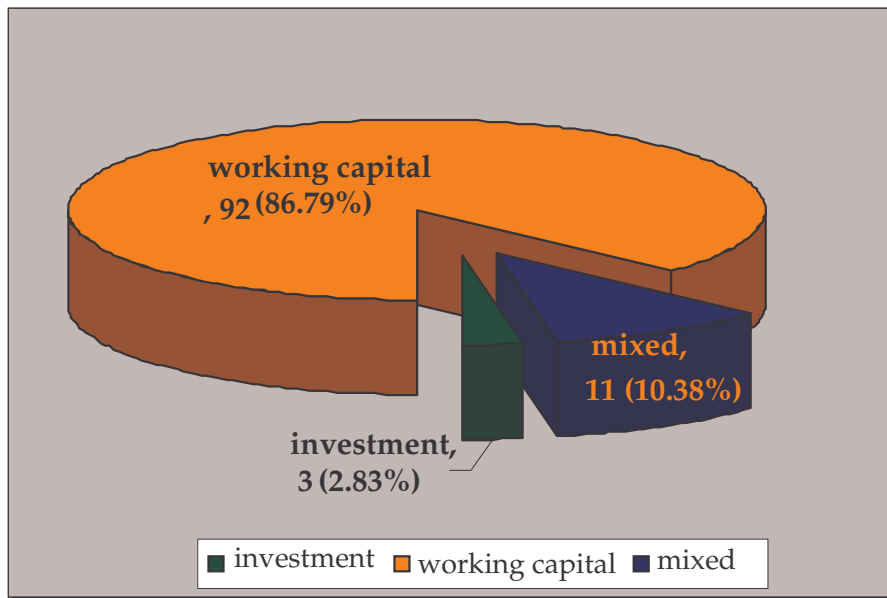


Source: Author calculation

Because of that finding, the selection of the business of MSE in this study are based on classification on the BRI loan, in which in that form we will find the type of business sector that run by the respondent. Based on that the composition of business sector that we find in the respondent in BRI Unit Cijerah are the following; industry 16 respondent (15.1%), trade sector 83 respondent (78.3%) and service seven respondent (6.6%). This composition also similar in the respondent of the BRI Unit Padalarang; 6 respondent classified to industry sector, trade is 143 respondent (85.63%) and service is 17 respondent. In BRI Unit Padalarang also we find that there is a respondent who are currently run its business that can be classified into two sector; industry and trade.

The composition of the respondent are inconsistent with our preliminary findings where the industrial are the dominant one. Tambunan and Gunardi (1996) state that loan to the MSE are concentrated in trade sector in spite of their relative risk to default. They also show that their findings can be explained in the relatively high of the turnover of the capital at that sector. Conventional bank will prefer giving loan to business in that sector than the other two.

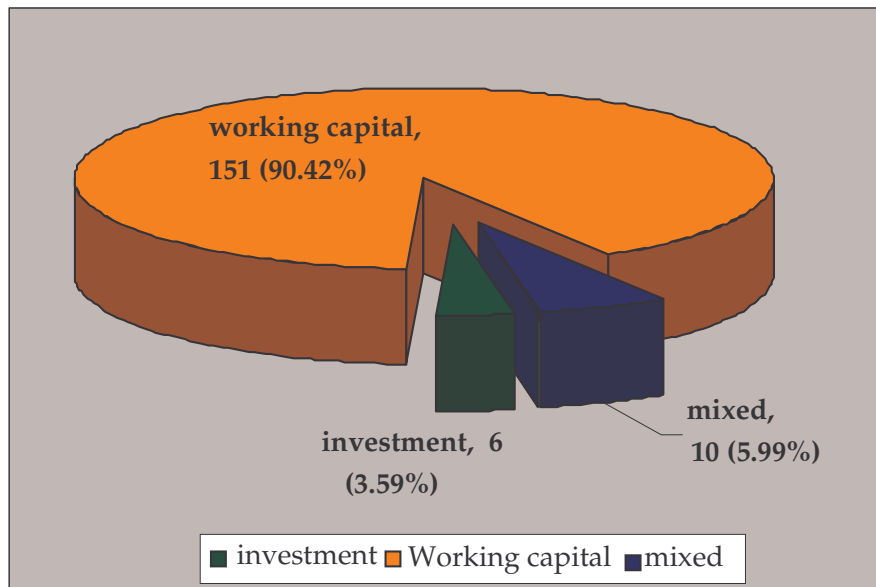
**Chart 2.2 Share of the Respondent Purpose of the Credit  
in BRI Unit Cijerah**



Source: Author calculation

A credit is also be can classify by it uses; Investment, working capital, and consumption credit. This study restrict only in investment and working capital loan as a unit analysis. Proportion of the loan that is proposed by the respondent in BRI Unit Cijerah are; loan that is used as an investment component of the business is 2.8 percent, loan to maintain the working capital of the business is 86.7 percent and the rest is loan that are giving to maintain both of the business component. While in BRI Unit Padalarang the composition is 3.59 percent loan to investment component, working capital is 90.42 percent and mixed between these two components are 5.59 percent. The relatively huge component of the working capital compare than the investment usually caused by the grace period of the loan in working capital is shorter than investment. Respondent can propose another loan to BRI if they can pay all its debt. This concludes that the business cycle of the MSE is relatively shorter than the medium and large enterprise. Beside of that, collateral requirement when proposing a working capital loan is relatively not as high as the investment.

**Chart 2.3 Share of the Respondent Purpose of the Credit  
in BRI Unit Padalarang**



Source: Author calculation

Other than capital, indicator that also has to well inform by the BRI or other financial institution is collateral. Studies by LP3E FE UNPAD (2003) states that collateral are one of the discouraging determinant for the MSE actor to propose a loan to bank. Regarding this issue, BRI has a policy to divided collateral into two types. First, fixed assets like empty land, building –alike with other conventional bank. Second, moved assets like vehicle, household equipment. For the latter type of collateral BRI has been a special from that targeted to a maximum amount three million loans proposed (K3 form). In this study, this kind of loan doesn't include within the sampling that is used for unit of analysis.

Type of collateral that usually use by BRI customer -as reflected in this respondent study- are empty land, land and building. Almost all the respondent in BRI Unit Cijerah are using land and building as the collateral for their loan (97.17%) only the least of the respondent that is using mixed of this type collateral (read: empty land, land and building). Only one respondent that cannot be identified it's the collateral. This composition of the collateral is indicating that is hard finding an empty land in urban area.

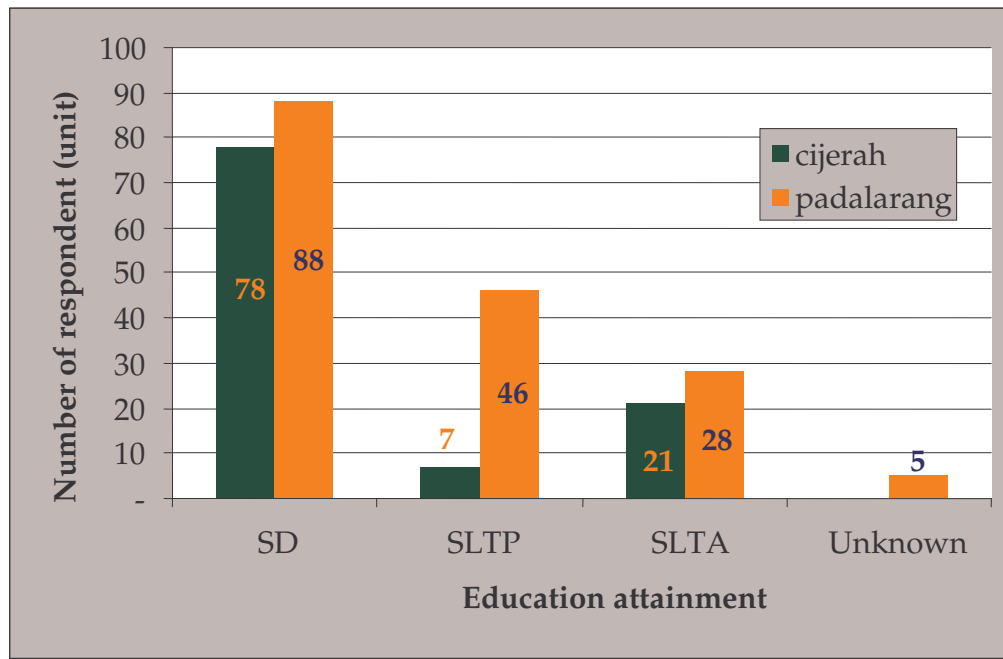
**Table 2.3 Number of Respondent  
Grouped by the Type of Collateral**

Type of Collateral	Cijerah	%	Padalarang	%	Total
Land (tanah darat)	-	-	10	5.99	10
Farm Land	-	-	1	0.60	1
Land and Building	103	97,17	148	88.62	251
Land and Farm Land	-	-	1	0.60	1
Land, Land and Bulding	1	0,94	5	2.99	6
Farm Land, Land and Building	-	-	2	1.20	0
Land and Building-Unknown type of collateral	2	1,89	-	-	2
<b>Total</b>	<b>106</b>		<b>167</b>		<b>273</b>

Source: Author calculation

Based on the education attainment; 73.59 percent respondent in BRI Unit Cijerah had the elementary school (know as *SD*), and 6.6 percent had junior high school (know as *SLTP*) only seven of the respondent who had the senior high school certificate. While respondent in BRI Unit Padalarang; 52.69 percent of the respondent had elementary school, 27.55 percent had junior high school, and 16.77 percent of the respondent had senior high school. There is five respondents that cannot be determined the education that he/she had. This findings show that the MSE actor didn't have a sufficient level of education and this finding also indicate that education doesn't to be the important factor to increase the MSE performance.

**Chart 2.4 Number of Respondent Grouped by Educational Attainment**



Source: Author calculation

Enterprise choose on its payment system to the supplier will have an effect to the enterprise cash flow. Cash payment system from the enterprise customer will cause the flow of supply good for input of production relatively unrestricted. On the contrary, non cash payment (credit) will reduce the good that is using as input production. Most respondent in the BRI Unit Cijerah choose cash and the mix between cash and credit as their payment system with their customers. Only small part of the customers that using credit payment system with their customers. In BRI Unit Padalarang, there are 96 percent of the respondent using the mixed between cash and credit and small friction use credit payment system. This picture describe that the MSE choosing type of transaction are depend on the customers so there is no MSE, on average, who are using only one type of payment system.

**Table 2.4 Number of BRI Unit Respondent  
Grouped by Its Payment System**

<b>Payments System</b>	<b>Cijerah</b>	<b>%</b>	<b>Padalarang</b>	<b>%</b>	<b>Total</b>
Cash	2	1.89	4	2.39	6
Credit	1	0.94	2	1.20	3
Cash and Credit	103	97.17	161	96.41	264
<b>Total</b>	<b>106</b>		<b>167</b>		<b>273</b>

Source: Author calculation

One of the factors that determined business performance is the marketing coverage of their product. Aside from the using of the applied marketing system, the marketing of the enterprise product also influenced by their coverage area. The facts that MSE have only a limited coverage area makes marketing of their product become limited. This conclusion is consistent with our findings from the field whether in BRI Unit Cijerah and BRI Unit Padalarang. In BRI Unit Cijerah, Most of the respondents (81.13 percent) sell their product to the local area (within the same district), two respondents that sell their product to the district within the West Java Province, and only three respondent who can sell their product nationally. Meanwhile there is 14 respondents that are capable to increase its scale of economies/business scale (whether from local are to across district, from across district to across province) during the period of the study. Only one respondent that is experienced a declining in the business scale. Similar finding also shown in the respondent of the BRI Unit Padalarang, 91 percent of the respondent only sell the product that they produced locally (in the same administrative area). 4 percent of the respondent able to market their product within the same district in Wes Java Province, we haven't met that there is a respondent who can sell their product nationally in BRI Unit Padalarang.

**Table 2.5 Number of the BRI Unit Respondent  
Grouped by Marketing Coverage Area**

<b>Wilayah Pemasaran</b>	<b>Cijerah</b>	<b>%</b>	<b>Padalarang</b>	<b>%</b>	<b>Total</b>
Local (within the same district)	86	81.13	152	91.02	238
Inter the District	2	1.89	7	4.19	9
Inter-Province	3	2.83	-	-	3
Expansion of the Marketing Coverage	14	13.21	8	4.79	22
Declining of the Marketing Coverage	1	0.94		-	1
<b>Total</b>	<b>106</b>		<b>167</b>		<b>273</b>

Source: Author calculation

### Assets Ownership

Understanding the MSE performance was subtle work at the first. This remembers that are only limited amount that can be using as an indicator for evaluating the MSE. But using a slightly modification of these indicator a more deeply understanding of the MSE performance are able to build.

Not all of the respondents of in this study give the information of their assets. Only 75 and 72 respondents in BRI Unit Cijerah and BRI Unit Padalarang are informing the assets data. From that amount the average value of the assets of the respondent in BRI unit Cijerah is 21.92 million rupiah with standard deviation figure is 14.54 million rupiah. In BRI Unit Padalarang the average of the assets that the respondent had is 13.34 million rupiah with 6.6 million rupiah as the standard deviation figure. The wide dispersion of the assets in the BRI Unit is caused by the variety in type and the business scale of the respondent.

**Table 4.4.1. Descriptive of Current Assets BRI Unit Respondent**

<b>Ukuran</b>	<b>Unit</b>	<b>Cijerah</b>	<b>Padalarang</b>
Mean	Million Rupiah	21.92	13.34
Standar Deviation	Million Rupiah	14.54	6.60
Maximum	Million Rupiah	85.00	44.00
Minimum	Million Rupiah	2.50	1.50

Source: Author calculation



### Section Three: Empirical Calculation

Besides using statistical descriptive as a mean to analyze behavior of the loan and MSE, this study also use simple bivariate regression model that are we going explained in the this section. One of the objectives of this study is to find the relationship between loan and the MSE performance. We using the standard ANCOVA model to find out the relationship between loan and the MSE performance that incorporate the difference in regional characteristic and the difference in type of sector that MSE currently running. We using dummy variable to capture the effect of the differences. In the second model we slightly modified Ahluwalia (1976) strategy in order to explain the effect of the incremental loan to MSE performance.

**Table 3.1 Summary of the Estimated Model**

av_sales	I	II
Constant	-0.2742 [1.323]	0.563*** [2.7550]
av_loan	1.1026*** [24.1624]	0.1872*** [15.2070]
DUM (1=if region is Bandung District; 0=otherwise)	-0.1057** [-2.4392]	-0.1328*** [-3.0133]
D_IND(1=if the sector is Industry; 0=otherwise)	0.9936*** [5.0527]	0.9708*** [4.8043]
D_TRADE(1=if the sector is trade; 0=otherwise)	0.9316*** [4.8926]	0.9837*** [5.147]
av_loan^2		-0.0026 [-9.588]
R-Square	0.8397	0.7974
Adj R-Square	0.8372	0.7936
F-Stat	349.5426	209.4487
DW-Stat	1.9899	2.1214
N	272	272

Note: \*\*\*significant at the level of significance 1 percent

\*\*significant at the level of significance 5 percent

Number inside of the parenthesis is t-stat

Source: Author calculation's

In Table 3.1 we show summary of the estimated model. After all the statistical properties have filled by the model then we ready to analyze the statistical relationship between loan

and MSE performance.<sup>3</sup> The estimated relationship between the MSE performance, proxy by its sales, and loan show a positive relationship. This result proved that the financing sector for the MSE is one of the main determinants in increasing their performance. The result of the study is also inline with several studies in the past, i.e. Mosley-Hulme (1999) state that a loan will have a positive effect on the people income, albeit they proxy of income that their using is household income. Mosley-Hulme argue the increased in society income will implied that their saving and collateral capabilities that they have will make investment option form them is much varied. The result of the study show that theoretically the objective of a loan is to increase business performance, as measured by their scale, and furthermore to increase the overall society income.

This study is also giving a similar indication as by Khandker (2003). Khandker (2003) study the impact of the microfinance scheme to consumption per capita of the income group that lived near the poverty line. Khandker conclude that there is a positive impact of the microfinance to those income groups. Keynes classical explanation of the consumption function can be used to explain these phenomena. He said that there is increasing in people income then the level of the consumption will also follow. Indirectly the result of this study also show the same indication as the Khandker did.

Conclusion from numerous studied in the past are can be summarize; First, the existence of the intermediaries institution will give a contribution to society, in positive meaning, especially to the debtor business development. Sinungan (1980) argue that a productive loan, in his context is microfinance, is using for the increasing the scale of the business. Second, the function of the intermediaries body is represented by microfinance activities will partially mean that the small scale business will have the opportunity to increase they business scale.

Solow classical explanation states that, at the aggregate level, the existence of the financial sector will help boosting nation economic growth through the saving transmission. The improvement of the quality in financial sector can be act as some kind of the selection process of the business actor in the economies. But in the case of the Indonesia Microfinance, in this we mean BRI type of activities in rural area, the selection of the business actor at the rural area are much depend on the BRI institutional evolving process not the market as hole. World Bank (2001) states explicitly that the BRI is one of the key financial institution players in rural area that evolved with this history of the Indonesia Economy. Inasmuch as the process made BRI have the capabilities to select the business actor.

Loan behavior and MSE performance are also determined by the difference in regional characteristics. From the two estimated equation we can see that the performance of the respondent that live in Bandung District is lower than the respondent in the city. The conclusion of the model is also consistent with the explanation using a simple statistical descriptive in section two.

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<sup>3</sup> The detailed test that we are using in this model is available upon request to the author.

Bandung city is situated in urban area, where trade as the dominant contribution to the economy, have been interest to the bank. Repeat what Tambunan and Gunardi (1996) that is trade sector have relatively lower in default risk compare to the other two sectors. The conclusion also implied that the respondent in urban area like Bandung City will have a greater opportunity. Also, Bandung City has the initial income that is higher than the Bandung District.

Meanwhile in Bandung District that have rural characteristic, with lower initial income, tend to have a smaller business in term of the scale than in the city. CBS (2004) noted that industrial sector was the dominant contribution in Bandung District economics. 44.16 percent was contributed by big scale business to this sector. A middle scale business is contributed 38.22 percent. Industrial sector in general propose a loan that aim for investment, either buying or replace the production machine. In microfinance scheme investment type is rarely to find. This remembers that:

1. Investment credit have longer loan period than the other two types of loan. BRI in particular give a maximum loan period 36 months. The longer the loan period then it will disturb MSE cash flow.
2. Investment credit usually has a bigger nominal amount of loan then the working capital. This will also make the collateral that have to prepare is also increased. Findings by LP3E FE Unpad (2003) find the collateral that restrict factor for the MSE.

Findings from the MSE in Bandung district, most of the respondent are currently running their business in the trade sector especially in daily activities business. Statistical description gives the same indication with this conclusion.

The effect of the business sector that the respondent currently running is also can be seen from the equation. From the equation we can tell that the respondent performance in the trade sector is higher than service sector. Industrial also have the same result when it compare with the service sector. These studies also support the findings by Tambunan and Gunardi (1996).

The second of the estimated equation give an interesting result, as can be show in table 3.1. Average loan will have the positive affect on the MSE performance; higher loan then the higher the MSE performance vice versa, but if the loan is increased in double amount then it will have a negative effect to the MSE performance. This result concludes that the incremental of the loan will have an adverse effect to the MSE performance. We argue that this result are causing by several factor, that:

1. With the humble type of business and simple minded “As long as the business work”, the MSE usually hard to separate the profit that results from their business with their personal needs. We find that sometimes the MSE loan payment came from other pos than the business income even when it necessary they will borrow to other parties.
2. Sometimes MSE borrow objectives to increase its business but in reality they will use the loan that they receive to use for other things outside the business itself, i.e. house renovation, their children education, etc.

3. Excessive of the MSE that come to BRI to become a customer make loosely services by the BRI credit officer that turn out that hard to control the loan that is using by the other means.

All of those fact or argument is realize by the BRI, this can be shown with preemptive policy that BRI creates:

1. To accommodate a demand of the non-productive loan, BRI create some kind of mechanism that the MSE can borrow from BRI for this kind of purpose with their business as the collateral.
2. For the MSE who doesn't have sufficient collateral, BRI gives loan facility with a maximum three million rupiah (K3 form) with home equipment as the collateral.
3. To anticipate the excessive demand by the MSE who are demand to become BRI customer, BRI has policy that the credit officer have to use a personal and family approach to the borrowers. This aims that the customer will open with their loan activities.

The result of this study is also complete Khandker (2003) finding that although the microfinance schemes have a potential to increase society welfare, proxy by the per capita consumption, that also to be cautious about is the marginal effect of the loan, especially for the MSE. One thing that has to be noticed about is the choice of the customer in microfinance scheme, the one that really need and have the capabilities are the one who supposed to receive this scheme. The last solution is aiming to overcome the adverse selection problem that is usually appearing in credit/loan market (Mishkin, 2003).

### **Concluding Remarks**

Results of this study find several interesting issues, such as:

- Microfinance has positive impact to improvement of MSE's Performance indicated by sales,
- The difference of regional characteristic of MSE is also play role in determining its business scale,
- Since doubling amount of loan has negative impact to the performance, it's very important to allocate the loan to the productive activities, such as investment, in the way to improve the business opportunity.