

# **INTERNAL DETERMINANT OF COMMERCIAL BANKS LENDING BEHAVIOR TO MICRO BUSINESS**

*A Case Study of South and West Sulawesi Province in Indonesia*

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## **ABSTRACT**

Penelitian ini mengidentifikasi faktor-faktor internal yang dapat membuat bank cabang komersil di Provinsi Sulawesi Selatan dan Barat tidak dapat atau enggan melakukan ekspansi kredit pada sektor usaha mikro. Berdasarkan hasil kajian dari berbagai literatur dan data yang diperoleh dari Bank Indonesia diketahui bahwa usaha mikro pada umum mengalami kesulitan untuk mendapatkan fasilitas kredit dari bank komersil sehingga sejumlah usaha mikro secara terpaksa mengambil pinjaman pada rentenir atau lembaga pinjaman lain yang terdaftar maupun tidak terdaftar. Akibatnya, mereka harus menanggung tingkat bunga pinjaman yang sangat besar hingga dapat mencapai 5% perbulan. Hal ini tentu sangat berdampak pada pengembangan dan kelanjutan usaha mereka.

Penelitian ini menggunakan metode Stuctural Equation Modelling (SEM) untuk menguji hubungan laten variabel dan menggunakan Confirmatory Factor Analysis (CFA) untuk menguji realibilitas dan validitas latent variabel sekaligus menganalisa indikator-indikator yang dimiliki oleh kedua variabel tersebut. AlatLatent Variabel yang digunakan dalam penelitian ini adalah laten variabel faktor internal yang didefinisikan oleh ketersediaan dana pada bank cabang, peran manajer bank cabang, kebijakan kredit bank cabang, dan tingkat bunga pinjaman. Kinerja kredit dijelaskan oleh indikator profitabilitas, kredit macet, dan volume kredit pada usaha mikro.

Penelitian ini menggunakan sampel sebanyak 197 petugas kredit (Loan officers) mikro pada tingkat bank cabang pemerintah, swasta, bank asing dan campuran, serta bank daerah di 25 kabupaten/kota di wilayah Provinsi Sulawesi Selatan. Berdasarkan pengujian reliabilitas dan validitas terhadap konstruk variabel, hasil statistik menunjukkan bahwa kedua variabel tersebut valid dan handal. Pengujian terhadap indikator variabel juga menunjukkan hasil signifikan. Artinya, setiap indikator yang diteliti dapat digunakan untuk menjelaskan variabel latennya.

Berdasarkan pengujian dengan menggunakan SEM, hasil penelitian menunjukkan bahwa terdapat hubungan yang sangat kuat antara kemampuan internal bank dengan kinerja penyaluran kredit pada usaha mikro. Hal ini berarti bahwa faktor internal yang dijelaskan oleh ketersediaan dana, peran manajer, kebijakan pinjaman bank cabang, dan tingkat bunga mempengaruhi keputusan bank cabang dalam menyalurkan kredit usaha mikro. Faktor internal tersebut dapat membuat bank enggan atau

tidak mampu untuk menyalurkan kredit pada usaha mikro, dan berdampak pada tingkat profitabilitas, volume kredit dan kredit macet yang dimiliki oleh bank cabang.

***Kata kunci: Kredit, Usaha Mikro, Cabang Bank Komersil, Internal Bank.***

## A. Introduction

The study is intended to investigate internal determinants that affect lending behaviors of commercial bank branches to micro businesses in the Province of South and West Sulawesi in Indonesia. This is initially motivated from the recognition that micro business play a critical role in supporting the regional economy in the eastern part of the country, especially that those businesses are major sources of livelihood for the poor. This is even more with the knowledge that to obtain funds, micro business often deal with formal and informal sources of credits with concept of payday loans making them to pay an extremely high interest, up to 30% per annum.

To mention possible benefits expanding loan portfolio to micro businesses, in a review on investment returns offered in Indonesia within the covered period of five consecutive years, the credit channel to micro business offers more returns relative to other investments; such as inter-bank lending, government bonds, Bank Indonesia Certificate [SBI] (see Table 1). The table indicates that the profit obtained from loans by rural banks was the highest among other investments, followed by loan items distributed by commercial banks. This indicates that micro businesses are prospective enough to be financed by commercial banks, since they are even able to cover repayment with a such high interest charged by rural banks.

**Table 1**  
**The Rates of Returns of Investment Products in Indonesia (2006 – 2010)**

No	Some Investment Options for Commercial Banks	Years				
		2006	2007	2008	2009	2010
1	Weighted Average Savings of the commercial Banks	6.41%**	4.68%**	5.55%*	4.36%*	3.95%*
2	Weighted Average Discounted of the Bank Indonesia Certificates (SBI)	11.56%	8.50%	9.31%	7.03%	6.27%
3	Weighted Average BI Rate (Overnight Money Market)	11.83%	8.65%	8.67%	7.15%	6.50%
4	Weighted Average Inter-Bank Placement	8.85%	6.07%	8.80%	6.90%	6.03%
5	Weighted Average JIBOR Interest Rate	13.97%	9.21%	9.40%	7.90%	6.71%
6	Weighted Average Base Lending Rate	14.43%	12.59%	12.03%	12.34%	11.39%
7	Weighted Average Working Capital Credits	15.99%	13.86%	13.60%	14.50%	13.25%
8	Weighted Average Investment Credits	15.73%	13.93%	13.07%	13.66%	12.63%
9	Weighted Average Consumer Credits	17.68%	16.87%	15.92%	16.54%	15.16%
10	Weighted Average Credits of the Rural Banks	25.65%**	22.7%**	30.56%*	31.45%*	30.01%*
11	Weighted Average Coupon of the Fixed Government Bonds***	12.65%	12.09%	11.85%	11.80%	11.40%
12	Weighted Average Coupon of the Retail Government	12.05%	10.67%	10.06%	10.03%	9.93%

Bonds***						
13	Weighted Average Variable Rate of Gov. Bonds (SBI 3 Months)	10.95%	7.38%	8.47%	6.95%	6.01%

Sources: Quarterly Monetary Policy Report by Bank Indonesia

Monetary Policy: Economic, Monetary and Banking by Bank Indonesia

\*Calculated from Indonesian Banking Statistic in the between 2006 – 2010 by Bank Indonesia

\*\* Adopted from a research Literature

\*\*\* Calculated from Indonesia Market Bonds Directory 2008 – 2009 by Indonesia Stock Exchange

Using the aforementioned parameters, the prospects of financing micro businesses in these two provinces appear to be profitable and economically rewarding. Below are some accounts on the external conditions in these two provinces.

**Profile of the Covered Areas.** South and West Sulawesi are strategically positioned since they, when combined, are amongst the fastest developing provinces in Eastern Indonesia as demonstrated by the socio-economic and political indicators, such as number of regencies, sub-districts, villages, and available productive labor force (Statistical Yearbook of Indonesia, 2012). Being one of the growth centers, branches of commercial banks in both provinces are more concentrated there compared to other provinces in Eastern Indonesia (e.g. Financial Banking Statistic September 2011).

In terms of numbers of business activities in the two provinces, it is recorded that registered MSMEs in South and West Sulawesi in 2010 was 751,631 units, of which 87.68% (695,095 units) were micro-enterprises, 11.72% (88,095 units) were small enterprises, 0.004% (3,129 units) were medium enterprises, and 0.001% (1,309 units) were large enterprises (antaranews.com 2010 and Provinsi Sulawesi Barat, 2011). Although data on the number of enterprises might

have changed within 4 years, the market share of micro and small businesses, in terms of loan disbursement, accounted to 6.26% and 14.2% of total credits respectively within these provinces (Regional Financial Statistic of the Bank Indonesia, 2012).

As to contribution to the Gross Domestic Product (GDP) at local and national level in 2011, MSMEs contributed around 56.65% of the total GDP in the covered provinces. Micro-enterprises had a higher contribution at 57.68% compared to small and medium enterprises at 15.6% (South Sulawesi in Figures, 2012). In the earlier 2007, at the national level, overall contribution of MSMEs in Indonesia reached 53.27%. Of this, micro and small business, and they were mostly operated in the sectors of agriculture, trade, and industries, garnered 50% share (Setyobudi, 2007).

Aside from numbers, micro enterprises are treated to be less vulnerable to global economic shocks as they produce services and goods mainly to meet local demand (e.g. Sartika 2004 and Setyobudi 2007). These businesses mainly depend on the purchasing power of local communities, which is dependent upon the economic activities in that area, including agriculture, trading, and services, among others. The indications of their viability were also

proven when a crisis overran Indonesia during the end of 1997 (Awalluddin 2008) and a global economic downturn in the beginning of 2008 (Purwati 2009).

Considering the bright prospects of distributing loans to micro business, the study is aimed to identify internal determinants that contribute to affect loan supply decisions made by bank branch offices to micro business customers or what internal factors that make commercial bank branches to be reluctant or unable to grant loans to micro business customers in the provinces of the South and West Sulawesi in Indonesia. How are these internal factors composed into an integrated model to affect loan supply decision to micro businesses?

## **B. Literature Review**

Bank branches that do not have an internal strength often do not want to extend more credit to certain customers to avoid more deterioration in internal ability until after they have a good internal soundness. With internal matters, bank branches tend to apply some possibly strategies which affect a decrease in loan disbursement to micro business customers, including investing collected funds into other portfolios like saving on other banks, choosing well known loan customers only, applying a tight lending policy in particular to new customers, and avoiding to extend credit to certain areas and/or businesses.

The effect of soundness of internal bank branches could make bank branches are unwilling to extend more loans to micro businesses. A study by Nuswantara (2012) to investigate loan disbursement to micro business by commercial banks, rural banks and

cooperative within 29 regencies in Central Java in Indonesia found implicitly that bank branches that face a problem with internal factors due to allocating more funds into demand deposit on another banks, thereby booking a decrease of 1.314% amount of credit to micro and small business and have less 4% number of customers as well. This condition is also consistent with a study done by Darvas (2013) in Europe that indicates a soundness of balance sheet and economic factors owned by bank branches could help SMEs to obtain largely access to commercial bank branches. Like in Europe and In Indonesia, Obamunyi (2009) in Nigeria finds that the ability of banks to provide loans to micro and small business customers in Ondo State of Nigeria is constrained by the amount of financial resources at their command based on the requirements imposed by central bank regulations.

Another lending behavior when internal factors show bad signs is that bank branches also prefer to provide loans to well known customers only or less risky customers to avoid severe deterioration in internal ability. Blanchflower et al. (2003), and Shollapur and Baligatti (2010) noted that bank branches that faces scarcity in funds would rather make a very selective decision in granting loans, and they would tend mostly to provide loan to certain customers only or to existing borrowing customers, like those who have a good reputation customers or well known applicants, than to new applicants. Those study, however, do not indicate explicitly the effect internal soundness of bank branches to micro applicants, but to whole loan customers. A

research conducted by Research Development Agency of North Sumatera Province (2011) in Indonesia found that commercial bank branches tend to provide consumption loan, categorized by central bank of Indonesia as a micro credit, than to allocate working capital loan for micro business due to possibly risk repayment factors. The study also found that it seems that banks are more reluctant to distribute micro business credit in rural area than urban area to avoid risk.

Like previous behavior, bank branches tend to provide high constrains to micro business on getting loan from commercial bank branches. Agbozo and Yeboah (2012) found that high interest rate constraints charged explicitly to micro business applicants by commercial bank branches make applicants to withdraw their loan applications. The study, however, does not indicate explicitly a problem in internal ability of bank branches, but only bad historical records of non-performing loan showing an increase trend which make them to set up the constrains.

With respect to internal factors that make bank branches to be unable to or reluctant to distribute loan to micro businesses, there are several studies that ever investigate those internal factors but they mainly observe different or limited internal features (e.g. Capital Adequacy Ratio (CAR), fund availability, Bank Indonesia rate (BI rate), third party funds, and non performing loans) as conducted by Sudirman (2002), and Pratama (2010). Only Dewi (2009) presents a broader description of internal determinants, which refer to five confirmatory indicators, namely; credit agreement, credit requirement, capacity of loan officers, role of

management, credit control, and credit repayment process.

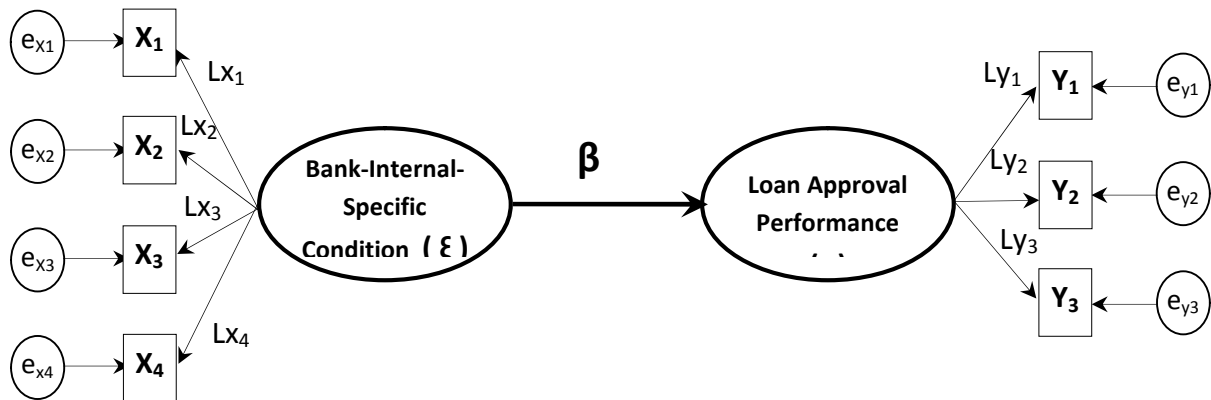
It is therefore that the study uses different measurement to refer to internal factors causing bank branches to be unable and/or unwilling to distribute loan to micro business. Those internal factors are fund availability, managerial decision, loan plan strategies, and interest rate.

The use of fund availability and interest rate to impede loan supply decisions have been discussed by Sudirman (2002) in Indonesia, Gatev et al. (2007) in US, Shollapur and Baligatti (2010) in India, and Lehman et al. (2004) in Germany. The role of managers and loan plan to increase loan supply decision also have been noted by some literatures like Liberti and Atif (2009), Berger and Udell (2002), Dell'Ariccia and Marquez (2003).

### **C. Conceptual Framework**

As given by an extensive literature, lending to micro businesses is affected internal bank branches, which could hamper bank branches to be able to supply loan or could make them to be reluctant to supply loans. Hence, the study decomposes internal determinants and loan approval performance as given in the following:

**Figure 1**



#### **D. Gap in Literature**

There is a lot of literatures that ever investigate internal determinants to affect loan supply decisions made by bank branches. Their observation indicators, however, are restricted to fund availability, interest rate, and deposits only, as major determinants in governing credit supply decisions in Bali and in Semarang province. Similarly, Pratama (2010) in Semarang studied several internal factors such CAR (Capital Adequacy Ratio), third party funds, non-performing loans as factors affecting loan supply behavior of commercial banks in the said province.

To best of our knowledge, there is no literature in the eastern part of Indonesia in particular in South and West Sulawesi that ever discuss lending to micro business by taking into account together the indicator of fund availability, managerial decisions and loan plan strategies as well as interest rate. Most of the research in banking environment in Indonesia studied lending behavior of commercial banks in Java Island, in Sumatera Island, or in Indonesia by using one of or partial of those indicators. Also, there is no any research with respect to lending to micro business by commercial banks

in the said province (South and West Sulawesi). It is therefore, we believe that there is a different feature of research that could impact a study result in a different area due to differences in culture in other things.

#### **E. Statement of Problem**

A classical issue faced by micro businesses in many countries in the world is to get a cheap fund to support their operational businesses. They commonly face difficulties to get an easy access to commercial banks due to a risky reason mainly, thereby making non-bank institutions and informal sources as their best alternative choice (e.g. cooperatives, creditors and other unregistered lending institutions). As a consequence, these businesses have to pay higher interest rate as against bank's interest rates for loan.

During our preliminary research, it was found that most of micro business are not familiar with bank procedures as well as face difficulties to convince banks to approve their loan applications. Also, it has been found that banks tend to apply a tight lending policy for micro borrower in particularly high interest rate range from 2.5% to 6% per month. This is much higher compared to the interest rates offered by

range from 2.5% to 6% per month. This is much higher compared to the interest rates offered by commercial banks, which ranges 12% to 22% on annual basis.

Meanwhile, granting loans is the main activity for banks to generate high income (Malede, 2014). Therefore, it is logically that banks should have a high portion of loan portfolio than other investments in the left side of balance sheet, including loan investment into micro business.

Given the issues on the credit environment vis-à-vis micro businesses in Indonesia, the research problem centers on what are internal determinant factors to affect loan supply decisions to micro businesses in bank branch in the provinces of South and West Sulawesi that can be employed to assist the bankers and the business. How are these internal factors interrelated with loan performance?. Therefore the hypothesis of the study is that the better the bank-internal-specific condition, the higher the loan-approval performance.

#### **F. Research Methodology**

The study applies quantitative method using Structural Equation Model (SEM). The structural Equation Model (SEM) is able to solve directional and non-directional linear relationship among variables that are observable variables or measured variables (MVs) and unobservable variables or latent variable (LVs) or construct (MacCallum and Austin 2000; Schumacker and Lomax 2010; and Waluyo 2009). In addition, according to Ferdinand (2002), SEM is a combination of factor and regression analysis. SEM test allows the researchers to test several

dependent variables simultaneously. This tool is a set of statistical tools that can be used to analyze the research issues that have a series relationship that are relatively complicated with statistical test simultaneously.

Aside from SEM, the study also tests all variable using Confirmatory Factor Analysis (CFA). This factor analysis is used to minimize the number of variables while also maximizing the amount of information in the analysis (Tran, 2010). This factor analysis is used to test variance, reliability of construct and loading weight parameter for each indicator. Normally factors an eigenvalue of greater than one are viewed as surrogate factors and they are chosen in the analysis (Tharenou et al., 2007; and Hair et al, 2006). In relation to loading factor, loading weight parameter greater than at least 0.50 are suggested and very significant for the analysis with t value of a loading factor greater than its critical value (or  $\geq 1.96$ ) (Igbaria et el. cited in Wijanto 2008 p65; Said et al. (2001), and Bagozzi and YI (1998). The study refers to variance extracted greater than 0.50 as cited by Hair et al (1998) cited in Wijanto (2008 p66), while a construct reliability is 0.60 (Said et al 2001 and Dewi, 2009).

#### **G. Respondents and Unit Analysis**

To inform about lending behavior of commercial banks, the study obtains information from 197 loan officers assigned for micro credit or micro credit officers (Mantri) in 25 regencies/cities within the province of South and West Sulawesi. Of the respondents, as many as 106 (53.81%) loan officers had aged less than or equal to 28 years old, 91 (65.48%) loan officers

officers (17.77%) are male. To bank branch category, 2 loan officers (1.02%) were assigned in foreign and mixed bank branches, 94 loan officers (47.72%) from state bank branches, 10 loan officers (5.08%) from regional development banks, and 91 (46.19%) loan officers from private bank branches.

The study uses five Likert scale. The Likert scale permits mathematical operation of computing a mean and standard deviation, which is very useful to solve problems in SEM (Structural Equation Model) (Schumacker and Lomax 2010 p19). The advantage of Likert scale is also mentioned by Saunders et al. (2007) as cited in Al Mamun (2012) who argue that Likert scale presents a load of data for conducting the research in a limited time and is able to analyze effectively. The sample size used in this study is 197 samples from those credit officers assigned in bank branch level in cities and regencies within the Province of South and West Sulawesi.

#### H. Lisrel Program

The data have been analyzed using LISREL Program 9.1 method, a modeling method using structural equation. The advantage of this program lies in the program's ability to test the significances of indicators and construct simultaneously across the model. The program provide warnings if there interrelationships between constructs that have not been suggested in the original model (Berggren, Olofsson and Silver, 2000).

= The Internal-Specific-Condition (INT)  
 $X_1$  = Fund availability  
 $X_2$  = Loan Plan  
 $X_3$  = Managerial Decision  
 $X_4$  = Loan Cost  
 = The Loan-Approval-Performance (LAP)  
 $Y_1$  = Loan Defaults  
 $Y_2$  = Profitability  
 $Y_3$  = Loan Volume

Where,

$X_1 - X_4$  = Exogeneous variables  
 $Y_1 - Y_3$  = endogeneous variables  
 $X_1 - X_4$  = Indicator for exogeneous variables  
 $Y_1 - Y_3$  = Indicator for endogeneous variables  
 $LX_1 - LX_4$  = Loading Factor for exogeneous indicators  
 $LY_1 - LY_3$  = Loading Factor for endogeneous indicators  
 $e_{x1} - e_{x4}$  = error for exogeneous indicators  
 $e_{y1} - e_{y3}$  = error for endogeneous indicators

Structural coefficients for different pairs of the path model latent (construct) factors are:

= for the bank branch internal-specific condition / the loan performance

Based on the model given, we develop an equation to represent the models:

$$= f_2 ( X_1, X_2, X_3, X_4 ) \text{ Where,}$$

$$= \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e_1$$

*Operationalization of the model*

**Table 2**

**Table 2**  
**Measurement Model for the Proposed Research Design**

<b>EXOGENEOUS INDICATORS (MEASUREMENT MODEL)</b>	<b>ENDOGENEOUS INDICATORS (MEASUREMENT MODEL)</b>
$X_1 = Lx_1 * + e_{x1}$	$Y_1 = Ly_1 * + e_{y1}$
$X_2 = Lx_2 * + e_{x2}$	$Y_2 = Ly_2 * + e_{y2}$
$X_3 = Lx_3 * + e_{x3}$	$Y_3 = Ly_3 * + e_{y3}$
$X_4 = Lx_4 * + e_{x4}$	

Developed for the research purpose and requirement, 2015

The research design proposed two latent variables consists of one exogenous variable and one endogenous variables. The whole latent variables are constructed by 7 indicators, of which four exogenous indicators and three endogenous indicators (see the table 2). The Exogenous latent variable of the internal-specific condition is defined by  $X_1$  (fund availability),  $X_2$  (managerial decision),  $X_3$  (loan plan strategies),  $X_4$  (interest rate). The endogenous latent variable of the loan-approval performance is constructed by  $Y_1$  (loan default),  $Y_2$  (loan profitability),  $Y_3$  (loan volume).

### **I. Data Analysis**

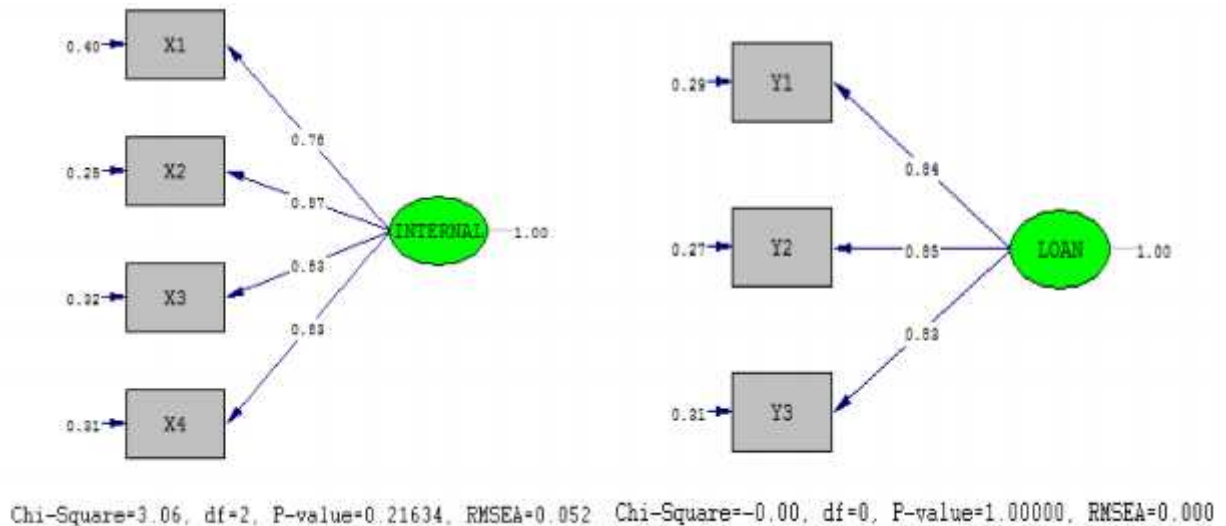
On the basis of finding from statistical LISREL program 9.1, it is found that loading factor weight parameters for the internal constructs are statistically significant in which the score is greater than 0.50 and t-value greater than critical value (1.96). The construct variables also indicate good reliability which 0.8950 is greater than 0.60. Likewise construct reliability, extracted variances also shows a good score in which 0.68085 is greater than 0.50 (see appendix 6).

**Table 3**  
**Summary : Parameter Estimation Result for the Internal Condition Measurement Model (Standardized, n = 197)**

<b>Indicator</b>		<b>t**</b>	<b>R<sup>2</sup></b>	<b>Error Var**</b>
Loanable Funds (X1)	0.78	12.51	0.602	0.40
Managerial Decisions (X2)	0.87	41.80	0.754	0.25
Loan Plan (X3)	0.83	13.70	0.681	0.32
Interest Rate (X4)	0.83	13.79	0.687	0.31
	3.31			
Error Variance				<b>1.26</b>
Reliability Construct				0.8950

\*\* P < 0.001

Criterion related to goodness of fit indexes indicates a well fitting model (Bentler, 1990) for internal-specific condition. Chi-square for internal is 3.06 less than c-square table or p-value 0.21634 greater than 0.05 with RMSE 0.052 or less than 0.10. For loan approval performance, the chi-square is 0.00 less than c-square table or p-value is greater than 0.05 and RMSEA = 0.00 see figure 1.



With respect to latent variable of the loan approval performance, loading factor weight parameters indicate significant which is greater than 0.50 and t-value greater than critical value (1.96). The construct variables also indicate good reliability which is 0.880 is greater than 0.60. The goodness of fit indices also show a well fitting model (see figure 1 and table 4). To extract variance, result obtained is 0.71112, which is greater than 0.50 (see appendix 6).

Taking together both result (the internal-specific condition and the loan approval performance), it can be said that (X1) fund availability, (X2) managerial decision, (X3), loan plan strategies, and (X4) interest rate is able to define the construct variables of the internal-specific condition. And, (Y1) loan profitability, (Y2) loan Default, and (Y3) loan volume is well in defining the construct of the loan approval performance.

**Table 4**  
**Summary : Parameter Estimation Result for the Loan Performance Measurement Model**  
(Standardized, n = 197)

Indicator		t**	R <sup>2</sup>	Error Var**
Loan Default (Y1)	0.84	13.87	0.713	0.29
Loan Profitability (Y2)	0.85	14.07	0.728	0.27
Loan Volume (Y3)	0.83	13.51	0.686	0.21
	2.52			
Error Variance				0.87
Reliability Construct				0.880

\*\* P < 0.001

To test SEM assumptions, the study tests normality, outlier and multicollinearity. On the basis of statistical test, the distribution of data shows normality trend indicated in the trend display of Q-plots of standardized residual (see annex 2). Outlier identification using statistical test of *Mahalanobis Distance* ( $d^2$ ) indicates no data showing outlier since maximum mahal distance is 18.114, which is less than 22.456 [Chi-Square ( $\chi^2$ ) table (see annex 1). To multicollinearity test, LISREL program 9.1 automatically can detect multicollinearity, and the program does not find it when analyzing the data.

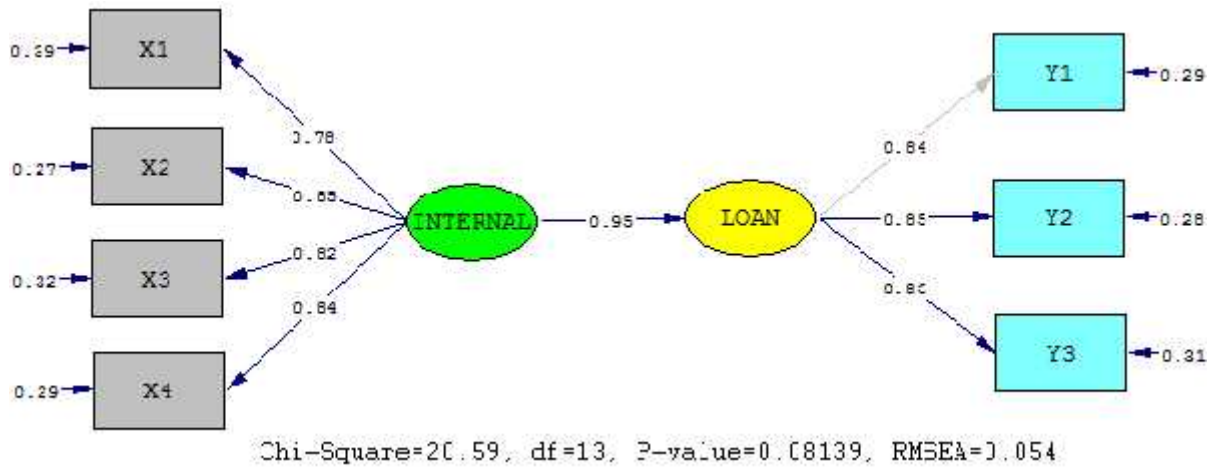
Criterion indices commonly used to test the goodness of fit are the IFI (Incremental Fit Index) suggested by Bollen; TLI (Tucker Lewis Index) initiated by Tucker and Lewis by Tucker and Lewis; CFI (Comparative Fit Index) developed by Bentler; and RMSEA (Root Mean Square Error of Approximation (Schumacker and Lomax (2010). IFI, TLI, CFI show greater than 0.90 is considered a well-fitting model (Bentler, 1990), and RMSEA is good when the value less than 0.08 (Schumacker, R.E., and Lomax, R.G., 2010). The Value of CN = 264.545 is greater than 200 indicating that the model can be used to represent the data sample.

**Table 5**  
**Overall Statistical Goodness of Indexes with SEM Model**

Model-Fit Criterion	Estimate Results	Rate of fit
Chi-square	20.59 ( $20.59 < 22.36$ ) or $P = 0.0814 > 0.05$ )	Good
Non-Centrality Parameter (NCP)	7.593 (7.593 close to 0.00 than to 24.054)	Good
Goodness-of-fit Index (GFI)	0.973 ( $0.973 \geq 0.90$ )	Good
Adjusted GFI (AGFI)	0.941 ( $0.941 \geq 0.90$ )	Good
Standardized RMR (SRMR)	0.0192 ( $0.0192 < 0.05$ )	Good
Root-mean-square error of approximation (RMSEA)	0.054 ( $0.054 < 0.08$ )	Good
Expected Cross-Validation Index (ECVI)	0.257 (0.257 close to 0.218 than to 0.340)	Good
Normed fit index (NFI)	0.989 ( $0.989 \geq 0.95$ )	Good
Tucker-Lewis index (TLI) / Non Normed fit index (NNFI)	0.993 ( $0.993 \geq 0.95$ )	Good
Relative fit index (RFI)	0.982 ( $0.990 \geq 0.95$ )	Good
Incremental fit index (IFI)	0.996 ( $0.999 \geq 0.95$ )	Good
Comparative fit index (CFI)	0.996 ( $0.999 \geq 0.95$ )	Good
Parsimonious normed fit index (PNFI)	0.612 (0.612 close from to perfect model 1.0)	Marginal
Parsimonious goodness-of-fit index (PGFI)	0.452 (0.452 far from perfect model 1.0)	Poor
Critical N (CN)	264.545 ( $264.545 \geq 200$ )	Good

The construct of internal condition are related with the construct of the loan approval performance with coefficient parameter 0.95 with t-value 13.36, which is greater than critical value

(1.96). This indicates that the internal-specific condition significantly affects the construct of the loan approval performance for loan distributed to micro businesses within the South and West Sulawesi Province.



On the basis of coefficient path parameters obtained, the equation of structural equation model can be formulated as follow:

**Loan Approval Performance = 0.949 Internal-Specific Condition.**

From the given SEM equation, the R-square is 0.900 or 90.0% of its variance predicted, with 10.0% unexplained error variance due to random or systematic error or other indicators/variables not included in the model. P-value for the equation indicates significant (0.000).

## J. CONCLUSION

It is clear that commercial bank branches are unable to or reluctant to distribute loans to micro businesses when they face internal problem. Bank branches are reluctant to expand more loans to micro business when they do not have a good soundness of funds needed for the loan disbursement. This is consistent with an extensive literatures said that bank branches are likely to reduce loan supply decision to micro businesses when they do not enough funds and tend to be more selective to provide loan to

certain micro customers only, like to well known customers or good reputation customers (Blanchflower et al., 2003; Obimanyi, 2009; Shollapur and Baligatti, 2010; and Darvas, 2013)

Likewise, fund availability, the bank branches that charge high interest rate are also unable to distribute more loans to micro businesses. It could be said that when cost of funds used to provide loan to micro business is relatively high, it affects loan interest charged to micro business. Also, it can be presumed that those bank branches with high interest are likely unwilling to distribute loan to micro business so that they provide constrains to reduce loan applications from micro businesses.

It is also obvious that the role of bank branch managers and loan plan targeted in each bank branch level also contribute to affect loan disbursement to micro business. Managers could encourage loan officers to distribute more loans and loan plan in bank branch offices is always used to be a guideline for loan disbursement, including to micro business.

## K. RECOMMENDATION

To increase loan disbursement to micro business, bank branch should optimize funds collected for the third party which is part of cheap funds. This deposit funds also could make bank branches to be able to set low interest rate.

Since manager decision and loan plan also contribute to affect loan supply decisions to micro business, bank branches managers should provide more autonomy and left more scope of decisions to loan officers to decide and evaluate loan application. Financial incentives for loan achievement made by loan officers and managers in terms of loan quality and quantity could also encourage loan supply decision in bank branch level and in loan officer level.

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**APPENDIX 1 : RESIDUAL STATISTIC OF MAHALANOBIS DISTANCE**

Residuals Statistics <sup>a</sup>					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	68.9221	125.1122	99.0000	11.17087	197
Std. Predicted Value	-2.693	2.338	.000	1.000	197
Standard Error of Predicted Value	4.208	17.777	11.231	2.351	197
Adjusted Predicted Value	60.9672	126.1121	99.0423	11.48921	197
Residual	-103.59115	104.70361	.00000	55.90806	197
Std. Residual	-1.819	1.839	.000	.982	197
Stud. Residual	-1.889	1.860	.000	1.003	197
Deleted Residual	-111.60607	108.03276	-.04234	58.30777	197
Stud. Deleted Residual	-1.902	1.872	.000	1.005	197
Mahal. Distance	.076	18.114	6.964	3.020	197
Cook's Distance	.000	.034	.005	.006	197
Centered Leverage Value	.000	.092	.036	.015	197

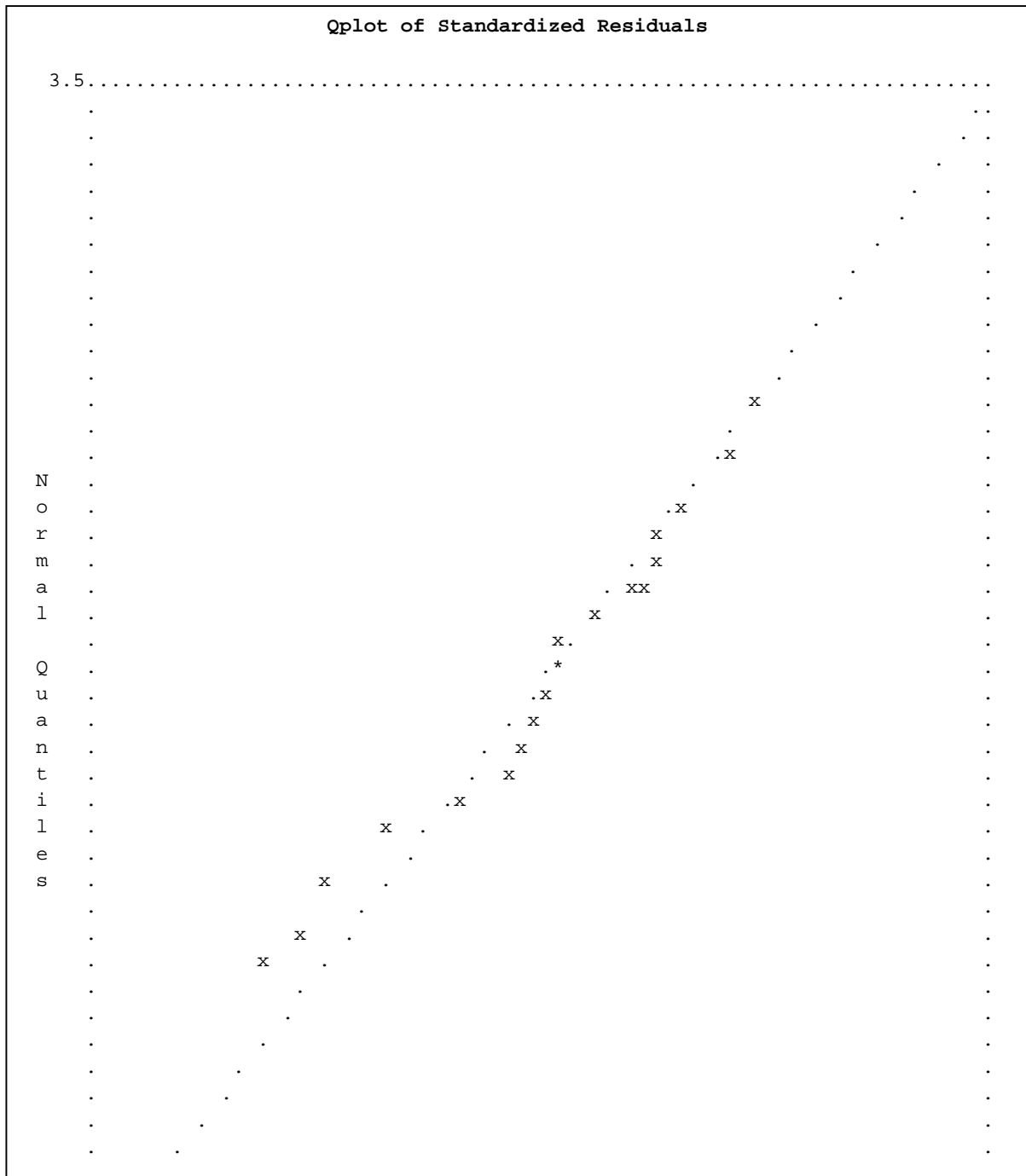
a. Dependent Variable: RESP. Chi-Square (  $\chi^2$ ) ( $\alpha = 0.001$ , and  $df = 6$ ) = 22.456.

## APPENDIX 2 : MAHALANOBIS DISTANCE USING SPSS EDITOR 20

**Mahalanobis Distance Using SPSS Data Editor 20**

No	Mahal Distance	No	Mahal Distance	No	Mahal Distance	No	Mahal Distance	No	Mahal Distance	No	Mahal Distance
1	0.07569	34	3.20754	67	8.20986	100	6.51069	133	3.97564	166	2.9462
2	4.09538	35	6.73257	68	7.7682	101	7.44782	134	3.33926	167	8.66302
3	13.0807	36	7.23268	69	10.74879	102	8.01588	135	0.07569	168	5.24624
4	7.11235	37	8.93357	70	4.71579	103	7.52435	136	11.9358	169	13.43732
5	6.67072	38	8.93357	71	6.53503	104	5.5486	137	4.57305	170	0.07569
6	9.13701	39	4.99201	72	10.84202	105	5.32426	138	13.67098	171	8.26975
7	9.17285	40	3.96175	73	8.96635	106	8.01929	139	8.95594	172	7.82203
8	9.70368	41	9.6969	74	8.51479	107	10.80845	140	6.4474	173	6.53503
9	14.07121	42	6.71012	75	6.0786	108	4.43528	141	6.0786	174	8.60126
10	7.11235	43	7.72788	76	6.21744	109	7.63902	142	5.24624	175	5.37214
11	8.85655	44	8.12635	77	5.37214	110	3.33926	143	5.51578	176	8.04395
12	3.79563	45	6.20881	78	9.84051	111	6.21744	144	12.81949	177	7.44412
13	2.9462	46	3.3432	79	7.8597	112	3.96175	145	3.97564	178	6.04936
14	8.33868	47	5.61135	80	0.07569	113	4.48587	146	4.57305	179	6.51388
15	5.58793	48	9.31785	81	9.30582	114	8.14037	147	4.34768	180	10.54911
16	3.83003	49	4.09538	82	10.75605	115	6.64047	148	8.72591	181	2.9462
17	3.97564	50	7.6638	83	7.06558	116	8.16132	149	7.2866	182	3.86828
18	6.64047	51	6.52139	84	12.44824	117	8.14037	150	6.98844	183	7.44412
19	6.98935	52	6.10569	85	3.83003	118	4.71579	151	3.96175	184	7.31466
20	7.51198	53	11.84572	86	7.08578	119	6.51388	152	4.99201	185	8.26975
21	7.7682	54	4.09538	87	10.1603	120	8.1256	153	6.64047	186	6.12847
22	6.20881	55	8.43768	88	6.24644	121	5.97021	154	7.9597	187	3.20754
23	0.07569	56	7.58673	89	4.48587	122	3.33926	155	6.51069	188	6.51388
24	6.18311	57	9.90215	90	8.72591	123	6.0786	156	0.07569	189	15.58212
25	9.79948	58	9.27558	91	9.01736	124	8.26975	157	6.71012	190	3.3432
26	6.73257	59	9.19378	92	8.77175	125	3.33926	158	11.59265	191	4.62738
27	11.62436	60	7.53193	93	6.10681	126	7.53193	159	18.11409	192	7.55822
28	6.71012	61	9.94386	94	3.83003	127	8.02494	160	6.53503	193	13.1753
29	9.10406	62	7.44412	95	7.58673	128	4.09538	161	11.25818	194	3.20754
30	7.6638	63	14.98659	96	6.52139	129	3.83003	162	7.23268	195	0.07569
31	5.61135	64	6.84037	97	7.42342	130	2.9462	163	11.66366	196	7.08578
32	8.01588	65	0.07569	98	3.33926	131	8.90117	164	11.44448	197	11.08216
33	5.58793	66	7.48151	99	3.96175	132	5.37214	165	6.39679		

### APPENDIX 3 : NORMALITY TEST USING QPLOT OF STANDARDIZED RESIDUALS



#### APPENDIX 4 : MEASUREMENT EQUATIONS AND STRUCTURAL EQUATION

##### Measurement Equations

Y1 = 0.670\*LOAN, Errorvar.= 0.182 , R<sup>2</sup> = 0.712  
Standerr (0.0236)  
Z-values 7.678  
P-values 0.000

Y2 = 0.614\*LOAN, Errorvar.= 0.144 , R<sup>2</sup> = 0.724  
Standerr (0.0417) (0.0191)  
Z-values 14.733 7.540  
P-values 0.000 0.000

Y3 = 0.581\*LOAN, Errorvar.= 0.151 , R<sup>2</sup> = 0.691  
Standerr (0.0409) (0.0191)  
Z-values 14.206 7.908  
P-values 0.000 0.000

X1 = 0.514\*INTERNAL, Errorvar.= 0.166 , R<sup>2</sup> = 0.615  
Standerr (0.0399) (0.0192)  
Z-values 12.868 8.639  
P-values 0.000 0.000

X2 = 0.547\*INTERNAL, Errorvar.= 0.112 , R<sup>2</sup> = 0.727  
Standerr (0.0374) (0.0145)  
Z-values 14.622 7.752  
P-values 0.000 0.000

X3 = 0.646\*INTERNAL, Errorvar.= 0.199 , R<sup>2</sup> = 0.678  
Standerr (0.0467) (0.0242)  
Z-values 13.849 8.217  
P-values 0.000 0.000

X4 = 0.528\*INTERNAL, Errorvar.= 0.115 , R<sup>2</sup> = 0.707  
Standerr (0.0369) (0.0145)  
Z-values 14.312 7.957  
P-values 0.000 0.000

## APPENDIX 5 : STRUCTURAL EQUATION

### Structural Equations

LOAN = 0.949\*INTERNAL, Errorvar.= 0.100 , R<sup>2</sup> = 0.900  
 Standerr (0.0712) (0.0369)  
 Z-values 13.323 2.715  
 P-values 0.000 0.007

## APPENDIX 6 : CONSTRUCT REALIBILITY AND EXTRACT VARIANCE

Variable	Construct Reliability	Extract Variance
Internal-Specific Condition	0.89499	0.68085
Loan Approval Performance	0.88073	0.71112