STRATEGIES TO INCREASE FARMERS' FINANCIAL INCLUSION

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This research aims to determine the level of interest by farmers in using the services of formal financial institutions, especially digital financial services (DFS). The methods of the research were descriptive statistics and SEM analysis. The majority of respondents (50%) farmed an average area of land less than 0.5 hectares, 26% of respondents an average of 0.75-1 hectares and 24% of respondents an average of 0.5-0.75 hectares of land. Based on the status of land ownership, as many as 76% of respondents owned the property itself, 19% had a "lease" arrangement and 5% used state owned "arable" land. A total of 27% of the farmers were interested in using DFS while 34% were not. The lack of intereset was due to practical uses, enjoyment of cash and lack of knowledge. The reason for interest in DFS included practicality, speed, and security of use. Results from the SEM model indicate a significant and positive influence of Access to Usage, significant and negative influence of DFS to Access, significant and positive influence of DFS to Interest, significant and positive of Interest to Desire, and a significant and positive Desire to Access.

Keywords: farmers, financial inclusion, DFS, profile

Abstract

Penelitian ini bertujuan untuk mengetahui tingkat ketertarikan petani dalam menggunakan jasa lembaga keuangan formal, khususnya jasa keuangan digital (LKD). Metode penelitian yang digunakan adalah statistik deskriptif dan analisis SEM. Mayoritas responden (50%) memiliki lahan rata-rata kurang dari 0,5 hektar, 26% responden rata-rata 0,75-1 hektar dan 24% responden rata-rata 0,5-0,75 hektar lahan. Berdasarkan status kepemilikan tanah, sebanyak 76% responden memiliki properti itu sendiri, 19% memiliki perjanjian "sewa" dan 5% menggunakan tanah milik negara. Sebanyak 27% petani tertarik untuk menggunakan LKD sementara 34% tidak. Kurangnya kertertarikan tersebut adalah karena kurangnya manfaat praktis, ketertarikan pada uang tuna dan kurangnya pengetahuan. Petani yang memiliki ketertarikan terhadap LKD dipengaruhi factor kepraktisan, kecepatan, dan keamanan penggunaan. Hasil dari analisis statistik menunjukkan

Abstrak

pengaruh signifikan pengaruh negatif LKD terhadap akses, pengaruh positif LKD terhadap ketertarikan petani, pengaruh positif LKD terhadap Interest to Desire, dan pengaruh positif Desire to Access.

Kata kunci: petani, inklusi keuangan, LKD, profil

Despite the growth of financial institutions their services can not be utilized equitably by society. The popular term used to name groups without links to the financial system is the exclusive financial group (financial exclusion) as opposed to inclusive finance (financial inclusion). Financial inclusion became a trend following the crisis of 2008 and is mainly based on the impact of the crisis to the group in the bottom of the pyramid (low income and irregular, living in remote areas, people with disabilities, people who do not have legal identity documents, and rural communities) who generally do not bank or use banking services (people who have not accessed a financial institutions) and the number is relatively high in developing countries.

There are various and unstandardized definitions of financial inclusion. Among these various definitions, there is common goal to provide financial access for the unbanked, and to provide a service that is accessible, inexpensive, and safe. Inclusive finance has become an important discussion in various countries. Based on some of the latest facts released by the World Bank (2013), two billion people - or 38% of adults in the world - have not been touched by or used formal financial services, still 73% of the poor do not have bank accounts because of the cost, the traveling distance to the nearest financial institution, and burdensome requirements to set up accounts. More than half of these groups are adults, of which 40% are from poor families who live in developing countries.

Research conducted by the World Bank in 2013 related to inclusive finance in Indonesia showed that the Inclusive Finance Index (IKI) of Indonesian people aged over 15 years was 36.1. This means that only about 36.1% of Indonesian people use saving products at a formal financial institution ie bank. Comparing this level to other ASEAN countries, Indonesia is still far below Singapore (96.4), Malaysia (80.7) and Thailand (78.1). The Central Bank of Indonesia (BI) on its own initiative organized a similar survey to obtain more detailed information. The IKI index obtained from their survey was 39.8. The increase of IKI index of 3.7% was in less than 6 months. However, referring to the rules of the survey, the difference in the value can be caused by sample variation (Snedecor dan Cochran, 1989). The research conducted by BI involved 2612 respondents in 10 provinces in Indonesia. The study showed that there is a significant difference in the IKI index caused by demographic factors.

These demographic aspects include the level of individual spending, socio-economic status (SES), age, education, and employment (Bank Indonesia, 2014). Low levels of inclusive finance in Indonesia impacts 62% of the society. The majority worked in the informal sectors (including farmers with land ownership less than 0.5 ha), with the level of spending no more

than IDR 1,250,000 per month. Terms used by the World Bank (World Bank, 2012) related to Inclusive Finance includes three aspects, namely: access to (access) formal financial institutions, the level of use (usage), and the level of quality (quality). Based on the study conducted by BI (2015), the low inclusive finance rates of farmers is due to low availability of fomal financial institutions in the area. This is caused by the penetration rate of banks (commercial banks and BPR) and cooperatives reaching only 40% and 42%, respectively. Other causes include low level of lower class community saving using formal financial institutions. This has been recognized by the government and hasprompted efforts to increase inclusive finance rates, such as the launch of several products, ie TabunganKu (saving account), Digital Financial Services (DFS), the LAKU PANDAI program for Financial Services (without Office of the Financial Inclusion). However, the progress of the government programs has not been as expected.

LITERATURE REVIEW

Understanding Financial Inclusion

Financial Inclusion is a global program driven by each country to provide opportunities and financial access to the wider community. According to Thorat (2006), financial inclusion means providing affordable financial services, namely access to payment and shipping facilities, savings, loans and insurance, and other services by the formal financial system for those who tend to be to excluded from it. According to Klapper, Jandu, Sintim-Aboagye (2012), the financial inclusion program is expected to improve people's lives overall.

Financial Inclusion in ASEAN

Data from the UN Capital Development Fund (United Nations, 2015), indicated the differences in the economic and financial market conditions on each of the member of ASEAN countries. It is also showed the urgency of financial regulatory reform on a large scale in the context of financial sector development and the creation of opportunities, especially for Cambodia, Laos, Myanmar, and Vietnam in order to perform financial deepening in the financial markets. The World Bank (2013) stated that financial inclusion and access to financial services are two different problems. Financial inclusion is defined as the proportion of individuals or companies that use financial services. However, low use of financial services does not mean there is no access to financial services. Some communities may have access to financial services at an affordable price level, but choose not to use financial services in particular, or due to the unavailability of financial services caused by lack of regulation, market uncertainty, and cultural barriers.

Beck et al (2007) and Bruhn et al (2009) argued that the development of the financial sector has become an important part in the development agenda at a global level. This includes the effort to carry out a financial deepening program that is a strong influence to economic growth. Financial sector development is also focused on financial inclusion in order to increase the percentage of the population with access to formal financial services and as a tool in reduce poverty.

Financial Inclusion in Indonesia

Only 49 percent of households in Indonesia have access to formal financial institutions (World Bank, 2012). In addition, through the Household Balance Sheet Survey (Bank Indonesia, 2014) BI indicated this level might be as low as 48 percent. Poor access to financial services is caused by low incomes, the complicated procedure of banking services, a lack of knowledge and information about the services of financial institutions, the high administrative costs of financial services, and the difficulty of access to the location of the bank. Banks play an important role in the economic development of Indonesia, as the engine of financial inclusion activities because the banking system has 80 percent share of activity in the financial markets in Indonesia. However, financial inclusion is not only BI's responsibility, but the Government's also has a role to play in order to create access to financial services to the wide-ranging community.

National Strategies for Financial Inclusion in Indonesia

The World Bank (2012) revealed that there are at least four types of financial services that are considered to be essential for society, i.e. funds saving services, credit services, payment system and insurance including pension funds. According to Bank Indonesia (2014), the development of Financial Inclusion in Indonesia would be built on six pillars, including: financial education; public finance facility; mapping of financial information; policy / regulatory support; intermediation facilities and distribution channels; as well as consumer protection. Those pillars are subsequently translated into programs that have been adapted to targeted groups and categories of the population conducted by Bank Indonesia and related institutions.

The government can reduce the impact of market failures and encourage Financial Inclusion by establishing a legal framework and appropriate regulation, supporting the development of business climate, promoting healthy and fair competition, as well as facilitating a wide range of business schemes to encourage Financial Inclusion. The Government can provide subsidies to improve people's access to financial services and introduce policies to encourage Financial Inclusion. However, this may result in high debt levels, especially in rural areas.

Innovation Diffusion

According to Rogers (1995), diffusion is a process where innovation is communicated through certain channels within a certain time among the members of a social system. This is a special type of communication in which the message relates to new ideas, whereas the idea, practice, process, or product (usage) is considered as innovative (Cooper, 1998). Rogers (1995) concluded that in the diffusion of innovation there are four (4) main elements, namely: the innovation itself, communication channels, time, and a social system.

The main purpose of the diffusion of innovation is to enable adoption of an innovation (science, technology, community development) by the member of a particular social system. The social system may be individuals, informal groups, organizations, and the
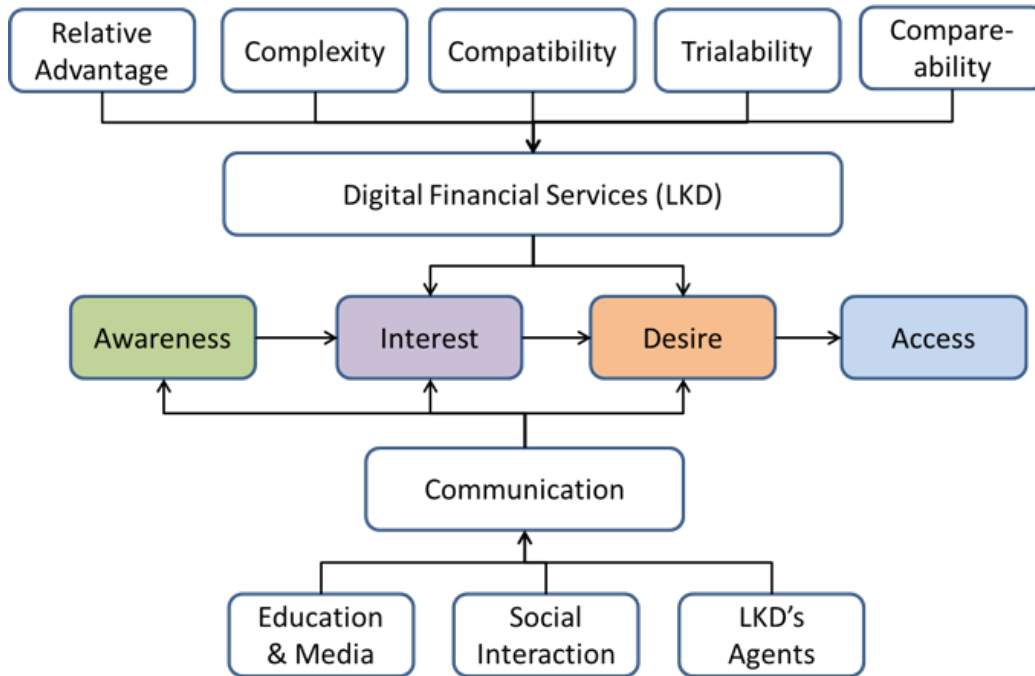
Figure 1. Public interest in using DFS

community. Rogers (1995) described that in accepting new innovations, the group of innovators is only around 2.5% to 3.5% of the population; early adopters group is only 14% of the population; the early majority and late majority represents 34% each; and the laggard group is 16%.

Rogers (1995) defined the rate of adoption as the relative speed in which an innovation is adopted by the members of a social system. According to the model there are many variables that determine the rate of adoption: the attributes of innovation; the type of innovation decision; channels of communication; the influence of the social system; and promotional efforts by change agents. Rogers (1995) also explained that the attributes of innovation contributes greatly to the adoption rate with a percentage of 49% -87%.

Level of Interest in Using Product or Service of Formal Financial Institutions

Thefore, the research aims to determine the level of interest of the farmers in using the services of formal financial institutions, especially digital financial services (DFS). Additionally, the result will provde guidance for recommendations and strategies. The level of interest was determined using the framework shown in Figure 1. This information also determines the level of adoption of DFS by the community

RESEARCH METHOD

Sampling Method

The overall number of samples used as a source of information in this research was determined using Slovin rules i.e. normal distribution as follows:

$$n = \left(\frac{Z_{\alpha/2}}{e}\right)^2 p(1-p) \text{ with a finite}$$

population factor $n^* = \dfrac{n}{1 + \dfrac{n-1}{N}}$

Where:

α	: Confidence level
e	: The assumed deviation parameter
$Z_{\alpha/2}$	: Normal distribution value
P	: The proportion of the population with specific properties
N	: Total Population
n	: Number of infinite population samples
n*	: Total adjusted sample of finite population

In this study, the unit of analysis was the individual or members of the public, using a household basis in the selection. The sampling technique was multistage random sampling.

Data Processing and Analysis

Data processing activities in the study include checking, coding, data entry, and cleaning. The next stage after data processing was analysis, including (1) Descriptive Statistics; (2) Correspondence Analysis; and (3) Stuctural Equation Model (SEM).

Structural Model and Variable Descriptions

To make the information from the survey data easy to read, it was analyzed using SEM in addition to commonly used standard methods. The modeling process began with the formulation of a structural model which describes the phenomenon in accordance with the concepts used. In this study, the concept was the financial inclusion covering the factors of Awareness, Interest, Desire and Access. The overview of structural model of interest in DFS can be seen in Figure 1, using the concept of preference diffusion of innovations developed by Rogers (2003).

In addition, there is also a model of the structural model of inclusive finance that can be seen in Figure 2. The model lists different types of approaches that will be used to evaluate the level of inclusive finance related to Access, Quality and Usage in a special community of farmers.

RESULTS AND DISCUSSION

Profile of Respondents

Univariate analysis descriptively explains the study variables comprising the characteristics of respondents and the data collected in accordance with the study variables. The characteristics of respondents or demographic data included land ownership. The majority of respondents (50%) farmed an average area of less than 0.5 hectares (ha), 26% of respondents had an average of 0.75-1 ha of land and 24% of respondents had an average of 0.5-0.75 ha of land. Based on the status of land ownership, as many as 76% of respondents had the property itself, 19% was a "lease" arrangement and 5% used state owned "arable" land.

Within the status of self-owned land, as much as 63% of respondents had an average land area <0.5 ha, 17% had an average of 0.5-0.75 ha and 20% of respondents have an average area 0.75-1 ha. In the "lease" status group, 82% respondents had an average land area of <0.5 ha, 13% of respondents

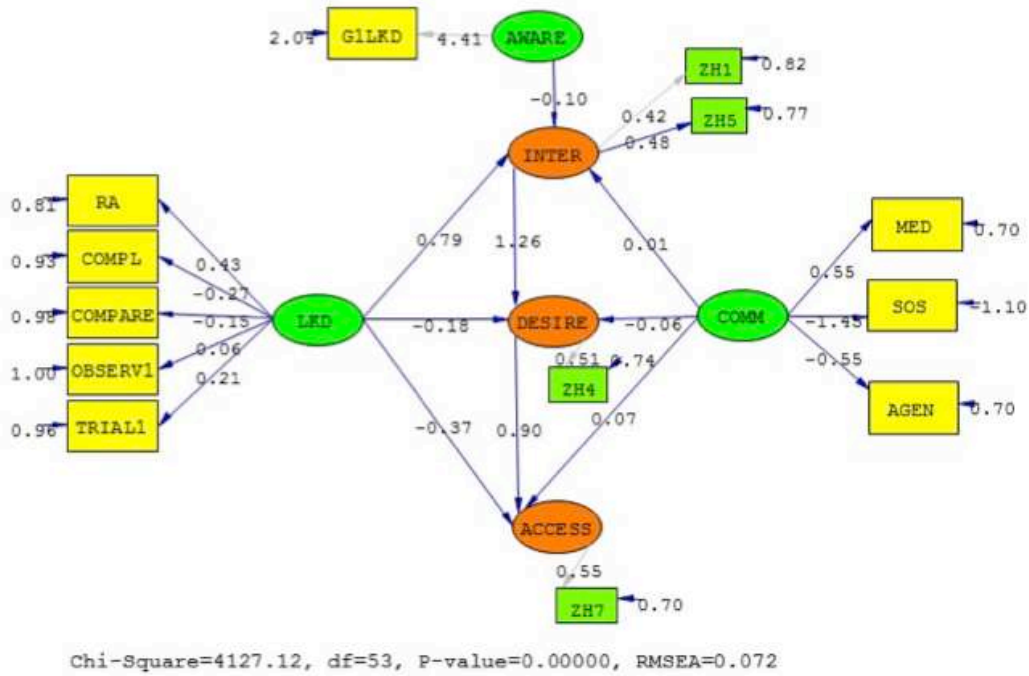Chi-Square=4127.12, df=53, P-value=0.00000, RMSEA=0.072

Figure 2. Standardized loading factor model of inclusive financial improvement

had an average of 0.5-0.75 ha of land and as much as 5% of respondents had 0.75-1 ha.

In addition, the questionnaire showed the level of recognition of farmers to institutional banking in Indonesia. Overall, 64% of farmers had knowledge of a financial institution, while the remaining 34% did not know any financial institution. Within the 64%, 100% knew of a bank, 97% knew pawnshops, 99% the post office, the cooperatives and post office and, 94% the ATM machine. Within the low familiarity group, 72% did not know about pension fund institutions, 86% did not know about securities institutions, 61% had no knowledge of BMT, and 98% were unfamiliar with the digital agency of financial institutions.

Of the farmers, 27% were interested in using DFS while 34% were not.

The lack of intereset in using DFS was due to the practicality and enjoyment of cash and the fact that DFS was still unfamiliar. The reason for who interested to DFS were practical, faster, and more secure used of DFS.

Results from the Structural Model for Inclusive Financial Improvement

The structural model and the value of the data loading factor are shown in Figure 2 above.

Figure 2 shows that the model has reached a high level of fitness. It can be seen from the P-value of 0.00848 and RMSEA value of 0.066, that the SEM models have reached suitable Goodness of Fit. There is not requirement to modify models. The direction of the arrows is between latent constructs and the visible indicator to the indicator. It indicates that this study used appropriate reflexive indicators

Table 1. Hasil kriteria kesesuaian model SEM

Goodness-of-Fit	Cut-off-Value	Result	Note
Derajat bebas (DF)	Positive	87	Good Fit
Chi-Square (χ^2)	Must be low	121.60	Good Fit
RMSEA (Root Mean Square Error of Approximation)	≤ 0,08	0,047	Good Fit
GFI (Goodness of Fit)	≥ 0,90	0,94	Good Fit
AGFI (Adjusted Goodness of Fit Index)	≥ 0,90	0,92	Good Fit
CFI (Comparative Fit Index)	≥ 0,90	0,95	Good Fit

Source: Calculated primary data, 2016

to measure the perceptions of each variable.

To determine the suitability criteria of the SEM models in this study, six suitability indexes were employed and cut-off value used to test the suitability of the overall model which in essence is to test whether a model can be accepted or not. The criteria for suitability are degrees of freedom (DF), Chi Square (X2), RMSEA (Root Mean Square Error of Approximation), GFI (Goodness of Fit), AGFI (Adjusted Goodness of Fit Index) and CFI (Comparative Fit Index). The value of the six criteria of Good of Fit can be seen in Table 1.

The Goodness of Fit Coefficients above indicate the suitability of the model. Table 1 above shows the obtained degrees of freedom (89), with the requirement for the Cut off Value to be positive; the value of Chi-Square (χ2) amounted to 160.02 with the requirement of Cut off Value must be small; RMSEA values was 0.066 less than 0.08 as required; the value GFI gained 0.96 was greater than 0.90 as required; AGFI values obtained of 0.94 was greater than 0.90 as required; and CFI value of 0.92 was greater than 0.90 as required. Based on the coefficient

values from the table above, all values met the requirements of the suitability of a model, and it can be concluded that in general the model has a good level of fitness.

Interpretation of the results of the SEM estimation can be performed after the assumptions of the model are fulfilled. The hypothesis testing proposed in this research can be seen from the critical value of t-test statistics. The significance of the estimated parameters provides useful information to know the relationship between the variables of the study. The limitations to reject and accept the proposed hypothesis is ± 1.96. This can be interpreted as if the value of t is in the range -1.96 to 1.96; the value of first hypothesis (H1) is rejected or, in other words accepts the null hypothesis (H0). If more than 1.96 then the first hypothesis (H1) is accepted and the null hypothesis (H0) is rejected.

This study used four latent endogenous variables, i.e. access, awareness, interest and desire, and latent exogenous variables i.e. DFS and comm. These factors are elements that can not be measured directly; therefore it takes other latents to establish the factors that may affect the endogenous latent

Table 2. Hypothesis test

	Hyphothesis	Coeffiecient	T-calculated	Note
H1	DFS ⇒ Access	-0.37	-2.16	Significant and negative
H2	DFS ⇒ Interest	0.79	8.16	Significant and positive
H3	DFS ⇒ Desire	-0.18	-1.19	Not significant
H4	Comm ⇒ Ineterest	0.01	0.42	Not significant
H5	Comm ⇒ Desire	-0.06	-2.53	Significant and negative
H6	Aware ⇒ Interest	-0.10	-0.95	Not significant
H7	Interest ⇒ Desire	1.26	7.12	Significant and positive
H8	Desire ⇒ Access	0.90	6.01	Significant and positive

Source: Calculated primary data, 2016

variables. Those latents need indicator variables in order to build these factors and influence each of the endogenous variables. Table 2 provides a snapshot of hypothesis testing.

Table 2 indicates that the DFS factor significantly negatively influences access, with the coefficient of -0.37 and t – value of 2.16. The absolute value of t is greater than t table of alpha 5%, which is 1.96. The result explains that the increase in DFS has not improved the Access of farmers as seen by the negative coefficient. An improvement of DFS will decline the Access by farmers. DFS factor significantly influences the positively of their Interest, with a coefficient of 0.79 and t-value of 8.16. The absolute value of t is greater than t table of alpha 5%, which is 1.96. This result indicates that the increase in DFS has been able to improve the Interest of farmers as seen from the positive coefficient. The improvement of DFS is also able to improve the interest of farmers. In addition, Comm significantly but negatively influences the Desire with the coefficient of -0.06 with and t – value of 2.53. The absolute value of t is greater than t table of alpha 5% which is 1.96. The result explains that

the increase of Comm has not been able to improve the Desire of farmers; it is seen from a negative coefficient. The Interest factor significantly and positively affects Desire, with the coefficient of 1.26 and t-value of 7.12. The absolute value of t is greater than t table with alpha 5% which is 1.96. The result explains that the increase of Interest has been able to improve the Desire of farmers; it is seen from positive coefficient. The Desire factor significantly and positively affects Access, with the coefficient of 0.90 and t-value of 6.01. The absolute value of t is greater than t table with alpha 5%, which is 1.96. The result indicates that the increase of Desire can improve the Access of farmers; this is apparent from the positive coefficient.

CONCLUSION

1. In managing their finance, only a limited number of farmers use financial institutions to either save or borrow. To borrow a certain amount and in urgent situations, farmers depend more on borrowing from friends or family/ relatives. For working capital, many farmers have already utilized formal financial institutions such as a Bank.

2. The study indicated that 27% of the farmers were interested in using DFS while 34% were not. The lack of intereset in using DFS by farmers was caused by practical uses, enjoyment of cash and lack of familiarity. The reasons for interest in DFS were practicality, speed, and more secure use of DFS.

3. The SEM model indicated a significant and positive influence of Access to Usage, a significant and negative influence of DFS to Access, a significant and positive influence of DFS to Interest, a significant and positive of Interest to the Desire, and a significant and positive influence of Desire to Access.

4. Efforts to improve financial inclusion of farming communities is important to educate the farmers to be able to manage their finance so that their revenue can be sustained.

5. In addition, encouraging the use of DFS needs a massive learning process since it is still relatively new and limited use. However, the program must be done together with the availability of financial institutions in the surrounding area, so farmers can more easily connect with it and become familiar with it.

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