

DETERMINANTS OF CUSTOMERS IN SELECTING SHARIA BANKING SYSTEM FOR SAVING IN EAST JAVA - INDONESIA

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ABSTRACT

Sharia banks have been developing in many countries since the evidence that the banks were more resistant to financial shocks. In Indonesia, Sharia banks have a good environment because majority of Indonesian people is Muslim. During recent years, Sharia banking in Indonesia shows a dramatic growth. This paper is to examine internal factors affecting customers' decision to choose Sharia banking system as a place of saving. Logit regression was used to estimate a model of customers' decision. Cross-sectional data, consisting of 101 Sharia customers and 110 conventional customers, were randomly drawn from database of a multinational bank that provides both Sharia and conventional schemes. The results show that age, gender and religion led to customers more likely to invest their money in Sharia scheme. In contrast, income, entrepreneur and student led to customers less likely to choose Sharia scheme as a place of investment. Highest positive impact came from religion, and highest negative impact came from student. Even though the majority of Indonesian people are Muslim, the total possibility of people to select Sharia scheme was low.

Key words: Sharia Banking System, Customers' Decision, Logit Model, Customers' Characteristics.

DETERMINAN DARI NASABAH DALAM MEMILIH SISTEM BANK SYARIAH SEBAGAI TABUNGAN DI JAWA TIMUR - INDONESIA

ABSTRAK

Bank Syariah telah berkembang di banyak negara sejak terbukti bahwa bank tersebut tahan terhadap guncangan finansial. Di Indonesia, sistem perbankan Syariah mempunyai lingkungan yang baik karena sebagian besar penduduk Indonesia adalah Muslim. Selama beberapa tahun terakhir, bank Syariah di Indonesia menunjukkan pertumbuhan yang dramatis. Kajian ini menguji faktor-faktor internal yang mempengaruhi keputusan nasabah dalam memilih sistem perbankan Syariah sebagai tempat untuk menabung. Regresi logit digunakan untuk mengestimasi model pengambilan keputusan nasabah. Data cross-section yang terdiri atas 101 nasabah bank Syariah dan 110 nasabah bank konvensional diambil secara acak dari database sebuah bank multinasional yang menyediakan sistem Syariah dan konvensional. Hasilnya menunjukkan bahwa umur, jender dan agama mendorong nasabah untuk memilih bank Syariah sebagai tempat menabung. Sebaliknya, tingkat pendapatan, wira-usaha, dan murid sekolah menyebabkan nasabah lebih memilih bank konvensional. Dampak positif tertinggi berasal dari agama, sedangkan dampak negatif terendah berasal dari murid sekolah. Meskipun mayoritas orang Indonesia adalah Muslim, terjadinya kemungkinan untuk memilih bank Syariah masih rendah.

Kata Kunci: Sharia Banking System, Customers' Decision, Logit Model, Customers' Characteristics.

INTRODUCTION

The world economy is sinking into recession during recent years. The economy enters an unstable phase and uncertain future, after having a difficulty due to high rate of inflation. High unemployment rate, highly fluctuated real interest rates and exchange rate are indicators of unstable economy. Learning from past experiences when the monetary crisis hit Indonesia in 1997, a number of conventional banks in Indonesia suffered from a shock, which in turn caused a number of banks bankrupted due to negative spread. The banks were not able to fulfill their obligations to the customers. High interest rate policy adopted by the Indonesian government during the crisis brought about conventional banks suffered from negative spread. As a result, in only one year 64 banks were liquidated and other 45 banks were problematic. This happened because the banks have to pay higher interest rate to customers than the interest received from the debtors.

However, such conditions did not affect the Sharia banks, because the banks were not burdened with the obligation to pay interest to the customers. Islamic banks only shared the bank's profit margin. With this Sharia system, banks will not have any negative spread. Islamic banking is a banking system that was developed based on Sharia or Islamic law. Businesses based on the establishment of this system in the religion of Islam prohibit collecting or borrowing with interest, or in other words it is called usury (*riba*). Investment restrictions for businesses are categorized *haram*. In Malaysia, a study shows that a volatility of stock return was lower after the conversion from conventional to Sharia-based operation and average return was better in the presence of the finance crisis in 2008 that affected the world economy (Basar, Ahmad & Nor 2012). Another study by Yusoff & Wilson (2009) shows that Sharia compliant deposits were more stable than their conventional equivalents. There were big changes in the return as a

result of the conversion. This is because the speculation risk was not present and indirectly the risk premium from the activity disappeared.

Abdulle & Kassim (2012) states that Islamic banks were holding more of the liquid assets than their conventional counterparts, thus are less exposed to the liquidity risks due to the financial crisis. In Africa, the profit-risk sharing characteristic of and socio-economic function, which Islamic finance stands for, along with a more effective regulation and supervision can help inject greater discipline into the system and, thereby, substantially reduce financial instability and promote faster development. It is suggested that Islamic finance should be given a trial alongside its conventional counterpart in Africa (Dogarawa 2012). Based on the fact that Sharia banking system is resistant to global economic crisis, there is a big development of Sharia banking system.

Recently the Islamic banking industry has become advanced. More than fifty countries around the world, such as the Gulf States, Egypt, Pakistan Malaysia, and Indonesia, have formally adopted the Sharia system into the national banking system to accompany the existing banking system (Sugema, Bakhtiar & Effendi 2009). Many investors have been impressed with Islamic financial institutions, and they are now actively investing their funds in such instruments. This is encouraging countries in other parts of the world such as the UK, Japan and US built Islamic financial instruments. They hope that Islamic banking system is capable of improving the economy (Majalah Ekonomi Syariah 2011). Even, some multinational banks such as Citibank and HSBC have developed a division or business unit in the Sharia. In other Islamic countries, the development and progress of Islamic banking industry can easily be seen. According to the Standard & Poor's, 2008, total asset of Islamic banks in the world reached 500 billion dollars and it continues to grow 10 per cent over

the last 10 years. Share of Islamic banks in the credit markets in Malaysia is about 12 percent, and in the six Gulf countries is about 17 percent (Sugema, Bakhtiar & Effendi 2009).

In Indonesia, according to a report by Bank Indonesia in July 2009, the market share of Sharia banks was still relatively small, which was 3 percent, with a 2.3 percent ratio of assets (Sugema, Bakhtiar & Effendi 2009). However, Islamic banking industry in Indonesia has undergone rapid development. With the issuance of Act 21 of 2008 on Islamic Banking, the development of the national Islamic banking industry has a strong legal basis and this will encourage faster growth. The development of Islamic banks is quite impressive, with an average asset growth of more than 65% in the last five years (Hasan 2011). It is expected that the role of Islamic banking industry in supporting the national economy will be significant.

In 2010, the Indonesian economy was relatively stable, including in the Islamic banking sector. During the year 2010 the Islamic banking, which was one of the instruments of national economic development, has been able to provide substantial support to the development of the real sector. In the late 2010, the market share of Islamic banking increased by three percent. Central Bank of Indonesia predicts that Islamic banking financing in 2011 will grow at around 30% - 35%. Retail segments, services and trade will be the backbone of banks' growth. Growth of bank in 2011 continued to increase; and this is because the number of financial institutions operated Sharia banking unit and Sharia business unit. Institutionally, the current number of Islamic banks has achieved 11 Sharia banking units, 23 Sharia business units and 146 Sharia people-financing banks, with a number of 1,625 offices spread in Indonesia. A Deputy Governor of Central Bank of Indonesia said that average annual growth of total assets was over 33 percent. Central Bank of Indonesia

noted that in October 2010, the total assets of Islamic banking reached 86 trillion (Majalah Ekonomi Syariah 2011).

Islamic banking growth in Indonesia is significantly driven by the dynamics of real rate of return and real interest rate. Higher rate of return increases the industry's growth, while higher interest rate impedes its growth. It is also evident that movements of the real rate of return and real interest rate are interdependent, thus creating a potential systemic instability in the Indonesian dual banking system. Given the historical development of Islamic banking in Indonesia, the existing policies on banking do not have significant impact on the industry's growth. The insignificance of the policies happens due mainly to the time-lag problem, which is time lag between the policies socialization and its effective implementation (Kasri 2010). The growth rate of Islamic banking network is also high. This is a rapid growth in the number of offices, especially in growing more than 100% during 2005-2010 on the number of Islamic banks and financing Islamic people banks. Sharia bank grew from 3 to 6 units, or it reached 100% during 2005-2010; Islamic Business Unit grew at 32%, which was from 19 to 25 units, and financing Islamic people banks grew at 52%, which was from 92 to 140. This high growth proves that the demand for Islamic banking in Indonesia is very high. This growth is expected to continue because Islamic banking assets have not reached the target of 5%, which was set by Central Bank of Indonesia by the end of 2008 (Hasan 2011).

It is well known that majority of Indonesians are Islamic believers. This is a good environment for Islamic bank to grow. It is suggested that regarding Islamic banks, especially Islamic banking customers, the main reason of why they want to be a customer is the religious grounds, stating that the bank interest earned from conventional banks is prohibited by law of Islamic Sharia. There is desire of the Mus-

lims to establish a banking institution in accordance with the Islamic Sharia, which is called Sharia banks. Although religion is one of factors considered by consumers to be willing to be customers of Islamic banks, there are many other factors that can influence the consumers to be Islamic bank customers. One of them is derived from a strategy undertaken by Islamic banks through the marketing strategy.

The strategy of marketing includes the policy of product, price, promotion, place and distribution channels, service personnel, service process, and the physical form of Sharia bank itself. The customers of the marketing can be influenced to be customers of Islamic banks. Kotler (2002) defines the marketing mix is a set of marketing tools used by companies to continuously achieve marketing objectives in the targeted market. In this case, how the marketing strategies undertaken by each Islamic bank in the very competitive Islamic banking sector, such that customers will be willing to select Sharia bank for running their businesses. This will always be associated with behavior and socio-economic backgrounds of costumers to make decision making process in choosing the Islamic banks. Based on this description, research question raised in this study is what determine the costumers to select the type of bank as business partner. To answer the question, the objective of this study is to determine factors affecting people in selecting bank for saving their cash. The benefit of this study is expected to provide information to Sharia banks in marketing their products.

THEORETICAL FRAMEWORK AND HYPOTHESIS

Literature Review

The rapid growth of Sharia banking in Indonesia is not instantaneous, but it must be accompanied by others efforts. Marketing and promotion is suspected to be factors behind the success. Closely good relationship between banks and their customers

could be one of the cases. In general, there is a belief that customers of banks should be served as a king to keep them loyal. Many factors affect costumers to be close to the banks. Relation experience with bank is key factor of trust. If customers often have good experiences, they will be loyal with such bank products, and vice versa. It can be said that trust is a condition resulted from good relation during certain periods. Trust is a variable that bridges between financial performance of firm and customers to keep loyal to the bank (Suhardi 2006).

Satisfaction of customers also plays an important role in marketing of banks. In Purworejo, Central Java, quality of services, which consist of reliability, responsiveness, assurance, empathy, and tangible, have significant positive effect on customers' satisfaction. The better the quality of banking services, the higher satisfaction felt by the public in the case of bank customers. The improved quality of services is expected to raise people awareness to save their money and try to live frugal, so it will have a positive impact on the lives of the people of Indonesia. Happily associated with the banking community, the bank needs to pay more attention to improve quality of services to cope with inter-bank competition (Hartono 2008).

Bashir (2013) shows that indirect effects of service quality and product quality on satisfaction awareness were positive and significant. Consumers were aware of Islamic banking products and services to a certain degree; and the reasons for preferring them were profitability and religious principles. While religious principle is a logical key determinant of the use of Islamic finance services, it is often not the only concern, with most consumers also identifying bank reputation, service quality and pricing as being of relevance in determining their patronage of a particular financial institution (Gait & Worthington 2007). This is supported by Selamat & Abdul-Kadir (2012) revealing that there is

no significant difference in the selection criteria; both Muslim and non-Muslim have common perception in selecting their banks. Religious motivation is not a primary factor in bank selection criteria, but bank customers place high emphasis on provision of fast and efficient service, confidential of the bank and banks' reputation and image as their main selection criteria.

With respect to Sharia banking system, there is a different segment because of different scheme between Sharia and conventional banks. Islamic banking operations are largely driven by the Sharia (Islamic jurisprudence) which defines the nature and character of the deposits and financing system. The key difference between an Islamic bank and a conventional bank lies in the behavior of the contracting parties. In the financial system of Islam, rules are set by God as revealed in the Holy Qur'an and the Prophetic Traditions (Ariff 1988). Accordingly, profits in Islamic banking operations are derived from the contract of trade (*al-bay*) as opposed to the contract of interest-bearing loans. In Islam, business risk-taking, not financial risk-taking, forms the basis of profits. A contract of trade is manifested by an exchange of money with an underlying asset, whereas a contract of interest-bearing loan entails an exchange of some money for more money or interest, which is prohibited as *riba* (Ariff & Rosly 2011).

Mechanically, financial products offered by Islamic banks are designed to be different from those offered by conventional banks by virtue of the fact that the Islamic products are ostensibly Sharia compliant. The differences can be concisely described as follows. In conventional banking system, customer deposits represent loans to the bank, whereas in Islamic banking system such deposits are considered as investments. While conventional banks lend money to customers for, say, buying properties; Islamic banks purchase properties and sell them to customers on deferred payment basis. Conven-

tional banks earn interests from borrowers and pay interests to depositors, whereas Islamic banks earn profits from asset-based financing activities and share these profits with depositors in the form of dividends (Ariff & Rosly 2011).

Sharia system has a fundamental scheme that attracts special segment of costumers. In terms of individual consumers, the evidence to date suggests that the presence of Islamic finance involves a substantial degree of market segmentation (Gait & Worthington 2007). Suyatmin & Arifin (2008) analyzes the relationship between profit sharing system, which is the fundamental system of Sharia financial organization, and the customers' wish to invest in Sharia scheme. Using product moment the correlation of the profit sharing and investment was significant, meaning that people's confidence level toward the system of organization was very significant; and this leads to increase in number of customers over time. It suggests that the system has attracted more customers. A study by Suraya, Mangkuprawira & Hafidhuddin (2010) finds that there is no difference in perception, preferences, and adoption level about Islamic microfinance institutions in two regions: Ciamis, West Jaya and Bantul, Yogyakarta. This indicates that people the same understanding on Sharia banking system. Thus, promotion of Sharia banking system should not consider different location.

In Malaysia, where the law is mostly based on Sharia, Islamic banking business in Malaysia has developed since the beginning of 1983 and has achieved its target of 20% market share in assets and deposits in 2010. The search for niche Islamic banking products warrants enhancements in the current regulatory, legal, and fiscal infrastructure for Islamic banking, without which these products cannot be a viable alternative to the conventional ones. While the prevailing infrastructure is conducive to Islamic banking products that hold similar characteristics with interest-bearing

loans, Sharia compliance can be a fruitless exercise when the purpose of the law is ignored, for there is much more to Islamic banking than the elimination of interest (Ariff & Rosly 2011).

In Indonesia, a lot of Islamic believers who relate to conventional scheme do not necessarily move to Sharia scheme. In phenomenology perspective, this is because different way of thinking among Muslim customers on concept of Sharia scheme, particularly on different interpretation about usury causes different perception and meaning of bank Interest (Danar & Syam, 2012). The most important factor considered by customers is the perception on Sharia concept. This is supported by the fact that customers' knowledge on Islamic banks is still limited, some of them even are not familiar with the products offered by Islamic banks. Religion is not the main reason for customer to patronize Islamic bank, another important reason is the level of profit sharing offered by the banks (Adawiyah 2010). In Malaysia, the service quality of Islamic banks falls below customers' expectations (Tahir, Bakar & Ismail 2008).

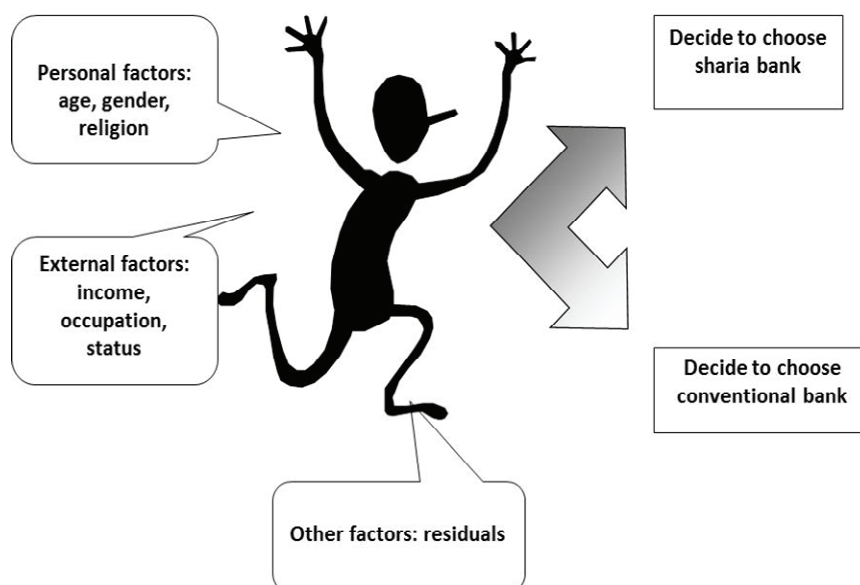
In Pakistan, Islamic banking is perceived to be based on Sharia and is working in its true spirit. Since most of the investors, in spite of size of their financial investments are making sure that they generate maximum profits from diverse range of Islamic products. People have positive attitude and enough awareness towards Islamic banking because most of the results have proved that people in Pakistan are shifting from conventional banking to Islamic banking, which will perform an active role in the Pakistan Financial Market in near future. There has been a constant increase in customer base of Islamic banking. Furthermore, since most of the people consider it to be a positive step towards developing economy, this perception guarantees optimistic future of Islamic banking in Pakistan. Islamic banks are required to aggressively market their prod-

ucts and conduct awareness sessions to improve the knowledge of the people about the products of Islamic banks and the difference from the conventional banking products and their long term benefits (Khan & Asghar 2012)

In marketing strategy, the performance of banks is one of important factors to attract a lot of customers. Mardalis & Zusrony (2009) observes that at a glance the profits earned by the customers of Sharia banks is greater than that of conventional bank customers through its marketing mix strategies that can be accepted by consumers. Further study using factor analysis shows that factors that influence consumer behavior in selecting Islamic banks in Surakarta – Central Java is internal factors, which consist of safe and comfortable aspects, relationships, features or products, and the promotion of Sharia; meanwhile external factors consist of personal, psychological, social, and cultural. It is that expected the company should pay more attention to the safety and comfort as well as personal factors in order to improve customer satisfaction, so it can be used as a reference in corporate managerial implications.

Using logistic estimation, Maski (2010) finds that customer decision to choose Islamic banking were influenced by variables of Islamic banking characteristics, services and trust variable, knowledge variable, and physical of bank variable. In addition, services and trust were very dominant in influencing customer preferences to save their money in Islamic banking. Another study by Yulianto-K, Yuniarinto & Surachman (2009) shows that three of seven marketing mix factors, which are product, place, and people have significantly affect customer consideration in choosing several Sharia banks in Medan – North Sumatra. The other four factors, price, promotion, process, and physical evidences do not significantly affect customer consideration. One factor that gives the most dominant consideration is the type products.

Figure 1
Description of Decision Making



Source: Author's creation.

Since the performance of Sharia bank is an important factor in attracting consumers, it is crucial to improve the performance by increasing efficiency of bank. Initially the conventional banking system is performing better than the Islamic one. But, after the crisis, Islamic banks seem to look after the performance of conventional banks (Miniaoui & Gohou 2013). In principal, banking activities of Islamic banks have been relatively more efficient than conventional banks (Rosyadi & Fauzan 2011), and Sharia banks are more stable and more resistant to crisis due to the requirements of the Sharia (Zehri & Al-Herch 2013). If Sharia bank is more efficient and stable, the banks will be more attractive to costumers to do more business. Pramuka (2011) highlights crucial information regarding the efficiency of Islamic banks in developing country. Islamic banks should continuously increase the amount of third party fund and financing volume and make it more efficient in generating profit. In addition, Islamic bank efficiency may have a great influence on the Indonesian government policy, which is expected to be in favor of the industrial sector instead of the monetary sector. Resistance of

Sharia banks to shocks because of economic crisis is also an important factor (Basar, Ahmad & Nor 2012).

Improvement of bank efficiency is also important in another country. A study by Rus, Abdul-Majid & Nor (2011) analyzes the difference between Malaysian banks and foreign banks in terms of efficiency. The study shows that domestic conventional banks which operate Islamic banking have cost-saving technology compared to foreign banks. While, the relatively new foreign Islamic banks still need more time to enter competition as they are found to be inefficient.

As mentioned above that customers' decision to make business with Sharia scheme are mostly affected by the characteristics of banks. Only a few studies explore the characteristics of customers determining why some customers select Sharia scheme and why some others do not. This current study is to explore the later issue to fill the gap of understanding on costumers' characteristics.

Hypothesis

Each person takes a decision to select Sharia

bank as a business partner is affected by internal and external factors. External factors consist of bank characteristics, which are already mentioned in literatures. Internal factors consist of social-economic background of customers. Figure 1 describes a process of customers' decision making to select Sharia scheme as a something new in their life.

In an econometric model, the process of decision making can be formulated in a regression model as follow.

$$Y \begin{cases} 1 \\ 0 \end{cases} = \beta_0 + \beta_1 AG + \beta_2 GD + \beta_3 RE + \beta_4 IG + \beta_5 ET + \beta_6 ST + \varepsilon \quad (1)$$

Where $Y=1$ if customer selects Sharia scheme, $Y=0$ if customer selects conventional scheme, AG =age of customer, GD =gender of customer, RE =religion, IG =income group, ET =entrepreneur, ST =student, and ε is residuals. The model explains that customer's decision to choose Sharia or conventional schemes is dependent on age, gender, religion, income group, occupation, status as student, and others factors captured as residuals. If equation (1) is estimated using ordinary least square (OLS), it is called linear probability model (LPM). In the LPM, marginal effect of explanatory variable is just simply β . LPM can be used, but it has two major limitations: (i) the estimated model suffer from *heteroscedasticity* leading to inefficient of standard error; (ii) the predicted probability of $Y=1$ could be either greater than one, or less than zero, which is insensible (Verbeek 2003).

One of appropriate way to estimate equation (1) is *logit* model (Park 2009). In mathematical terms, the *logit* model that describes the probability $Y=1$ given socioeconomic factors of farmer can be expressed as:

$$P\{Y=1\} = \frac{\exp\{\mathbf{X}\beta\}}{1 + \exp\{\mathbf{X}\beta\}} \quad (2)$$

For the same case, the probability $Y=0$ is expressed as:

$$P\{Y=0\} = \frac{1}{1 + \exp\{\mathbf{X}\beta\}} \quad (3)$$

where

$$\mathbf{X}\beta = \beta_0 + \beta_1 AG + \beta_2 GD + \beta_3 RE + \beta_4 IG + \beta_5 ET + \beta_6 ST + \varepsilon$$

From equation (2) and (3), we can proceed with taking logarithmic operation to odds ratio as:

$$\begin{aligned} \ln \frac{P\{Y=1\}}{P\{Y=0\}} &= \mathbf{X}\beta \\ &= \beta_0 + \beta_1 AG + \beta_2 GD + \beta_3 RE \\ &+ \beta_4 IG + \beta_5 ET + \beta_6 ST + \varepsilon \end{aligned} \quad (4)$$

Equation (4) explains that more or less likely of $Y=1$ is dependent on $\mathbf{X}\beta$. When β is positive, it means that increase in X leads to more likely for $Y=1$, and vice versa. Unlike in LPM model, β here does not represent marginal effect of change in X .

Marginal effects and discrete changes are very useful when interpreting the result of a binary *logit*, because it is an exact measure of partial effect as a result of change in certain explanatory variable, keeping other explanatory variable unchanged. Marginal effect of explanatory variable will be dependent on the type of explanatory variable. The marginal effect of a continuous explanatory variable is the partial derivative with respect to that variable. But, marginal effect of dummy explanatory variable is the difference in predicted probabilities of $X=1$ and $X=0$, holding all other independent variables constant at their reference points. Marginal effects of the former and the later look similar but are not equal in conceptual and numerical senses. Marginal effect of continuous explanatory variable is formulated as:

$$\partial \frac{P\{Y=1\}}{\partial X} = \frac{\exp\{X\beta\}}{[1 + \exp\{X\beta\}]^2} \quad (5)$$

While, marginal effect of dummy explanatory variable is formulated as:

$$\Delta \frac{P\{Y=1\}}{\Delta X} = P\{Y=1 | X=1\} - P\{Y=1 | X=0\} \quad (6)$$

Estimation *Logit* model and calculation of marginal effect of X can be easily run using STATA, an econometric package of program (Park 2009).

Table 1
Definition and Measurement of Variables

Variable	Definition	Measurement
Sharia ($Y=1$)	Customer's decision on selection of bank scheme	Binary, $Y=1$ if customer selects Sharia scheme, $Y=0$ otherwise
Age (AG)	Age of customer when open new account	year
Gender (GD)	Gender of account holder	Binary, $GD=1$ for male customer, $GD=0$ otherwise
Religion (RE)	Religion of customers	Binary, $RE=1$ for Muslim customer, $RE=0$ otherwise
Income group (IG)	Monthly income of customer	Categorical, 1 = less than 24 million, 2 = 24 million-60 million, 3 = 60million-120million, 4 = greater than 120 million
Entrepreneur (ET)	Customer's occupation	Binary, $ET=1$ for entrepreneur, $ET=0$ otherwise
Student (ST)	Status of being student	Binary, $ST=1$ for student, $ST=0$ otherwise

Source: Author's analysis data.

To identify whether the selected explanatory variables actually affect customers' decision, hypotheses are constructed. The overall hypothesis is that customers' decision is affected by socioeconomic factors and other characteristics embedded in customers. It is formulated as:

$$H_0: \beta_0 = \beta_1 = \beta_2 = \dots = \beta_6 = 0, \quad (7)$$

and H_1 : if H_0 is not true.

In LPM, the hypothesis is rejected if F is greater than F critical at 1%, 5% and 10%. In *logit* model, this hypothesis will be rejected if likelihood ratio (LR) is greater than χ^2 critical at error of 1%, 5% and 10% level. When overall hypothesis is rejected, it proceeds with individual hypothesis of each explanatory variable, which is formulated as:

$$H_0: \beta_k=0 \text{ and } H_1: \beta_k > \text{ or } < 0, \quad (8)$$

for $k=1, 2, \dots, 6$.

The hypothesis will be rejected if t -ratio of LPM (or z -ratio of *logit*) is greater than t (or z) critical at error of 1%, 5% and 10% levels. If those hypotheses are rejected, these mean that the corresponding factors have significant impact on the customers' decision.

RESEARCH METHOD

This study uses cross-sectional data, which were randomly drawn from the database of a foreign exchange multi-national bank that provides both Sharia and conventional schemes. 211 sample data, which consist of 101 customers of Sharia and 110 customers of conventional schemes, were drawn from a population of customers who were staying in East Java. Cross sectional analysis provides useful information on the patterns of decision to select alternative across customers, their decision-making process, and individual preferences. Note that logistic model has two specifications: fixed and dynamic. The dynamic specification is more realistic than fixed specification because customers learn by experience and do not simply decide whether or not to permanently select an alternative scheme. The customers' decision in one period is highly correlated with the previous decisions; therefore, customers' decisions need to be followed over time (Doss 2006; Moser & Barrett 2003). Both fixed and dynamic specifications of logistic model require availability of panel data. However, as Doss

Table 2
Characteristics of Selected Sample of Customers

Customers	Variables	Obs.	Average	Std. dev.	Min	Max
Total customers	Age ¹	211	25.16	13.21	3	60
	Gender	211	0.59	0.49	0	1
	Religion	211	0.75	0.43	0	1
	Income group	211	1.32	0.74	1	4
	Entrepreneur	211	0.05	0.22	0	1
	Student	211	0.24	0.43	0	1
Sharia customers	Age	101	29.38	10.32	6	60
	Gender	101	0.69	0.46	0	1
	Religion	101	0.90	0.30	0	1
	Income group	101	1.30	0.64	1	4
	Entrepreneur	101	0.03	0.17	0	1
	Student	101	0.07	0.26	0	1
Conventional customers	Age	110	21.28	14.38	3	60
	Gender	110	0.50	0.50	0	1
	Religion	110	0.61	0.49	0	1
	Income group	110	1.34	0.82	1	4
	Entrepreneur	110	0.07	0.26	0	1
	Student	110	0.40	0.49	0	1

¹ There are very young customers who are 3 and 6 years old. This could happen because the bank allows and provides special account for children, called joint account with their parent. As the data were drawn from database of the bank, the age of parent could not be retrieved and the age of real customers is used in this analysis.

Source: Author's analysis data

(2006) points out, when panel data are unavailable, cross section data can answer important questions about decision making. In this study, Sharia banking system is considered as a new compared to conventional bank. The definition and measurement of data provided by the bank can be seen in Table 1. The summary statistics of sample used in this study is provided in Table 2.

DATA ANALYSIS AND DISCUSSION

Estimations of LPM and *logit* models are presented in Table 3. We can see that both models overall show significant levels at 1%. This means that selected explanatory variables here very significantly affect the probability of customers to choose one of bank's schemes. Low R^2 indicates that other variables excluded from the model have significant roles. This is obvious because this study only includes internal aspects of customers. As discussed in literature review, there are other external factors influencing customers' decision to select

banking scheme as a place of saving. There are also different requirements, facility and ease between Sharia and conventional schemes, which are beyond from this study.

Both models show consistent sign, where age, gender and religion have positive impact on probability of customers to select Sharia scheme; meanwhile income group, entrepreneur and student have negative impact. Since LPM model is bias, starting from this point, interpretation is based on *logit* model. Based on result of *logit* model, positive impact means that such variables lead to more likely for customers to choose Sharia scheme. Conversely, negative impact means that the variables lead to less likely for customers to choose Sharia scheme.

Partially, all selected variable are significant. Age has positive impact. This means that older customers are more likely to choose Sharia scheme. A possible cause related this finding is that being older

Table 3
Estimation of Regression Models

Variables	LPM			Logit model		
	Coef.	s.e	t	Coef.	s.e	z
Constanta	0.1599	0.1367	1.17 ⁿ	-1.98	0.78	-2.54 ^b
Age	0.0068	0.0039	1.76 ^c	0.04	0.02	1.80 ^c
Gender	0.1314	0.0608	2.16 ^b	0.72	0.34	2.09 ^b
Religion	0.3402	0.0688	4.95 ^a	1.94	0.43	4.52 ^a
Income group	-0.0751	0.0437	-1.72 ^c	-0.52	0.25	-2.08 ^b
Entrepreneur	-0.2749	0.1433	-1.92 ^b	-1.29	0.79	-1.62 ^c
Student	-0.2948	0.1110	-2.66 ^a	-1.62	0.65	-2.48 ^b
Number of obs. = 211						
F(6, 204) = 14.01 ^a				LR $\chi^2(6) = 72.77^a$		
R-squared = 0.2919				Pseudo R ² = 0.2491		

Source: Author's analysis data

Note: a) significant at error 1%, b) significant at error 5%; c) significant at error 10%; n) insignificant

might lead to more conscious to the concept of Sharia. In general perception that being older will be close to passing away, people will avoid committing a sin. This is slightly different from the case in Bangladesh, where customers with age categories beyond 25 years do not care for rate of return as a bank selection criteria (Khan, Hassan & Shahid 2007). Compare to the case in Nigeria, Islamic Banking is more popular amongst young people (Fada & Wabekwa 2012). As discussed in the literature that making any relation with conventional banks leads to *riba*, which is prohibited by Islamic law (Ariff & Rosly 2011). In this case, attitude and knowledge of customers play an important role in affecting individual to make a decision (Adawiyah 2010).

Gender is positive significant; this implies that male customers are more likely to put their money in Sharia scheme than female. There is no plausible explanation why men prefer to Sharia system. Emotional aspects and understanding on Sharia system may affect female customers' decision. This is a big deal, because there is interaction between male and female in the household and commonly male serve as the leader of a household.

Religion has very significant positive impact, meaning that Islamic believers are

much more likely to choose Sharia system. This is noticeable since the main target of Sharia banks is Islamic communities, who believe that bank interest is considered as *riba*, and it is prohibited by Islamic law. Religion obligation refers to the role of religion in affecting an individual's choice or activities (Amin et al. 2011). Several reviews on attitude towards Islamic banking have confirmed the importance of religious or Sharia-compliance in customers' bank selection. The measures of religion obligation involve perception to comply with the underlying Islamic principles i.e. *riba* free, investment in *halal* business and equal distribution of wealth (Butt et al. 2011).

Income group has negative significant effect; this means that getting richer leads to less likely to choose Sharia system. In this case, rationality defeats emotion. With a huge amount of money, it is rational to invest money in the assured interest rate, rather to put in profit sharing at which there is no guarantee that such banks will make significant profit. In contrast, with a few amount of money, certain interest rate, which is currently low, customers choose Sharia system, because the bank interest or *riba* will be low as well, but it leads to making a sin. Compare to a study in Bangladesh, customers with lower levels of

Table 4
Marginal Effect of Explanatory Variables

Variables	$\partial Y/\partial X$	s.e	z
Age of customer	0.01	0.01	1.80 ^c
Gender*	0.17	0.08	2.15 ^b
Religion*	0.41	0.07	5.93 ^a
Income group	-0.13	0.06	-2.08 ^b
Entrepreneur*	-0.27	0.13	-2.13 ^b
Student*	-0.35	0.11	-3.10 ^a
Y = Pr(Sharia) = 0.44164079			

Source: Author's analysis data.

Note: (*) $\partial Y/\partial X$ is for discrete change of dummy variable;

a) significant at error 1%, b) significant at error 5%,

c) significant at error 10%

income tend to rely on the recommendations of friends and family in choosing a bank; whereas customers in the higher income category select Islamic banks mainly for religious reasons. Customers in the higher income categories tend to rely on convenient location of the bank in making bank selection decisions. Customers' level of education does not play any significant role in customers' employment of bank selection criteria (Khan, Hassan & Shahid 2007)

Entrepreneur has significant negative impact; this means that being entrepreneur is less likely to invest money in Sharia system. In this case, entrepreneurs tend to be more rational than others. In general, entrepreneurs are much wealthier than non-entrepreneur. This finding is consistent to previous one. Last, student has significant negative impact. This implies that being student is less likely to save their money in Sharia system. In this case, it is dependent on the requirement of bank. Students usually take one that is more practical. As conventional system has been established long time ago, it is more practical for student to choose conventional system.

The *logit* model does not provide information of which variable has greater impact in magnitude. Table 4 provides such information. It can be seen that religion has the largest positive effect on customers' decision to choose Sharia banking

system as partner of business. As expected, this is should be case because Sharia banking system is based on Islamic law. In Islamic countries where the Islamic fundamental law applies, there is a conducive environment for Sharia banks to grow (Arieff & Rosly 2011). Likewise in Indonesia, Sharia banks undergo rapid growth (Hasan 2011). Student and entrepreneur have large negative impact. There is tendency that Sharia banking system has been promoted and socialized to schools (Bisnis Indonesia 2012). This is a good point because students are candidates of young enthusiastic entrepreneurs. However, entrepreneur is of interest currently because of greater amount of money invested in the bank by entrepreneurs than students. This is a challenge for Sharia bankers to convince established entrepreneurs, as well as rich people, that Sharia banking system is a better alternative to invest their assets.

Note that total probability of customers to choose Sharia bank as a place of investment is still less than 50%. Even though the majority of East Java residents are Islamic, more than 50% of customers still prefer to put their cash in the conventional banking system. It seems that understanding on Sharia banking system and the religious level of customers determine the decision, as in phenomenological discussion by Daniar & Syam (2012). In addition, Sharia banking system is just newly

introduced and established in Indonesia. There is still need time for Indonesian community to understand the system.

CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

Banking sector has been an evolution, where Sharia banking system has developed rapidly since the failure of conventional banks during global economic crises, when Sharia banks were more resistant to financial shocks. In Indonesia, Sharia banks have a favorable environment because majority of Indonesian people is Muslim. During recent years, Sharia banking system in Indonesia shows a dramatic growth. The rapid growth of Sharia banks must be supported by good response of customers, from which the fund comes from. By using *logit* regression model to estimate a model of customers' decision, older customers prefer to invest their asset in Sharia scheme. As expected, Muslim customers also have a much preference to invest their money in Sharia system. However, rich people and entrepreneurs still prefer to invest their assets in the conventional banking system. The last finding is a challenge for Sharia bankers to cope with, because huge amount of funds is still held by entrepreneurs and high income people.

In short-term, it is recommended that Sharia bankers promote and socialize Sharia banking products to Islamic and older communities to collect more customers, because positive response comes from them. In the long-run, it would be fruitful to socialize Sharia bank schemes to broader community in order to improve understanding on Sharia system. Note that majority of Indonesian residents are Muslim, but the likelihood of people to put their asset in the Sharia scheme is still low. As the system is quite new, and people might not have understood well what the system offers, survey on the understanding of community is very worthwhile. Better understanding on this system is expected to change mindset people from conventional

banking system to Sharia one.

For further study, there are various topics of customers' preference regarding Sharia banking systems in terms of depositors and debtors need to be investigated. The system will develop more rapidly if the number both depositors and debtors of Sharia banks increase as the turnover of the banks rises. It is also relevant to study the response of non-Muslim community toward the presence of Sharia banking system.

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