ثرسيدعٌن انتارابڠسا ڤرتام ڤركمبڠن سيكتور كواڠن اسلام:

"مڠڤريمكنكن ڤرخدمتن كواڠن اسلام فراوسهان كچيل دان سدرهان"

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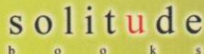# ENTERPRISES [MMES]

17th to 19th April 2007

VOLUME 1

Organised By

Centre for Islamic Banking, Finance and Management (CIBFM), Universiti Brunei Darussalam
Islamic Research and Training Institute (IRTI), Islamic Development Bank, Jeddah

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AGENCY PROBLEMS IN *MUDHARABAH* FINANCING THE CASE OF *SHARIA* (RURAL) BANKS, INDONESIA.

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ABSTRACT

This study is concerned with agency problems that arise in Mudharabah financing in Indonesian Rural Sharia Banks. The study is focused first on project attributes, especially those that might be considered in dealing with Mudharabah financing; and second the Mudharibs' attributes financed by the banks under consideration.

The research is explorative in nature, with a combined qualitative and quantitative approach undertaken. The qualitative approach identifies the factors which are deemed by the banks as relevant to Mudharabah financing, both from Mudharabah projects and Mudharib points of view. The quantitative method is then applied to examine statistical factors.

The study was conducted in cooperation with eighty four out of 89 Islamic or Sharia Rural Banks in Indonesia, with 64 respondents (76.19 per cent) returning questionnaires. Certain Bank Managers were also interviewed extensively. The number of retuned questionnaires included in this study is statistically adequate.

The study found that there are six attributes considered from the Mudharabah projects point of view. These include: the prospect of project, availability of collateral, healthiness of project, project's financial statements, clarity of contract conditions, and conformity of time period.

In regard to Mudharib attributes, the study concludes that five characteristics were considered important. They include: business capacity, (personal) collateral, Mudharibs' reputation and family background, and their business commitments. Further quantitative analysis has been conducted to examine these attributes. This filters all attributes into five most influential factors. They are: business skill, business reputation, business commitment (all are related to Mudharib), financial report of project and length of contract of project.

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Keywords: Mudharabah, Agency Problems, Sharia Rural Banks, Indonesia.

1. INTRODUCTION AND RESEARCH BACKGROUND

The existence of Islamic (or as commonly stated, *Sharia*) Banks in Indonesia began in 1991. Establishment was initiated by Bank Mualamat Indonesia (BMI) in 1992 after the Indonesian Parliament passed the Banking Act No. 7, 1992 (following the promulgation of Government Regulation No. 72, 1992. Significantly, the growth of the industry became more progressive after the Bank Act No. 7 was amended by Banking Act No.10, 1998).

According to Banking Act No.10, 1998, the Indonesian Banking Industry is classified according to two levels. They are General or *Sharia* Banks and Rural *Sharia* Banks. Bank Indonesia (Indonesia's Central Bank) statistics show that in July 2006 there were three fully-pledged *Sharia* Banks, 10 *Sharia* Banking Units[1] and 94 Rural *Sharia* Banks. These do not include more than 3000 other *Baitul Maal Wat Tamweels* (BMT), or micro-finance industry establishments, which were formerly operated under the Cooperative Act. (BMT's legally function like *Sharia* Banks; however they cannot be classified in this way.)

Notably, the market share of the industry remains relatively small, nevertheless growth has been remarkable. The following (Table: 1) demonstrates market share development in comparison to aggregate industry (current to July 2006).

[1] These Unit *Sharia* Banks belong to conventional or general banks, which are given the rights to operate the *Sharia* division in the form of branches.

Table 1: Islamic banks' share to all banks in Indonesia

(As per July 2006)

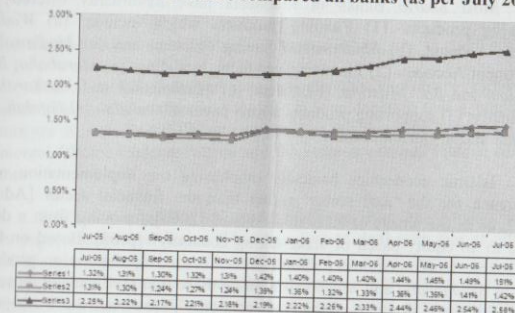|	Islamic Banks		
	Nominal	Share	Total Banks
Total Assets	22.86	1.51%	1517.06
Deposit Fund	16.51	1.42%	1161.04
Credit / Financing Extended	18.53	2.58%	716.79
LDR / FDR*)	112.23%		61.74%
NPL	4.71%		8.10%

LDR: Loan (credit) extended to deposit ratio.
FDR: Financing extended to deposit ratio.
Source: Bank Indonesia (August 2006) *Islamic Banking Statistic.*

The following (Figure: 1) shows the month-to-month growth of *Sharia* Banks in Indonesia in comparison to conventional banks (current from July 2005 to July 2006.

Figure 1: Islamic banks' share compared all banks (as per July 2006)

	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06
Series1	1.32%	1.31%	1.30%	1.32%	1.31%	1.42%	1.40%	1.40%	1.42%	1.44%	1.45%	1.49%	1.51%
Series2	1.31%	1.30%	1.24%	1.27%	1.34%	1.36%	1.32%	1.33%	1.36%	1.36%	1.41%	1.42%
Series3	2.25%	2.22%	2.17%	2.2%	2.18%	2.19%	2.22%	2.26%	2.33%	2.44%	2.46%	2.54%	2.58%

Source: Bank Indonesia [2006] *Islamic Banking Statistic*, August 2006

Notably, predictions have been made about the future prospects of the industry. For example, Karim Business Consulting (KBC) forecasted that Islamic bank market share could potentially reach 6.67 per cent of the industry by 2008, (See the Indonesian newspaper *Republika*, 21 December

2006). Alternately, the Central Bank of The Republic Indonesia predicted the lesser figure of 5.18 per cent by the same year.

Despite good growth and increasing market share, the overall contribution of Islamic banks in Indonesia is still below industry expectations. These expectations are based, *inter alia*, on the fact that Indonesia is numerically the largest Muslim country in the world. Indonesia has a total population of over 238 million, of which over 80 per cent are Muslim. Consequently, the market share of the Islamic banking sector should ideally be greater than what has been achieved to date.

The contribution of Islamic banks in Indonesia towards national economic growth remains dependent to large extent on how they are able to operate effectively, either in offering attractive products or services, or else in playing a constructive social-mediation role. As elsewhere, this is a balance between the availability of surplus funds (capital), and the need for investment funds (various capital requirements).

Most *Sharia* Banks in Indonesia have historically offered the following products: (1) Funding products which include: (a) *Wadiah* Current Account, (b) *Mudharabah* Saving Account and (c) *Mudharabah* Investment Account. (2) Financing products, including: (a) *Murabaha*; *Bai' as-salam* and *Bai' al-istina*, (b) *Ijarah*, (c) *Mudharabah* and *Musharakah*, and finally: (3) supporting products which cover *Al-wakalah*, *Al-kafalah*, *Al-hiwahal* and *Al-qardhul hasan*.

Islamic economics basically emphasize the implementation of a preference for the 'real sector' rather than the financial sector [Adnan, 2003], or in the words of Khurshid Ahmad [2000], "moving from a debt-based to an equity-based or stake-taking economy" [p 63]. Based on this, the Islamic banking industry should have focused operations on products such as *Mudharaba* and *Musharaka*, since these two products are closer to the equity-based or stake-taking 'real economy'. However, the world-wide development of Islamic banking does not exactly show this trend. What has been alluded by Karim [2001], and Warde [1999, 199] clearly shows this. Mujiyanto [2004, 15] reported that in Indonesia the *Mudharaba* contributes only 14.33 per cent, while *Musharaka* even less: 2.86 per cent.

The following (Table: 2) represents the current development of financing modes in Indonesia. This shows a promising change from results

of research conducted during 2003-2004; however the total composition of product portfolio still does not yield the outcomes expected by Khurshid Ahmad [2000] and Adnan [2003] as alluded earlier.

Table: 2. Composition of financing of Islamic banks (Million IDRs)

Items of Financing		Sep-05	Dec-05	Mar-06	Jun-06	Jul-06	Aug-06
Musharakah Financing	Amount	1,830,176	1,898,389	2,005,520	2,099,122	2,206,122	2,298,641
	Share	12.41%	12.46%	12.54%	11.55%	11.91%	12.07%
Mudharabah Financing	Amount	3,004,030	3,123,759	3,208,905	3,560,848	3,636,451	3,697,849
	Share	20.36%	20.51%	20.05%	19.61%	19.63%	19.42%
Murabahah Receivable	Amount	9,310,948	9,487,318	9,981,242	11,778,333	11,843,364	12,118,566
	Share	63.11%	62.29%	62.39%	64.85%	63.92%	63.66%
Salam Receivable	Amount	150	-	-	-	-	-
	Share	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Istisna Receivable	Amount	297,086	281,676	289,179	293,359	301,079	303,335
	Share	2.01%	1.85%	1.81%	1.63%	1.63%	1.59%
Others	Amount	310,909	440,800	512,102	430,464	540,250	619,201
	Share	2.11%	2.89%	3.20%	2.37%	2.92%	3.25%
Total		14,753,299	15,231,942	15,996,948	18,162,126	18,527,228	19,037,592

Source: Bank Indonesia (August 2006) *Islamic Banking Statistic.*

The facts presented above indicate the significant differences between theory, expectation and reality. It is undeniable that a number of factors are in play. Two different perspectives can therefore be applied. One is internal Islamic banking factors and the other is external Islamic banking factors.

A full understanding of product offered, like *Mudharaba*, is one such important internal factor. The readiness to deal with risk is another. Most Islamic Bank Managers are accustomed to a risk-averse than a risk-taker approach. This implies that *Mudharabah* has been perceived as a risky product. This risk is in fact related to agency issues associated with the external factors, where the honesty, transparency and trustworthiness of the consumer cannot be guaranteed.

The *Mudharabah* contract is an agreement between two or more parties, where profit and loss are shared between the capital owner or principal, and the agent or bank consumer. It is important therefore to understand that this functions effectively when both parties are ready and

willing to be transparent. This includes disclosure of all aspects of the business they have agreed to operate. Such a contract is strongly associated with moral hazard particularly in the context of 'asymmetric information'. This is likely to be unavoidable in the contract of *Mudharabah*.

2. RESEARCH QUESTIONS

There are basically two levels of research questions that need to be answered. The first is to investigate the attributes of both project and *Mudharib*, as considered by the Islamic bank. At this level the study aims to answer the following questions:

1. What are the projects attributes considered by *Sahibul Maal* (Islamic Banks) in financing *Mudharabah* projects.
2. What are the *Mudharib* attributes considered by *Sahibul Maal* in financing *Mudharabah* projects.

In the second level, the study aims at examining the model designed to ensure that those attributes can effectively reduce agency problems. The questions raised are as follows:

1. How far can the screening mechanism of project attributes reduce agency problems in Mudharabah financing?
2. How far can the screening mechanism of Mudharabah attributes reduce agency problems in Mudharabah financing?

3. RESEARCH OBJECTIVES

The research has two objectives. In the first level, it is expected that the research can find:

1. The project attributes considered by *Sahibul Maal* in financing *Mudharabah* projects, and
2. The *Mudharib* attributes considered by *Sahibul Maal* in financing *Mudharabah* projects.

In the second level, the research is expected to formulate:

1. The project attributes that can reduce agency problems in mudharabah financing.
2. The *Mudharabah* attributes that can reduce agency problems in *Mudharabah* financing.

4. RESEARCH CONTRIBUTIONS

There is a demonstrable need to orientate the Islamic banking industry to be closer to the 'real sector' than the financial sector [Adnan, 2003], or from debt-based to equity-based financing [Khurshid Ahmad, 2000]. The best products, or these more closely linked to such a direction are the *Mudharaba* and *Musharaka*. However, historical industry data, particularly in Indonesia, and generally at the international level, indicate the contrary. Obstacles remain when faced with offering the *Mudharaba* product, such as moral hazard, asymmetric information and so forth. Significantly there has been no research conducted to specifically investigate these related attributes.

This research is an effort to offer a solution to these problems. It is expected that the attributes investigated will contribute to the general knowledge about *Mudharabah* practices during the modern era. Furthermore, the Islamic banking industry is likely to benefit from utilizing these attributes in order to promote one of the basic tenets of Islamic economics.

5. PREVIOUS RESEARCH SURVEY

A survey of the literature reveals that some cursory research associated with the issue of *Mudharaba* has been conducted. Ibrahim Warde [1999] for example has focused his study on the impediments and problems of implementation of profit-and-loss sharing contracts. By applying the explorative method, Warde found that *Mudharabah* contract was often associated with adverse selection and moral hazard. Warde's findings are important; however the research has not formulated a measurement of adverse selection.

Abdul Fatih, A. A. Khalil, Colin Rickwood and Victor Muride [2000] conducted research related to the characteristics of agency in *Mudharabah* contract between Islamic banks and their customers. They basically found that there are: (1) risk problems caused by moral hazard and

adverse selection; (2) linear relationships between projects and profit, and; (3) discretionary power.

The authors also identified several aspects which were considered by *Sohibul Maal* in selecting: (1) the *Mudharibs* or projects; (2) the criteria to accept or reject; (3) the factors which determine the profitability of projects; (4) the variables that can be used to re-structure the *Mudharabah* contract; (5) agency problems and; (6) monitoring and contractual governance. However, the study did not identify the influence or the contribution of the factors found in agency problems faced in *Mudharabah*.

Karim (2000) has also studied the suitability of *Mudharabah* and *Musharaka* financing. He found that *Mudharabah* and *Musharaka* financing is fit for small and medium business enterprises, provided that incentive compatible constraint mechanism is applied. This includes: (1) the setting up of capital proportion or the collateral contributed by *Mudharib*; (2) a minimum operational business risk; (3) the project should be ready with financial statements and; (4) the project has relatively low uncontrollable expense.

According to Sumiyanto [2004] who conducted research on *Mudharabah* at BMT, both the projects attributes, *Mudharibs* compliance and financing pre-requisites, have a significant role in the increasing of *Mudharabah* contract between the BMTs and their customers. Although the study was more focused, it was done for BMTs, instead of Islamic banks, which are much bigger in terms of size and complexity.

In addition to above research, Darmawangsa [2003] researched the *Gharar* aspects in *Mudharabah*. By implementing the case study approach, he found that the *Gharar* will emerge in the *Mudharabah* contract when two conditions exist: (1) the project financed has incomplete information: and (2) the *Sohibul Maal* has no sufficient information about the project, so that they have no capacity to control.

Several research projects in a related area (*Mudharaba*) have been conducted; however this research has maintained a different perspective in terms of research questions, methods, scope and data analysis. This study rather is aimed at a determination of project attributes considered by Islamic banks in order to effectively offer their financing services, as well as *Mudharib* attributes in selecting the potential *Mudharib* to be financed.

6. LITERATURE STUDY

This study was primarily conducted because of the low proportion of *Mudharabah* financing offered by *Sharia* banks in comparison to other products such as *Murabaha* or other 'trading' products. This is why many critics have raised questions about the operations of *Sharia* banks generally [See for example Kuran, 1986; Weiss, 1999; Ahmad, 2000, Adnan, 2003 just to mention a few]. Ironically, the *Mudharabah* product has been the most popular product associated with Islamic economics generally and Islamic banking in particular.

Among the concerns on the *Mudharabah* operation is the possibility of agency problems linked with modern investments. Jensen and Meckling [1976] are among the pioneers who raised the issue of agency problems. The agency concept is related to incentive- based contract, where the rewards are provided by the principal for the party working to improve productivity [Pass, Lowes and Davies, 1985, 285]. The reward can be in the form of a bonus, profit-related-pay or profit sharing.

The *Mudharabah* is defined as a contract between the *Sohibul Maal* (in this case the capital provider) and the *Mudharib* (business operator) in which the profit earned is shared according to an agreed proportion. This includes the case of loss, which two parties will also share – the capital provider being responsible for financial loss and the *Mudharib* being charged with non-financial loss [see for example Antonio, 2000; IAI 2002].

The modern investment concept is not exactly similar to the *Mudharabah* concept, however there are similarities. Because of this, associating or analogizing the *Mudharabah* with the agency problem is plausible.

Jensen and Meckling [1976] offered two methods by which a capital owner can reduce the risk of inappropriate agent conduct. One is by carefully monitoring the agent and the other is by bonding the manager or agent to certain positive outcomes. Consequently, this process limits the opportunity for an agent to mismanage or abuse the project, while at the same time increasing expenses and reduces profit. Any residual losses are categorized as an agency cost.

According to Rechelstein [1992] the agency problem will arise when the principal hires the agent, and the agent does not share what he or she has earned. While Stiglitz [1992] views that the agency problem exists if in the relationship between the principal and the agent there is imperfect or asymmetric information sharing [Jogiyanto, 2000, 369]. Jogiyanto also states that asymmetric information may occur where some of investors are given information, while some others have not.

Asymmetric information can be either in action or in information. It is related to action if there is a hidden outcome; it is related to information if there is hidden information. Raviv's research [1990, 32-49] examined both asymmetric information and agency model. Raviv found that there was an association between asymmetric information and agency model under default probability. He further stated that the existence of asymmetric information might influence the return on investment.

The 'principal–agent' relationship in the *Mudharabah* context has been discussed theoretically by Habib Ahmed [2000]. Ahmed analyzed the limited information obtained by principal on *Mudharib*, where he proposed the adverse selection index λ ($0 < \lambda < 1$), adverse selection is $= 1/\lambda$. while moral hazard has been symbolized as $E(C_f) < E(C_t)$, in which the actual profit is less than the expected profit. Ahmed also suggested that the difference should be identified through auditing practices. An example of moral hazard might be excessive project cost (window dressing), and retaining some of the profit earned.

In addition to these discussions, related to either adverse selection and/or moral hazards, there is a need to screen both the projects and the *Mudharibs*. The screening, in turn, may help the *Sahibul Maal* to reduce related problems. Some variables were identified and proposed. In terms of project, they are: profitability, return, risk, monitoring cost, accounting aspect, related social and environmental supports, contract period, cash flow and collateral [Khalil, Rickwood and Murinde, 2000, 641]. In terms of *Mudharib*, they are: reputation, experience and qualification of *Mudharib*, religiosity, and the ability to access information [Khalil, Rickwood and Murinde, 2000, 641]. In addition to this, Sumiyanto [2004] added the following: track record, business skill base, ability to adjust to business risk and ownership of the business.

Again, the main issue raised by this study is that all variables need to be checked, rechecked and examined, especially in the Indonesian social context, and particularly in the environment of Rural Islamic Banks (*Bank Perkreditan Rakyat Syariah*) or – BPRS.

7. RESEARCH METHOD

This research applies the 'combined qualitative and quantitative design' [Cresswell, 1994]. According to Cresswell, combined research can be considered in one of following research designs: (1) the two-phase design, (2) the dominant-less dominant design, or (3) the mixed-methodology design (1994: 177). Based on Cresswell's classification, this research might be classified as the two-phase design.

In this regard, the qualitative design approach is first conducted in order to investigate the possible attributes associated with both projects and *Mudharibs*. In the second step, these attributes are examined statistically.

In the qualitative step, the explorative approach is applied. This includes the following procedures (1) Key-informant technique; (2) Focus group interview; (3) Secondary-data analysis, and (4) Case study method [*Mudrajad*, 2003: 73-74]. The attributes identified either in regards to projects or *Mudharibs* are then examined quantitatively.

The research samples are BPRS Managers. Sixteen BPRS[2] – representing the banks which are spread widely in two important islands of Indonesia, namely Sumatra and Java, (which includes West, Central and East Java). These centres were chosen on the basis of purposes cluster sampling method.

The bank samples selected were required to conform to the following conditions: first, the bank had been applying the *Mudharabah* contract, and second, the *Mudharabah* had been operated for a period of at least three years before the commencement of research.

There were eighty nine BPRS in Indonesia during the time of research. Eighty four were sent questioners, with only 64 either replying or

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[2] The list of sixteen BPRS can be found in the appendix.

deemed as eligible for analysis. Finally, 16 of out 64 BPRS Managers were selected to be interviewed.

The primary data was collected by interview and by the observation approach. The qualitative data was then examined by triangulation technique [Moleong, 2000:175]. It is important to ensure that the data was valid and reliable. In turn, this guarantees that the knowledge generated is true, re-searchable, verifiable and can be generalized [Strauss and Corbin, 2003:14-15]. On the other side, the validity and reliability of examination of the quantitative part is conducted with product moment correlation and alpha technique.

Research variables were decided after exploratory steps were conducted. As alluded earlier, the following items were investigated during the research. First, the possible attributes associated with projects, which include the characteristic projects deemed by the bank to be worthy of finance. Second, possible attributes related to *Mudharibs*, which comprise the characteristics *Mudharibs* considered by the bank before contracts were approved and finally, agency problems in the *Mudharabah* contract. Agency problems deal with the disobedience of Mudharibs *vis a vis* the agreed contract, particularly in terms of profits earned that must be shared with the bank. The agency problem was measured by comparing the percentage of expected and actual return [Towsend, 1979; Gale and Hellwig, 1985; Ahmed, 2000].

8. DATA ANALYSIS TECHNIQUE

Following the research objectives, two tiers of analysis technique were prepared. They are: (1) qualitative analysis and (2) quantitative analysis. The first technique was aimed at investigating the attributes considered by Islamic banks' management in deciding both projects as well as *Mudharib* prior the approval of the *Mudharabah* contract.

The quantitative analysis was designed to examine the investigated attributes identified in the qualitative approach. Two more techniques were also applied at this level. First, the factor analysis which screens attributes of projects and *Mudharib* statistically. This is then followed by regression analysis. This ensures to what extent the screened attributes are involving in agency problems. This approach strongly suggests then that this research may constitute a new model.

9. DATA ANALYSIS AND RESEARCH FINDINGS

Data analysis and research findings can be described according to the following steps: (a) a description of how the *Mudharabah* are practiced in the BPRS; (b) exploratory analyses of project and *Mudharibs'* attributes; (c) analyses of factors attributed to projects as well as Mudharib in financing in *Mudharabah* contracts, and (d) research model confirmation.

A. The following data figures in the practices of *Mudharabah*, particularly among the BPRS. Below (Table: 3) describes the portion of *Mudharabah* included in research samples.

Table 3: The Proportion of *mudharabah* financing at BPR *syariah* in 2004

The proportion of *Mudharabah* financing of the total financing products offered.		Frequency	Percentage
a.	Less than 5%	24	37,50
b.	5% - 10%	00	00,00
c.	10% - 15%	00	00,00
d.	15% - 20 %	40	62,50
e.	More than 20%	00	00,00
T o t a l		64	100,00

Source: Analyzed Primary Data.

The above data is in-line with the data issued by the Central Bank of Indonesia, where *Mudharabah* contract constituted 15.35% in 2004 (and 19.42% in August 2006) of the total financing products applied (See: Table: 2 above).

The *Mudharabah* contract can be further classified into two types. They are the *Mudharabah Mutlaqoh* or Un-restricted Investment Accounts, and *Mudharabah Muqayyadah* or Restricted Investment Accounts. How the applied preference of BPRS can be seen in the following table.

Tabel 4: The proportion of mudharabah mutlaqoh and mudharabah muqayyadah at BPR syari'ah in 2004

Types of *Mudharabah*.	Frequency	Percentage
a. *Mudharabah Mutlaqah* (Un-restricted *Mudharabah*)	36	56,25
b. *Mudharabah Muqayyadah* (Restricted *Mudharabah*)	28	43,75
c. Both	00	00,00
Total	64	100,00

Source: Analyzed Primary Data

As shown above, the majority of BPRS prefer the *Mudharabah Mutlaqoh* or Unrestricted Investment Account (56.25%) compared to the *Mudharabah Muqayyadah*. Two explainations are suggested to explain this phenomenon. First, simply because most customers who have invested their money prefer this type of *Mudharabah*; it is then easier for the banks to manage the investment under the same type of investment. The second reason is that the *Mudharabah Mutlaqoh* is both more flexible as well as more more profitable than *Mudharabah Muqayyadah*, since the last is subject to some constraints stipulated by *Sahibul Maal* [Karim and also Waris[3], 2004].

In regard to the length of contract, the research found that most contracts were signed for 1 – 2 years (81.25%), and only 18.75% of contracts hstipulated a period of between 2.1 – and 3 years period. This also confirms that no contract was signed for longer than 3 years, as shown below.

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[3] This view was expressed during the interview. Karim (was the former manager of one Islamic Banks, and Waris was one managers of the interviewed BPRS). The interviews were done separately in August, 2004.

Tabel 5: Length of *mudharabah* financing contract in BPR syari'ah in 2004

Length of *Mudharabah* Financing Contract	Frequency	Percentage
a. 1 – 2 years	52	81,25
b. 2,1 – 3 years	12	18,75
c. 3,1 – 4 years	00	00,00
d. 4,1 – 5 years	00	00,00
e. 5,1 – 6 years	00	00,00
T o t a l	64	100,00

Source: Primary Data Analyzed

The above trend indicates two things. One is that the BPRS were avoiding longer contracts due to limited funds available for financing, since the BPRS are classified as small to medium size banks. The other is that the banks followed URF or 'Socio-Cultural Habit' or business practices in general. Below (Table: 6) shows the types of industries which are financed by banks under *Mudharabah* contracts.

Tabel 6: Types of business / industry financed under *mudharabah* by BPR syari'ah in 2004

Types of Business / Industry	Frequency	Percentage
a. Agriculture	07	10,94
b. Animal husbandary	15	23,44
c. Trading	33	51,56
d. Manufacturing	09	14,06
e. Craft	00	00,00
f. Other	00	00,00
T o t a l	64	100,00

Source: Analyzed Primary Data

As indicated in the above (Table: 6), the trading sector is dominating the *Mudharabah* contract by 51.56%. According to most interviewed Bank Managers trading is the most manageable sector. This is consistant with conditions such as the availability of financial statements and other related documents. In turn, this facilitates the banks undertaking their control function. Moreover, the trading sector is more flexible than for instance

agriculture and husbandary which are subject to external factors lsuch as weather, seasons and so forth.

B. In respect to the explatory analysis on attributes of projects and *Mudharibs*, based on questioners circulated among the respondents and followed-up by in-depth interview, the following projects attributes are noted.

1. Minimum business risk
2. Accounting information system
3. The certainty of return
4. Low monitoring cost
5. Project's rate of return
6. Project's soundness
7. Guarantee / collateral
8. Project cash flow
9. Contract period
10. Project horizon
11. Prospect
12. Business's going concern
13. Contract conditions

Based on the same method of exploring projects' attributes, the following factors were also noted with relation to *Mudharib's* attributes, which are considered important by the management of BPRS.

1. Having skill in the related business or area
2. Market familiarity
3. Ability to correct the business risk
4. Possesing collateral
5. Family business background
6. Business commitment
7. Ability to articulate the particualr business language
8. Having business habit
9. Having own business
10. Historical business lingkage with *Sahibul Maal*
11. Ability to grasp business opportunity
12. Social class
13. Ability to anticipate business risk
14. Track record

C. Analyses of factors attributed on projects as well as *Mudharib* in financing in the *Mudharabah* contracts.

As described earlier, there are several attributes noted for both projects and *Mudharibs* from the BPRS management point of view. In this section those attributes are statistically examined. The following (Table: 7) shows the ranks of the attributes and their standard deviations.

Table 7: Ranking of all projects' attributes

Attributes	Abbreviation	Mean	Std. Deviation	Analysis N
Certainty of return	PSTHASIL	4.30	.68	64
Collateral on project	JAMINAN	4.09	.68	64
Prospects of projects financed	PROSPEK	4.02	.72	64
Projects' rate of return	TKRETURN	3.97	.76	64
Project's period of financing	JGKWAKT	3.94	.79	64
Project's rate of risk	TKRISIKO	3.88	.85	64
Projects' cash flow	ARUSKAS	3.77	.77	64
Projects' conditions	KLAUSUL	3.77	.81	64
Projects' age financed	USIAPRO	3.69	.75	64
Projects' going concern	BERKMB	3.56	.89	64
Business health rate	TKKSHTAN	3.55	1.05	64
Accounting information system	SIA	3.39	.81	64
Projects' cost of monitoring	BIAPANTU	3.33	1.13	64

The above shows the heterogeneity of *Sahibul Maal*. The standard deviations indicate to what extent the *Sahibul Maal* rank the projects attributes. In this the certainty of return has been considered to be the most important attribute. The examination by the Kaiser-Meyer-Oklin (MKO) and Barlett Measures of Sampling of attributes confirm the result, as shown below.

Table 8: Summary of Kaiser-Meyer-Olkin (KMO) and bartlett examination

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.502
Bartlett's Test of Sphericity	Approx. Chi-Square	297.632
	df	78
	Sig.	.000

It was found that the coefficient *Kaiser-Meyer-Olkin Measure of Sampling Adequacy* (MSA) was 0,502. This indicates that the samples used are sufficient, since the mark required by MAS Hair *et. al* (1998) is 0.50. The interrelation of attributes can be seen from the co-eficient of *Bartlett's Test of Sphericity,* which is 297,632 and significancy level at p<0,01.

The analysis to determine the projects attributes is iniatited by communalities analyisis which can be seen from below.

Table 9: Communalities of projects' atributes

Attributes	Abbreviation	Initial	Extraction
Projects' Cost of Monitoring	BIAPANTU	1.000	.670
Project's Period of Financing	JGKWAKT	1.000	.839
Business Health Rate	TKKSHTAN	1.000	.841
Accounting Information System	SIA	1.000	.854
Certainty of Return	PSTHASIL	1.000	.865
Projects' rate of Return	TKRETURN	1.000	.887
Projects' Conditions	KLAUSUL	1.000	.797
Projects' rate of Risk	TKRISIKO	1.000	.805
Prospects of projects financed	PROSPEK	1.000	.787
Projects' Cash Flow	ARUSKAS	1.000	.745
Collateral on Project	JAMINAN	1.000	.724
Projects' Going Concern	BERKMB	1.000	.748
Projects' Age Financed	USIAPRO	1.000	.806

Extraction Method: Principal Component Analysis.

This analysis groups attributes which have a significant relationship. They were analysed by the Orthogonal Varimax Method. It was intended to have the rotated orthogonally attributes. The summary of results are as follows:

Table 10: Projects attributes based on factor analysis

Projects' Atributtes	SET Variabel					
	1	2	3	4	5	6
Projects' cost of monitoring (BIAPANTA)	0,559					
Business health rate (TKKSHATA)	0,902					
Projects' going concern (BERKMB)	0,854					
Certainty of return (PSTHASIL)		0,921				
Collateral on project (JAMINAN)		0,647				
Projects' rate of return (TKRETURN)			0,542			
Projects' rate of risk (TKRISIKO)			0,762			
Prospects of projects financed (PROSPEK)			0,825			
Accounting information system (SIA)				0,899		
Projects' cash flow (ARUSKAS)				0,557		
Projects' conditions (KLAUSUL)					0,850	
Project's period of financing (JKWAKTU)						0,614
Projects' age financed (USIAPRO)						0,885
Eigen Value	2.858	2.501	1.461	1.424	1.121	1.003
Percentage of Variance	21,982	19,238	11,238	10,951	8,627	7,715

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalisation.
Remarks: 1) Business health rate; 2) Collateral on project; 3) Prospects of projects financed; 4) Financial reports; 5) Conditions of Projects, and 6) Time period of projects .

The above shows how the common factor analysis explains latent root criterion by indicating the total variance explained. There are six factors out of 13 which contributed 79.750% to the total projects attributes, each with the following figures: component 1 = 21.982%, component 2 =

19.238%, component 3 = 11.238%, component 4 = 10.951%, component 5 = 8.627% and component 6 = 7.715%.

The result of Principal Component Analysis with Extraction Method and Varimax Rotated Component explains the content of each component. The first component is named as project soundness which include project monitroing cost with coeeficient 0.559, business health rate with co-efficient 0.902 and business's going concern with co-efficient 0.854.

The second component is named Repayment Guarantee which include payment certainty and project collateral, with coefficients of 0.921 and 0.647 respectively. The third component consists of project's rate of return (0.542), project risk (0.762), and prospect of the project (0.825). This component is identified as project's prospective.

The fourth component is classified as financial aspect which include accounting information system (0.899) and project's cash flow (0.557). The fifth component is identified as contract conditions, which include the conditions required by the contract (0.850) and finally the projects' age financed which has 0.885 co-efficient. All attributes mentioned above have loading factor > 0.05.

It can be concluded that what have been considered by Islamic banks in financing the projects are: the project soundness, the repayment guarantee, the prospect of project, financial aspects (financial statements), project conditions and project age.

With regards to *Mudharibs'* attributes, as stated earlier, there are thirteen attributes, as shown below.

Table 11: Ranking of all attributes of *mudharib*

Attributes of Mudharib	Abbreviation	Mean	Std. Deviation	Analysis N
Having a good track record	TRECKAC	4.09	.68	64
Owning business collateral	JAMINAN	4.05	.70	64
Historical relationship	HUBHIST	4.07	.85	64
Good business habit	KEBIASA	4.02	.72	64
Good relatiosnhip with *Sahibul Maal*	HUBKELU	3.97	.76	64
Market accepted	FAMILIAR	3.94	.79	64
Project (self) possesion	MLKSEND	3.88	.85	64
Ability to grab an opportunity	TKPELUA	3.86	.85	64
Ability to articulate the business language	ARTIKUL	3.86	.81	64
Good social class	KELSOSI	3.72	.58	64
Having related business skill	KEAHLIAN	3.70	.71	64
Ability to Control the risk	KORERISK	3.70	.85	64
Coming from business family	KELPEB	3.39	.81	64
Having a good business commitment	KOMITMEN	3.33	1.13	64

The above dislcoses the level of importance of attributes considered by the bank in relation to *Mudharib*. The business track record has been ranked in the first and then followed by collateral, and so forth.

The Sample Suitability Test was also undertaken for this case, where the Kaiser-Meyer-Olin and Barlett examination was applied. The result is as follows:

Table 12: Summary of Kaiser-Meyer-Olkin (KMO) and bartlett test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.573
Bartlett's Test of Sphericity	Approx. Chi-Square	496.605
	df	51
	Sig.	000

The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (MSA) is 0.573. This indicates that the samples used are sufficient, since according to Hair *et. al* (1998) the requirement is 0,50. The intervariable correlation can be referred to coefficient of Bartlett's Test of Sphericity, that is 496,605 at p<0,01.

Further analysis is required to determine the attributes by communalities analysis. The result is as follows:

Table 13: Communalities attributes of *mudharib*

Attributes	Abbreviation	Initial	Extraction
Having a good business commitment	KOMITMEN	1.000	.797
Market accepted	FAMILIER	1.000	.805
Coming from business family	KELPEB	1.000	.816
Having a good track record	TRECKAC	1.000	.712
Historical relationship	HUBHIST	1.000	.710
Project [self] possesion	MLKSEND	1.000	.631
Ability to Control the risk	KORERISK	1.000	.750
Owning business collateral	JAMINAN	1.000	.848
Good business habit	KEBIASA	1.000	.700
Having related business skill	KEAHLIAN	1.000	.400
Good social class	KELSOSI	1.000	.770
Ability to articulate the business language	ARTIKUL	1.000	.906
Ability to grab an opportunity	TKPELUA	1.000	.951
Good relatiosnhip with Sahibul Maal	HUBKELU	1.000	.911

Extraction Method: Principal Component Analysis.

The final analyisis is grouping or classifying the attributes which have significant relationship. This is done by orthogonal varimax method. The anlysis is expceted to produce a rotated orthogonal attributes. The summary of result analysis is shown in the following table.

Table 14: Summary of variable names and *mudharibs'* attributes based on factor analysis

Attributes of *Mudharib*	SET VARIABEL				
	1	2	3	4	5
Ability to control the risk (KOREKRISK)	0,777				
Ability to articulate the business language (ARTIKUL)	0,925				
Ability to grab an opportunity (TKPELUA)	0,968				
Owning business collateral (JAMINAN)		0,877			
Good business habit (KEBIASA)		0,644			
Good relatiosnhip with *Sahibul Maal* (HUBKELU)		0,947			
Market accepted (FAMILIAR)			0,859		
Having a good track record (TRECKAC)			0,975		
Having related business skill (KEAHLIAN)			0,514		
Coming from business family (KELPEB)				0,583	
Project [self] possesion (MLKSEND)				0,528	
Good social class (KELSOSI)				0,826	
Having a good business commitment (KOMITMEN)					0,782
Historical relationship (HUBHIST)					0,625
Eigen Value	3.706	2.384	2.125	1.319	1.173
Percentage of Variance	26,469	17,031	15,176	9,421	8,381

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Remarks: 1) Business skill; 2) Collateral; 3) Reputation; 4) Baackground; and 5) Business commitment.

The common factor analysis, which explains the latent root criterion, is indicated by the total variance explained. The analysis found five components of 14 attributes, which describe 76.478%. Each component

contributes 26,469%; 17,031%; 15,176%; 9,421%; and 8,381% respectively.

The attributes that belong to the first component is: Ability to control the risk; ability to articulate the business language; and ability to grasp an opportunity. They are identified as 'business skill or ability'.

The attributes that belong to second component is: collateral. This relates to the following attributes: Owning business collateral; good business habit; and good relatiosnhip with *Sahibul Maal*. The third component includes the following attributes: Market accepted; having a good track record; and having related business skill. They are named as 'reputation'.

The fourth component consists of: Coming from business family, project; (self) possesion, and; good social class. They are identified as 'background'. The last component is known as business commitment, it constitutes of the following attributes: Having a good business commitment and historical relationship. All those attributes have a loeading factor more than 0.05.

C. In the regression analysis on the screening effectiveness of agency problems the regression analysis is intended to confirm the qualitative analysis and co-efficient quantitative. It is expected that in passing this examination the research findings will have a sufficient platform. Three more analysis are understaken for this purpose. They are as follows:

The previous analysis has found five factrors or variables as the the most important attributes related to projects in the view of banks' mangement in order to reduce agency problems. They are project soundness (KSHTPROY), projects' prospect (PROSPROY), financial reports (LAPKEU), contract conditions (PERSYKLA) and the length of contract (WAKTKONTR).

When the variables are examined with the regession analysis, the following result is obtained:

$$\text{AGPROB} = \beta_o + \beta_1\text{KSHTPROY} + \beta_2\text{PROSPROY} + \beta_3\text{LAPKEU} + \beta_4\text{PERSYKLA} + \beta_5\text{WKTKONTR}$$

Coef Reg = 0,434 + 0,0614 + 0,125 + 0,234 + 0,574 + 0,274
Coef. t = (4,051) (2,294) (2,356) (2,367) (4,459) (2,614)
p = 0,000 0,025 0,022 0,021 0,000 0,011
F = 10,784
adjusted R^2 = 0,437

As shown above, F is 10,784 with p= 0,000. This indicates that those variables significantly affect the agency problem in *Mudharabah contract*. Furthermore, the *adjusted R^2* is 0,437 which means that the variance of agency problem is explained by the above variables is 43.7 per cent. The rest of 56.3 per cent problems are explained or caused by other variables.

The examination resulted in the co-efficient of project soundness variable β_1 2.294 with p = 0.025. This indeed is the lowest, yet it still has a significant effect toward minimizing agency problem among the BPRS. Other coefficeint variables (project's prospect, financial reports, contract condititions and length of contract) have positive results. It can be concluded that all those attributes can be screened to reduce agency problems in *Mudharabah* contract.

The same regression method is also applied to the attributes of Mudharib, resulting from previous analysis. There are also five main attributes identified: (1) business skill (2) collateral; (3) reputation (4) background; and (5) business commitment. The regression analysis has further resulted in the following coefficients regression:

$$\text{AGPROB} = \beta_o + \beta_1\text{KEMBIS} + \beta_2\text{JAMINAN} + \beta_3\text{REPUTASI} + \beta_4\text{ASALUSUL} + \beta_5\text{KOMITMEN}$$

Coef Reg = 0,526 + 0,103 + 0,144 + 0,165 + 0,148 + 0,220
Coef. t = (5,781) (3,721) (3,054) (3,728) (2,444) (2,017)
p = 0,000 0,000 0,003 0,000 0,018 0,048
F = 13,581
p = 0,000
adj R^2 = 0,500

It was found that F = 13.581 at p = 0.0000. This indicate that statistically the variables are significantly effective to be used in preventing agency problems in Mudharabah contract at Islamic banks or BPRS.

The *adjusted R^2* is 0,500. This means that the variaety of agency problems are explained by those independenent variables. While the other fifty per cent of problems are explained by other (unidentified) variables. It is then confirmed that all 5 variables identified can be utilised to reduce agency problems in *Mudhrabaha* contract.

The final part is the examination of research design. To a large extent this relate to the question of those project and *Mudharib* attributes (together) which have influences on the agency problem minimally.

As discussed above, the research found six attributes of projects and 5 attributes of *Mudharib*. A combination of them (11 attributes) are once again tested by regression analysis. The result shows that F = 13.609 at p=0.000, and *adjusted R^2* is 0,688. What can be concluded from this is that all those variables (together) contributed to explain 68.8% of possible agency problem that arise in the *Mudharabah* contract, while 32.2% of problems are explained by other variables. However, further assestment on individual variable resulted in only 5 variables which howver have significant influence. They are: (1) Business skill of *Mudharib*, (2) business reputation of *Mudharib*, (3) Business commitmnent of *Mudharib* (4) financial report of project, and (5) the length of contract of project.

Based on the above finding, the research model formulation proposed is:

$$AGPROB = \beta_o + \beta_1 KEMBIS + \beta_2 REPUTASI + \beta_3 KOMITMENT + \beta_4 LAPKEU + \beta_5 WAKTKONT$$

Coef Reg = 0,409 +	0,150 +	0,142 +	0,349 +	0,540 +	0,343
Coef. t = (4,099)	(2,083)	(2,753)	(3,219)	(3,207)	(3,398)
p = 0,000	0,042	0,008	0,002	0,002	0,001

10. CONCLUDING REMARKS

The research has investigated how the *Mudharabah* product has been practiced by the BPRS. From a descriptive-statistic point of view, the research found the following. First, 62.5 per cent of respondents offer between 15 – 20 per cent of *Mudharabah* financing to customers, and the rest (32.5 per cent) offer less than 5 per cent. Second, 56.25 per cent of respondents prefer to practice *Mudharabah Mutlaqoh*, intead of *Mudharabah Muqayyadah*. Third, 81.25 per cent of banks signed the Mudharabah contract between 1 – 2 years, and 51.56 per cent of bank had Mudharabah with trading industry.

The study then identified qualitatively the attirubutes on both projects and *Mudharibs* which are perceived by *Sohibul Maal*. The research initially found thirteen attributes related to project and 14 attributes related to *Mudharib*. However, after further screening statistically, it was found that 5 main attributes related to project and 6 attributes related to *Mudharib*.

Further quantitative analysis has been conducted to examine those attributes. This finally filters all attributes into five most influential factors. They are business skill, business reputation, business commitment (all are related to *Mudharib*), financial report of project and length of contract of project.

Implication

The five attributes stated above can then be seriously considered by the Islamic banking management to determine both the project and *Mudharib* before the contract is signed. As proven by analysis, the selected attributes are identified as the factors that might potentially reduce agency problems which is perceived as one of the reasons why the *Mudharabah* contract is not widely practiced by the Islamic banks.

Limitations and further research suggestions

This research has been conducted carefully, however some limitations cannot be avoided. These include: first, the scope. As presented earlier, the research was focused on BPRS, which represent 'small' Islamic banks in Indonesia. BPRS is a rural bank limited by size, capital and location. The second limitation is: the number of samples. The sample size is statistically accepted, however it is undeniable that a larger sample, as well as broader scope might possible, but not necessarily, produce a more accurate or representative result. The third is related to research methodology. As there are many possible statistical tools that can be applied, this research applys sselected methods. This means that the aplication of other possible research methods might result in different findings. For this reason we humbly encourge other researchers to further examine what have been found by improving on some of these limitations.

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