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Economics, Business, and Islamic Finance in ASEAN Economics Community

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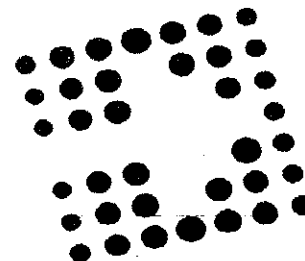
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This chapter discusses the relationship between organizational culture, structure, complexity of technology, and the success of technology transfer. Technology is one of the key competitive advantages of any organization and plays an important role in the success of both international and domestic firms. Technology can be transferred within the boundaries of an organization, outside of organizational boundaries with strategic partners and also across national boundaries. As it transcends national borders, difficulties in transferring technology are likely to increase. To overcome the difficulties, certain organizational culture could play an important role in the efficient transfer of technology in an organization. Besides culture, organizational structure could also play a major role to achieve technology transfer success. Furthermore, the complexity of technology can also affect the success of technology transfer.

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The Role of Small and Medium Enterprises (SMEs) in supporting Indonesian economic activity are significant. SMEs face many obstacles in their business development. Empowerment of SMEs in Bogor by local governments carried out in conjunction with the Department of Cooperatives and SMEs. This study establishes the spatial model design of SMEs in Bogor area to improve the competitiveness

of products in Bogor city. The analysis shows that SMEs in Bogor city is still in the phase of development, market penetration, and also product development. The model shows the average performance index of SMEs in Bogor is only 62.29, 19 among 41 have index values about 50. From the competitiveness analysis, authors could see that among 41 SMEs can be categorized in 4 quadrants. Strategic program could be developed based on the position in the quadrant. It can be concluded that in general SMEs in Bogor city have not been ready for internationally competition. Government should develop specific strategy for each SMEs based on the quadrant position defined by the model

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This study explores the motivations and institutional barriers of local agripreneurs who are involved in different branches of agriculture in Brunei. Descriptive analysis and thematic analysis were performed to analyse the data. The agripreneurs in the study consider their venture into agriculture as an act of symbolic nationalistic support whereby they envision Brunei to be a nation less reliant on food imports, in line with the country's vision or better known as Wawasan 2035. In addition, their motivation is also based on Islamic values with the intention of seeking lawful earning and a path to a blessed monetary and hereafter rewards. The main problems faced by the agripreneurs are lack of access to finance, lack of infrastructure and technology, and lack of exposure. The research on local agripreneurs in the context of Brunei is scarce, thus this chapter provides a better understanding of their motivations and constraints for Brunei to realize the potential of the agriculture sector as an important driver of the economy and thus develop the sector further.

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Community economic development is a relatively new strategy employed to increase employment, income, and entrepreneurship activities in small town and communities. The Centre for Islamic Economics, International Islamic University Malaysia (IIUM) has initiated a smart partnership with CIMB Islamic Bank to offer entrepreneurship training and Islamic microfinance facility to the poor in Malaysia. This project adopts several modes of Islamic microfinance financing instruments which include equity-based and debt-based financing. The program aims to educate the communities surrounding the IIUM campus with entrepreneurship knowledge and skill in addition to giving Shariah-compliant micro-financing facility for them to implement their business ideas. CIMB Islamic, which is the main partner for this project, provides funds for Islamic microfinance facilities and IIUM contributes expertise in providing entrepreneurship trainings to the communities located near IIUM campus. It is hoped that this smart partnership would empower the surrounding communities and create more successful entrepreneurs.

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Amongst three Muslim majority countries (Indonesia, Malaysia, and Brunei) of ASEAN, Malaysia leads the halal industry globally and considered to be the global halal hub. Simultaneously, the market is growing tremendously in other member countries as well. It has been realized that a number of driving forces are responsible for boosting the expansion of Halal industry globally as well as in ASEAN. While there are a number of factors accelerating the growth of the Halal industry, there are many limitations and challenges that are hindering the market expansion. Therefore, this chapter introduces the overview of Halal industry globally as well as in ASEAN countries. The chapter explores the opportunities of the Halal industry for ASEAN countries followed by identifying the issues and challenges confronted by industry players. Finally, it concludes by providing some recommendations in the ASEAN context based on the current global situation and findings of the Halal industry. The chapter adopts methodology of analyzing secondary data.

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This chapter evaluates food security policies and extension policies to the achievement of targets and the results of a development programme such as Food Self Sufficiency village (DMP) used Participatory Poverty Assessments (PPA). The output obtained is information that is an evaluation of how the policy was planned, initiated, and implemented. Participatory Poverty Assessments (PPA) monitoring and evaluation analyse the outcome and impact of the DMP Programme. The output of the PPA process from this chapter is the agricultural policy formulated in terms of practical ways of approaching poverty problems from a local perspective. The success of alternative policy options applied by local government such as Physical, Human Resources, Institution development at the grassroots level should be adopted at the national level. It should represent the best example of a case of successful programme implementation at the grassroots level which can then be used in formulating national policies and strategies.

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A two-sided market or two-sided network is made up of two distinct user groups that provide each other with network benefits in which they interact through an intermediary or platform. A digital marketplace makes use of a two-sided market where the two distinct groups are the buyers and sellers. A digital marketplace is a type of e-commerce site where the sellers offer products or services to the buyers, and transactions are controlled and processed by marketplace operators. With the rapid development and adoption of the Internet and digital marketplace globally and also regionally, businesses in Brunei Darussalam are slowly incorporating digital marketplace. This chapter provides an overview of the current state of the digital marketplace in Brunei, and thus, case studies of local digital marketplaces are discussed. A qualitative approach, which consists of interviews with companies, is made for the study. The strengths and problems of employing digital marketplace for businesses and analysis using Michael Porter's five models is also covered in this chapter.

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This chapter explores the key factors for selecting quality tools and techniques in industrial revolution 4.0, particularly in the smart manufacturing context. What are the factors determining which quality tools and techniques are more applicable in specific circumstances related to quality performance in Industrial Revolution 4.0? To answer this question, authors employ a multiple case study and an in-depth literature review as the research design approach. Two key data collection methods (qualitative methods) are used: (1) Primary data from face-to-face interviews with Toyo Memory Technology and Intel Malaysia (2) Secondary data from previous studies. This review, coupled with the case study analysis, leads to the identification of the real implementation of quality tools and techniques in the industries. The chapter can enhance the reader understanding of Industrial Revolution 4.0 and quality management practices as well as highlight opportunities for further research.

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Ethnicity and Household Savings in Indonesia.....186
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Household saving is very important, not only for securing the future spending of the family but also for the country's economy. Using the logit analysis on data of The Indonesia Family Life Survey (IFLS) wave three, four, and five, this chapter analyzes factors influencing, especially the role of ethnicity, upon the household savings in Indonesia. The result indicates that gender, location, and level of education are the consistent variables affecting the household saving behaviour in Indonesia across the three wave surveys. Meanwhile, as for the ethnic group variable, there are only Sunda, Batak, and Bima-Dompu that can significantly influence the people's saving behavior across the three wave surveys.

Chapter 10

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Fintech solutions can revolutionize Islamic financial services and leverage on the so-called 'Fourth Industrial Revolution' which is the movement towards combining everyday aspects of our lives, such as finance, into the digital realm that will help increase speed, efficiency, and convenience. The most significant challenge for all countries pursuing Fintech is regulating the industry. Following the issuance of the Financial Sector Blueprint, the Fintech Unit was established under Autoriti Monitori

Brunei Darussalam (AMBD). AMBD envisions a vibrant economy powered by ICT through ICT-Smart Citizens as well as being a connected and efficient nation. This chapter discusses the application of Fintech specifically in Islamic finance sector based on the descriptive method of research by concentrating on its regulations. At the end, the research found that though Fintech in Islamic finance sector has been done since it's emerging through Guidelines Fintech Regulatory Sandbox Guidelines Islamic financial Fintech will be strengthened and developed and more diversified.

Chapter 11

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Ahmad Rafiki, Universitas Medan Area, Indonesia

The Islamic banks in Indonesia have a serious issue of a low market share of 5%. This emerged due to the limited/unvaried product range, low literacy and inclusion level of Islamic finance, unfavorable perception for Islamic banking, and limited distribution networks and outreach. All of these causes could be resolved by using social media, which will bring several opportunities such as transparency and openness, effective marketing channels, stakeholders' relationship, social media content, brand image and reputation, shariah compliance activity, learning and knowledge, and greater personalization. Meanwhile, in using social media, the Islamic banks face few challenges such as network infrastructure, negative comments, information risk management, privacy, and deception. This chapter can be a reference to any institutions, particularly the Islamic banks which associated with digital interfaces and interactions in their daily businesses. Thus expectedly, the Islamic banks could enhance the public trust and establish a good Islamic identity.

Chapter 12

The Loan Shark in ASEAN: Can Nanofinance With Qardhul Hassan Deal With It? Lesson Learned From Bank Wakaf Mikro in Indonesia.....252
Khairunnisa Musari, IAIN Jember, Indonesia

Loan shark is a humanitarian problem faced by many countries in the world, including in Asia, even in the Association of Southeast Asian Nations (ASEAN)'s countries. Loan shark activities are found not only in Myanmar and Cambodia, which has the lowest per capita income in ASEAN but also in Indonesia, Thailand, Malaysia, Brunei, and even Singapore, which are the five countries with the highest gross domestic product (GDP) per capita in ASEAN. How are loan shark practices in ASEAN countries? Can nanofinance overcome the microfinance gap to fight the loan shark? How the practice of Bank Wakaf Mikro (BWM) in Indonesia to nanofinance with qardhul hassan contract? Find the answers in this chapter.

Chapter 13

Factors That Influence Retail Equity Investors to Patronize Islamic
Stockbroking in Malaysia: An AHP Approach.....278

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Darussalam, Brunei*

Faizal Asfan, Independent Researcher, Malaysia

This study investigates factors that influence retail equity investors to patronize Islamic stockbroking in Malaysia and ranks their level of importance using Analytical Hierarchy Process. Data are collected using questionnaire via online and offline survey among clients, individuals who work in the stockbroking industry and stockbroking related industry such as fund managers, unit trust managers, and mutual funds. The results show that religiosity and product awareness significantly influence the patronizing behavior of Malaysian retail equity investors. On the other hand, economic motives, convenience, social influence, and attractiveness of stock investment ranked below religiosity and product awareness. In view of the findings, stockbroking industry players such as investment bank, stockbroking firm, or participating organization should take advantage of the religiosity and product awareness factors as a main focus to develop Islamic stockbroking service in Malaysia. Sales, marketing and business development strategies can be designed according to the said criteria.

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Post-Crisis Interdependence Between Islamic Unit Trust Funds and Islamic
Stock Market in Malaysia.....292

*Muhamad Abduh, School of Business and Economics, Universiti Brunei
Darussalam, Brunei*

Ruzanna Ramli, City University Malaysia, Malaysia

This chapter evaluates short- and long-term relationships between 34 Islamic unit trusts and the Islamic stock market after the global financial crisis. The study collects data from Bloomberg's database from 2009 until 2012 and employs J-J cointegration to identify the long-term relationship while Granger causality test is used to investigate how the changes in Islamic stock market can influence the changes in Islamic unit trusts in the short term. The finding indicates that 61.76 percent out of the 34 Islamic unit trusts tested do not have long-term equilibrium with the Islamic stock market. Furthermore, only a few Islamic trusts responded to the changes in the Islamic stock market. This study is important for at least two reasons: its role in filling the gap in the literature of unit trust—stock markets nexus in Islamic finance; and its findings provide relevant information that can benefit investors and fund managers.

Chapter 15

Financial Accessibility and Small-Medium Enterprises (SMEs) in Malaysia:
The Role of Crowdfunding and Islamic Finance306

*Mohamed Asmy Bin Mohd Thas Thaker, International Islamic
University Malaysia, Malaysia*

Hassanudin Bin Mohd Thas Thaker, Sunway University, Malaysia

Choong Pai Wei, Sunway University, Malaysia

One of the common problems faced by worldwide SMEs including Malaysia is accessing external financial services. Given this fact, this chapter offers a sustainable model of source of financing for Malaysian SMEs in meeting their financial need, which is known as Islamic Crowdfunding-Small and Medium Enterprises (ICSMEs) model. Authors review comprehensive literature by focusing on the issues of financial accessibility faced by Malaysian SMEs, and the existing studies relating to SMEs, crowdfunding, and Islamic finance in support to construct ICSME model. Authors discuss the modus operandi of the proposed ICSME model and offer several significances of the model.

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ABSTRACT

Household saving is very important, not only for securing the future spending of the family but also for the country's economy. Using the logit analysis on data of The Indonesia Family Life Survey (IFLS) wave three, four, and five, this chapter analyzes factors influencing, especially the role of ethnicity, upon the household savings in Indonesia. The result indicates that gender, location, and level of education are the consistent variables affecting the household saving behaviour in Indonesia across the three wave surveys. Meanwhile, as for the ethnic group variable, there are only Sunda, Batak, and Bima-Dompu that can significantly influence the people's saving behavior across the three wave surveys.

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INTRODUCTION

Saving is believed to be one of the engines driving the economy of a country. Previous studies have shown that savings are able to boost economic growth in many countries such as Nigeria (Adelakun, 2011), Malaysia (Abduh, Omar, & Duasa, 2011), as well as Botswana (Jagadesh, 2015). The growth of the economy for countries with high capital accumulation, especially through savings, will be more sustain and higher compared to countries with low capital (Chow, 1993). The low level of capital accumulation, one of the reasons is due to insufficient savings, is the common problem faced by developing countries (Wollasa, 2011).

To date, Indonesia is still classified as a developing country and grouped under low and middle income countries (World Bank, 2017). Similar to other developing countries in this world, Indonesia is facing challenges on how to improve its capital accumulation, especially through the improvement of household savings which currently still in a considerably low level. It is interesting to see that at the Association of Southeast Asian Nations (ASEAN) level, the amount of household savings in Indonesia that have been collected relatively higher and even better than Singapore and Brunei Darussalam as a high-income country, i.e around 300 trillion US\$ a year. However, it is not surprising because the population of Indonesia is much greater than those two countries. The average percentage of savings to GDP from 2010 to 2015 shows that Indonesia is in the fourth position in ASEAN with only 34.4 percent (World Bank, 2017).

Unlike other low- and middle-income countries in ASEAN region such as Thailand, Cambodia and Laos, the growth of domestic savings in Indonesia is likely to decline since 2013 (World Bank, 2017). After a fantastic increase of 44 percent in 2010, the level of savings in Indonesia continue to fall with the rate of 0.3 percent in 2015. On the other hand, the same report said that domestic savings of Laos, Thailand, and Cambodia had increased dramatically by 34, 12, and 10 percent respectively. Since domestic saving is one of the main components in developing the economy, it is then very important to investigate the determinant of domestic savings behavior in Indonesia especially at the private level since 91.97 percent of domestic savings in Indonesia are private savings (Vibriyanti, 2014).

However, according to (Scott, 2014), there is a link between ethnic group and economic behaviour including saving. Furthermore, (O'Connor, 2017) evidences that ethnicity greatly affects people's savings behaviour in the three countries of Australia, Canada and China, where Chinese descent can save more than Caucasians.

Since Indonesia is a country with more than 100 ethnic groups live together, it is interesting and important to know the saving behaviour of households in Indonesia with regard to their ethnicity. Hence, this study attempts to analyse factors, especially

the ethnicity, influencing the households' saving behaviour in Indonesia using nationwide Indonesian Family Life Survey (IFLS) wave 3, 4, and 5 data.

The rest of this paper is structured as follows. In the second section, this study quotes literature reviews about savings, concepts of ethnicity, and how ethnicity can influence the households' saving behaviour. Section 3 presents data and research methods utilized in this study while section 4 describes research finding and analysis. Lastly, Section 5 summarises the main findings and their implications.

LITERATURE REVIEW

Generally, saving is defined as money not spent (Popovici, 2012). According to (Akram & Akram, 2015), the determinants of savings are including demographic factors, macroeconomic variables, and financial variables. The Classical Theory stated that savings have a positive relationship with interest rate (Vieneris, 1977; Mishkin, 2010). The high interest rate encourages people to save because they will earn more interest income through savings. According to Keynesian, savings are highly determined by the disposable income or current income (Crouch, 1972). However, Post-Keynesian argued that savings depended on income ambiguously, but they stressed that savings are more influenced positively by one's income and affected negatively by the consumption at the same time (Grigoli, Herman, & Herbel, 2014).

According to (Grigoli, et al., 2014), the starting point of theoretical research on savings is defined by the permanent income hypothesis (PIH) and the life cycle hypothesis (LCH). Unlike Keynesian hypothesis, (Hall, 1978) stated that PIH concerns on a representative, infinitely lived consumer who equalizes the consumption to the permanent income net of the present value of taxes. Ricardian equivalence hypothesis (REH), the variant of the PIH, defines permanent income as net of the present value of the government spending (Barro, 1974). The REH estimates that the permanent government consumption will be fully compensated by the lower of private consumption if a huge number of stringent conditions has been fulfilled (Seater, 1993).

The PIH assumption of homogeneous consumers seems to contradict with the heterogeneity of some consumer dimensions, such as age, income, and access to borrow the money. Therefore, according to (Attanasio & Weber, 2010), the LCH had proposed that the age-related consumer heterogeneity stated that aggregate savings indicates the addition of savings by different age. Furthermore, saving habits seem to be also influenced by the level of one's financial literacy. One of the reasons of suboptimal saving and investments was the suffering of financial literacy (Hastings & Mitchell, 2011). In addition, (Lusardi & Mitchell, 2007) and (Hasting & Tejada-Ashton, 2008) had mentioned that the lack of financial literacy also make people

to experience lack of saving for retirement, stuck in a lot of debt, take the wrong decision in the housing loan, and face many problems in the current sophisticated financial era.

Ethnicity is something that is not given but as a result of social construction so that ethnicity itself is flexible and dynamic (Yang, 2000). Differences in ethnic groups are judged to influence different mindsets in terms of saving. Honig (1996) argues that ethnic and gender differences influence a person's behavior in planning for retirement. Meanwhile, someone who is ready to face retirement must have a more planned savings since his youth. In addition, (Scott, 2014) stated that the difference in retirement savings behaviour based on race and ethnicity is due to cultural differences in the degree of financial interdependence expected by family members and one's social network. The group will usually save more because there is a more independent set of cultural assumptions in which everyone is responsible for his or her own pension outcomes and financial decisions more generally. A person with a relatively similar level of wealth but coming from different ethnic groups can even have a degree of readiness to welcome a different retirement (Shapiro, 2004).

One of the causes of differences in saving habits between ethnic groups is usually due to differences in cultural norms governing each group (Scott, 2014). For example, there are some ethnic groups who believe that real estate is the best source of wealth. As a result, people with these ethnic groups began to save funds in the form of a house or property at a young age. This belief is born due to the prevailing norm around them, the ethnic group where they reside, so it also affects the way a person thinks in determining the technique of saving or investment.

DATA AND RESEARCH METHOD

In order to measure the impact of the ethnic group upon household's saving behaviour in Indonesia, this study utilizes the longitudinal socioeconomic and health panel data of Indonesia Family Life Survey (IFLS) wave 3, 4, and 5 with household samples from 13 provinces in Indonesia conducted by the RAND Foundation in 2000, 2007/2008, and 2014/2015 respectively. IFLS data used in this study is the data where respondents surveyed on wave 3, 4, and 5 are the same person. The goal is to see the development of savings character of respondents, whether it is true that ethnic variables affect them consistently or not.

This study focuses upon the influence of demographic and cultural factor, such as ethnicity, upon the formal savings ownership among Indonesian. Therefore, the ownership of formal saving becomes the dependent variable, whereas, ethnicity, gender, location, marital status, and years of school set as the independent variables. Furthermore, since the dependent variable is in nominal outcome; that is 1 if the

respondent has a formal household savings and 0 otherwise, so the binary logit model can be attained (Williams, 2017; Anderson, Hernande, Jessup, & North, 2018). The following binary logit equation is utilized to determine the probability of discharge (1) which indicates the respondent has household savings:

$$P_i = E(Y = 1 | X_i) = F(Z_i) = F\left(\alpha + \sum_{i=1}^n \beta_i X_i\right) = \frac{1}{1 + e^{-z}}$$

where,

$$Z_i = \alpha + \sum_{i=1}^n \beta_i X_i + \varepsilon_i; \quad P_i = \frac{e^{z_i}}{1 + e^{z_i}} \text{ and } (1 - P_i) = \frac{1}{1 + e^{z_i}}$$

The odds ratio is:

$$\frac{P_i}{1 - P_i} = e^{z_i}$$

The natural logarithm of the odds ratio becomes:

$$Z_i = \ln\left(\frac{P_i}{1 - P_i}\right) = \alpha + \sum_{i=1}^n \beta_i X_i + \varepsilon_i = L_i$$

where P_i is the probability of a household to have a formal household savings (the value of outcome Y_i is 1); $1 - P_i$ is the probability that $Y_i = 0$ when the household does not have a formal household savings; β_i was the coefficients of the independent variables to be estimated; X_i were the explanatory variables (i.e., age of head of household; marital status of head of family; the gender of head of family; residential locations (rural or urban), year of school, and discrete data for ethnic groups in IFLS data); e denotes the base of the natural logarithm; ε_i indicates the stochastic error term; $\ln \frac{P_i}{1 - P_i} = L_i$ was logit, that is the log odds ratio of the probability that a household has a formal saving.

To measure the impact of a variable, this research uses marginal effect analysis (Fountas, Sarwar, Anastasopoulos, & Blatt, 2018). It measures the impact of changes in independent variables on the likelihood of respondents having savings in the bank. It is computed as follows (Greene, 2012: 674):

$$\frac{\partial E[P(y_i)]}{\partial X_i} = M'(\beta' X) \beta_i = f(\beta' X) \beta_i$$

and

$$f(\beta' X) = M(\beta' X) [1 - M(\beta' X)]$$

where, $e[P(y)]$ indicates the expected value of the logit probability, $\frac{\partial E[P(y_i)]}{\partial X_i}$ denotes the change of the overall expected value, $f(\beta' X)$ and $M(\beta' X)$ are the density functions and probability of the general conditional mean function $E[y_i|x]$, respectively.

This study also utilizes a random effect binomial logit model on panel data to analyse the impact of demography and ethnicity variables to household savings ownership.

$$y_{it}^* = \gamma' X_{it} + \varepsilon_{it}; \quad \varepsilon_{it} = v_{it} + \mu_i; \quad y_{it} = 1(y_{it}^* > 0)$$

The assumption of the random effects model is that the global error term (ε_{it}) consists of two independent components, i.e., v_{it} for each individual and time period and μ_i for individual.

EMPIRICAL RESULTS AND DISCUSSIONS

Overview of Respondents

The respondents of this study are originated from 24 different tribal origins, such as Jawa, Sunda, Bali, Batak, Bugis, Tionghoa, Madura, Sasak, Minang, Banjar, Bima-Dompu, Makassar, Nias, Palembang, Sumbawa, Toraja, Betawi, Dayak, Melayu, Komerling, Ambon, Manado, Aceh, et cetera. After going through the data cleaning, the number of respondents of IFLS wave 3, 4, and 5 involved in this study 8,890; 9,693; and 10,773 respectively.

Most of respondents in this study are from Jawa, Sunda, Minang, Bali, Sasak, Betawi, Bugis, Batak, Banjar, and Madura respectively. With regard to these ethnics, Jawa is the largest ethnic group in Indonesia that live at the central and east part of

Table 1. The distribution of respondents according to the tribes

No	Ethnicity	2000		2007		2014		Total	
		Freq.	%	Freq.	%	Freq.	%	Freq.	%
1	Jawa	3,920	44.1%	4,482	46.3%	4,996	46.6%	13,398	45.7%
2	Sunda	1,245	14.0%	1,288	13.3%	1,324	12.3%	3,857	13.2%
3	Minang	466	5.2%	509	5.3%	575	5.4%	1,550	5.3%
4	Bali	456	5.1%	505	5.2%	531	5.0%	1,492	5.1%
5	Sasak	314	3.5%	358	3.7%	540	5.0%	1,212	4.1%
6	Betawi	408	4.6%	351	3.6%	390	3.6%	1,149	3.9%
7	Bugis	344	3.9%	370	3.8%	385	3.6%	1,099	3.8%
8	Batak	273	3.1%	349	3.6%	428	4.0%	1,050	3.6%
9	Banjar	296	3.3%	367	3.8%	366	3.4%	1,029	3.5%
10	Madura	282	3.2%	323	3.3%	326	3.0%	931	3.2%
11	Bima-Dompu	145	1.6%	184	1.9%	240	2.2%	569	1.9%
12	Makassar	115	1.3%	134	1.4%	156	1.5%	405	1.4%
13	Melayu	26	0.3%	111	1.1%	81	0.8%	218	0.7%
14	Other South Sumatera	197	2.2%	-	0.0%	-	0.0%	197	0.7%
15	Manado	4	0.0%	107	1.1%	67	0.6%	178	0.6%
16	Sumbawa	49	0.6%	46	0.5%	78	0.7%	173	0.6%
17	Tionghoa	62	0.7%	64	0.7%	41	0.4%	167	0.6%
18	Palembang	52	0.6%	41	0.4%	68	0.6%	161	0.5%
19	Toraja	48	0.5%	46	0.5%	45	0.4%	139	0.5%
20	Ambon	104	1.2%	7	0.1%	3	0.0%	114	0.4%
21	Nias	34	0.4%	23	0.2%	42	0.4%	99	0.3%
22	Komering	30	0.3%	12	0.1%	35	0.3%	77	0.3%
23	Dayak	8	0.1%	12	0.1%	6	0.1%	26	0.1%
24	Aceh	8	0.1%	-	0.0%	-	0.0%	8	0.0%
	Total	8,886	100.0%	9,689	100.0%	10,723	100.0%	29,298	100.0%

Java island: Sunda is the indigenous population in the western part of Java island and becomes the second largest ethnic group in Indonesia (Candramila, Sumarsono, Suryobroto, & Moeis, 2015). Minangkabau people, also known as Minang, is one of the biggest ethnic group in Indonesia and originally from Minangkabau Highlands of West Sumatera. Balinese people are living mostly in Bali and Lombok Island as well as in Banyuwangi. It is the most eastern region of Java Island and most of them live in village called as desa tradisional (traditional village) in Lombok Island. Sasak

Table 2. Descriptive statistics of discrete variables

		2000		2007		2014	
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Gender	Male	2,160	24.31	2,131	21.99	1,854	17.29
	Otherwise	6,726	75.69	7,558	78.01	8,869	82.71
Marital Status	Married	8,881	99.94	9,689	100.00	10,720	99.97
	Otherwise	5	0.06	-	-	3	0.03
Location	Urban	3,998	44.99	4,937	50.95	6,085	56.75
	Otherwise	4,888	55.01	4,752	49.05	4,638	43.25

people are the native inhabitants of Lombok Island. Betawi people are ethnic group native to the Jakarta, the capital city of Indonesia. Bugis people are originally from South Sulawesi, Indonesia. Batak people are the indigenous tribe of North Sumatra Island, Indonesia, one of the significant tribes in Indonesia. Banjar people are native ethnic group that live in South Kalimantan, Indonesia. Madura, the third largest ethnic group by population in Indonesia, are originally from Madura Island, East Java. The distribution of respondents according to their tribes is shown in Table 1.

Demographically, there is no significant different on the character of respondents of each period: Most of the respondents of each period are women and married. Furthermore, around half of respondents live in the city. The demography profile of the respondents of each period is tabulated in Table 2 as follows:

According to Table 3, it can be asserted that the level of education of the respondents has been improved gradually over periods. In 2000, the mean of years of school is 6.49 meaning that on average, the respondents complete their education until elementary school but do not finish their first stage in junior high school.

Table 3. Descriptive statistics of continuous variables

Variables	2000				2007				2014			
	Mean	Std. Dev	Min	Max	Mean	Std. Dev	Min	Max	Mean	Std. Dev	Min	Max
Years of School (old school, in years)	6.49	4.47	0	18	7.72	4.45	0	21	8.60	4.34	0	21
Age (years)	37.68	13.75	11	105	37.52	13.02	15	96	37.99	12.43	14	93

Table 4. Saving ownership of respondents

Saving Ownership	2000		2007		2014	
	Number	%	Number	%	Number	%
Yes	2,484	27.95	2,402	24.79	3,313	30.90
No	6,402	72.05	7,287	75.21	7,410	69.10
Total	8,886	100.00	9,693	100.00	10,723	100.00

Meanwhile in 2014, the education level of respondent increases because on average, they almost can complete their junior high school.

In addition, the average of age of IFLS's respondents is steadily same from 2000 to 2014. However, the oldest age in the IFLS survey declined, from 105 years in 2000 to 93 years in 2014.

The inactivity of savings in Indonesia is also reflected in the IFLS data. Most respondents from all period do not have savings in the bank. There are only around one third of respondents owning saving account in the bank. This condition is tabulated as follows:

Empirical Result

The logit coefficient shown in the result indicates the impact of changes in the independent variables towards the dependent variable, while the coefficient cannot be directly interpreted. Therefore, the meaning of the estimation can be asserted from the odds ratio and marginal effect. The odds ratio is the ratio between two opportunities, i.e. having household savings or not. Meanwhile, marginal effects indicate predicted probability changes in household saving ownership due to changes in independent variables.

From the results of logit estimation in Table 5, it can be seen that age has a significant effect to the probability that someone has a savings account in the bank. The older a person, the greater the probability of having savings. The odd ratio stated that the older a person, then the possibility of having savings is double from the younger person. The impact of age upon saving behaviour can be explained from elderly perspectives whereby older people requires more spending. Therefore, to manage financial planning for family, saving remains very good solution to secure future spending.

The education background of respondents seems to have a consistent impact to the probability of owning the formal savings in Indonesia. The logit estimation from all three periods shows that the higher the education level of the respondent, the greater the chance of having a savings account in the bank. From the odds ratio it can

Table 5. The logit estimation, odds ratio, and marginal effects results

Variables	2000		2007		2014	
	Logit Est.	Odds Ratio	Logit Est.	Odds Ratio	Logit Est.	Odds Ratio
Constanta	-3.271845	.0379364	-2.968988	.0513552	-2.578913	.0758564
	1.16445***	.044175***	.1226834***	.0063004***	.1132983***	.0085944***
age	.0067802	1.006803	.0086909	1.008729	.0076572	1.007687
	.0021411***	.0021557***	.0022405***	.0022601***	.0020182***	.0020337***
Gender	-.4332406	.6484044	-.3065939	.7359494	-.2727505	.7612827
	.0618184***	.0400833***	.0613653***	.0451618***	.0592536***	.0451087***
Year of School	.186598	1.205143	.1776443	1.1944	.1688167	1.180357
	.0069823***	.0084146***	.0070919***	.0084706***	.0062303***	.0073539***
Location	.366811	1.443125	.3268783	1.386633	.2420336	1.273837
	.0548376***	.0791375***	.0550702***	.0763622***	.048314***	.0615442***
Sunda	-.1708183	.8429747	-.465879	.6275832	-.1656544	.847339
	.0776361**	.0654453**	.0821306***	.0515438***	.0706661***	.0598782***
Bali	.0820778	1.08554	.1282134	1.136796	-.1695038	.8440835
	.1187501	.128908	.1127014	.1281184	.1045707	.0882664
Batak	-.7529156	.4709913	-.7313796	.4812446	-.6461834	.524042
	.1564906***	.0737057***	.1483597***	.0713973***	.119364***	.0625518***
Bugis	.2211047	1.247454	.3647989	1.440224	.0160498	1.016179
	.1300909*	.1622824*	.1288146***	.1855219***	.1206085	.1225598
Tionghoa	-.5340862	.5862047	.2114484	1.235466	.3729499	1.452012
	.2951097*	.1729947*	.2722447	.3363491	.3275265	.4755722
Madura	.0239659	1.024255	.0857734	1.089559	.1173877	1.124555
	.1613487	.1652623	.1538848	.1676666	.1368626	.1539095
Sasak	-.1643032	.8484848	-.4168824	.6590984	-.1803111	.8350104
	.1502312	.1274689	.1564909***	.1031429***	.1070367*	.0893767*
Minang	-.2187699	.8035066	-.367144	.6927099	-.4759269	.6213089
	.1151971*	.0925616*	.1142063***	.0791119***	.1007749***	.0626123***
Banjar	-.3185345	.727214	.0500454	1.051319	-.2990575	.7415167
	.1523974**	.1108255**	.133001	.1398265	.130739**	.0969451**
Bima-Dompu	-.5159655	.596924	-.4192392	.6575469	-.9955983	.3695023
	.2371015**	.1415316**	.2065656**	.1358266**	.183229***	.0677035***
Makassar	-.8858852	.412349	.2657344	1.304389	-.0613509	.9404931
	.2826851***	.1165649***	.2023853	.2639891	.1820865	.1712511
Nias	-2.080715	.124841	-1.431438	.238965	-1.362519	.2560151
	1.029738**	.1285535**	1.042237	.2490582	.6208527**	.1589477**

Table 5. Continued

Variables	2000		2007		2014	
	Logit Est.	Odds Ratio	Logit Est.	Odds Ratio	Logit Est.	Odds Ratio
Palembang	-.2842601	.7525709	-.5985885	.5495868	-.6546722	.5196124
	.3101118	.2333811	.3961437	.2177153	.2890527**	.1501954**
Sumbawa	-.2095149	.8109775	.1453626	1.156459	-.2886641	.7492639
	.384231	.3116027	.3570626	.4129281	.2692231	.2017191
Toraja	-.4347159	.6474486	-.3801953	.6837279	-.1195459	.8873233
	.3882472	.2513701	.3774957	.2581043	.3305583	.2933121
Betawi	-.2329418	.7921997	.1080184	1.114068	-.042749	.9581519
	.1217748*	.0964699*	.1263806	.1407966	.1176025	.112681
Dayak	.0214852	1.021718	-.0152207	.9848946	.0477434	1.048901
	.8099933	.8275844	.6587665	.6488156	.8382052	.8791947
Melayu	-.1094909	.8962903	.2373097	1.267834	-.3180043	.7275996
	.4220392	.3782696	.2308434	.2926711	.2518996	.1832821
Komering	.756091	2.129934	.2602096	1.297202	-.3904894	.6767256
	.399912*	.8517861*	.6152888	.7981538	.3844403	.2601606
Ambon	-.5438382	.5805158	.9231985	2.517329	1.360754	3.899133
	.2634453**	.1529342**	.7923318	1.99456	1.242069	4.842993
Manado	-.9405155	.3904265	-.1876173	.8289318	-.2243222	.7990577
	1.177901	.4598839	.2559661	.2121784	.2937105	.2346917
Aceh	-.6697572	.5118328				
	.7456963	.3816718				
Other (South Sumatera)	.0299899	1.030444				
	.1690951	.174243				
Prob > chi2	0.0000		0.0000		0.0000	
Pseudo R2	0.1167		0.1014		0.0823	

be estimated that when a respondent has a one level higher of education level, then the chances of having savings increased 1.2 times more than others. The findings are interestingly consistent through all waves.

Savings behaviour in Indonesia was leveraged by gender. Men are more likely to have saving than women consistently in all waves with the odds ratio exemplified that the probability of women to save are less than one, or only 0.65 to 0.76 times than men. However, getting closer to the year 2014, women's chances to have savings are also getting bigger although the addition is not really significant. The inclination of female's educational background has reshaped the saving behaviour in Indonesia. After completion of school, female is more aware of future generation

of her children by saving more money for education cost, healthcare insurance and gold to be pawned or sold back in case of emergency.

In addition, the respondents' residence (whether in the city or village) also consistently influence saving behavior consistently. The respondents residing in cities have a greater probability to have savings at formal financial institutions than those living in the village. The odds ratio also evidences that respondents who reside in the city initially have a chance to have savings about 1.2 times bigger than those living in the village.

Regarding the influence of ethnic backgrounds upon saving behaviour of households in Indonesia, it can be seen that the influence started from wave 3 survey. From the logit estimation it can be asserted that there are some ethnic groups that significantly and positively influencing their people to save money in formal financial institutions. Those are:

2000: Sunda, Batak, Makassar, Banjar, Bima-Dompu, Nias, Ambon, Bugis, Tionghoa, Minang, Betawi, and Komering

2007: Sunda, Batak, Bugis, Sasak, Minang, and Bima-Dompu

2014: Sunda, Batak, Minang, Bima-Dompu, Banjar, Nias, Palembang, and Sasak

Therefore, ethnic groups that consistently affect the probability of owning a formal saving account on the three waves analyzed are Batak, Sunda, and Bima-Dompu. Interestingly, as the most dominant tribe in IFLS respondents, Jawa ethnic does not have a significant effect on savings ownership opportunities.

The difference in terms of geographical location between urban and rural area influences saving behavior among the respondents. Location of living and urban residential settlement are often surrounded by public facilities particularly banks and investment agent companies. Therefore, people living in urban areas can easily save and invest their money into financial institutions and productive investment products. The world trend of preferable living location has moved into urban dwelling. Around 50 percent of world population, including in Indonesia, has chosen to reside in urban areas (World Bank, 2017). Several countries are experiencing urbanisation which more citizens are living in cities and metropolitan. The result of study mostly indicates that geographical location has significant impacts upon saving behaviour.

CONCLUSION AND RECOMMENDATION

The outcome of study establishes a solid conclusion that several important determinants could prompt the saving behaviour. The results from logit estimation indicate that the age has a significant effect to the probability of someone has a savings

account in the bank. The education background of respondents also appears to lead a consistent impact to the probability of owning the formal savings in Indonesia. In addition, savings behaviour in Indonesia is also stimulated by gender characteristic where women are more likely to save their money in formal financial institutions than men. The odds ratio interpreted from the logit model has exemplified that the probability of women to have a saving account is less than men. It can also be asserted from the logit model that there are some ethnic groups that have most significant impressions on the probability of savings in bank, namely Batak, Sunda, and Bima-Dompu. Interestingly for Jawa, as the most dominant tribe in IFLS respondents, does not have a significant consciousness on savings ownership opportunities.

The recommendations from this study is to provide financial literacy programmes for people living in villages and from the lower middle-income groups so that they understand the importance of financial planning and at the same time to boost the country's capital accumulation for better economic growth. Meanwhile for the upper high-income family, policy makers could encourage them through many initiatives or programmes which can enhance their awareness upon saving proportion as internal source of investment within the country.

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KEY TERMS AND DEFINITIONS

Ethnicity: the fact or state of belonging to a social group that has a common national or cultural tradition.

Logistic Regression: the appropriate regression analysis to conduct when the dependent variable is dichotomous (binary).

Saving: the money one has saved, especially through a bank or official scheme.