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**DETERMINANTS OF FINANCING GROWTH: EVIDENCE
FROM MALAYSIAN ISLAMIC BANKS**



By

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**Research Paper Submitted to
College of Business
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in Partial Fulfillment of the Requirement for the
Master of Islamic Finance and Banking**



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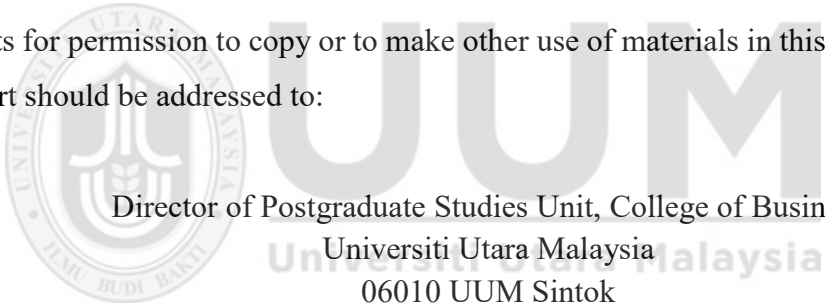
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ABSTRAK

Sistem perbankan Islam di Malaysia telah mengalami pertumbuhan yang ketara sejak tiga dekad yang lalu, menjadikan ianya sebagai yang utama dan berdaya saing dalam sektor perkhidmatan kewangan negara sejajar dengan pembangunan keseluruhan Malaysia. Namun, perbankan Islam di Malaysia mempunyai corak pertumbuhan pembiayaan yang tidak konsisten, dengan turun naik yang ketara sepanjang tahun. Isu ini telah mendapat perdebatan yang cukup luas di kalangan cendekiawan. Oleh itu, kajian ini mengkaji penentu pertumbuhan pembiayaan 16 bank Islam Malaysia antara 2015 dan 2022. Data-data yang diperoleh telah dianalisis dengan menggunakan perisian STATA. Antara faktor-faktor yang dibincangkan di dalam kajian ini adalah berdasarkan faktor dalaman yang terdiri daripada saiz bank (SIZE), kemelesetan pembiayaan (NPF), dan nisbah modal (CAP). Faktor luaran pula terdiri daripada kadar faedah (OPR), kadar keluaran dalaman kasar (GDP), dan juga inflasi (INF). Teknik-teknik analisis seperti Statistik Deskriptif, Matriks Kolerasi, Ujian Diagnostik, Ujian data Panel dan Analisis Regresi Pelbagai telah diguna pakai dalam menjalankan proses kajian ini. Keputusan hasil kajian mendapati bahawa faktor-faktor luaran SIZE dan CAP mempunyai kesan yang signifikan dalam mempengaruhi pertumbuhan pembiayaan bank-bank Islam di Malaysia. Manakala NPF, OPR, GDP dan INF tidak mempunyai kesan yang signifikan terhadap pertumbuhan pembiayaan. Dengan adanya kajian ini, ia akan menyumbang kepada pemahaman yang lebih baik tentang faktor-faktor yang mempengaruhi pertumbuhan pembiayaan perbankan Islam di Malaysia, dan kajian ini juga dapat memberikan maklumat empirikal tentang faktor-faktor yang mempengaruhi pertumbuhan ini.

Kata Kunci: Pertumbuhan pembiayaan, faktor dalaman dan luaran, Bank Islam, Malaysia.

ABSTRACT

The Islamic banking system in Malaysia has experienced substantial growth over the past three decades, establishing itself as a key and competitive player in the country's financial services sector in alignment with Malaysia's overall development. Yet, Malaysia's Islamic banks have a pattern of inconsistent financing growth, with significant fluctuations over the years. This issue has received considerable debate among scholars. Therefore, this study examine the determinant of 16 Malaysian Islamic banks financing growth between 2015 and 2022. The obtained data was analyzed using STATA software. Among the factors discussed in this study are based on internal factors consisting of bank size (SIZE), non-performing financing (NPF), and capital ratio (CAP). For the external factors consist of overnight policy rate (OPR), gross domestic product rate, and also inflation (INF). Analytical techniques such as Descriptive Statistics, Correlation Matrix, Diagnostic Test, Panel Data Test and Multiple Regression Analysis has been employed in this study. The results of the study found that the external factors SIZE and CAP have a significant effect in influencing the financing growth of Islamic banks in Malaysia. While NPF, OPR, GDP and INF do not have a significant effect on financing growth. This study will contribute a better understanding of the factors influencing the growth of funding in Malaysian Islamic banks, and the study will provides empirical information on the factors that influence this growth.

Keywords: Financing growth, Internal and External factors, Islamic bank, Malaysia.

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“In the name of Allah, the Most Gracious and Most Merciful”.

First and foremost, I want to pay my greatest gratitude to Allah (SWT) for blessed me with countless bounties. I am indebted to Him for giving me health, wisdom, guidance, strength, a good family, inspiring lecturers and supportive friends. Also, Salam and Shalawat addressed to the highly prophet, Muhammad SAW, the last messenger of God who has guided from the darkness to brightness.

I would like to extend my heartfelt appreciation to all those who have enabled and contributed to the completion of this research paper. Throughout the entirety of the research process, I would like to express my gratitude to my respected supervisor Dr Wahidah Shari, for providing me with invaluable guidance, continuous support, and patience throughout the research process. The quality of my work was significantly enhanced by her insightful feedback and suggestions. I extend my sincere gratitude to Dr. Alias Mat Nor for his significant contributions and unwavering commitment to this process. His diligence and proficiency were indispensable in accomplishing my research objectives. I would also like to thank to my program coordinator Dr. Mohd Fikri Sofi who helped me a lot in finishing this research paper within the time frame.

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LIST OF ABBREVIATIONS

BIMB	Bank Islam Malaysia Berhad
BNM	Bank Negara Malaysia
CAP	Capital Ratio
CEE	Central and Eastern Europe
FEM	Fixed Effect Model
FGROWTH	Financing Growth
GDP	Gross Domestic Product
GLS	Generalized Least Square
IMM	Islamic Interbank Money Market
INF	Inflation
NPF	Non-performing Financing
OLS	Ordinary Least Square
OPR	Overnight Policy Rate
REM	Random Effect Model
SIZE	Bank Size
VIF	Variance Inflation Factor

CHAPTER ONE

INTRODUCTION

1.0 Background of Study

The Islamic banking sector has demonstrated considerable expansion in response to the global financial crisis and has drawn significant attention in diverse geographic regions, because of the presence of dual banking systems. The significance of financing growth within the banking system lies in its role as a primary source of revenues for banks, while also facilitating the expansion of the economy of a country (Hussain & Junaid, 2012; Mohamad, 2014; Tahir et al., 2015). The provision of credit by banks has a significant impact on stimulating economic growth (Imran & Nishat, 2013). Therefore, the increase in funding has the potential to support the growth of Malaysia's economy.

This paper empirically analyzes and investigates the correlation between the financing growth and the non-performing financing among Islamic banks in Malaysia. In addition to analyzing other factors that influence financing growth within the Islamic banks. The purpose of this study is to identify the variables that affect the growth of financing by examining the financial performance and looking at to the risk management strategies of these institutions. This research will contribute to the existing body of Islamic banking knowledge and provide policymakers with valuable implications. Thus, the purpose of this research is to find out what variables are contributing towards the growth of financing in Malaysia especially for the Islamic banks.

Consequently, the purpose of this research is to investigate the factors that are impacting the growth of financing Islamic banking's in Malaysia. This chapter presents background of study, the problem statement of the study, with the objective of giving a comprehensive analysis of the chosen topic. Furthermore, it effectively tackles the research problem by specifically concentrating on the emerging issue currently under research. Further, the chapter provides an overview of the research questions and research objectives that will function as guiding principles for this specific subject matter. This chapter provides with significance of this study which addressing the worth of the study to others.

1.1 Issues

A robust expansion of the Islamic finance sector is occurring in parallel with the growing number of Muslims around the world. Malaysia, a nation where the majority were Muslims was impacted by the revival of the Middle East as well. Islamic finance was the predominant form of finance among Malaysians, despite the fact that Malaysia operates a dual financial system, in which the conventional financial industry in addition to the Islamic financial industry operates side by side. With a long and illustrious history as well as a robust regulatory framework, Malaysia has firmly established itself as international frontrunner in the field of Islamic finance. Lembaga Tabung Haji, a savings institution that complies with Shariah and is dedicated to assisting Muslims in saving money for their pilgrimage to Mecca, was established in 1963. Later Bank Islam Malaysia Berhad (BIMB) become a prominent cornerstone of Islamic banking in Malaysia since its founding in 1983 and has been show the big step forward in the country efforts to build a strong and truthful financial system. In March 1993, the Interest Free Banking Scheme (IFBS) was subsequently implemented, enabling conventional institutions offer Islamic

banking products and services. Islamic Interbank Money Market (IIMM) was subsequently, established in the year 1994 as a platform to offer a readily accessible source of short-term investment channels that are in accordance with Shariah principles.

Malaysia is globally recognized as a pioneer in Islamic finance, with a highly developed institutional ecosystem that is dedicated to the provision of financial services in accordance with Shariah. Islamic banks serve as financial intermediaries between these institutions which is their most significant purpose (Mohammed Farhan Akhtar et al.,2011). This role encompasses the role of the trainer, adviser and supporters at an Islamic bank. In fact, the bank also established itself as a reliable corporate depositor, business associate, and investor in the financial sector. The mobilization of money from savers to borrowers is a task that they are obliged to do in such a way that these transfers are carried out in a manner that is morally and responsibly accountable. By 2023, there were sixteen Islamic banks licensed to operate in Malaysia. Different financial goods and services are the focus of their operations, nonetheless all of the goods and services are Shariah compliant and specifically designed to the needs of Muslims. In the financial landscape of Malaysia, Islamic financial institutions (IFIs) perform a distinguishing and particularly significant role. The integration of moral values with economic growth is a logical process that is carried out by these institutions. Islamic financial institutions (IFIs) supersede the conventional banking industry by offering Shariah compliant product and services that are consistent with Islamic principles and promotes social responsibility. This is because Islamic financial institutions are bound by Shariah principles, which prohibit transaction based on interest and prioritize risk-sharing and ethical investment.

There is a substantial percentage of the population in Malaysia that is seeking for financial solutions that are in accordance with their religious values.

Mudarabah which refers to profit sharing, and Musharakah which refers to joint ventures are two examples of alternatives financing models that are made available by Islamic financial institutions (IFIs). These models facilitate a more equitable partnership between the institution and the consumer. In order to accomplish their capacity as sustainable banking institutions, Islamic banks must monitor liquidity risk, a term that denotes a particular instrument that they employ to adhere Shariah principles. The method of financing in Islamic banking is significantly different from the method of loan in conventional banking. Conventional banking is structured around interest-based system, which necessitates the debtors pay interest on loans and the lenders earn interest on deposits. In this way, the fundamental principles that regulate loans are constituted. Islamic finance offers the financing which follows to Shariah principles and places a focus on risk sharing and ethical investments. However, the idea of “riba” is prohibited in Islam.

This means that the bank distributes both the risks, and the rewards associated with investments to the customer, rather than simply charging interest on those investments. To put it another way, Islamic finance promotes the idea of risk sharing as opposed to risk transfer, which is the approach that conventional banks take (Hasan, 2015). Islamic banks adhere to a principle of interest-free financing that is based on profit and loss sharing (PLS), in contrast to conventional banks, which operate on the basis of conventional interest (Ariff, 1988). This is the primary distinction between Islamic and conventional banks. Numerous studies that have been conducted specifically on Islamic economics have comprehensively examined the justification behind the elimination of

interest (Chapra, 2000) and the importance of profit loss sharing in Islamic banking (Dar & Presley, 2000).

In addition, according to the principles of Islamic PLS, the relationship between the borrower, the lender, and the intermediary is founded on the principles of financial equity and partnership. An innovative environment has been created among practitioners of Islamic banking as a result of the significance of interest-free financing in Islamic banking. This environment anticipates the development of an alternative to interest. Conceptually, Islamic bank financing differs from conventional bank loans in a number of ways, and these are some of features which differentiate Islamic financing with conventional bank.

1.2 Problem Statement

The economy of Malaysia has seen variations as a result of both internal and external influences. The financial system of Malaysia has been challenged for resilience by significant events such as the 1997 Asian financial crisis, the 2008 Global Financial crisis and the economic disruptions caused by the Covid-19 pandemic. Islamic banks, known for their distinctive risk-sharing arrangements and adherence to ethical investing standards, are frequently perceived as being more stable and robust in times of instability. Nevertheless, it is important to consistently enhance this ability to withstand and recover from challenges in order to guarantee long-term expansion and steadiness in light of forthcoming economic uncertainty. Detailed of financing growth of Islamic banks in Malaysia is presented in the Table 1.1.

Table 1.1

Percentage of financing growth rate of Islamic banks in Malaysia

No.	ISLAMIC BANKS	2015 (%)	2016 (%)	2017 (%)	2018 (%)	2019 (%)	2020 (%)	2021 (%)	2022 (%)	Average (%)
1	Affin Islamic Bank Berhad	28.27	29.11	29.00	21.33	0.03	4.33	16.40	15.30	17.97
2	Alliance Islamic Bank Berhad	30.27	7.15	3.33	11.02	16.42	15.11	0.95	6.96	11.40
3	Al Rajhi Banking & Investment Corporation (Malaysia) Berhad	3.55	19.94	(5.56)	(11.33)	5.00	(3.59)	17.71	44.08	8.73
4	Ambank Islamic Berhad	12.09	-0.85	-1.00	1.91	4.62	10.04	9.19	11.65	5.96
5	Bank Islam Malaysia Berhad	16.10	14.05	7.06	8.87	8.08	10.70	6.51	11.35	10.34
6	Bank Muamalat Malaysia Berhad	12.54	8.07	2.90	(2.30)	3.39	14.10	14.15	16.16	8.63
7	CIMB Islamic Bank Berhad	10.90	16.66	21.87	22.85	11.88	8.11	6.90	18.80	14.75
8	Hong Leong Islamic Bank Berhad	11.01	15.48	11.53	10.27	13.83	15.06	8.99	11.15	12.17
9	HSBC Amanah Malaysia Berhad	12.24	(1.40)	14.44	4.60	(7.46)	4.06	(3.33)	7.22	3.80
10	Kuwait Finance House (Malaysia) Berhad	4.16	(7.44)	(12.83)	(2.61)	(13.47)	(10.70)	(10.55)	(4.62)	(7.26)
11	Malaysia Building Society Bank Berhad (MBSB)	(14.87)	0.64	(27.76)	2.93	2.86	0.74	3.13	7.41	(3.12)
12	Maybank Islamic Berhad	20.81	14.32	9.11	8.11	8.59	7.66	(5.46)	11.24	9.30
13	Ocbc Al-Amin Bank Berhad	8.27	(2.68)	1.02	5.67	13.94	(3.53)	11.24	2.08	4.50
14	Public Islamic Bank Berhad	24.45	17.11	11.91	9.37	8.90	9.23	9.87	10.79	12.70
15	RHB Islamic Bank Berhad	22.12	9.58	26.05	21.55	16.02	11.08	11.21	9.04	15.83
16	Standard Chatered Sadiq Berhad	(5.35)	(2.11)	(15.99)	(4.55)	(18.18)	(0.31)	0.29	29.35	(2.11)

From the table below, it can be seen that some banks had earned higher average financing growths, while others experienced lower or even negative average on financing growth over the years.

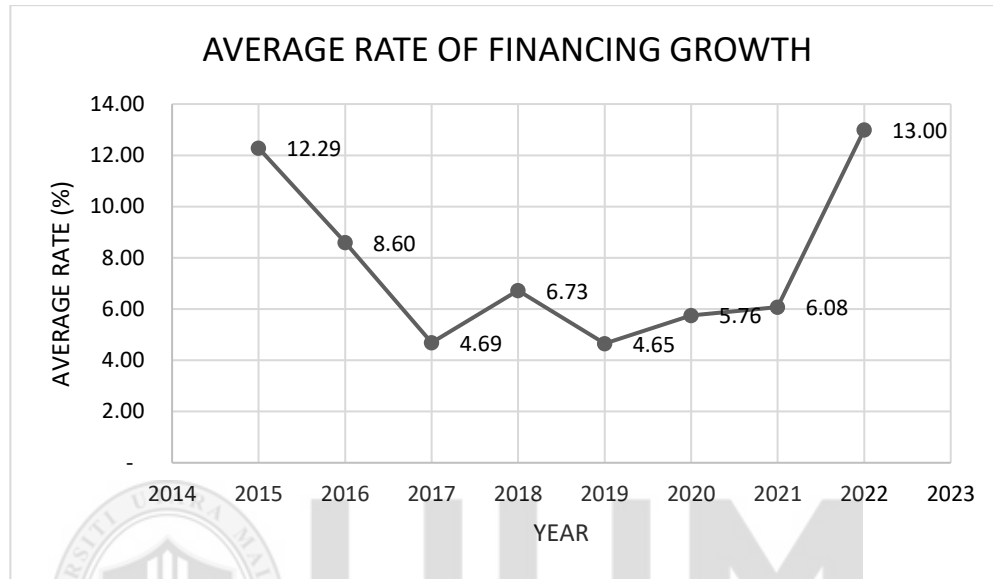


Figure 1.1 *Average Growth Rate of Financing in Malaysian Islamic Banks*

Figure 1.1 show the average rate of financing growth for 16 Islamic banks in Malaysia during the period of study from 2014 and 2023. In 2015, the financing growth rate for Islamic banks in Malaysia commenced at a peak level around 12.29%. In the following year, 2016, there is a significant decline in the rate of financial growth, reaching at 8.60%. The declining pattern persists in 2017, reaching the lowest point at 4.69%. In 2018, there was a slight improvement, with the growth rate rising to around 6.73%. Nevertheless, this period of economic is passing, as the rate of financial expansion experiences a slight decline once again in 2019, reaching 4.65%. There is a slight increase of growth to roughly 5.76% in 2020. Around 6.08% is the growth rate in 2021, which is still comparatively steady. In 2022, there is a significant shift in financing growth, with increasing of 13.00%

which is the highest during the observed period. In general, Malaysia's Islamic banks have a pattern of inconsistent financing growth, with significant fluctuations over the years. In the time frame of 2015 to 2017, it was observed that the rate of financial growth had significantly decrease. A minor fluctuations is observed in the growth rate from 2018 to 2021, however it remains relatively consistent. A significant increase in financing growth is observed in 2022, with a highest value recorded during the year.

Islamic banks in Malaysia face intense competition from both conventional banks and established overseas financial organizations, which are frequently seen as more stable. The intense competition in the industry requires Islamic banks to consistently enhance their commercial and financial performance. To preserve and their competitive advantage, it is crucial for institutions to provide new products, improve customer service, and make strategic investments in technology. It is imperative for Islamic banks to prioritize in enhancing their operational efficiency and broadening their market reach (Idris et al., 2011). This involves implementing sophisticated financial technology (fintech) to optimize operations and provide clients with more tailored and convenient banking services.

Islamic banks in Malaysia are confronted with the task of undergoing digital transformation, which involves the use of new technology to enhance operational efficiencies, improve client experiences, and maintain competitiveness in a constantly changing financial environment. By incorporating fintech solutions like mobile banking, blockchain, and artificial intelligence, Islamic banks may enhance their ability to innovate and provide more competitive goods and services. Islamic banking is facing more

intricate regulatory and compliance landscape, which necessitates banks to adhere to strict laws while maintaining Shariah compliance and competitiveness. Islamic banks have a substantial problem in meeting regulatory standards while also ensuring profitability.

1.3 Research Questions

The primary research aimed to resolve the following questions:

1. What are the effect of external variable on financial growth of Islamic banking's in Malaysia?
2. What are the effect external variable on Islamic banking's in Malaysia?

1.4 Research Objectives

The study is being conducted for the following indicated purposes:

1. To evaluate the effect of external variable on financing growth of Malaysian Islamic banking's.
2. To examine the effect of internal variable on financing growth in Malaysian Islamic banking's.

1.5 Significance of the Study

This presented study will greatly expand the existing body of literature, considering the limited research that has been conducted on the influences that are impacting the growth financing of Islamic banking's in Malaysia. It will offer essential guidance for future researchers, especially academics and students who are interested in further investigating and broadening knowledge in this field. The study can serve as a foundation for future investigations into related subjects, such as the influence of certain financing models on

non performing financing (NPF), the efficacy of diverse risk management tactics in Islamic banking, and the significance of the technology in reducing NPF risk. Therefore, it may effectively fill both practical and empirical voids in this subject.

Analyzing the impact between financing growth and non-performing financing in Malaysian Islamic banking is highly beneficial for numerous stakeholders in financial industry and also the Malaysian economy. Concerning with the Islamic banks, the banks can enhanced their risk management. Gaining insight into the elements that contribute to non-performing financing (NPF) in connection to the growth of financial resources can result in the development of more effective risk management methods. Banks may assure sustainable development by recognizing possible linkages and implementing proactive actions to prevent non performing (NPF) risks.

The existence of vibrant and powerful Malaysian Islamic banking industry is significant important in the context of the Malaysian economy, as it plays an important role in guaranteeing the financial stability in the country. It is possible that this study will be of assistance in preserving the strength of the Islamic banking industry. In addition, this study will also give the benefit in terms of growth economic. By facilitating investments, generating jobs, and offering finance to individual and businesses, a flourishing Islamic banking industry may promote economic growth. The findings of the study may be used to guide policies that support sustainable growth in the Islamic financing banking industry, which eventually be valuable towards economy of Malaysia as a whole and also contribute a beneficial information for the potential investors. Foreign direct investment

and economic development may be promoted by an open, well run Islamic banking industry that draws in both local and foreign capital.

The results of this study are anticipated to foster the stability in the Islamic banking system of Malaysia. The association analysis of financing growth with non-performing financing will be extremely beneficial in enabling policymakers and regulators in taking specific efforts to ensure that the Islamic banking sectors remain robust and resilient. The result also can serve as valuable guidelines for economic policy decisions, regulatory frameworks, product development and risk management techniques. This would greatly improve the Malaysian Islamic banking sector's stability, growth, and worldwide competitiveness.

1.6 Thesis Structure Organization

This study consist of five separate chapters. As an introduction to the whole field of study, the first chapter will give an explanation of the topic and the issue. This covers the background of study, which provides background information and emphasizes the primary issues. The study will outline many research topics and objectives, as well as discuss the importance and scope of the research. This section will outline the specific research questions that the research attempts to address and the goals it wants to achieve. The second chapter will provide an overview of the existing literature. This chapter will briefly outline the scope of the literature review, identify the key factors of the research questions, along with a discussion of the theoretical framework that the study is influenced by, and also develop hypotheses based on the literature review. The

methodology employed in this study, which encompasses the research design and data acquisition methods and data analysis is further elaborated in the third.

Regarding the fourth chapter, the findings and the discussions that accompany will be discussed in greater detail. In the final stage of the research process, the researcher will incorporate the findings and suggestions pertaining to this study into Chapter Five.



CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The major goal of this study is to examine the relationship between the growth of financing and the appearance of non-performing financing. Examining the relationship between financing growth and non-performing financing (NPF) is crucial for ensuring the stability and sustainability of Islamic banks. Furthermore, this research aims to investigate other factors that have an impact and influence the growth of financing in Islamic banks operating in Malaysia.

The importance of this particular issue derives from the fundamental role of financing growth within the framework of Islamic banks in Malaysia, together with a lack of empirical studies that specifically highlight the determinants of financing growth, particularly within this specific sector. This chapter comprises four primary sections. The first section starts with a brief summary pertaining to the current chapter, following by an explanation of the concepts of financing growth and non-performing financing. This section provides a comprehensive examination of prior empirical studies that have investigated the determinants of financing growth and the relationship between these determinants. The concluding section provides an overview of the entire chapter.

2.1 Dependents Variables

2.1.1 Financing Growth

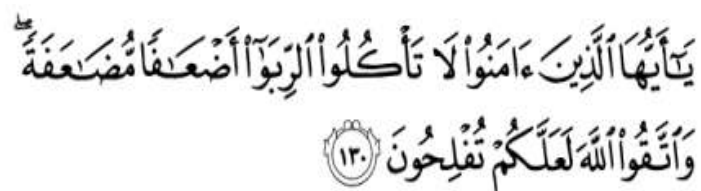
Regulators require the loan growth or financing growth figure in order to assess the stability of banks (Zemel, 2018). According to Foos et al. (2010), loan growth can be defined as the percentage change in the total amount of financing provided by a bank to its customers in a given year, relative to the previous year. In short, it serves as a metric for evaluating the yearly changes in the bank's provision of new funding to its customers. Budhathoki & Rai (2020) propose that the current research on the relationship between Islamic finance and economic growth should incorporate additional factors to more accurately reflect the advancement growth in Islamic banking. These suggested indicators include Islamic banking assets, earnings growth rate, and debt ratio. According to Levine (2005), financial development has the potential to enhance productivity and foster economic growth. This is attributed to the role of the financial system in facilitating the availability of information, enforcing regulations, and reducing transaction costs associated with financing decisions and transactions. Hence, the objective of this study is to fill the existing research gap by including an additional variable, namely capital ratio that represents the amount of activity within the Islamic banking sector. This variable will be analyzed with other factors such as interest rate, GDP, inflation, and bank size, which are considered significant contributors to the study.

All parties involved in an Islamic Financing must abide by the rules outlined in Shariah Law, which can be found in the Quran, the Hadith, and the Sunnah. Islamic financing function on the principle that money is a commodity, thus the borrower is not required to

put up any collateral; rather, the bank "buys" the money and "sells" it to the customer for a profit. Islamic banks do not lend money but instead facilitate the purchase and sale of physical assets such as stocks, real estate, and vehicles. According to Kahf, Ahmed, and Homud (1998), Islamic financing is inextricably linked to the market for goods and commodities, and the extent of its use based on the quantity of capital that is required for actual transactions that take place within this market.

According to Abdouli (1991), Islamic banking resolves the issue of discrimination by providing an equal opportunity for all potential entrepreneurs. This is achieved by considering intangible assets, such as education, skills, and experience, as collateral alongside tangible assets.

Islamic banks are restricted from charging interest to their clients and are required to offer exclusively halal and shariah-compliant products and services. Several verses in the Al-Quran, including verse 130 of Surah Al-Imran, make it very clear that Allah forbids riba.



يَا أَيُّهَا الَّذِينَ آمَنُوا لَا تَأْكُلُوا الرِّبَا أَضْعَافًا مُضَاعَفَةً
وَاتَّقُوا اللَّهَ لَعَلَّكُمْ تُفْلِحُونَ

“Oh you who believed, do not fill yourself with riba doubled and quadrupled, be pious to Allah, that you may be successful”.

The interest free banking system was found to be more effective in attaining the monetary target (Darrat, 1988). However, Yousefi et al., (1997) and Yusuf and Wilson (2005)

discovered that there was no evidence to support the superiority and stability of the interest banking system.

The formation of Islamic banking institutions may lead to the development of an equitable and prosperous economy. This is achieved through the distribution of financial resources to small enterprises based on a participatory framework, wherein the requirement for collateral is not required.

2.2 Internal Variables

2.2.1 Size of the Bank

The prospective diseconomies or economies scale of a financial institution are frequently quantified by the size of the bank (Sufian & Habibullah, 2019). There are numerous prior empirical studies investigated the correlation between the size of banks and the growth of credit. Chernykh and Theodossiou (2011) conducted a study in which they utilized the ratio of bank with long-term business loans to total assets as a metric to measure the size of lending bank in Russia. The study provides evidence that there is a positive correlation between bank lending and factors such as the size of the bank, the level of capitalization, and the amount of provisions for losses made by banks. According to the research conducted by Sufian (2017), it was observed that Malaysian Islamic banks of a larger scale showed an increased tendency to distribute loans and displayed greater operational efficiency in comparison to their smaller counterparts.

The findings of this study, along with those of a large number of other studies, indicate that there is a positive correlation between bank lending and factors such as bank size, capitalization, and provisions for losses made by banks. In research study that was carried

out by Sufian (2017), the result discovered that Malaysian Islamic banks of a bigger size had a stronger propensity to disseminate loans and were relatively operationally efficient in comparison to the smaller banks. This result is further supported by the study of Awdeh (2017), which examined the determinants factor of credit growth for 34 commercial banks in Lebanon from the year 2000 until 2015. Aydin (2008) added to the existing literature on investigated credit growth in Central and Eastern European (CEE) countries, while Mohamad (2014) examined financing growth for 17 Islamic banks in Malaysia from 1994 to 2010. Empirically, the rate of growth is positively and statistically significantly correlated with the scale or the size of the bank. Bank performance was shown to be favorably influenced by bank size in the Asean region under the Malaysian scenario. This indicates that large banks earned larger profits and scope of economies compared to the smaller bank (Lee, 2018; Trofimov et al., 2018).

In contrast, a study that was carried out by Kim and Sohn (2017), came to the conclusion that the size of commercial banks in the United States has a negative and statistically significant relationship with the growth of loan. The research was built upon a sample of 1050 commercial banks. An explanation for this observation is that, in contrast to large banks, the smaller financial institutions are more likely to engage in lending activity. Previous research has demonstrated that the expansion of a bank's loan or financing activities is either positively or negatively correlated with the size of a bank. Consequently, the size of the bank has been regarded as an independent variable that requires further investigation in this research study.

2.2.2 Non-Performing Loan/ Non-Performing Financing

Non-performing financing (NPF) is a frequently used terminology within the context of Islamic banking, indicating a situation wherein a bank loan has either been defaulted upon or is deemed likely to be fully repaid by the borrower. Non-Performing Loans (NPL) are loans that have been delinquent for a minimum of 90 days, and which have a negative impact on the value of bank' loan portfolios (Labbé, 2016). Non-performing loans, often known as NPLs are loans that have not been paid back in full, including both the principle and the interest (Alton & Hazen, 2001). A low level of non-performing loans (NPLs) reflects a robust monetary system within the country, whereas higher NPLs signify an unstable financial position. The growing accumulation of non-performing loans (NPLs) will have a negative impact on the effectiveness of the banking sector, leading to banking crises (Vouldis & Louzis, 2018). It is imperative to ascertain the variables that impact non-performing loans (NPLs) in order to decrease the quantity and attain economic and financial stability (Stijepovic, 2014). High NPLs are a significant factor in the initiation of crises as evidenced by the experiences of East Asian and Sub-Saharan African countries (Khemraj & Pasha, 2009). Impaired financing is a term used in the Malaysian financial system to describe a situation in which either the principle or the profit have been overdue for more than 90 days or for the three months longer (BNM, 2012). The 90-day threshold is a critical indicator of potential credit risk within the banking system. Loans that are classified as impaired suggest that there are concerns regarding the borrower's capacity to repay. The growing number of non-performing loans or financing, which originates from a wide variety of companies and individuals has a substantial

influence and negative impact on the flows financial resources. Bank's sustainability depend upon their non-performing loans (Saba et al., 2012).

The relationship between the growth of financing and impaired financing (NPLs) in Islamic banking has been investigated by a number of scholars (Shingjergji & Hyseni, 2015; Ivanović, 2016; Alihodzic & Eksi, 2018). Loan growth within the Albanian banking system was carried out by Shingjergji & Hyseni (2015). Their findings indicate that the coefficient of non-performing loan (NPL) is negative and it has a significant relationship with loan growth. The results are also corroborated by the research conducted by Ivanović (2016). The findings indicate that there is a statistically significant negative association between loan growth and non-performing loan (NPL) in Montenegro during the post-crisis period at a significance level of 1%. A study conducted by Alihodzic and Eksi (2018), on Turkey and Balkan countries banks that identified the same negative correlation between loan growth and non-performing loans. Therefore, the aforementioned results suggest a negative correlation between loan growth and non-performing financing.

2.2.3 Capital Ratio

Previous research has shown that capital has a major impact on financing growth (Laidroo, 2014; Kim & Sohn, 2017; Vinh, 2017). Laidroo (2014), conducted a study that examined the factors that influence the growth of lending in 15 Central and Eastern European (CEE) countries. Results from the study showed a strong positive correlation between the growth of capital and loans. Furthermore, Kim and Sohn (2017) verified these findings in a study on 1050 commercial institutions in the United States. They found

that the capital is substantially and positively correlated with the growth of loans. A correlation exists between a rise in capital and an increase in the growth of loans. Based on the result findings of the study that was carried out by Vinh (2017), it demonstrates a significant and positive correlation between the increases in capital with loans in Brazilian banks. Therefore, the results mentioned above demonstrate a positive correlation between capital and financing growth.

2.3 External Variables

2.3.1 Overnight Policy Rate

There are numerous prior empirical studies have been conducted regards to the relationship between the Overnight Policy Rate (OPR) and the growth of financing (Radiah & Leong, 2009; Chen & Wu, 2014; Awdeh, 2017). According to the research conducted by Radiah and Leong (2009) on Malaysian Islamic banks, it was found a positive and statistically significant relationship between the demand and growth of Islamic financing. In addition, Awdeh's (2017) study conducted on a sample of 34 commercial banks in Lebanon from year 2000 to 2015 revealed that an increase in lending rates leads to a decrease in credit growth. This decline can be attributed to the increased cost of borrowing, which subsequently reduces the demand for credit. It is supported by the findings of Chen and Wu (2014), who stated that the implementation of an expansionary monetary policy, characterized by a reduction in interest rates, is likely to result in increased credit growth. There exists a statistically significant relationship between interest rates and credit growth, with a significant level of 1%.

2.3.2 Gross Domestic Product Growth Rate

Many studies of previous literature that has been carried out by researcher that can be accessible related to the investigation of the correlation between the expansion of the Gross Domestic Product and the financing growth (Tajgardoon et al., 2012; Podpiera, 2007; Ivanović, 2016; Awdeh, 2017; Jessica & Chalid, 2019). The financing growth of banks may be influenced by a rise in the growth of GDP (Tajgardoon et al., 2012). The reason may be the fact that an increase in the rate of GDP could create more investment opportunities and improve prospects for financing. Podpiera (2007), study on how inflation and GDP influence the total growth of loans in the Czech institution. From the result obtained in this study, it shows that the loans have grown a lot and is tied with the rapidity that was an increasing in inflation and GDP.

The rates of GDP in Montenegro and credit expansion during the pre-crisis period were statistically significant and positively correlated (Ivanovic, 2016). Nevertheless, the research resulted in contrary with a conclusion to respect of the post-crisis era, whereby the result show there is no substantial correlation between the expansion of credit and the increase in GDP. It was found that the rise of credit could be influenced by variables that were unique to a bank as opposed to other factors.

The result of the empirical study by Awdeh (2017) using a sample of 34 commercial banks in Lebanon and the time period from 2000 to 2015 revealed that there is a substantial positive relationship between the development of credit and the growth of the gross domestic product. The outcome is due to the fact that an increase in GDP growth indicates robust economic activity. There is a possibility that this may motivate organizations to provide financing or loan in order to improve capacity of investment.

A study conducted by Jessica and Chalid (2019) demonstrated a positive correlation between GDP and the expansion of bank lending in Indonesia. It can be conclude that financial growth has a positive correlation with gross domestic product.

2.3.3 Inflation

Numerous studies have been carried out in order to determine the factors that influence the financing of growth. Inflation is one of the most significant macroeconomic factors, as it has the potential to influence the growth of financing, as has been emphasized in numerous pertinent scholarly studies (Samantaraya, 2009; Guo & Stepanyan, 2011; Laidroo, 2014; Ivanović, 2016; Awdeh, 2017). A study conducted by Awdeh (2017) on a sample of 34 commercial banks in Lebanon from 2000 to 2015 and discovered a positive correlation exists within inflation and credit growth. This is consistent with the results of Al Sawaie (2020), which established a positive correlation between inflation and bank credits in Jordan. Based on this study a rise in the price of goods and services is related to an increasing in credit activity. This is due to the fact that individuals require a greater amount of cash in order to compensate for the decline in their buying power. On the contrary, Guo and Stepanyan (2011) found that inflation is substantially and negatively correlated with real private credit growth in Emerging Market Economies. Therefore, prior research has suggested that there is both a positive and negative correlation between inflation and the facilitation of economic growth. Thus, the inclusion of inflation as an independent variable has been incorporated into this study, with the aim of examining its impact on the financing growth of Islamic banks in Malaysia.

2.4 Underpinning Theory

2.4.1 Theory of Financial Intermediation

Financial intermediation plays a crucial role in the functioning of an economy. In every economic system, there is a necessity to facilitate the transfer of funds from individuals who save to those who possess the capacity to capitalize on profitable investment prospects, as savers often differ from individuals with the means to exploit such opportunities. Yusof and Bahlous (2013) argue that Islamic finance represents a unique type of financial intermediation that offers potential benefits to companies. In this mode, the fund provider becomes a participant in both the profits and losses of the project. Hence, the utilization of Profit and Loss Sharing (PLS) as a mechanism for financial intermediation proves to be an efficacious and competitive approach in fostering economic growth. Levine (1997) further elaborated on the significance of efficient financial intermediation in facilitating the provision of funding to innovative entrepreneurs, enabling them to contribute and to enhanced productivity and economic growth. Islamic banks, as financial intermediaries, face the same risks as conventional banks, such as credit risk, liquidity risk, and interest rate risk. In comparison to conventional banks, Islamic banks' operations involve additional risks, such as fiduciary risk, displaced commercial risk, and rate of return risk, due to their adherence to Shari'ah principles (Archer & Karim, 2006). Financial intermediaries, such as banks, often encounter default risk when customers are unable to fulfill credit obligations that exceed a period of 90 days. This results in impaired financing, which can have a detrimental

impact on the bank's financing growth. (Labonne & Lame;2014; Rachman, R.A et al.,2018, and Ivanovic,2016).

2.5 Summary

This chapter provides a broad discussion of the literature review undertaken for the study. The researcher provided a concise overview of the variables that contribute to financing growth. The researcher has subsequently provided a thorough explanation of the internal and external factors that impact the financing of growth. These factors include the bank size, non-performing financing, capital ratio, staff efficacy, interest rate, GDP, inflation, and bank size. In conclusion, this discussion offers an elucidation of the fundamental theory known as the financial intermediary theory.



CHAPTER THREE

METHODOLOGY

3.0 Introduction

The main objective of this study is to examine the impact of bank's internal and external factors on the financing growth. The findings of this study are significant in the perspective of financing growth of Islamic banks especially in Malaysia, as the study address a significant gap in empirical research by identifying the primary factors that contribute to such growth, particularly in the perspective of Islamic banks in Malaysia. This study contribute to the existing literature regarding the factors that influence the financing growth of Islamic banks in Malaysia, which is currently lacking in comprehensive research. This chapter provides a detailed analysis in regard to the methodology used in this research, attempting to response to the research questions and achieve the goals and the objectives of the study. A comprehensive review and implementation of a methodology is critical in assuring the dependability and correctness of research findings. Within this chapter, a concise summary is provided of the researchers suggested methodology, theoretical framework, operational and measurement definition, research design, as well as procedures that were applied for collecting data and analysis in this study.

3.1 Methods

The researcher has suggested the following methodologies for analysis, diagnostic tests, descriptive statistics analysis, correlation analysis and panel data are the kind of method that are included in this study, which will assist in determining whether to employ the fixed effects or random effects and Multiple Regression analysis.

3.2 Conceptual Framework

The conceptual framework, as shown in Figure 3.1, comprises a set of dependent and independent variables. The elements that have an impact on the financing of growth may be divided into two categories, which are bank-specific factors and macroeconomic factors. Additionally, bank-specific factors taken into account encompass bank size (SIZE), non-performing financing (NPF), and capital ratio (CAP). The researcher employs macroeconomic indicators such as the overnight policy rate (OPR), gross domestic product (GDP) and inflation (INF). The financial growth of banks is either positively or negatively correlated with these characteristics, as demonstrated by a number of researchers.

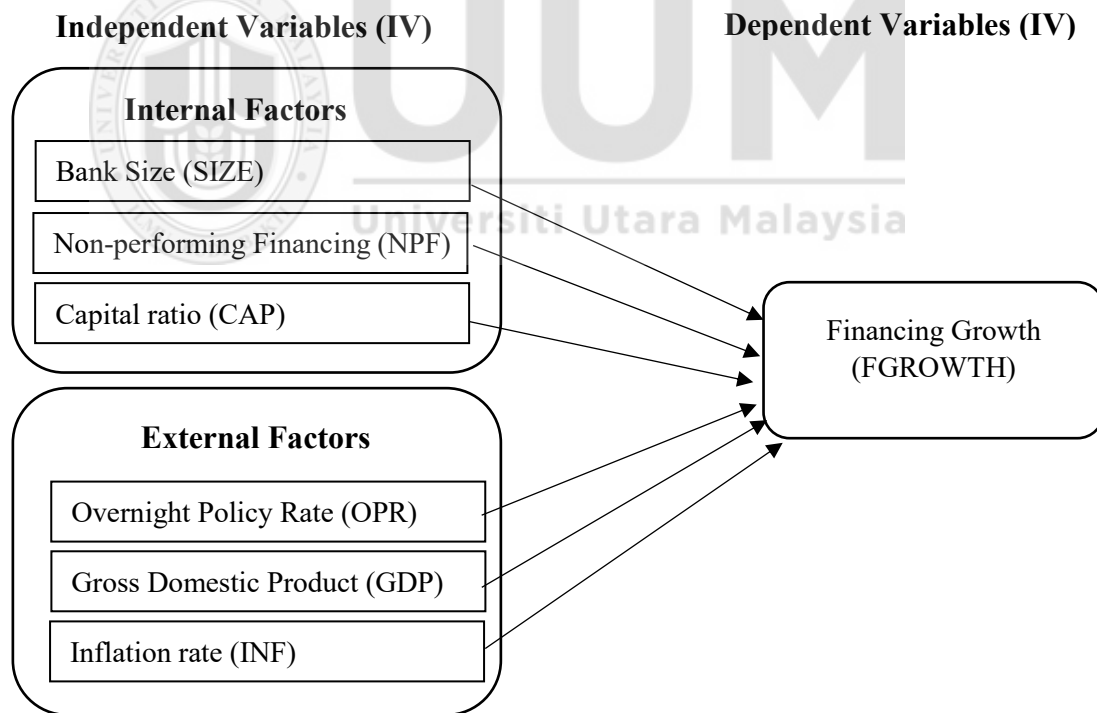


Figure 3.1
Conceptual Framework for Financing Growth of Islamic Banking in Malaysia

The conceptual framework, as shown in Figure 3.1, comprises a set of dependent and independent variables. The elements that have an impact on the financing of growth may be divided into two categories, which are bank-specific factors and macroeconomic factors. Additionally, bank-specific factors taken into account encompass bank size (SIZE), non-performing financing (NPF), and capital ratio (CAP). The researcher employs macroeconomic indicators such as the overnight policy rate (OPR), gross domestic product (GDP) and inflation (INF). The financial growth of banks is either positively or negatively correlated with these characteristics, as demonstrated by a number of researchers.

3.3 Definition of Operational and Measurements

The term "operational" refers to an idea that can be empirically measured through its observable behaviors, dimensions, or properties (Sekaran & Bougie, 2010). Consequently, in order to accomplish the objectives of the study and address the research inquiries, it is imperative to measure both the dependent and independent variables. The present study encompasses six distinct independent variables, namely bank size, non-performing loan (NPL), capital ratio, staff efficacy, overnight policy rate, GDP, and inflation. Financing growth is the dependent variable in this research. Table 3.1 provides an overview of the operational and measurement of variables.

Table 3.1

An overview of the operational and measurement of variables

Variables	Measurement	Sources	Expected Sign
Financing Growth (FGROWTH)	$\frac{\text{Current year total financing} - \text{previous year total financing}}{\text{Previous year total financing}}$	Foos, D., Norden, L. & Weber, M.(2010)	-
Bank Size (SIZE)	<i>Natural Logarithm of Total Assets (lnTA)</i>	Sufian & Habibullah, (2009)	+
Non Performing Financing (NPF)	$\frac{\text{Non Performing Financing}}{\text{Gross financing}}$	Labbe (2016)	-
Capital Ratio (CAP)	$\frac{\text{Equity}}{\text{Total Aset}}$	Brigham & Ehrhardt (2003)	+
Over Night Policy Rate (OPR)	<i>BNM Overnight Policy Rate (OPR)</i>	Bank Negara Malaysia Sources	-
Gross Domestic Product (GDP)	<i>Market value of goods and services produced within the country's in a specific period. Based on aggregate of economic activity</i>	Hasan & Lehar (2009) & World Economic Outlook (World Bank)	+
Inflation (INF)	<i>Fluctuations in the overall price level within the economy</i>	Ben Ameer and Mhiri, (2013)& World economic Outlook (World Bank)	+

3.4 Hypotheses Development

This section is elaborating the development of the hypotheses of this study. The hypotheses are developed in accordance to the conceptual framework illustrated in Figure 3.1. This study aims to investigate the correlation between the dependent variables financing growth (FGROWTH), and other factors which are independent variables which are bank size (SIZE), non-performing financing (NPF), capital ratio (CAP), overnight policy rate (OPR), gross domestic product (GDP) and inflation (INF).

3.4.1 Bank's Size (SIZE)

Total assets expressed as the natural logarithm of total assets (InTA) is applied to determine the magnitude or the size of the bank. Bank size is frequently employed to evaluate the scale of prospective economies or diseconomies of a financial institution (Sufian & Habibullah, 2009). The previous study, bank size was found a positive relationship with loan growth. (Lee, 2018; Trofimov et al., 2018). The previous studies has revealed a correlation, in both positive and negative, between the size of a bank and the growth of its loan or financing activities (Aydin, 2008; Mohamad, 2014; Awdeh, 2017; Kim & Sohn, 2017). By contrast, the relationship between bank size and loan or financing growth is positive, as larger banks exhibited a greater propensity to distribute loans or financing.

H1: There is a significantly positive relationship between bank's size and financing growth.

3.4.2 Non-Performing Financing (NPF)

Non-performing financing (NPF) is a frequently used terminology within the context of Islamic banking, indicating a situation wherein a bank loan has either been defaulted upon or is deemed likely to be fully repaid by the borrower. Principal or profit that is ore that 90days overdue can be considered impaired financing (BNM, 2011). The majority of the studies were found to be negative as indicated by previous study (Shingjergji & Hyseni, 2015; Ivaconic, 2016; Alihodzic & Eksi, 2018).

H2: There is a significantly positive relationship between non-performing financing and financing growth.

3.4.3 Capital Ratio (CAP)

To determine the bank's capacity to endure losses, the capital ratio is calculated by dividing equity by total assets. Laidroo (2014) found out a significant and positive relationship between capital and loan growth. Meanwhile Kim and Sohn (2017) found a positive relationship which an increase of 1 percent in capital is corresponding with increase in loan growth. It can be inferred that the bank with a higher capital ratio has a tendency to promote financing growth.

H3: There is a significantly positive relationship between capital ratio and financing growth.

3.4.4 Overnight Policy Rate (OPR)

The overnight policy rate (OPR) is the scale of interest rate that Bank Negara Malaysia (BNM) employs when administering monetary policy. The costs of financing or lending by financial institutions in Islamic finance industry in Malaysia is significantly influenced by the OPR. Prior research discovered that a negative relationship between OPR and credit growth. Awdeh (2017), found that increase in lending rates leads to a decrease in credit growth. Meanwhile, Chen and Wu (2014), found that an expansionary monetary policy, characterized by a reduction in interest rate.

H4: There is a significantly positive relationship between overnight policy rate and financing growth.

3.4.5 Gross Domestic Product (GDP)

Based on previous study found that, a positive relationship between gross domestic product (GDP) and financing growth, where an increase in the rate of GDP has the

potential to impact on bank financing (Tajgardoon et.al.,2012; Podpiera, 2007; Ivanovic, 2016; Awdeh,2017; Jessica & Chalid,2019). GDP growth has impact on banking financing because it can generate more investment opportunities and improve prospects of financing.

H5: There is a significantly positive relationship between gross domestic product and financing growth.

3.4.6 Inflation rate (INF)

According to the finding of a number previous studies, inflation is a macroeconomic factor that is frequently mentioned and has the potential to influence the acceleration of the growth of financing (Guo & Stepanyan, 2011; Laidroo, 2014; Awdeh, 2017; Samantaraya, 2019). Results findings by Al Sawaie, (2020), which found a positive correlation between inflation and bank credits in Jordan. The increase in the price level of good and services stimulates credit activity, as individuals needs more cash to compensate for their diminished purchasing power. Hence, is it hypothesized that:

H6: There is a significantly positive relationship between inflation rate and financing growth.

3.5 Research Design

The research design part will include a detailed explanation of the methodology utilized to gather and analyze the data in this study. The data collection process involves identifying sources of data and providing an explanation of the methods used to gather it. On the other hand, data analysis focuses on the researcher's utilization of techniques to examine the variables.

3.6 Data Collection

The subsequent sections of this study provide an explanation of the methodology utilized for data collection, encompassing the data collection approach and the sources of data. The researcher opted to exclusively employ secondary data in light of the belief that a quantitative approach was better suited for conducting the study. Hence, the primary data has not been utilized. The analysis of bank-specific factors from 2015 to 2022 relies on a combination of audited annual reports obtained from 10 Islamic banks and data from the Fitch Connect database. The data sources used to analyze the external factors were obtained from the official websites of the World Bank Data and Bank Negara Malaysia (BNM) during the period from 2015 to 2022. Table 3.2 provides a comprehensive compilation of Islamic banks operating in Malaysia. The choice of this specific time frame was determined by the availability of data and its occurrence following the period of financial crisis.

Table 3.2

List of Islamic banks in Malaysia

No.	Name of Institution	Type	Year of Incorporation
1.	Bank Islam Malaysia Berhad (BIMB)	Local	1983
2.	Commerce International Merchant Bankers Berhad (CIMB)	Local	2006
3.	Hong Leong Islamic Bank Berhad (HLIBB)	Local	2005
4.	Maybank Islamic Berhad (MIB)	Local	2008
5.	Public Islamic Bank Berhad	Local	2008
6.	RHB Islamic Bank Berhad	Local	2005
7.	Bank Muamalat Malaysia Berhad	Local	1999
8.	AmBank Islamic Berhad	Local	2006
9.	Alliance Islamic Bank Berhad	Local	2007

Table 3.2 (Continued)

10.	Affin Islamic Bank Berhad	Local	2005
11.	Al Rajhi Banking & Investment Corporation Berhad	Foreign	1955
12.	HSBC Amanah Malaysia Berhad	Foreign	1984
13.	Kuwait Finance House (Malaysia) Berhad	Foreign	2005
14.	Malaysia Building Society Bank Berhad (MBSB)	Local	2005
15.	OCBC Al-Amin Bank Berhad	Foreign	2008
16.	Standard Chartered Saadiq Berhad	Foreign	2008

Source: BNM Regulatory

3.7 Data Analysis

The variables examined in this section are analyzed using data analysis technique. The data analysis was conducted using STATA software. This study makes use of five different analyses which include descriptive statistics analysis, correlation analysis, diagnostic tests, panel data testing, and multiple regression analysis.

3.7.1 Analysis of Descriptive Statistics

Descriptive statistics are numerical representations of the data set. It provides a description or definition of an event for a sample (Thompson, 2009). One of the most common applications of descriptive statistics analysis is to provide the fundamental characteristics of the data attributes such as the mean, median, mode, range, standard deviation, and variance.

3.7.2 Correlation Analysis

In order to investigate the degree of connection that exists between the variables that are being tested, correlation analysis is carried out. The degree of correlation between specific variables can be quantified using the numerous coefficients (Hauke et al., 2011). There is

a need to verify the correlation matrix for the presence of multicollinearity (Pallant, 2010). The researcher utilized the Pearson correlation analysis for this study, which was carried out using the SPSS software.

3.7.3 Diagnostic Test

For the linear regression analysis model, there are few assumptions that need to be made to demonstrate that the assessment method of Ordinary Least Squares (OLS) possessed a number of desirable properties and to guarantee that the hypothesis tests that pertain to coefficient estimates could be carried out in a fair and accurate manner (Brooks, 2008).

3.7.3.1 Multicollinearity Check Test

It is necessary to conduct a multicollinearity test in order to determine whether or not the variables exhibit multicollinearity. The Variance Inflation Factor (VIF) is the method that is utilized the most frequently to test for the presence of multicollinearity. The purpose of the multicollinearity test is to determine whether or not the variables that are used of the observed in the multiple regression model are highly linearly related to one another. It was suggested by Pallant (2010) that the purpose of correlation analysis is to determine the degree to which variables are related to one another, whereas the purpose of the multicollinearity test is to ensure that the correlation between variables is sufficiently strong by employing the tolerance value and the variance inflation factor. The correlation will not result in a severe problem of multicollinearity if it is less than 10.0, (Hair et al., 2006).

3.7.3.2 Heteroscedasticity/ Homoscedasticity Test

The presence of homoscedasticity can be observed in circumstances in which the variance of the errors remain unchanged (Brooks, 2008). Homoscedasticity is defined as having an equal variance, while heteroscedasticity is defined as having an unequal variance (Gujarati & Porter, 2010). During this test, the homoscedasticity hypothesis serves as the null hypothesis, while the heteroscedasticity hypothesis serves as the alternative hypothesis.

3.7.3.3 Serial or Auto Correlation Test

Auto correlation is defined by Gujarati and Porter (2010) as the correlation between individuals in an ordered sequence of observations, either in space for cross-sectional data or in time for time series of data. The necessity of this test is that autocorrelation biases the standard error and reduces the efficacy of the results (Opoku-Agyemang, 2015).

3.7.4 Panel Data Test

Panel data in general, are data that include time series observations for several individuals (Hsiao, 2006). The most appropriate model for the panel must be found through analysis, as this study is using panel data.

Two popularly used data models that are available are the random effects model (REM) and the fixed effects model (FEM) (Gujarati & Porter, 2010). The random effects model (REM) represents the null hypothesis, while fixed effects model is the alternative. If the null hypothesis is rejected, then fixed effects model should be implemented in lieu of the random effects model and vice versa.

3.7.5 Multiple Regression Analysis

Multiple regression analysis as a technique for analyzing the relationship between dependent and independent variables (Pallant, 2010). This test verifies study hypotheses and helps researchers achieve their objectives and answer each questions. The researcher employs a Generalized Least Square (GLS) regression to evaluate the necessary hypothesis, and multiple regression is the form of analysis adopted for the study.

The regression model utilized in this investigation is as follows:

$$FGROWTH_{it} = \alpha_0 + \beta_1 SIZE_{it} + \beta_2 NPF_{it} + \beta_3 CAP_{it} + \beta_4 OPR_{it} + \beta_5 GDP_{it} + \beta_6 INF_{it} + \varepsilon_{it}$$

Where,

α	=	constant value
i	=	financial institutions
t	=	period of time
ε_{it}	=	Error term of bank i on time t

SIZE	=	Bank Size
NPF	=	Non-performing financing
CAP	=	Capital Ratio
OPR	=	Overnight Policy Rate
GDP	=	Gross Domestic Product
INF	=	Inflation Rate

3.8 Summary

The theoretical framework, hypothesis formulation, research design selection, operational and measurement definitions, data collection and analysis technique were all addressed in this section by the researcher. The theoretical framework encompassed the analysis of financing growth (FGRWOTH) as the dependent variable. And six independent variables are further added in the theoretical framework. These variables are bank size (SIZE), non-

performing financing (NPF), capital ratio (CAP), overnight policy rate (OPR), gross domestic product (GDP), and inflation (INF). The hypotheses are formulated based on the identified variables with the aim of addressing the research questions. The financial statements of 16 Islamic institutions were the source of the data used in this investigation. These financial statements were then converted into financial ratios. In addition, information acquired from the Fitch Connect database, the World Bank, and Bank Negara Malaysia (BNM) was also incorporated. The time frame for data collection covered from 2015 to 2022. There are several methods the researcher could use to figure out whether the study should use a fixed effects model or random effects model along with multiple regression analysis which include the descriptive statistics analysis, correlation analysis, diagnostic tests, and panel data tests.



CHAPTER 4

RESULTS AND DISCUSSION

4.0 Introduction

This chapter evaluates and discusses the findings results regarding the correlation between financing growth and other determinants factors that influence financing growth in Malaysian Islamic banks. Descriptive statistics, correlation analysis, diagnostic tests, panel data tests, and multiple regression analyses were implemented at different stages of the investigation. The STATA 12 software was employed to analyze the data for the current research. Tables and diagrams that were previously employed in the paper are presented in this chapter for the purpose of elaboration and interpretation, thereby facilitating a more comprehensive understanding of the findings. The final section of this chapter provides a summary of the results.

4.1 Descriptive Statistics

There are a number of fundamental features of the data that can be clarified through the utilization of descriptive statistics (Thompson, 2009). In the context of descriptive analysis, some of the most important methodologies are the frequency distribution, mean, median, mode, range, standard deviation, and the variance.

Rather than testing the study's hypotheses, the primary objective of descriptive statistics is to provide a summary of the data set and to illustrate the events that have occurred

within the sample. The descriptive analysis data for all variables related to the financing growth of Malaysian Islamic banks are presented in Table 4.1 below.

Table 4.1
Statistical Descriptive Analysis

Variable	Obs	Mean	Std. Dev.	Min	Max
FGROWTH	128	7.723	10.868	-27.76	44.08
SIZE	128	7.326	10.155	-19.06	45.5
NPF	128	2.133	2.048	.22	10.23
CAP	128	19.051	5.110	11.73	42.2
OPR	128	2.718	.581	1.75	3.25
GDP	128	3.886	3.839	-5.46	8.65
INF	128	1.79	1.514	-1.14	3.87

Source: Conducted by the researcher using STATA 12. (Refer to Appendix A)

A comprehensive overview of 128 observations spanning on multiple variables pertaining to Malaysian Islamic banks by the descriptive statistics. There is significant amount of variation, as indicated by the mean financing growth rate 7.723 and the substantial standard deviation of 10.868. The range of this variability is from -27.76 to 44.08. A similar pattern can be observed in bank sizes, which have a mean values of 7.326 and a wide range of variability, with a standard deviation of 10.155 and a range that goes from -19.06 to 45.5. When it comes to non-performing financing, the average level is 2.133, and the standard deviations 2.049. The range of this type financing of financing is from 0.22 to 10.23 units. In general, capital adequacy ratio range from 11.73 to 42.2, with a standard deviation of 5.110. The average value of these ratios is 19.051. With a standard deviation of 0.581 and a range that varies between 1.75 and 3.25, Overnight Policy Rate (OPR) have a mean value of 2.718 and a moderate standard deviation. In the meantime, the total gross domestic product (GDP) have a mean of 3.886 and a standard deviation of 3.83, with a ranges that goes from -5.46 to 8.65. Inflation has a range from -1.14 to 3.87

percent, with the average rate of inflation being 1.79 percent and the standard deviation being 1.514 percent.

4.2 Correlation Analysis

The correlation analysis is being performed with the objective of finding the expected correlation signs within the model and to evaluate the strength of the relationship between the factors that were studied. Various coefficients may be utilized to measure the correlation between variables (Hauke et. al.2011). Pallant (2010) proposed the multicollinearity in the model can be found by examining the correlation matrix. Table 4.2 show the result of correlation matrix for Malaysian Islamic banks.

Table 4.2
Correlation Matrix for Variable used in the study

Variables	FGROWTH	SIZE	NPF	CAP	OPR	GDP	INF
FGROWTH	1.0000						
SIZE	0.7910	1.0000					
NPF	-0.4830	-0.3820	1.0000				
CAP	-0.5523	-0.4366	0.6686	1.0000			
OPR	0.0817	0.0646	-0.0973	-0.1605	1.0000		
GDP	0.1270	0.1603	-0.0021	-0.0204	0.664	1.0000	
INF	0.0977	0.1344	0.0481	-0.0002	0.322	0.8154	1.0000

Source: Conducted by the researcher using STATA 12. (Refer to Appendix B)

The correlation coefficient is a statistical numerical indicator of covariation, or connection, involving two variable that reveals both the amount as well as the trajectory of the linear connection (Coopers & Schindler, 2006). Positive correlation between two variables indicates that the variables tend to move in the same direction. Meanwhile negative correlation coefficient indicates that two variables tend to move in opposite

directions. This correlation coefficient closer to either 1 or -1 represent the strength and direction of the correlation between the variables.

Size of the bank (SIZE) seem to have a positive correlation with financing growth (FGROWTH) at the 0.7910, which is suggest that a larger bank have a tendency to be more profitable and can indicate that as financial growth increases, the size of the entity or bank tends to increase as well.

Non-performing financing (NPF) have a negative correlation with financing growth (FGROWTH) at -0.4830, which indicating that the higher financial growth is associated with a decrease in non-performing financials. Similarly, there is a moderate negative correlation at -0.5523 between capital ratio (CAP) of the bank and financing growth, meaning that when capital ratio increase the financial growth decrease. The weak impact 0.0817 between overnight policy rate (OPR) and financing growth (FGROWTH) suggest insignificant impact between this two variable. Gross domestic product (GDP) and inflation (INF) shows a very weak positive correlation with financing growth (FGROWTH) with the value of the correlation of GDP 0.1270, while the INF with the value of 0.0977.

In addition to that, there are also significant correlation exist between the independent variables. There is a significant strong positive correlation between NPF and CAP at the value of 0.6686, which indicates that these two variables have a tendency to move together with one another. There is also a strong positive correlation between OPR and GDP at the value 0.6643. The effect between OPR and INF at the value 0.3225 show a positive correlation but it can be a weak impact. GDP show a positive correlation with INF at the

value 0.8154 while a moderately negative correlation present between CAP and OPR at the value -0.160.

The correlation matrix indicates that the independent variables are not multicollinearity, as all correlation coefficient values are less than 0.9. According to Pallant (2010), a standard value of 0.9 is employed to evaluate the presence of multicollinearity.

4.3 Diagnostic Test

4.3.1 Multicollinearity Check

The Variance Inflation Factor (VIF) is a statistical measure used in regression analysis to assess the presence of multicollinearity. It quantifies the degree to which an estimated regression coefficient is magnified due to its correlation with other independent variables. A higher value of VIF indicates a stronger correlation, which can lead to difficulties in interpretation. Tolerance is the inverse of VIF ($1/VIF$) which indicates the proportion. The table 4.3 below show the result of multicollinearity check.

Table 4.3
Multicollinearity Check

VARIABLES	VIF	TOLERANCE VALUE (1/VIF)
GDP	6.81	0.146
INF	4.10	0.243
OPR	2.60	0.38 4
CAP	2.06	0.485
NPF	1.86	0.536
SIZE	1.34	0.748

Source: Conducted by the researcher using STATA 12. (Refer to Appendix C)

The table 4.3 shows that there is moderate multicollinearity between certain variables, namely GDP and INF with respective VIF of 6.81 and 4.10. The table also does not exhibit any signs of multicollinearity as all variables had VIF values that were less than 9.0.

4.3.2 Heteroscedasticity/ Homoscedasticity Test

When the variance of the error terms is constant across a range of independent variables, homoscedasticity is observed (Hair et al., 2007). There is unequal variance when there is heteroscedasticity. Homoscedasticity is defined by Gujarati and Porter (2010) as having equal variance, whereas heteroscedasticity is define as having unequal variance.

Table 4.4
Breusch-Pagan Test

Test	Breusch-Pagan / Cook-Weisberg test for heteroscedasticity
Null Hypothesis (Ho)	Constant variance
Variables	SIZE, NPF, CAP, OPR, GDP, INF
Chi-squared statistic (chi ²)	17.76
Probability (Pob > chi ²)	0.0069

Source: Conducted by the researcher using STATA 12 (Refer to Appendix D)

Table 4.4 show a result by taking the Breusch-Pagan test in STATA software, the p-value of chi-square (Prob>chi2) is 0.0069. Given that the p-value (0.0069) is less than the usual significance of 0.05, it is appropriate to reject the null hypothesis. This suggests the presence of substantial evidence of heteroscedasticity.

4.3.3 Serial or Auto Correlation Test

Gujarati and Porter (2010) proposed that a Lagrange-Multiplier test is the most appropriate method for identifying serial correlation and detecting first-order correlation. In addition, the Wooldridge test was employed in order to identify serial or first-order autocorrelation in panel data.

Table 4.5

Wooldridge test for autocorrelation in panel data

Test	Wooldridge Autocorrelation test
Null Hypothesis (Ho)	No first- order autocorrelation
F-statistic (F)	11.552
Probability (Pob > F)	0.0040

Source: Conducted by the researcher using STATA 12 (**Refer to Appendix E**)

Table 4.5 show the result of taking Woolridge test in STATA software, the p-value of 0.0040 which is below the significance level of 0.05. This indicates that the null hypothesis is reject and there is no first-order autocorrelation.

4.4 Panel Data Test

Gujarati and Porter (2010), the Hausman test is utilized to make a decision between fixed effects (FE) models and random effects (RE) models in order to ascertain which model is more appropriate for the study. In this test, the correlation between the unobserved variables effects, which are unique errors, and the regressors. If the data satisfies the assumption of fixed effects, the fixed effects model is the preferred choice. If the assumption is not met, then the random effects model is more appropriate.

Table 4.6

Hausman test

Test	Test Statistic
Chi-squared statistic (χ^2)	4.28
Probability (Prob > χ^2)	0.6386

Source: Conducted by the researcher using STATA 12 (**Refer to Appendix F**)

Table 4.6 which provided with the result of the coefficients for both the fixed effects (FE) and Random effects (RE) models. The value of the test statistics, known as the chi-squared, is 4.28, while 0.6386 for the p-value. Given that the p-value is higher than 0.05,

it indicated that the null hypothesis cannot be rejected. Therefore, the random effects model is more suitable in this study.

4.5 Multiple Regression Analysis

A multiple regression analysis is conducted using STATA 12 software to ascertain the predictive correlation of independent variables (SIZE, NPF, CAP, OPR, GDP and INF) on the dependent variable (FGROWTH). The findings of the multiple regression analysis for Malaysian Islamic banks are displayed in Table 4.7. The coefficient value represents the extent to which each independent variable influences the dependent variable.

Table 4.7
Multiple Regression Analysis

Variables	Coefficient	Std.Error	p-value
SIZE	0.71***	0.06	0.00
NPF	-0.51	0.37	0.17
CAP	-0.43**	0.16	0.01
OPR	-0.64	1.54	0.68
GDP	0.17	0.38	0.67
INF	-0.17	0.74	0.82
R ²	0.69	F-Statistics	43.72
Adjusted R ²	0.67	Sig F-Statistics	0.00

Source: Conducted by the researcher using STATA 12. (Refer to Appendix G)

The F-statistic which shows the overall significance of the model, is found to be statistically significant at the 0.00 level. Adjusted R square (R²) value of 0.67 indicates that around 67% of the changes in the dependent variables can be accommodated by the independent variables. The variables OPR, GDP, NPF and INF are found to be statistically insignificant predictors, indicating that there is no obvious relationship between these variables and the dependent variables. Two variables bank size (SIZE) and capital ratio

(CAP) have been identified as statistically significant factors that impact the FGROWTH of Malaysian Islamic banks.

Bank Size (SIZE) and Financing Growth (FGROWTH)

The coefficient for the variable Size is 0.71 with a standard error of 0.06 and a p-value of 0.00. The obtained result is statistically significant at the level 1% providing that SIZE have positive significant correlation on FGROWTH, which it can be described as increase in Size is significant increase in the Financing growth. To be precise, an increase of one unit in Size is linked to an approximate increase of 0.71 units in the financing growth. The result of this significant correlation is in line with the past studies from Aydin (2008), Mohamad (2014), Sufian (2017), and Awdeh (2017). Bank size is significantly and positively correlated with financing growth. These findings indicate that Islamic banks of greater size in Malaysia tend to observe a greater increase in financing. The positive significant correlation suggest that there is a direct relationship between the size of the bank and the growth of financing. This is likely because larger bank have bigger resources, benefit from the economies of scale and have a strong market presence.

Non-Performing Financing (NPF) and Financing Growth (FGROWTH)

The coefficient for NPF is -0.51, with a standard error of 0.37 and a p-value of 0.17. This indicates that an increase of one unit in NPF is expected to result in a 0.51 decrease in financing growth. This suggests that the relationship between NPF on the FGROWTH is not statistically significant. This result similar with the result of study conducted by several researcher which are Shingerji and Hyseni (2015), Ivaconic (2016), and Alihodzic and Eksi (2018), which they found out a negative relationship between non performing

financing and loan growth. This result might be reflect on underlying economic or contextual factors. In certain situations, NPF might not have a substantial influence on financing growth if the financial system possesses mechanisms to absorb or alleviate the consequences on non-performing financing.

Capital Ratio (CAP) and Financing Growth (FGROWTH)

The CAP coefficient is -0.43, with a standard error of 0.16 and a p-value of 0.1. The result indicates CAP have a negative and significant correlation with the FGROWTH of Islamic banks in Malaysia. The findings demonstrate that an increase in CAP is correlated with a decrease in the FGROWTH, and they are statistically significant at the 1 percent level. More specifically, an increase of one unit in CAP is associated to a decrease of about 0.43 units in the FGROWTH. The negative coefficient indicates a reverse correlation between CAP and the FGROWTH. Nevertheless the result does not correspond with the result of the previous study conducted by Laidroo (2014), Kim and Sohn (2017), and Vinh (2017) which demonstrated a positive correlation between capital and the growth of financing.

This outcome of this result can be attributed to strategic decisions, regulatory constraints, and conservative lending practices that are designed to guarantee long-term viability. By comprehending these factors, financial institutions can enhance their capacity to manage the trade-off between pursuing financing development and maintaining financial stability. This comprehension will empower institutions to guarantee sustainable and equitable development in their operations.

Overnight Policy Rate (OPR) and Financing Growth (FGROWTH)

The coefficient for OPR -0.64, with the standard error at 1.54, and the p-value is 0.68. The coefficient -0.64 indicates that a one-unit increase in the OPR is correlated with a decrease of 0.64 units in FGROWTH. Nevertheless, this correlation is not statistically significant. Compared to the coefficient, the standard error of 1.54 is relatively high, suggesting that there is a significant amount of uncertainty surrounding the estimate of the impact of OPR on FGROWTH. The coefficient for the OPR in this result indicates negative correlation with FGROWTH, however this correlation is not statistically significant. This result is in contrast to the findings of Radiah and Leong (2019), Chen and Wu (2014), and Awdeh (2017), which discovered a positive and significant correlation between loan growth and interest rates. This result may be attributable to a range of factors such as the influence of other macroeconomics variables and economic surrounding.

Gross Domestic Product Growth Rate (GDP) and Financing Growth

The coefficient for the GDP is 0.17, with the standard error at 0.38, and the p-value is 0.66. A one –unit increase in GDP is correlated with increase of 0.17 units in FGROWTH, as indicated by the coefficient of 0.17. Nevertheless this correlation is not statistically significant. The null hypothesis that the coefficient is zero cannot be rejected, as the p-value of 0.66 is significantly greater than the conventional significance thresholds (0.05). In other words, there is insufficient evidence to conclude that FGROWTH is significantly influenced by GDP. The coefficient for the GDP in this result analysis indicates a positive correlation on FGROWTH, however this correlation is not statistically significant. This result may be attributed to the of other macroeconomic or sector specific variables. This

finding is verified by the result study of Ivanovic (2016) who discovered a substantial correlation between credit growth and GDP during the pre-crisis period.

Inflation (INF) and Financing Growth (FGROWTH)

The inflation (INF) coefficient is -0.16, with a standard error of 0.74 and a p-value of 0.82. The coefficient of -0.16 indicates that, a one-unit increase in inflation contributes to an approximate decrease of 0.16 unit in financing growth. This correlation however is not statistically significant. The p-value of 0.82 is significantly higher than the conventional significance thresholds, such as 0.05. This indicates that the null hypotheses that the coefficient is zero cannot be rejected. In other words, there is insufficient evidence to establish that inflation has a significant impact of financing growth. The study conducted by Guo and Stepanyan (2011) confirms the outcome, demonstrating that inflation has a substantial and adverse impact on financing growth. The analysis of the results indicates that the coefficients for inflation (INF) has a negative impact on financing growth. However, it is important to note that this negative impact is not statistically significant. This occurrence may be attributed by other factors such as significant variability, indirect or delayed impacts, and the influence of the macroeconomic or sector specific variables.

4.6 Discussion on the Hierarchical Multiple Regression Test

As part of this study, a Hierarchical Multiple Regression Test is carried out in order to understand of the incremental value that can be obtained by including additional variables in the model and to evaluate the distinct contribution to each set of variables can make. The dependent variable in the hierarchical regression analysis is FGROWTH, and the result of the analysis is summarized in the table 4.8 below.

Table 4.8

Random Effect of Regression Analysis

VARIABLES	EXPECTED SIGN	MODEL 1 FGROWTH		MODEL 2 FGROWTH		MODEL 3 FGROWTH		MODEL 4 FGROWTH	
		Coefficient	p-value	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value
SIZE	+	0.708***	0.000	0.725***	0.000	0.707***	0.000	0.832***	0.000
NPF	-	-0.512	0.169	1.4253	0.136	1.274	0.179	2.298	0.033
CAP	+	-0.433**	0.006	-0.406**	0.009	-0.382**	0.014	-0.471**	0.003
OPR	-	-0.645	0.677	-0.369	0.809	-0.340	0.854	-0.980	0.514
GDP	-	0.166	0.661	0.027	0.944	-0.200	0.694	0.521	0.214
INF	-	-0.167	0.823	0.243	0.748	0.131	0.887	-0.722	0.377
D_Year2015	+					3.178	0.099		
D_Year2016	+					3.742	0.161		
D_Year2017						0	.		
D_Year2018						0	.		
D_Year2019	+ -					-0.178	0.934		
D_Year2020						0	.		
D_Year2021						0	.		
D_Year2022	+					5.223	0.023		
NPF ²	-			-0.248**	0.03	-0.238	0.033	-0.330	0.007
interaction_SIZE_NPF	-							-0.070	0.046
interaction_NPF_DYear2019	-							-1.703	0.033
interaction_NPF_DYear2020	+							0.379	0.651
R ²		0.6844		0.6965		0.7232		0.7194	
Adjusted R ²		0.6687		0.6788		0.6969		0.6955	
Sig F-Statistics		0.0000		0.0000		0.0000		0.000	
F-Statistics		43.72		39.34		27.55		30.000	
t statistics in parentheses									
*p<0.05, **p<0.01, ***p<0.001									

Source: Conducted by the researcher using STATA 12. (Refer to Appendix H)

There are four models involved in the analysis, each of which contains a distinctive set of predictors. For the Model 1, Size and CAP are significant indicating that the variables have an impact of financing growth, where CAP has a negative effect, whereas SIZE has a positive effect. Model 2, SIZE and CAP are significant, similar to Model 1 and the financing growth is significantly and adversely affected by NPF². For Model 3, SIZE and CAP are remains significant, while NPF² indicates a significant negative non-linear effect, suggesting that the relationship between financing growth and non-performing financing become more negative as NPF increases. For the Model 4, the inclusion of interaction of size with NPF, interaction NPF with year2019, and interaction of NPF with year2020, which demonstrates that some interactions are significant to impact the financing growth.

Model 1 show a significant at 0.0000 level, with an adjusted R² value of 0.6687. It demonstrates that a regression model comprising of SIZE, NPF, CAP, OPR, GDP and INF shown 43.72 percent of the FGROWTH of Malaysian Islamic banks. The variable SIZE has a strong and statistically significant positive impact on the growth of financing, with a coefficient of 0.708 and a p-value of less than 0.001. The variables non performing financing (NPF), capital ratio (CAP), overnight policy rate (OPR), gross domestic product (GDP), and inflation (INF) have no significant influences in this model, except for CAP which has a negative and significant effect (coefficient=-0.433, p>0.01).

The inclusion of the NPF² in Model 2, Model 3 and Model 4 highlights the considerable negative quadratic connection between NPF and FGROWTH which indicates that bigger NPF levels have a declining and ultimately influence on growth. The coefficient of NPF

in Model 2 is 1.4253 with a p-value of 0.136 indicates that NPF is not significant in this model.

In the Model 3, the coefficient is 1.274 with a p-value of 0.179 indicates a similar trend with Model 2. NPF^2 in Model 2 shows a coefficient of -0.248 with a p-value of 0.03, indicating a significant negative quadratic effect. This suggest that although an initial increase in NPF may have a positive effect, as NPF increases further, the effect turn negative. Similarly, for the Model 3, NPF^2 shows a coefficient of -0.238 with a p-value of 0.033, indicating another significant negative quadratic effect. The variable of NPF^2 give an impact of the non-linear relationship between NPF and FGROWTH, showing that high NPF levels have a negative effect on growth.

In Model 4, NPF and NPF^2 have a significant effect. NPF show a positive coefficient 2.298 with a p-value of 0.033. A positive impact on NPF might indicate that a certain amount of non-performing financing could be handled without negatively impacting growth of financing. The NPF^2 has a negative coefficient of -0.330 with a p-value of 0.007, suggesting a negative quadratic effect. This implies that increasing NPF beyond a certain level starts to negatively impact FGROWTH. The non-linear connection, in which the early shows a positive influence of NPF becomes negative as NPF increases as captured by the NPF^2 variables. The inclusion of the three interaction between SIZE and NPF (int_size_NPF), NPF and year 2019 (int_NPF_DYear2019), and interaction between NPF with year 2020 (int_NPF_DYear2020) develops the visibility of the influence of NPF and their connections. The statistically significant interactions that were found in Model 4 for the interaction between SIZE and NPF were found a negative interaction with a coefficient

of -0.070 with a p-value 0.046. This shows that the positive effect of NPF to FGROWTH diminishes as SIZE grows. As the size of the financial increases, the negative consequences of NPF are seen to be increasingly severe. This means that bigger financial institutions may be more affected by rises in non-performing financing, possibly because they are more at risk or because the effects are bigger on their financial condition. The interaction between NPF and year 2019 (int_NPF_DYear2019) shows a significant negative coefficient of -1.703, indicating a significantly negative influence of NPF on FGROWTH compared to previous year. It's possible that certain circumstances in 2019 made the detrimental impacts of NPF on FGROWTH become worse. However, in 2020, the interaction of the NPF with year 2020 of the coefficient 0.379 with a p-value at 0.651 show no discernible interaction.

In conclusion, it is clear that the interactions between the variables and FGROWTH are becoming more complicated as one moves from Model 1 to Model 4. The inclusion of NPF² and interaction between variables reveals substantial non-linear and interaction effects, thereby facilitating a more comprehensive comprehension of the factors that influence financial growth. Every model add levels of complexity to the understanding of the ways in which various elements interact to support financial growth.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

The research provide recommendations for enhancing the growth financing of Islamic institutions by investigating both internal and external factors. Additionally, it provides an understanding of the factors that may impact the institution's performance. The researcher's motivation for conducting the study is derived from the significance of financing growth for Islamic banks. In addition, the findings of the previous studies suggest that there is insufficient evidence to establish a definitive connection between the internal and external factors that contribute to the expansion of financing for Malaysian Islamic banks. A description of the findings of the study is presented in this chapter, along with an analysis of how the result of the findings were able to answer the research questions and achieved the research objectives. Additionally, the researcher provides several recommendations to relevant parties and suggestions for future research in order to improve the findings of the current study. In addition, the researcher discusses the summary of the findings. After that, in the final section of this chapter, the researcher discusses the contribution of the study as well as the limitations of the study.

5.1 Summary of the Result

Financial institutions, such as banks, are vital to economic growth because of the services they offer and the assets they channel toward various stakeholders, including consumers, startups, government, and other businesses. This enables the accumulation of capital and improves profitability. Banks act as catalysts for economic expansion by utilizing

financial intermediaries to distribute the financial resources they have accumulated from depositors to borrowers. In light of the significance of Islamic banking in regions with Muslim populations worldwide, it is essential to prioritize the expansion of financing in order to enhance the performance of Islamic institutions.

Hence, the researcher is interested in analyzing the financing growth of Islamic banks in Malaysia, given the importance for these institutions. As the objective of this study is to evaluate the effect of the external variable and internal variables on financing growth in Malaysian Islamic banking's, specifically from the year 2015 to 2022.

This study examines the average rate of financial growth of 16 Islamic institutions in Malaysia from 2015 to 2022. The financial growth rate have a high rate at 12.285 and then experienced a substantial decline in 2016, dropping to 8.602. In 2017, the growth rate experienced an additional decline, closing in a value of 4.693. In 2018, there was a marginal enhancement, with a value of 6.731. Nevertheless, the period of economic expansion came to an end in 2019, reaching a value of 4.653. In 2020, the rate of growth had a little increase, reaching 5.756. The rate of growth in the subsequent year, 2021, was approximately 6.075. The rate of financial expansion experienced a significant shift in 2022, reaching a record high of 12.998, the highest figure recorded during the specified period. The expansion of Islamic banks' funding in Malaysia is characterized by an erratic trend that has undergone substantial changes over the years. Between 2015 and 2017, there was a substantial decline in financial expansion. Between 2018 and 2021, there were some variations, but the pace of increase remained generally stable.

In addition, the study examines the impact of the size of banks (SIZE), non-performing financing (NPF), capital ratio (CAP), overnight policy rate (OPR), gross domestic product growth rate (GDP), inflation (INF), on financing growth in Islamic banks in Malaysia. The findings show banks size have a strong positive impact on the growth of financing. NPF have a negative and non-significant impact on FGROWTH. Numerous research have demonstrated a negative relationship between nonperforming financing and loan growth. However, this statistical significance may imply that, in some cases, NPF has little no impact on financing growth, especially if the financial system is sufficiently regulated to absorb or minimize the impact of non-performing financing. The result of this study reveals that NPF is not significantly impact on the FGROWTH which might be attributed by other external factors such as the state of the economy.

CAP has a negative impact on FGROWTH. In this negative impact it is found that as capital levels increase, which usually associated with strict lending policy and more regulatory requirements credit for growth becomes a challenge. The negative impact could mean that the bank's strategy is focused on long-term security and risk management rather than quick growth. By knowing these processes, financial institutions may be better able to balance the need to keep the economy stable with the determined to make it grow.

NPF have not statistically significant impact on FGROWTH. And this result can be attributed by the impact of another external factor and it can be the economy condition. Whereas if the financial system has a method which can absorb or mitigate the effects of NPF, NPF might not affect the financing growth under certain conditions.

The overnight policy rate (OPR) had a negative impact of coefficient. A -0.6446 coefficient reflects a 0.6446-unit fall in finance growth. Previous research has indicated a substantial positive association between loan growth and interest rates, which is contrary to this study.

GDP positively impact on FGROWTH, although not statistically. The null hypothesis asserts that the coefficient is zero, and the p-value is 0.661, which is significantly greater than 0.05, making it impossible to reject the hypothesis. It can be inferred that GDP is inadequate to effect on FGROWTH.

Inflation have a negative impact on the financing growth which show decreases of 0.1666 units for every unit increase in inflation. However, this negative impact is not statistical significance as it may attributed to a number of reasons, such as significant variability, indirect or delayed impacts, and the impact of macroeconomic or sector-specific variables. This study provides valuable insights into the impact of bank size, non-performing financing (NPF), capital ratio (CAP), overnight policy rate (OPR), gross domestic product (GDP), and inflation (INF) on the financing growth (FGROWTH) of the Islamic banking in Malaysia. By understanding of these factors may help institutions in efficiently managing their financial stability and financing expansion.

Table 5.1 below show the summary of the findings of the relationship between dependent variables and independent variables.

Table 5.1

Summary of the Findings

VARIABLE	CORRELATION WITH FINANCING GROWTH (FGROWTH)	STATISTICAL SIGNIFICANCE	EXPECTED SIGN	REMARKS
SIZE	POSITIVE	SIGNIFICANT	POSITIVE	Larger banks tend to have higher financing
NPF	NEGATIVE	NOT SIGNIFICANT	NEGATIVE	Despite previous studies showing a negative correlation, NPF's impact on FGROWTH is not statistically significant
CAP	NEGATIVE	SIGNIFICANT	POSITIVE	Indicates cautious lending, regulatory adherence and strategic choices for long term stability
OPR	NEGATIVE	NOT SIGNIFICANT	NEGATIVE	Contrast with some previous studies showing significant positive association between loan growth and interest rates
GDP	POSITIVE	NOT SIGNIFICANT	POSITIVE	The coefficient is not statistically significant, suggesting GDP is inadequate to affect the FGROWTH
INF	NEGATIVE	NOT SIGNIFICANT	POSITIVE	Lack of statistical significance possibly due to variability, indirect or delayed effects, and influence of macroeconomic variables.

5.2 Recommendations

According to the findings and conclusions of this study, there are a few suggestions that can be made to improve the growth and stability of Islamic banks in Malaysia. Firstly, there is need for having additional method for handling such risks. As for non-performing financing, there emerged necessity to develop the overall risk management framework by keeping higher level of monitoring and evaluation in order for Islamic financial institutions. The measures that can be recommended to the financial institutions concerning the mitigation of the impact of this factor would be the adoption of mechanism for integrated risk management, which they may include the portfolios, proper credit evaluation which is an important factor in decision making and a proper mechanism for loan recovery.

Secondly, it is regarding towards the need to have support when it comes to dealing with regulations and policies. This means that policy makers should attempt to come up with and enact such policies which can be effortlessly complied with as well as applied by the Islamic banking system this way there will be little interference of outright injunction of manners but this should also be done in a way that does not interrupt operation of the system. In this context, it is important to use the policies so that it would be possible to work in the direction of expanding or increasing Islamic finance possible. The policy incentives should include such policy incentives aimed at ensuring that Islamic banking system enhance the spectrum of financing portfolios provided by Islamic bank. It may involve such things like offering of tax credit, or subsidies or even grant funding to devise new forms of financial tools that are consistent with Shariah.

Thirdly, capital management efficacy. The amount of capital provided to Islamic institutions should also be rightly invested in such a manner that would not percolate down. Evaluate is one more crucial factor, which concerns the application of several distinctive capital allocation strategies in matters of concerning the enhancement of financing sector's high potentialities.

These recommendations might help Islamic banks in Malaysia become more competitive, grow sustainability, and contribute more significantly to the country's economic growth and financial stability.

5.3 Recommendation for Future Research

For future research, it is recommended that to identify and examine other factors that may influence the expansion or the growth of Islamic financing in Malaysia in order to widen its scope of study. Also, a longitudinal studies should be taken. By longitudinal studies which are mainly with a view of establishing the effects on a variables basis over a long period of time. This will help to give a general picture of the roles played by the various exchange mechanism in the expansion of the Islamic banking and the evaluation of the efficiency of the measures which have been implemented.

5.4 Contribution of Study

There are numerous key contributions that this research makes to the understanding and development of Islamic banking, particularly in Malaysia. These contributions include the knowledge insights of the empirical. To have a better understanding of the factors

influencing the growth of funding in Malaysian Islamic banks, the study provides empirical information on the factors that influence this growth. A number of factors, including bank size (SIZE), non-performing financing (NPF), capital ratio (CAP), overnight policy rate (OPR), gross domestic product growth rate (GDP), and inflation (INF), are examined in this study to establish which variables are most significant in determining the growth or expansion of financing.

Besides that, the more understanding regards to enhancement of relationships. By the clarification through this, the linkages between these factors and the expansion of finance are made clearer, and a comprehensive knowledge of the ways in which each component either helps to or inhibits the expansion of Islamic financing is accomplished. As an illustration, the significance of scale in Islamic banking is highlighted by the positive correlation that exists between the size of the bank and the expansion of financing.

Moreover this study give the exposure to enhance strategies for the Risk Management Frameworks. The findings of the study on the relationship between non-performing loans (NPF) and financing growth highlight the necessity for Islamic banks to improve their risk management frameworks. As a result of the fact that the (NPF) does not have a statistically significant influence on financing growth, the study implies that external variables may have a substantial role, therefore revealing areas in which risk management might be improved. This study also offers valuable information that policymakers can employ to develop regulatory structures that are conducive to Islamic institutions and that meet their requirements. This might potentially help create an environment that is conducive to the growth of Islamic finance while still maintaining financial stability. Others than that, the

study deliberates that policymakers should offer incentives to support the development of Islamic banking products and services by stressing the influence of macroeconomic factors such as OPR and GDP on financing growth. This is done by highlighting the impact that these variables have on financing growth.

In summary, this investigation makes significant contributions to improving the development and understanding of Islamic banking in Malaysia. It provides empirical insights, informs risk management and policy choices in making Islamic financing in Malaysia especially in order growth with an excellent atmosphere.

5.5 Limitations of Study

Take into consideration the fact that this research may have some limitations. Firstly, this study concentrated on only Islamic financial institutions in Malaysia. The results may be peculiar to Islamic banks solely in Malaysia and may not represent all forms of bank like conventional or Islamic banks globally. Secondly, the precision and accessibility of the data used are vital for ensuring the reliability of this study's findings. Such inaccuracy could arise from any data inadequacies or omissions, which might then lead to wrong conclusions. However, many variables were treated by the research, but there might still be more external factors affecting finance growth that was not considered or accounted for thus eventually leading to confounding impacts. Thirdly, within a given time frame, this study had limitations. Therefore its findings would not align with a range of economic situations, regulatory environments and banking practices different from those in this period specifically.

5.6 Summary

This chapter provides a detailed summary of the findings as well as presents some recommendations achieve from the results. Additionally, it offers ideas for future research directed towards improving study's findings. Finally, the chapter concludes with a comprehensive look at the limitations of the study and an elaborate analysis about what it brings to the table.



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APPENDICES

Appendix A (Statistical Descriptive Analysis)

```
. summarize fgrowth size npt cap opr gdp int
```

Variable	Obs	Mean	Std. Dev.	Min	Max
fgrowth	128	7.723906	10.86802	-27.76	44.08
size	128	7.326484	10.15561	-19.06	45.5
npf	128	2.133906	2.048801	.22	10.23
cap	128	19.05117	5.11093	11.73	42.2
opr	128	2.71875	.5810322	1.75	3.25
gdp	128	3.88625	3.839964	-5.46	8.65
inf	128	1.79	1.514511	-1.14	3.87

Appendix B (Correlation Matrix for Variables)

```
. pwcorr fgrowth size npt cap opr gdp int
```

	fgrowth	size	npf	cap	opr	gdp	inf
fgrowth	1.0000						
size	0.7910	1.0000					
npf	-0.4830	-0.3820	1.0000				
cap	-0.5523	-0.4366	0.6686	1.0000			
opr	0.0817	0.0646	-0.0973	-0.1605	1.0000		
gdp	0.1270	0.1603	-0.0021	-0.0204	0.6643	1.0000	
inf	0.0977	0.1344	0.0481	-0.0002	0.3225	0.8154	1.0000

Appendix C (Multicollinearity Check)

```
. vif
```

Variable	VIF	1/VIF
gdp	6.81	0.146914
inf	4.10	0.243789
opr	2.60	0.384095
cap	2.06	0.485532
npf	1.86	0.536660
size	1.34	0.748053
Mean VIF	3.13	

Appendix D (Heteroscedasticity/ Homoscedasticity Test)

```
. asdoc hettest size npf cap opr gdp inf
```

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

H0: Constant variance

Variables: size npf cap opr gdp inf

chi2(6) = 17.76

Prob > chi2 = 0.0069

Appendix E (Serial/Auto Correlation Test)

```
. asdoc xtserial tgrowth size npf cap opr gdp inf
```

Wooldridge test for autocorrelation in panel data

H0: no first-order autocorrelation

F(1, 15) = 11.552

Prob > F = 0.0040

Appendix F (Hausman Test)

```
. asdoc xtreg fgrowth size npf cap opr gdp inf, fe
```

```
Fixed-effects (within) regression      Number of obs   =      128
Group variable: name_id               Number of groups =      16

R-sq:                                Obs per group:
    within = 0.5208                      min =          8
    between = 0.9335                     avg =         8.0
    overall = 0.6827                      max =          8

corr(u_i, Xb) = 0.3388                  F(6,106)        =      19.20
                                          Prob > F         =      0.0000
```

fgrowth	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
size	.6512935	.0688165	9.46	0.000	.5148581	.7877289
npf	-.2138946	.5311128	-0.40	0.688	-1.266877	.8390882
cap	-.4833055	.251886	-1.92	0.058	-.982694	.016083
opr	-.7237789	1.663483	-0.44	0.664	-4.021796	2.574238
gdp	.2179613	.3933787	0.55	0.581	-.5619502	.9978729
inf	-.2336652	.764029	-0.31	0.760	-1.748427	1.281096
_cons	14.15516	7.378221	1.92	0.058	-.4728769	28.78321
sigma_u	2.1100395					
sigma_e	6.3596263					
rho	.09916599	(fraction of variance due to u_i)				

```
F test that all u_i=0: F(15, 106) = 0.74                      Prob > F = 0.7413
```

```
. asdoc est store fe
```

```
. asdoc xtreg fgrowth size npf cap opr gdp inf, re
```

```

Random-effects GLS regression              Number of obs   =       128
Group variable: name_id                   Number of groups  =       16

R-sq:                                     Obs per group:
    within = 0.5195                        min =           8
    between = 0.9380                       avg =          8.0
    overall = 0.6844                       max =           8

corr(u_i, X) = 0 (assumed)                Wald chi2(6)      =      262.35
                                           Prob > chi2       =      0.0000

```

fgrowth	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
size	.7076391	.0631947	11.20	0.000	.5837797	.8314984
npf	-.5115518	.3698312	-1.38	0.167	-1.236408	.2133042
cap	-.432755	.1558635	-2.78	0.005	-.7382419	-.1272682
opr	-.6446208	1.541465	-0.42	0.676	-3.665836	2.376594
gdp	.1655827	.3771334	0.44	0.661	-.5735851	.9047506
inf	-.1665739	.7422899	-0.22	0.822	-1.621435	1.288288
_cons	13.28273	5.318622	2.50	0.013	2.858421	23.70704
sigma_u	0					
sigma_e	6.3596263					
rho	0	(fraction of variance due to u_i)				

```
. asdoc est store re
```

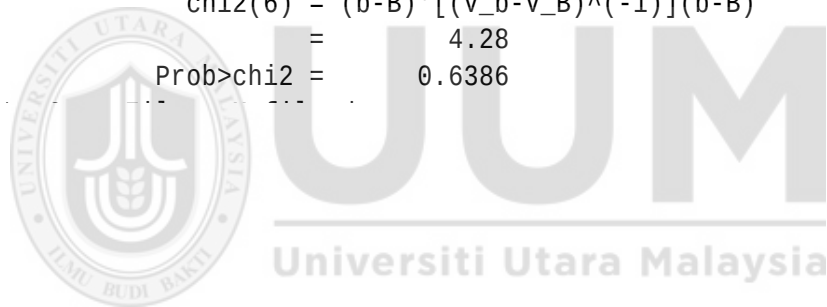
```
. asdoc hausman fe re
```

	Coefficients		(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
	(b) fe	(B) re		
size	.6512935	.7076391	-.0563455	.0272422
npf	-.2138946	-.5115518	.2976572	.3811898
cap	-.4833055	-.432755	-.0505505	.1978715
opr	-.7237789	-.6446208	-.0791581	.6253501
gdp	.2179613	.1655827	.0523786	.1118803
inf	-.2336652	-.1665739	-.0670914	.1809585

b = consistent under Ho and Ha; obtained from xtreg
 B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

```
chi2(6) = (b-B)'[(V_b-V_B)^(-1)](b-B)
          = 4.28
Prob>chi2 = 0.6386
```



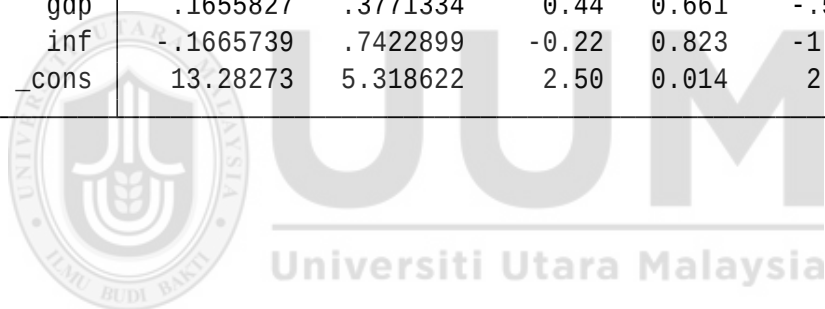
Appendix G (Multiple Regression Analysis)

. regress fgrowth size npf cap opr gdp int

Source	SS	df	MS	Number of obs	=	128
Model	10265.7275	6	1710.95459	F(6, 121)	=	43.72
Residual	4734.73232	121	39.1300191	Prob > F	=	0.0000
				R-squared	=	0.6844
				Adj R-squared	=	0.6687
Total	15000.4599	127	118.113857	Root MSE	=	6.2554

fgrowth	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
size	.7076391	.0631947	11.20	0.000	.5825284	.8327497
npf	-.5115518	.3698312	-1.38	0.169	-1.24373	.2206267
cap	-.432755	.1558635	-2.78	0.006	-.7413279	-.1241822
opr	-.6446208	1.541465	-0.42	0.677	-3.696356	2.407115
gdp	.1655827	.3771334	0.44	0.661	-.5810523	.9122177
inf	-.1665739	.7422899	-0.22	0.823	-1.636132	1.302985
_cons	13.28273	5.318622	2.50	0.014	2.753113	23.81234

.



Appendix H (Random Effect of Regression Analysis)

MODEL 1

. asdoc eststo: reg fgrowth size npt cap opr gdp inf

Source	SS	df	MS	Number of obs	=	128
Model	10265.7275	6	1710.95459	F(6, 121)	=	43.72
Residual	4734.73232	121	39.1300191	Prob > F	=	0.0000
				R-squared	=	0.6844
				Adj R-squared	=	0.6687
Total	15000.4599	127	118.113857	Root MSE	=	6.2554

fgrowth	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
size	.7076391	.0631947	11.20	0.000	.5825284	.8327497
npt	-.5115518	.3698312	-1.38	0.169	-1.24373	.2206267
cap	-.432755	.1558635	-2.78	0.006	-.7413279	-.1241822
opr	-.6446208	1.541465	-0.42	0.677	-3.696356	2.407115
gdp	.1655827	.3771334	0.44	0.661	-.5810523	.9122177
inf	-.1665739	.7422899	-0.22	0.823	-1.636132	1.302985
_cons	13.28273	5.318622	2.50	0.014	2.753113	23.81234

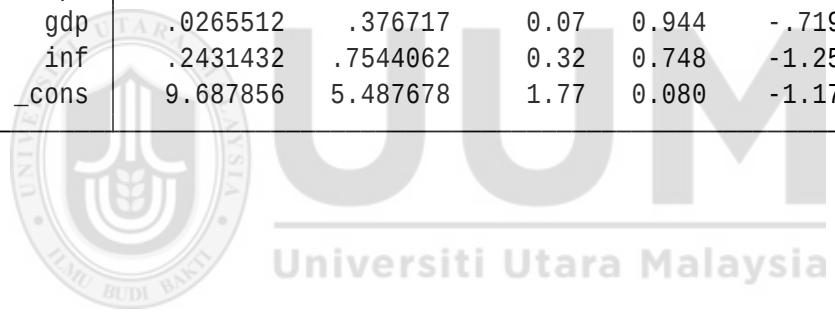
Universiti Utara Malaysia

MODEL 2

```
. asdoc eststo: reg fgrowth size npf NPF2 cap opr gdp int
```

Source	SS	df	MS	Number of obs	=	128
Model	10448.0252	7	1492.57502	F(7, 120)	=	39.34
Residual	4552.4347	120	37.9369558	Prob > F	=	0.0000
				R-squared	=	0.6965
				Adj R-squared	=	0.6788
Total	15000.4599	127	118.113857	Root MSE	=	6.1593

fgrowth	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
size	.7245286	.0626991	11.56	0.000	.6003888	.8486684
npf	1.452841	.9672884	1.50	0.136	-.4623225	3.368005
NPF2	-.2484437	.1133362	-2.19	0.030	-.4728414	-.0240459
cap	-.4063374	.1539414	-2.64	0.009	-.7111307	-.1015441
opr	-.369145	1.522977	-0.24	0.809	-3.384533	2.646243
gdp	.0265512	.376717	0.07	0.944	-.7193221	.7724246
inf	.2431432	.7544062	0.32	0.748	-1.250529	1.736815
_cons	9.687856	5.487678	1.77	0.080	-1.177364	20.55308



MODEL 3

```
. eststo: reg fgrowth size npt NPF2 cap opr gdp inf y15 y16 y17 y18 y19 y20 y21 y
> 22
```

note: y17 omitted because of collinearity

note: y18 omitted because of collinearity

note: y20 omitted because of collinearity

note: y21 omitted because of collinearity

Source	SS	df	MS	Number of obs	=	128
Model	10848.1315	11	986.193771	F(11, 116)	=	27.55
Residual	4152.32838	116	35.7959343	Prob > F	=	0.0000
				R-squared	=	0.7232
				Adj R-squared	=	0.6969
Total	15000.4599	127	118.113857	Root MSE	=	5.983

fgrowth	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
size	.7070801	.0623587	11.34	0.000	.5835708	.8305894
npt	1.274088	.9424635	1.35	0.179	-.5925798	3.140756
NPF2	-.2379036	.1104567	-2.15	0.033	-.4566769	-.0191302
cap	-.3816703	.1523255	-2.51	0.014	-.6833701	-.0799705
opr	-.3403871	1.842195	-0.18	0.854	-3.989087	3.308312
gdp	-.1962296	.4970867	-0.39	0.694	-1.180772	.7883132
inf	.1317761	.9274506	0.14	0.887	-1.705157	1.968709
y15	3.178179	1.912222	1.66	0.099	-.6092165	6.965575
y16	3.742283	1.807932	2.07	0.041	.1614463	7.323121
y17	0	(omitted)				
y18	0	(omitted)				
y19	-.1783272	2.150471	-0.08	0.934	-4.437605	4.080951
y20	0	(omitted)				
y21	0	(omitted)				
y22	5.223643	2.258794	2.31	0.023	.7498162	9.697469
_cons	9.126527	5.795184	1.57	0.118	-2.351565	20.60462

MODEL 4

```
. asdoc eststo:reg fgrowth size npf NPF2 cap opr gdp int int_size_NPF int_NPF_y19
> int_NPF_y20
```

Source	SS	df	MS	Number of obs	=	128
Model	10791.9749	10	1079.19749	F(10, 117)	=	30.00
Residual	4208.48492	117	35.9699565	Prob > F	=	0.0000
				R-squared	=	0.7194
				Adj R-squared	=	0.6955
Total	15000.4599	127	118.113857	Root MSE	=	5.9975

fgrowth	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
size	.8322282	.0840679	9.90	0.000	.6657361	.9987204
npf	2.298216	1.062601	2.16	0.033	.1937904	4.402642
NPF2	-.3307826	.1197132	-2.76	0.007	-.5678683	-.0936969
cap	-.4714553	.1559691	-3.02	0.003	-.7803439	-.1625667
opr	-.9804497	1.49783	-0.65	0.514	-3.946824	1.985924
gdp	.5217025	.417932	1.25	0.214	-.3059898	1.349395
inf	-.722382	.8144311	-0.89	0.377	-2.33532	.890556
int_size_NPF	-.0703247	.0348634	-2.02	0.046	-.1393698	-.0012796
int_NPF_y19	-1.703323	.7914768	-2.15	0.033	-3.270802	-.1358448
int_NPF_y20	.3792871	.8374878	0.45	0.651	-1.279314	2.037888
_cons	11.36576	5.378214	2.11	0.037	.7144899	22.01703