The Mediating Effect of Products and Services on Growth Rate of Malaysian Islamic Financial System

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The purpose of this research comprises three areas, namely, an examination of the specific factors of growth in the Islamic financial system, an assessment of the relationship between the development factors of an Islamic financial system, and the identification and analysis of the mediating role of banking assets and equity funds for financial development. To investigate the factors of growth, a structural equation model is developed that incorporates the main determinants of growth of banking assets and equity funds. The empirical investigation by a structural model revealed that the mediating variables, financial assets, and Islamic equity fund are significant at a level of .05 for the outcome variable of growth. The findings of the study generated greater awareness among organizations of Malaysia on the importance of strengthening the current Islamic financial system as a vehicle for organizational effectiveness.

Keywords: Economic growth, Islamic financial System, Islamic products and services, Growth; Islamic banking, Islamic equity fund, Islamic Finance.

Jel code: A12; P4; G41;G10; G14; G15;G17; G21

1. Introduction

A number of market trends suggest a growing role for Islamic finance as a financial sector development. Islamic finance is a growing industry in many countries, such as Malaysia, the UAE, Turkey and Pakistan.

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Evidence of the validity of the development of Islamic finance is derived from the studies of (Ayaydin, 2016; Hannan, 1995; Sadeghi, 2008).

In Malaysia, an Islamic financial system theoretically could not be established as the only financial system due to many economic policies that are based on unethical decisions. Financial development determines the strength of economy and the country's standard of livelihood. Therefore, the determinants of financial growth need further evaluation for consistent progress in creating a policy decision for an economic system.

Very little literature can be found on the relationship between growth factors of Islamic financial institutions (IFI's) in Malaysia.   This research attempts to cover and include this aspect to fill the research gap.   Due to the implementation of the Shari'ah principles of Islamic finance, Islamic products and services are emerging as a more inspiring and resilient choice for ending the recession.   An Islamic financial system, also called ethical financial system, is independent and has its own separate place in global financial markets.

In addressing the growth scenario of banking assets and equity funds, the performance of the Islamic banking system and Islamic equity funds(IEF) was examined in terms of conventional financial indicators at the international and national level, comparison with the conventional financial system growth indicators, and perceptions about the Islamic financial system(Figure 1).

In terms of the geographical and resources scenario, Shari'ah compliance infrastructure, financial growth indicators, and the central bank database assisted in understanding the critical growth determinants particular to Malaysian industry. In addition, the use of path analysis coefficients in this research may explore in depth analysis of the relationship between variables in the Islamic finance industry.

Figure 1: Conceptual Model
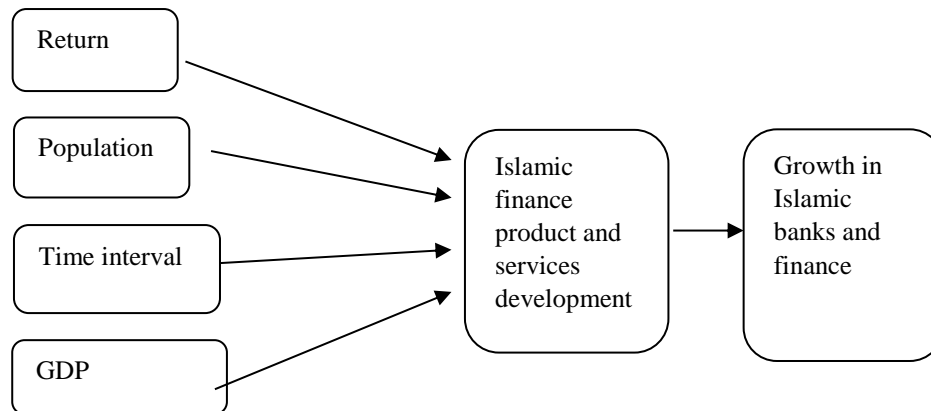
Independent variables   Mediating variable   Dependent variable

1.1. Hypothesis for statistical investigation

Ten hypotheses were developed in this research study. Each hypothesis was stated for a dataset of sample respondents, i.e., Malaysia. The four independent variables look at the effects of return, population, time interval and GDP (Gross domestic product) on Islamic banking assets and Islamic equity funds (mediating variable).

Hence, hypothesis i, hypothesis ii, hypothesis iii, hypothesis iv, hypothesis v, hypothesis vi, hypothesis vii and hypothesis viii investigate the relationship between banking assets and return, banking assets and population, banking assets and time interval, banking assets and the GDP rate, Islamic equity fund and return, Islamic equity fund and population, Islamic equity fund and time interval, Islamic equity fund and the GDP rate, respectively. To examine the mediating role of Islamic banking assets and Islamic equity funds on annual growth of the Islamic financial system, the direct effect of mediating variables on annual growth of Islamic finance will be tested in hypotheses xi and x.

2. Relevant Theories

In an Islamic financial system framework, all the principles, laws, and processes follow a commitment to Allah (الله). Moral soundness is applied as a standard for the acceptance of financial transactions,

contract, or instruments (Z. H. Khan & Watson, 2006). Methodology for theory-building in Islamic economics based on economic statements of the Quran, Hadith, and Sunnah lead to method that arrives at the real and undeniable meanings for development of the Islamic economic system (Khan, 2014)

Islamic values such as justice, equality, truth, faith, kindness, honesty, and responsibility has ensured Islamic Banking spreads competency over traditional interest rate spreads (Shaikh, 2013). Hassan & Lewis (2007) found that the absence of a uniform interpretation of Islamic law leads to viewed permissible activities by location and time. The imperfect markets with diverse banking structures are evaluated using a criterion to test the difference in performance. Generically, different theories including capital market theory for the criterion of performance are developed. However, a services demand for banking activities is an important factor in the growth of banks products markets.

Recent literature draws on theoretical aspects of Islamic banking and finance for depositors, regulators, owners, managers, and borrowers of the Islamic financial system. A number of researchers used economic theory, socioeconomic theory, agency theory, stakeholder theory, and institutional theory to augment operational aspects of Islamic financing (Zamil, 2014).

It may be helpful to review briefly the relevant theories such as socioeconomic theory, modern financial theory, and agency theory, which provide support for this study on Islamic banking and finance.

2.1. Socioeconomic theory

Islamic economic theory and traditional economic theory are two different approaches. Both theories have different perspectives. The principle of contractual fairness could counterbalance the principle of permissibility with the objective of attaining social justice or equity between the parties (Balala, 2011).

Prohibition of Riba is a core component of Islamic economic theory. For financial matters, gains through fair trade are legitimized in the canon but are offset by the prohibitions of Riba (interest/usury), maysir (gambling) and gharar (excessive risk or uncertainty)(Vogel & Hayes, 1998).

The macroeconomic variable, the inflation rate (INF), has a negative and statistically significant impact on the ROE for both domestic and foreign banks. Therefore, high INF is associated with low ROE of banks.

There are many reasons for the study based on the determinants of growth of the Islamic financial system. According to the socioeconomic theory, the income and well-being of the people are components of social economy perspectives (Cant, 1975). The demand for social justice and economic opportunity have led to the developmental growth of Islamic economic and financial ideas (Hegazy, 2006).

As applied to this theory in the study, it was expected to include macroeconomic variables to explain influence of independent variables on the dependent variable of growth of the Islamic financial system.

2.2. Agency theory

Many types of research have explained agency theory as a principal-agent relationship in the Islamic economic field.   Principal-agent problems still exist in the Islamic banking model with many agents and principals. The principal would do slightly better if she could contract for effort and not output, and the agent does the same either way (Ismail, 2011).

Abdullah & Rahman (2007) implied agency theory in Islamic business contracts and firms. Agency theory can analyse profit-and-loss sharing contracts in Islamic finance by using profit sharing as a variable. Islamic financing would complement profit sharing (that is, outcome-based monitoring) with additional incentives for appropriate behaviour (Mirakhor & Zaidi, 2007).

To determine actual governance practices of Islamic financial institutions(IFI's) and their effectiveness in mitigating agency issues, Safieddine surveyed Islamic financial institutions that operate in five of the GCC countries. The researcher analysed data from over 75 Islamic financial institutions of Saudi Arabia, Kuwait, Qatar, Bahrain, and the United Arab Emirates.

The researcher found the importance of the mandatory and binding decisions of the Sharia supervisory board(Safieddine, 2009).

For the variations in agency cost of contract structure, the administration is responsible for agency problems. In equity funds, managers' negligence in performing their duties to maximize shareholders' wealth has led to agency problems in traditional companies, but in the case of Islamic financial institutions, any divergence by managers from placing all supplied funds in Sharia-compliant investments results in creating an agency problem (Chapra & Ahmed, 2002).

The authors examined how a difficulty in meeting capital requirements known as Capital Crunch is relevant to banking activities. This shows that stricter capital enforcement is important only for the Islamic banking system. The research has explored the important role of the risk-reducing and value enhancing of financial institutions by reducing agency problems and increasing profit, market values and stock returns (Harjoto, Yi, & Chotigeat, 2012).

All financial contracts are based on the firm's reported earnings. The deviation from Islamic principles in financial contracts leads to different dimensions of agency problems. Islamic institutions have various forms of agency problems. However, the nature of the financial contract that has an Islamic moral code and ethical values is considered an important factor for the agency relationship, so it is important to distinguish banks by agency relationships associated with particular banking scenarios.

Normally, the method and reason for financing in the agency relationship are considered a major cause for agency problems. When financing is undertaken for the sake of financing, without the full involvement of the financier, several issues relating to the agency relationship arise (Aljifri & Kumar Khandelwal, 2013).

To determine the impact of principal-principal (PP) conflicts on the performance of Islamic banking, Banchit, Boulanouar, Wellalage, and Zainal Abidin (2013) surveyed and compared Islamic banks in a study entitled "Do principal-principal or principal-agent conflicts impact the performance of Islamic banking"? The researchers analysed data from over 37 banks that have adopted Islamic banking in ten countries. They found principle-agent conflicts were prominent and recommended that this should be the main concern in Islamic banking. Next, the authors examined how principle agent and principal-principal conflicts have an impact on the performance of Islamic banks all over the world.

However, the existence of principal-principal conflicts could not be proven conclusively due to the partial ownership of large shareholders. The unethical actions by contracting parties in a financial contract provide deep insight into an agency problem of both ethical banking systems (Islamic banking) and conventional banking systems. Generally, the agency problems are responsible for the instability and growth of banks. However, standard agency models are not an important factor in distinguishing specific organization related agency problems.

This study investigated the performance of Pakistani and Malaysian Islamic financial institutional contracts to find the impact of the principle-agent relationship on the growth of the Islamic financial system.

The nature of the contract is considered an important component for the issue of the agency problem, so it is important to distinguish financial contracts by agency problems associated with particular contract scenarios (Shamsuddin & Ismail, 2013).

2.3. Modern financial theory

The theories of Elton & Gruber (1997)and Markowitz (1999) form the foundations of financial economics, particularly in the analysis of asset allocation strategies for investment portfolios. The presented framework has also been widely used for analysing the impact of bank activity and asset diversification on performance. Under this approach, interest income and non-interest income activities are treated as though they are two different asset classes within the portfolio of a banking organization. Nevertheless, research on portfolio performance valuation theory continues to grow and has benefited particularly from the works of(Jensen, 1968; Sharpe, 1966; Treynor, 1965). Central to the modern financial theory, including the asset pricing theory and the portfolio theory, are the vital assumptions, namely, markets are highly efficient; investors exploit potential arbitrage opportunities; and, investors are rational (Dimson & Mussavian, 1999). The Shari'ah constraints raise yet another daunting issue that poses a challenge to Islam-based investment. As far as modern portfolio theory is concerned, it has been argued that such restrictions, although religiously or ethically correct, will not be acceptable (Kurtz, 2005).

Under modern portfolio theory, an investor is deemed to be rational and concerned only with the return and risk relationship of the chosen securities in the portfolio; subsequently he/she shall have unlimited choices of assets at his/her disposal whenever he/she intends to diversify that would allow him/her to achieve the optimum mean-variance portfolio. Therefore, putting certain restrictions on the choice of securities would have a considerable impact on the analysis of the performance of an Islamic-based investment portfolio since the portfolio arguably might not be able to achieve the status of an optimal portfolio as defined by Markowitz's theory.

Consequently, any results from analysis related to the optimality of Islamic funds under the framework of the modern portfolio theory should be interpreted cautiously.

3.   Research Methods

This research employed a quantitative method and primary data gathered through time-series data (2005-2015). Quantitative data analysis is helpful in the evaluation of data because it provides a quantifiable and a simple, easy way to understand the results (Singh, 2009).

To investigate the factors of growth, a simple structural equation model is developed that incorporates the main determinants of the growth of banking assets and equity funds. This model was inspired by the model described by (Mallinckrodt, Abraham, Wei, & Russell, 2006). The analysis focuses on the structural equation model. The theoretical framework builds on the basis of external and internal variables that effect an Islamic financial system, with many variables, including banking as the dependent variable and four constructs of the independent variable, i.e., Return, Population, Time interval, and GDP (Gross domestic product) growth rate. An empirical study will be conducted to the measure variables. Data analysis is based on statistical processes and techniques.

The following simple statistical model based on the growth of the Islamic finance industry in particular sectors will be generalized:

$G = \beta 0 + \beta_1 E + \beta_2 BA$ eit   Equation I

The dependent variable in the above model is the growth of the Islamic finance industry from time (i) and period (t), while independent or explanatory variables are Islamic equity funds and banking assets. The software for processing the data comprises SPSS 22 and SPSS AMOS 21 software based on regression models.

3.1. Data Analysis

For this study, a time series data of 11 years of (2005-2015) growth factors, including time interval, GDP, income (Return) and population, specific for this study was selected to analyse their impact on the development of Islamic finance in Malaysia. The randomly selected respondents who participated in this work were:

1. CIMB Islamic Bank Berhad
2. Bank Islam Malaysia Berhad
3. AmBank Islamic Berhad
4. Maybank Islamic Berhad
5. RHB Islamic Bank Berhad

Equity funds

1. CIMB Islamic Asia pacific equity fund
2. Affin Hwang Aiiman Growth Fund
3. CIMB Islamic Dali Equity Fund
4. CIMB Islamic Equity Aggressive Fund
5. Affin Hwang Aiiman PRS Shari'ah growth fund
6. AMB Dana Yakin
7. Public Islamic Equity Fund (PIEF)
8. BSN Dana Dividend Al - Ifrah
9. AmASEAN Equity
10. Aberdeen Islamic Malaysia equity fund

The statistical process for calculation and analysis given in Appendix was based on the following equations:

$$IB(M) = \beta_0 + \beta_1 R + \beta_2 P + \beta_3 T + \beta_4 GDP + eit \qquad \text{Equation II}$$

$$E(M) = \beta_0 + \beta_1 R + \beta_2 P + \beta_3 T + \beta_4 GDP + eit \qquad \text{Equation III}$$

$$G(M) = \beta_0 + \beta_1 IB(M) + \beta_2 E(M) + eit \qquad\qquad \text{Equation IV}$$

where GP is the Growth of Islamic financial system in Malaysia and
IB(M)and E(M) are Islamic banks product and services (asset and equity
fund NAV) development of Malaysia.
Independent variables are:

R =Return

P=Population

T=Time interval

GDP=GDP

Mediating Variables are:

IB(M)=Banking assets of Islamic banking of Malaysia

E(M)=NAV/Unit of Islamic Equity fund of Malaysia

Dependent Variable is:

G(M)=Growth of Islamic financial system of Malaysia

3.2. Results

Table 1 (descriptive statistics of Malaysian dataset) shows the
descriptive statistics for the variables of this study.

Descriptive statistics suggest that the impact of variation in return
(M=7.61, SD=2.69) is more than the variations in GDP growth
(M=.673, SD=.230). The coefficient of skewness reflects the direction as
the (+) sign indicates that data are positively skewed and (0) sign reveals
the data are stable.

Table 1: Descriptive statistics

Variables	Mean (M)	Std. Deviation (SD)	Variance	Skewness
	Statistic	Statistic	Statistic	Statistic
Time	.656	.318	.101	-1.04
Growth	18.67	.660	.436	-.046
Population	7.44	.023	.001	-.093
Assets	8.15	.388	.151	-1.306
Return	7.61	2.69	7.283	-2.679
Equity	.414	.345	.119	-1.731
GDP	.673	.230	.053	-2.923

The sound evaluation of quantitative research depends on the validity and reliability of the test in an underline study. To demonstrate the reliability and validity of overall Malaysian data, specifications of the test are necessary.

Table 2: Reliability Statistics of the Scales, a result of an analysis of the underlying Variables of dataset

Variables	Cronbach's Alpha Coefficient
Time	.506
Population	.694
Return	.519
GDP	.698
Assets	.646
Equity	.659
Growth	.615

Table 2 shows the reliability coefficients of the data collected for each variable of Malaysian data sample. The Overall value of Cronbach's alpha is 0.678, greater than .6, which indicates an adequate level of internal consistency for scale with this study sample.

The validity test for all underlying items of Malaysian study sample is done by using factor analysis as the basis. To condense the underlying variables of this study sample, principle component analysis was

performed by undergoing KMO and Bartlett's test of sphericity to test its adaptability. The results show that the KMO (Kaiser-Meyer-Olkin) Measure of Sampling Adequacy =0.543, which indicates that the analysis is reasonable (Williams, Onsman, & Brown, 2010).

Hair J et al. (1995) regards KMO=0.5 as suitable for factor analysis (Hair, 1995). For Bartlett's test of sphericity, the results in terms of Chi-square distribution $\chi2$=99.95 (df=21, Sig.=.000) are evident and indicate that correlational matrix of study sample has common factors. Moreover, some scope for reducing the dimension exists for this study sample dataset. After utilizing principle component analysis, the information in the third column of the Table 3 indicates that all variables have a communality or variance of 1.

Table 3: Total Variance explained by variables

Variables	Communalities		Initial Eigenvalues		
	Factors	Initial	Total	% of Variance	Cumulative %
Time	1	1.000	5.129	73.276	73.276
Population	2	1.000	1.085	15.495	88.771
Return	3	1.000	.480	6.851	95.621
GDP	4	1.000	.251	3.582	99.203
Assets	5	1.000	.044	.633	99.836
Equity	6	1.000	.010	.143	99.979
Growth	7	1.000	.001	.021	100.000
Method: Principal Component Analysis					

Bivariate correlation between the two variables of this study provides basic ground for relationship measurement. Table 4 depicts the correlation matrix between dependent and independent variables of this study. With Malaysian data, there is a convincing evidence of a close correlation between growth and growth factors [including Time interval (T), Population (P), Return (R), Assets (IB)] specific for this research

Table 4: Bivariate Correlation

		Time	Population	Return	GDP	Assets	Equity	Growth
Time	Pearson Correlation	1	.950[**]	.896[**]	-.031	.824[**]	.846[**]	.840[**]
	Sig. (2-tailed)		.000	.000	.929	.002	.001	.001
Population	Pearson Correlation	.950[**]	1	.960[**]	.032	.871[**]	.781[**]	.931[**]
	Sig. (2-tailed)	.000		.000	.925	.000	.005	.000
Return	Pearson Correlation	.896[**]	.960[**]	1	.068	.789[**]	.684[*]	.966[**]
	Sig. (2-tailed)	.000	.000		.842	.004	.020	.000
GDP	Pearson Correlation	-.031	.032	.068	1	.064	-.016	.305
	Sig. (2-tailed)	.929	.925	.842		.852	.962	.361
Assets	Pearson Correlation	.824[**]	.871[**]	.789[**]	.064	1	.541	.773[**]
	Sig. (2-tailed)	.002	.000	.004	.852		.085	.005
Equity	Pearson Correlation	.846[**]	.781[**]	.684[*]	-.016	.541	1	.641[*]
	Sig. (2-tailed)	.001	.005	.020	.962	.085		.034
Growth	Pearson Correlation	.840[**]	.931[**]	.966[**]	.305	.773[**]	.641[*]	1
	Sig. (2-tailed)	.001	.000	.000	.361	.005	.034	
**. Correlation is significant at the 0.01 level (2-tailed).								
*. Correlation is significant at the 0.05 level (2-tailed).								

Moreover, some of the correlations results for this study could be examined and interpreted more rigorously by the structural equation model.

Model measurement with the AMOS software was done to estimate and assess the constructed model of the dataset of this study. First, a measurement model of this dataset is depicted in Appendix.

For the structural equation modelling, 7 observed variables (Time, Return, Population, GDP, banking assets, NAV of equity and growth of

Islamic financial system) were used while variables, i.e., Time, return, population and GDP were exogenous variables. Endogenous variables in this study were banking assets, NAV of equity and growth with 3 error terms.

The model of dataset was identified with df of 2.

No. of Observations-No. of parameters=Degree of freedom

Degrees of freedom

 -(28 - 26) =   2

The covariance between the variable helps to improve the model output (Rosseel, 2011), i.e., Variables including GDP and return, Time and population, GDP and population, Return and time, return and population.

To test and interpret the structural model fit for data, the path diagram, including 23 parameters with standardized regression coefficients appears below .

Figure 2: Path diagram of model of Malaysian dataset
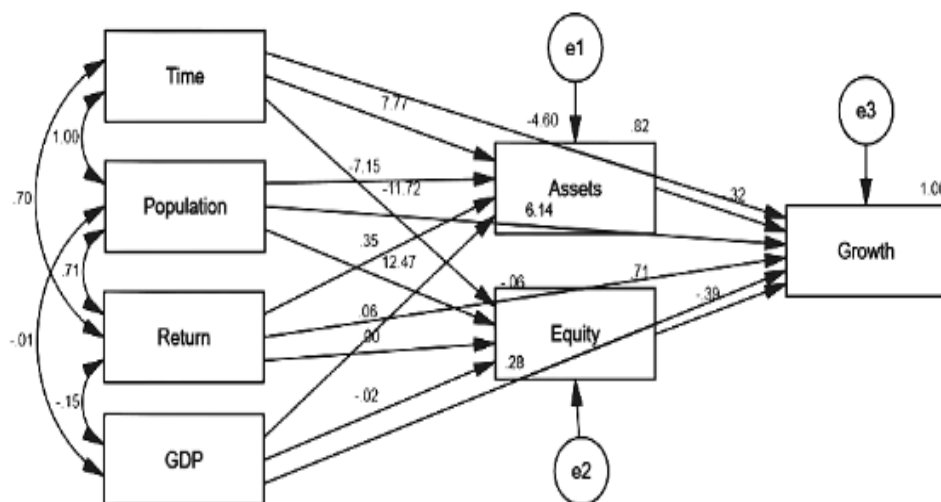
The significant path of the coefficient is with-

     i.   Equity and population (.05)

    ii.   Time and growth   (.000)*

   iii.   Population and growth   (.000)*

   iv.   GDP and growth   (.000)*

    v.   Return and growth   (.000)*

   vi.   Asset and growth   (.000)*

  vii.   Equity and growth   (.000)*

While all of the above variables were significant at a level of .01* and .05 respectively.

To report the hypothesized path, a model of the Malaysian data fulfils the model fit requirement. All of the fit indices, specific for this study, crossed the minimum cap of good fit indices. The chi-square value of 1.138 specifies a better model. The (CMIN/DF) with a score of .569, GFI of .970, and RMSEA of .000 is acceptable (Table 5).

Table 5: Level Of Model Fit Of Malaysian Dataset For Model

Level of Model Fit	Recommended for Further Analysis if	Model Fit
relative chi-square to degree of freedom χ^2/df (CMIN/DF)	>2	.569
Goodness-of-Fit Index (GFI)	< .90	.970
Normed fit index (NFI)	< .90	.993
Incremental fit index (IFI)	< .90	1.005
Tucker-Lewis index (TLI)	< .90	1.062
Comparative fit index (CFI)	< .90	1.000
Root mean square error of approximation (RMSEA)	> .05	.000

The research model for the Malaysian dataset is in parallel to the research goals.The results of the model for this study indicate that only one direct path and one of the eight original indirect paths were significant. For a meaningful result, the indirect effect for Malaysia was determined by the SPSS AMOS.

The analysis revealed that no partial mediation and no full mediation were achieved for the dataset of Malaysia.

Before the mediation:

$$G(M) = \beta_0 + \beta_1 R + \beta_2 P + \beta_3 T + \beta_4 GDP + eit \qquad \text{Equation a}$$

$$G(M) = \beta_0 - \beta_1 .174 + \beta_2\ 3.51 - \beta_3 2.46 + \beta_4 .272 + eit \qquad \text{Equation b}$$

After the mediation:

$$G(M) = \beta_0 + \beta_1 R + \beta_2 P + \beta_3 T + \beta_4 GDP + eit \qquad \text{Equation c}$$

$$G(M) = \beta_0 - \beta_1 .063 + \beta_2\ 6.14 - \beta_3 4.6 + \beta_4 .279 + eit \qquad \text{Equation d}$$

4. Discussion on Hypothesis Testing

4.1. Banking assets and Return

The coefficients for the SEM path between financial assets and return (estimated standardized β coefficient .346, with p = .122) in model did not provide significant support for H_1.

H_1: There is a relationship between the volatility of Islamic banking assets and Return.

This implied that the volatility of Islamic financial institutions return has a no effect on the growth of financial assets of Islamic financial institutions. This may have implied that efficiency of return is an invaluable internal factor to measure the determinant of growth of financial assets. However, specific geographical or territorial factors influence the assets.

These results weaken the conceptual theories of literature related to the relationship between variable or return and assets. The results are not consistent with the findings of (Kuo & Wu, 2007; Shahimi, Ismail, & Ahmed, 2006). In the case of Malaysia, these results empirically proved the non-valuable relationship of return and asset to influence the outward operations of the institutions. However, the resulting findings are consistent with (Short, 1979).

Moreover, the SEM model specifies the direct significant relationship between return and growth with a significance value of p=.000. This finding rejects the mediating role of asset growth to strengthen the relationship between return and growth of IF.

4.2. Banking assets and Population

The coefficients for the SEM path between financial assets and population (estimated standardized β coefficient -7.1), with non-significant value p=.161, did not support hypothesis H_2.

H_2: Muslim Population (P) has a direct effect on Islamic banking assets.

The result of the model for the relationship between asset and population is not in accordance with expectations for the Malaysian dataset. This implied that the percentage of Muslim population in a particular geographical area has no impact on increasing the investment in ethical and Islamic products. The study supported the argument that people of Malaysia did not give importance to many investment options.

The research study strengthens the conceptual theories of literature related to the relationship between assets and population. These findings are consistent with Erol and El-Bdour (1989), who analysed the effect of religion on Islamic finance However, these findings are inconsistent with the findings of (Amin, 2009), who considered the religious factor as an important factor to attract Muslim investors and increase the institutional size. These empirical research findings provide a unique research endeavour in the area of Islamic finance of Malaysia.

Moreover, the results of bivariate correlation implied a significant relationship between assets and population with a p-value of .000 while the beta coefficient of .871 presented a positive relationship between variables, i.e., greater population led to an increase in the volume of assets. The SEM model specifies the direct significant relationship between asset and population with a significance value of p=.000. This finding rejects the mediating role of products and services to strengthen the relationship between population and growth of IF.

4.3. Banking assets and Time interval

The beta coefficients for the SEM path between variables of financial assets and time interval (estimated standardized β coefficient 7.7), with non-significant value p=.06, did not support hypothesis H_3.

H_3: Time interval (T) has a direct effect on Islamic banking assets.

The result of the model for the relationship between assets and time interval is quite valuable. This implied that the matter of time on Islamic institutions has no impact on increasing and decreasing the size of assets of Islamic financial institutions. These findings support the effectiveness and efficiency of other macroeconomic factors. These results also validate that instead of the time factor, efficiency and effectiveness of other factors of growth are important to boost the growth of the Islamic financial system.

The results of bivariate correlation conferred a significant relationship between asset and time interval with a p-value of .002 while the beta coefficient of .824 presented a positive relationship between variables, i.e., higher span of time interval led to an increase in the volume of assets. The SEM model specifies the direct significant relationship between the time variable and growth variable with a significance value of p=.000. This finding rejects the mediating role of products and services to strengthen the relationship between time and growth of IF.

4.4. Banking assets and GDP rate

The hypothesized relationship between assets and GDP (estimated standardized β coefficient .060), of this study, is not significant at a

level of .05 with a p-value of .670. The findings of the SEM model did not support H_4.

H_4: GDP (D) has a direct effect on Islamic banking assets.

The result of the model for the relationship between assets and GDP is quite usual with a perspective of the Malaysia dataset. This implied that the external environment factor, GDP, has no impact on increasing and decreasing the volume of assets of Islamic financial institutions.

The study implied that economic indicators have no influence on investors' confidence and development of assets. This SEM finding rejects the mediating role of products and services to strengthen the relationship between GDP and growth of Islamic finance (IF).

These results also validate that instead of GDP, efficiency and the effectiveness of other factors of growth need to be evaluated to study their impact on the growth of the Islamic financial system.

Moreover, the results of bivariate correlation also did not imply a significant relationship between assets and GDP at a level of .05. However, the SEM model specifies the direct significant relationship between GDP and growth with a significance value of p=.000.

4.5. Banking assets and Growth of Islamic finance (IF)

The coefficients for the SEM path between financial assets and growth variable of IF (estimated standardized β coefficient -.317, with p = .000) in the model of the Malaysia dataset provide strong significant support for H_5.

H_{10}: Islamic banking assets have a direct effect on the growth of the Islamic financial system.

These results strengthen the conceptual theories of the previous literature. It is consistent with the findings of (Bourke, 1989; Molyneux & Thornton, 1992).These results also validate the impact of an internal factor of growth to the growth of financial institutions' profitability. This also implied that bigger volume of the assets of Malaysian IFIs has

a positive impact on the overall industry and likewise implies more strength to the Islamic financial institutions.

This result empirically proved the relationship of the growth of assets and IF to influence the outward operations of the Malaysian institutions. Moreover, the results of bivariate correlation also implied a significant relationship between assets and the IF variable with a p-value of .005 while the beta coefficient of .773 presented a positive relationship between variables, i.e., higher volume of assets led to an increase in growth of IFS of Malaysia.

4.6. Islamic equity fund and Return

The coefficients for the SEM path between IEF and return (estimated standardized β coefficient -.001, with p = .998) in model did not provide significant support for H_5.

H_5: There is a relationship between the volatility of NAV of Islamic equity funds and Return.

This implied that the volatility of Islamic financial institutions return has no effect on the growth of IEF sector.

These results weaken the previous conceptual theories of the literature built by many authors. Many authors, including Kamil, Alhabshi, Bacha, & Masih (2014)and Nainggolan (2011), concluded positive results towards the performance of Islamic equity funds. These results also validate that the efficiency of external factors is important to boost the performance of the IF industry. These findings strongly support this argument that the success at the country level did act as a significant factor to compensate for the failure of regional institutions at the micro-level (Kamil et al., 2014; Nainggolan, 2011; Pramanik, 2002).

This also implied that the bigger size of the overall industry was likewise important and implies more strength to the specific sector of an industry. However, these findings are consistent with Bashir & Nawang (2011), who contend the negative Performance of IEF.

These results did not empirically provide the evidence regarding the relationship of return and IEF to influence the outward operations of the institutions.

However, the results of bivariate correlation implied a significant relationship between assets and return with a p-value of .004 while the beta coefficient of .789 presented a positive relationship between variables, i.e., higher profitability led to an increase in investment in IEF. Moreover, the SEM model specifies the direct significant relationship between return and growth with a significance value of p=.000. This finding also rejected the mediating role of products and services to strengthen the relationship between return and IEFs of IFIs.

4.7. Islamic equity fund and Population

The coefficients for the SEM path between IEF and population (estimated standardized β coefficient 12.4), with a significant value of p=.05, supported hypothesis H_6.

H_6: Population (P) has a direct effect on the NAV of Islamic equity funds.

The result of the model for the relationship between IEF and population is according to expectations. This implied that the percentage of Muslims and the confidence of investors in a particular geographical area have a strong impact on increasing the size of IEF.

The research study weakens the conceptual theories of the previous literature related to the relationship between IEF and population. These findings are not consistent with Erol & El-Bdour (1989), who analysed the effect of religion on investment in Islamic products and services. The study supported the argument that people of Malaysia give importance to ethical and Islamic products and service for investment.

However, these findings are consistent with the findings of Arabi (2008); the researcher contends that the growing population of Muslims in the world is considered an important force behind the establishment and growth of Islamic finance products and services (Imam & Kpodar, 2010).

These results also validate that religious and ethical beliefs are important to boost the growth of Islamic products and services in Malaysia.

Moreover, the results of bivariate correlation also implied a strong significant relationship between IEF and IF variable with a p-value of .005 while the beta coefficient of .781 presented a positive relationship between variables, i.e., higher volume of IEF investment led to an increase in investment in IEF. However, the SEM model specifies the direct significant relationship between population and growth with a significance value of p=.000 and a coefficient value of .279. This finding accepts the mediating role of products and services to strengthen the relationship between population and growth of IF.

4.8. Islamic equity fund and Time interval

The beta coefficients for the SEM path between variables of IEF and time interval (estimated standardized β coefficient -11), with non-significant value p=.062, did not support hypothesis H_3.

H_7: Time interval (T) has a direct effect on the NAV of Islamic equity funds.

The result of the model for the relationship between IEF and time interval is quite unique. This implied that the matter of time on Islamic institutions has no impact on increasing and decreasing the size of investment on IEF sector of Malaysia.

Again, these findings are inconsistent with the findings of Elfakhani, Hassan, & Sidani (2005), who considered the passage of time as a meaningful variable to obtain deep insight into determinants of growth of financial products and services. These empirical research findings also have an impact on the confidence of investors to invest in IEF. The research findings indicate that investors have no confidence in IEF. So far, this study signifies the invaluable relationship of time and IEF.

These results also validate that instead of time factors, efficiency and the effectiveness of other factors might have an impact on the growth of Islamic equity funds.

However, the results of bivariate correlation implied a strong significant relationship between IEF and time interval variable with a p-value of .00 while the beta coefficient of .846 presented a strong positive relationship between the variables. The increase in time span led to an increase in investment in IEF.

4.9. Islamic equity fund and GDP rate

The hypothesized relationship between IEF and GDP (estimated standardized β coefficient -.28) of this study is not significant at a level of .05. The findings of the SEM model did not support H_8.

H_8: GDP (D) has a direct effect on the NAV of Islamic equity funds.

The result of the model for the relationship between IEF and GDP is unexpected. This implied that the external environment factor, GDP, has no impact on increasing and decreasing the size of investment in Islamic equity fund sector of Malaysia.

The research study did not strengthen the already studied conceptual theories of literature, including Nguena (2013), that is related to the relationship between Islamic products and GDP. The study implied that GDP, an external factor of growth, has no influence on investors' confidence and the development of IEF.

However, again, this research finding is consistent with Johnson (2013)who refuted the impact of GDP on the growth of Islamic financial products and services.

However, the SEM model specifies the direct significant relationship between GDP and growth with a significance value of p=.000 with a coefficient value of .279. This finding rejects the mediating role of IEFs to strengthen the relationship between GDP and growth of IF.

These findings signify that the Islamic financial system of Malaysia is evoking distinct factors of growth for a consistent performance. Moreover, distinct operations, functionality, jurisprudence, and services created inconsistencies in its development. The reason behind this could be explained by the differences in certain rules and regulations such as

accounting standards and Shariʿah supervisory boards. Therefore, there is a challenging environment for the growth factors of an Islamic financial system.

4.10. Islamic equity fund and Growth of IF

The coefficients for the SEM path between financial assets and growth variable of IF (estimated standardized β coefficient -.317, with p = .000) in the model provide strong significant support for H_9.

H_9: The NAV of Islamic equity funds has a direct effect on the growth of the Islamic financial system.

These results strengthen the conceptual theories of previous literature with a new empirical finding. It is consistent with the findings of Kamil et al., (2014) and Failaka international Inc., (2002) about the relationship of financial products and services to financial institutions (Inc, 2002; Kamil et al., 2014). These results also validate the impact of institutional products and services to the profitability of the overall industry. These results empirically proved the relationship of growth of IEF and IF to influence the outward operations of the institutions of Malaysia. This also implied that investors prefer to have many innovative choices of investment in an Islamic finance industry.

5.   Conclusion

This study involved an empirical analysis of the external and internal factors wand their impact on the growth of IFIs in the context of Malaysia. The major question of this research was: What are the development factors of growth of Islamic financial system, and how do they influence the Islamic financial system?

Overall, the findings achieve the objectives of this research and answered the central research question. The empirical findings of this research particularly based on advance statistical method, structural equation model, conferred the impact of significant development factors to strengthen the relationships and control the barriers in Islamic finance industry growth.

These results strengthen the conceptual theories of literature. It is consistent with the findings of (Kuo & Wu, 2007; Shahimi et al., 2006).These results also validate that regardless of religious factors as stressed in Islamic finance literature, the efficiency of macroeconomic factors is also important to boost the growth of Islamic financial system. This also implied that bigger share of the overall industry likewise implies more strength to the bank of controlling the costs and benefits it offers to keep customers(Haron, 2004).

For the dataset, only the hypothesis relationship of population to equity, equity to growth and asset to growth are supported as a positive predictor to the growth variable of the Islamic financial system. In contrast, the study did not support the significant impact of Return to assets, Population to assets, time to assets, GDP to assets, return on equity, time to equity and GDP to equity. This study shows that the industry products and services are acquiring momentum and are at a level to give strong support to the Islamic financial system.

Managers and regulators of the IF industry should take timely action to enhance the efficiency of existing services of financial institutions. Future research work can be extended to other Muslim countries including Qatar, Bahrain, and Turkey etc for new horizons of research.

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Appendix

Summary of statistical analysis for Malaysian dataset

$IB(M) = \beta_0 + \beta_1 R + \beta_2 P + \beta_3 T + \beta_4 GDP + eit$

$E(M) = \beta_0 + \beta_1 .346 - \beta_2 7.1 + \beta_3 7.7 + \beta_4 .060 + eit$

$E(M) = \beta_0 + \beta_1 R + \beta_2 P + \beta_3 T + \beta_4 GDP + eit$

$E(M) = \beta_0 - \beta_1 .001 + \beta_2 12.4 - \beta_3 11.7 - \beta_4 .023 + eit$

$G(M) = \beta_0 + \beta_1 IB(M) + \beta_2 E(M) + eit$

$G(M) = \beta_0 - \beta_1 .395 - \beta_2 .317 + eit$

$G(M) = \beta_0 + \beta_1 R + eit$

$G(M) = \beta_0 + \beta_1 P + eit$

$G(M) = \beta_0 + \beta_1 T + eit$

$G(M) = \beta_0 + \beta_1 GDP + eit$

$M_e IB(M) = \beta_0 + \beta_1 R + eit$

$M_e IB(M) = \beta_0 + \beta_1 P + eit$

$M_e IB(M) = \beta_0 + \beta_1 T + eit$

$M_e IB(M) = \beta_0 + \beta_1 GDP + eit$

$M_e E(M) = \beta_0 + \beta_1 R + eit$

$M_e E(M) = \beta_0 + \beta_1 P + eit$

$M_e E(M) = \beta_0 + \beta_1 T + eit$

$M_e E(M) = \beta_0 + \beta_1 GDP + eit$

$G(M) = \beta_0 + \beta_1 R + \beta_2 M_e IB(M) + eit$

$G(M) = \beta_0 + \beta_1 P + \beta_2 M_e IB(M) + eit$

$G(M) = \beta_0 + \beta_1 T + \beta_2 M_e IB(M) + eit$
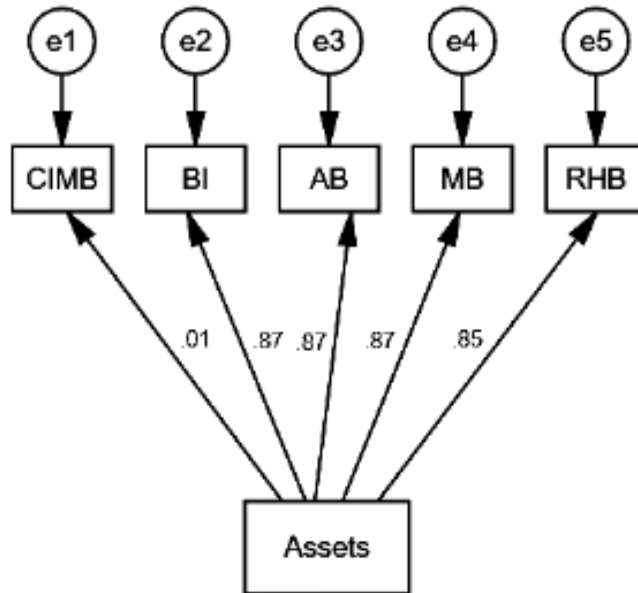
$G(M) = \beta_0 + \beta_1 GDP + \beta_2 M_e IB(M) + eit$

$G(M) = \beta_0 + \beta_1 R + \beta_2 M_e E(M) + eit$

$G(M) = \beta_0 + \beta_1 P + \beta_2 M_e E(M) + eit$

$G(M) = \beta_0 + \beta_1 T + \beta_2 M_e E(M) + eit$

$G(M) = \beta_0 + \beta_1 GDP + \beta_2 M_e E(M) + eit$

Initial Finding: Measurement Model for Malaysian dataset

Islamic banks of Malaysia

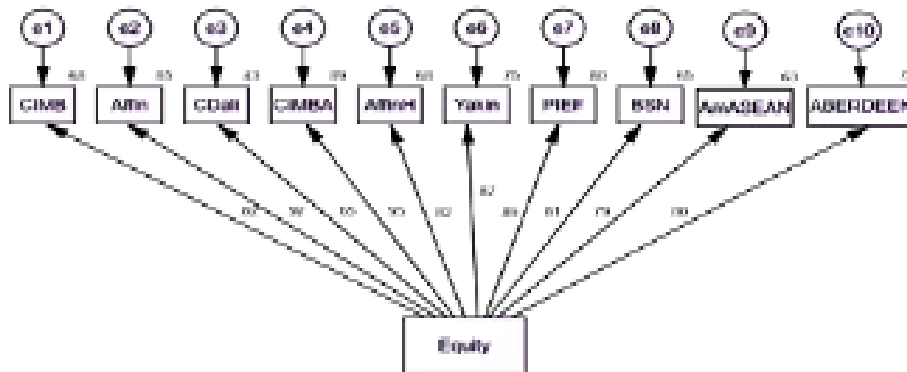The path terms used in the above diagram are:

CIMB=CIMB Islamic Bank Berhad

BI=Bank Islam Malaysia Berhad

AB=AmIslamic Bank Berhad

MB=MayBank Islamic Berhad

RHB=RHB Islamic Bank Berhad

Islamic equity funds of Malaysia

The path terms used in the above diagram are:

CIMB=CIMB Islamic Equity Fund

Affin=Affin Hwang Aiiman Growth Fund

CDali=CIMB Islamic Dali Equity Fund

CIMBA=CIMB Islamic Equity Aggressive Fund

AffinH=Affin hwang aiiman PRS Shariah growth fund

Yakin=AMB Dana Yakin

PIEF=Public Islamic Equity Fund (PIEF)

BSN=BSN Dana Dividen Al – Ifrah

AmASEAN=AmASEAN Equity

ABERDEEN =Aberdeen Islamic Malaysia equity fund