How does advertisement spending affect business performance of both islamic and conventional banks?

Roslan, Ahmad Ridza and Masih, Mansur

INCEIF, Malaysia, Business School, Universiti Kuala Lumpur, Kuala Lumpur, Malaysia

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Ahmad Ridza Roslan[1] and Mansur Masih[2]

Abstract

The study aims at exploring the influence of the advertising on performance of the banks operating in Malaysia and if there is any difference in such relation by the type of banks such as, Islamic or Conventional. An ARDL analysis has been done on two Banks in Malaysia to find out whether there is any relationship between banks performance and marketing expenditure of Islamic Bank and Conventional bank. The *informative view* of advertising suggests that advertising has a pro-competitive role. Comanor and Wilson (1967, 1974) provide alternative tests of the *informative view* by regressing profitability on advertising intensity and other variables and posits that advertising causes profitability. Using the annual data of the bank enlisted in the Bursa Malaysia, this study takes an ARDL approach to test *Comanor-Wilson hypothesis* in reduced form. The findings tend to indicate that the performance of Public Islamic Bank standing as a proxy for Islamic bank in Malaysia, in the long-run and in the short run is not impacted by its marketing intensity. Further study should be done, on what basis is the bank still spending its advertising budget (Marketing)? This contradicts Comanor and Wilson's *informative view* that the advertising intensity and other variables cause profitability.

Keywords: Islamic and commercial banking, advertising, ARDL, Malaysia

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[1] INCEIF, Lorong Universiti A, 59100 Kuala Lumpur, Malaysia.

2 **Corresponding author**, Senior Professor, UniKL Business School, 50300, Kuala Lumpur, Malaysia.

Email: mansurmasih@unikl.edu.my

Introduction:

The role of advertising on firm performance and market structure has been studied from many different perspectives including economics, marketing, management science, and financial economics. It started with the Marshall's (1890, 1919) two dimensional assessments that compared advertising's potential *constructive role* (merely communicating with the customers) with its *combative role* (taking customers from competitors without focusing much on the informational delivery aspect). In modern economics, Marshall's arguments were interpreted more positively by highlighting *the informational view*, which insists that advertising creates a more elastic demand through delivering information to the customers (for example, Ozga, 1960; Stigler, 1961; Demsetz, 1973; and Nelson, 1974, 1975). This is more of a pro-competitive interpretation whereby increased advertising will lead to increased entry resulting into lower price.

On the other hand, *the persuasive view*, according to Marshall's *combative role*, suggests that advertising is mainly conducted to change consumers' tastes to the advertisers advantage. This concurs with (Braithwaite, 1928; Robinson, 1933; Kaldor, 1950; Bain, 1956; and Comanor and Wilson, 1967). With this persuasive view, advertising produces a *less* elastic demand for the product and service by increasing brand loyalty, eventually leading to increase in prices. Importantly, under *the persuasive view*, advertising is anti-competitive and can be used to create entry barriers which means protecting it could protect from new competitors. Potential entrants may also renege if the initial sunk-advertising costs are important enough to increase entry's risk.

A recent alternative to the above two theories is *the complementary view* (for example, Stigler and Becker, 1977; Fisher and McGowan, 1979; Nichols, 1985; Hochman and Luski, 1988; and Becker and Murphy, 1993). According to this view, advertising, an argument of the utility function, does not change or shift consumer tastes, but is 'consumed' jointly with the good/service being advertised, and may affect demand even when it has no explicit information content. A consequence of this last view is that managers may under-advertise, rather than over-advertise, if they believe they cannot fully internalize its benefits.

Evidence on the role of advertising in banking comes from studies that have examined relationship between banks' profitability and their advertising intensity which is defined as the

ratio of advertising to deposits. Results based on commercial bank, savings bank, or savings and loan (S&L) data are not conclusive. Regressing profitability variables on advertising intensity, Edwards (1973) and Kohers and Simpson (1981) find a negative but insignificant association. Regressing advertising intensity on market structure variables, Rhoades (1980) finds a negative but insignificant association; Kohers and Simpson (1981) observe a significant negative relationship; Scott (1978) finds a non-linear relationship that first increases and then decreases; but Wolken and Derrick (1986) fail to find support for this non-linear relationship.

No studies have examined the role of advertising as a form of non-price competition among banks operating in Malaysia since the emergence of Islamic Banking. The emergence of Islamic bank certainly has changed the rules of the game for banks in Malaysia by creating two different markets – Islamic and Conventional, as the Muslims are not supposed to the Conventional banks where Islamic banking services are available (Ariss, 2010; Mirakhor & Bao, 2013). Such a dramatic change in the banking sector suggest that the role of advertising in commercial bank production and performance may have increased in the new competitive environment. It is this potential role that this study intends to examine.

This study, therefore, fills such gap and attempts to look at the issue from bank's perspective to see how much marketing effort the banks provide to improve its performance and if it differs by the type of the banks – Islamic versus Conventional. Therefore, the research question the study intends to address is as follows:
"How does advertisement spending affect business performance of both Islamic and Conventional Banks?"

Our Literature review had shown, the relationship of Marketing in determining the bank's performance, even, some find difficulties in determining the relationship of Marketing and performance, it still have huge chunk of amount in the banks spending's.
Interestingly our empirical findings for Conventional Banks have found a short-run relationship between Marketing and performance of the Bank, which is shown in our long-Run Coefficient in the ECM test and Vector Decomposition Test (VDC). This finding contradicts the Comonar and Wilson's (1967) *the Persuasive view* but they are more in line with the Bronzen's Hypothesis (1974).

But for Islamic Bank there are no significant relationship between Marketing and performance even in a short run, Marketing intensity remains an Exogenous, for the whole period of this study. This may be because, the relative small industry of Islamic Banking comparing the more competitive Conventional Banking, industry. This may also happen because of the Islamisity factor, where by, Islamic Bank performance is impacted by the Islamisity factor rather than marketing intensity.

The findings of the study is expected to provide an assessment of the advertisement performance of the banks and help the management decide on their budgetary allocation. The study will also help the management identify how their decisions about the advertisement activities might contribute to the bank's bottom line in future.

The remainder of this paper are organized as follows. A synthesis of relevant literature will be discussed in the next section. Then, the data and methodology of the study will be explained. After that, the paper concludes with expected results and significance of the study.

Literature Review:

A strict interpretation of the classical economic theory suggests that in pure competition advertising is a frivolous expenditure: the price-taker faces a fixed-demand curve and can sell all that it produces at the market price (Pigou, 1924, p. 196; and Braithwaite, 1928, p.28). In contrast, the modern economic theory provides three alternative views as to why advertising can play an important role in firm's production and consumer's consumption. According to *the persuasive view,* advertising can be used to create product differentiation and brand loyalty (for example, Braithwaite, 1928; Robinson, 1933; Kaldor, 1950; Bain, 1956; Comanor and Wilson, 1967, among others). Firms advertise to compete more aggressively with other incumbents by potentially increasing their market power. Higher market concentration would eventually lead to higher profits through higher prices, to the detriment of consumers.

In contrast, *the informative view* of advertising suggests that advertising has a pro-competitive role. According to Brozen (1974), higher advertising increases competition as new firms can increase their market share at incumbents' expense through advertising. *Brozen's hypothesis* suggests a negative relationship between advertising expenditures and market share, as firms

with smaller market shares spend more on advertising to increase their customer base compared to larger firms that have little customer base left to extend.

Finally, the third major view of advertising, *the complementary view*, suggests that advertising is consumed together with the product or service it is associated with, and should be treated as an argument in consumer's utility function (Becker and Murphy, 1993). Here, advertising is a complement to the product/service in the sense that higher advertising increases the marginal utility of the product/service even if it does not contain any explicit information. This view is in contrast to both the *persuasive view* where advertising shifts consumer preferences, as well as the *informative view* where advertising is of value only if it contains information. One implication of *the complementary view* is that, if advertising complements the consumption of the good being advertised, then advertising has a role to play even in the purely competitive markets.

A number of hypotheses have been suggested to test *the informative view*, which suggests that advertising has a pro-competitive role. According to Brozen (1974), higher advertising increases competition as new firms can increase their market share at incumbents' expense through advertising. *Brozen's hypothesis* suggests a negative relationship between advertising expenditures and market share, as firms with smaller market shares spend more on advertising to increase their customer base compared to larger firms that have little customer base left to extend. Comanor and Wilson (1967, 1974) provide alternative tests of *the informative view* by regressing profitability on advertising intensity and other variables. Under *the Comanor-Wilson hypothesis* advertising causes profitability. This study is going to test *Comanor-Wilson hypothesis* in reduced form.

The issue of marketing nevertheless is important from the perspective of *Shari'ah* Governance also. The comprehensive *Shari'ah* Governance Framework promulgated by Bank Negara Malaysia placed specified role of the *Shari'ah* Board with regard to the bank's *"product development process"* that covers both pre- and post-product approval phases. Moreover, marketing activities can also be seen as one of the important activities through which Islamic banks can also explain its product offerings to the wider market, especially the non-Muslim segments and remove *'gharar'* (uncertainty), if there is any.

The emergence of Islamic banking in Malaysia can be traced back as early as in 1963 with the establishment of Tabung Haji or the Pilgrims Management and Fund Board by the government,

to bring the self-excluded Muslims in Malaysia into the formal banking channel. The success of Tabung Haji, later in 1983, encouraged the establishment of the first full-fledged Islamic Bank in Malaysia, named Bank Islam Malaysia Berhad (BIMB). Subsequently, the Islamic Windows started to get popularity from March 1993 when the *"Interest-Free Banking Scheme"* was introduced by the Bank Negara Malaysia (BNM), the Central Bank of the country.

Subsequently, the government introduced the second Islamic bank, Bank Muamalat Malaysia Berhad in 1999. With the opening up of the financial market, the Malaysian government has allowed foreign banks to open Islamic banking services since 2004. Three financial institutions from the Middle East have opened up their offices in Malaysia – Kuwait Finance House from Kuwait, al-Rajhi Banking and Investment from Saudi Arabia and Asian Finance Bank from Qatar. Moreover, the government has permitted five local conventional banks to offer full-fledged Islamic banking services from their own subsidiaries since 2005.

Although the first Islamic bank in Malaysia has been in existence for the past 27 years, its presence in the market is either not really seen or significant. For example, it is very rare to see the advertisements of the Islamic banks on television compared to other conventional banks in Malaysia. In contrast, the advertisements of Malayan Banking Berhad, for instance, the largest bank in Malaysia, are often aired on television (Kamarulzaman & Madun, 2013).

Haron and Wan Azmi (2005), on the contrary, suggested Islamic banks in Malaysia not to market their products aggressively. Instead, the authors stressed that Islamic banks should have a better understanding of the needs, preferences and behaviour of their target customers. According to the authors, religion is not the only important factor that drives customers to use the Islamic banking facility. This might be true to that fact that Muslims do not enjoy overwhelming majority in Malaysia, a pluralistic society having 39.6% people following Buddhism, Christianity, Hinduism, etc. (Department of Statistics, Malaysia, 2005). In addition to that such a Muslim majority is not well represented in the national economy either, according to the experts.

Therefore, depending on religion alone is not expected to be an effective strategy for the Islamic Banks to attract customers. In fact, non-Muslim customers will also use the Islamic banks if they find that the service is good and meets their expectation. In an attempt to study the effectiveness of the promotional tools, bin Mahajar and Yunus (2011) reported that only

sales promotion and publicity providing little impact in creating customer awareness regarding Islamic banking and the other marketing tools like direct marketing, advertising, and personal selling fails to create any such impact.

Moreover, Malaysia Islamic Finance Report 2015 included a *"retail consumer financial services survey"*, which provides a more recent reflection on the customers' feedback and preference over the Islamic financial services.

A large percentage of the non-Muslim customers have been reported to have banking relation with the Islamic banks and on the contrary, similar portion of the Muslim customers have also been reported to have accounts with conventional banking. These, having been maintaining conventional bank accounts for more than ten years, seem to be satisfied with the current bank and showed less interest in Islamic Banks. May be, they are not the practicing Muslim and a very challenging catch up for the Islamic Banks. Moreover, the outreach of the Islamic banks might be another issue.

The conventional banks' immediate decision to venture into Islamic banking stream proves to be successful as found in the survey among retail consumers where the trust of the consumers on the Islamic banking solutions (Islamic Windows) provided by the conventional banks have been reported. This will no doubt encourage other banks to replicate such success.

Although the findings reported lower switchover rate, the customers raised their concerns over few issues – high fees or charges, involvement of *'riba* in the banking transactions, and poor range of the products and services. These in fact bring a set of opportunities to the financial services providers to capitalize on the customers' sentiments and by providing differentiated products with more competitive rates.

The report forecast a growing competition among the Islamic banks is expected to induce product innovation, technology adoption, and better retail or corporate consumers' responsiveness.

However, the level of satisfaction among the consumers of Islamic banking is more as compared to those of conventional users. This might be driven by the fulfilment of the religious need. Such a consumer behaviour brings both opportunities and challenges for the Islamic

banks. The opportunity of attracting consumers seems to be less attractive compared to the challenges of maintaining a faith based banking operation in terms of its investment and other activities. Islamic banks having successfully fulfilled such an expectation might even promote these ethical activities to maintain consumers' trust and this might help both attract the new consumers (both Muslim and Non-Muslim) and retain the existing ones. IFSA 2013 also stressed on this ethical operation of the Islamic banks.

Identifying the young professionals as the driver of the financial services market, the report, based on customers' survey response, prescribed following actions regarding customer retention and attraction:

- Customized loyalty/reward programs to increase high enrollment
- Including alternative channels to strengthen marketing strategies
- Enhancing knowledge of the branch personnel to improve branch capability
- Meeting and promoting *Shari'ah* compliance to achieve consumers' trust

However, these suggestions put forward by the Malaysia Islamic Finance Report 2015 shall better be evaluated through empirical findings. And this study intends to assess how effectively banks in Malaysia (both Islamic and conventional) are strategizing their marketing initiatives and what future outcome they might expect to receive from such activities.

Variables, Data and Methodology:

To address the research question, the study considers advertising intensity (advertising expenditures / deposits) as the independent variable, which is expected to influence the performance of the banks' profitability proxy of ROE, the dependent variable. The control variables are age (commencing year minus the sample year), size (total asset), market share (percentage of deposit out of total deposit of the banking sector), and industry growth. The names of the variables have been kept in conventional way, although they have alternative meaning for the Islamic Banks.

Using similar variables Studies have been done for both Islamic Banks and Conventional Banks. This is to see how each perform against its marketing intensity.

Variable	Islamic Bank	Conventional Bank
Market Share	KI	CMS
Banks Performance	IP	CP
Marketing Effectiveness	IM	CM
Bank Size	IS	CS
Industry Growth	ID	CD

Table 1

Below are the model of our study for the Islamic Bank:

$$DIP_t = a_0 + \sum_{i=1}^{k} b_1 DIP_{t-i} + \sum_{i=0}^{k} b_2\, DIM_{t-i} + \sum_{i=0}^{k} b_3 DIS_{t-i} + \sum_{i-0}^{k} b_4 DID_{t-i} + \sum_{i=0}^{k} b_5 DKI_{t-i} + b_6 LIP_{t-i} + b_7 LIM_{t-i} + b_8 LIS_{t-i} + b_9 LID_{t-i} + b_{10} LKI_{t-i}$$

For the existence of long run

$$LIP_t = a_0 + \sum_{i=1}^{k} b_1 LIP_{t-i} + \sum_{i=0}^{k} b_2 LIM_{t-i} + \sum_{i=0}^{k} b_3 LIS_{t-i} + \sum_{i=0}^{k} b_4 LID_{t-i} + \sum_{i=0}^{k} b_5 LKI_{t-i} + \mu_t$$

Error correction term is used in the ARDL short run model. The short run dynamic model can be presented as follows

$$DIP_t = a_0 + \sum_{i-1}^{k} b_1 DIP_{t-i} + \sum_{i=0}^{k} b_2 DIM_{t-i} + \sum_{i=0}^{k} b_3 DIS_{t-i} + \sum_{i=0}^{k} b_4 DID_{t-i} + \sum_{i=0}^{k} b_5 DKI_{t-i} + b_6 ECT_{t-1}$$

Where ECT is lagged error correction term.

As for Conventional Bank below are the model of our study:

$$DCP_t = a_0 + \sum_{i=1}^{k} b_1 DCP_{t-i} + \sum_{i=0}^{k} b_2\, DCMS_{t-i} + \sum_{i=0}^{k} b_3 DCS_{t-i} + \sum_{i-0}^{k} b_4 DCD_{t-i} + \sum_{i=0}^{k} b_5 DMS_{t-i} + b_6 LCP_{t-i} + b_7 LCMS_{t-i} + b_8 LCS_{t-i} + b_9 LCD_{t-i} + b_{10} LCMS_{t-i}$$

For the existence of long run

$$LCP_t = a_0 + \sum_{i=1}^{k} b_1 LCP_{t-i} + \sum_{i=0}^{k} b_2 LCM_{t-i} + \sum_{i=0}^{k} b_3 LCS_{t-i} + \sum_{i=0}^{k} b_4 LCD_{t-i} + \sum_{i=0}^{k} b_5 LCMS_{t-i} + \mu_t$$

Error correction term is used in the ARDL short run model. The short run dynamic model can be presented as follows

$$DIP_t = a_0 + \sum_{i-1}^{k} b_1 DCP_{t-i} + \sum_{i=0}^{k} b_2 DCM_{t-i} + \sum_{i=0}^{k} b_3 DCS_{t-i} + \sum_{i=0}^{k} b_4 DCD_{t-i} + \sum_{i=0}^{k} b_5 DCMS_{t-i} + b_6 ECT_{t-1}$$

Where ECT is lagged error correction term.

We assumed that the IP & CP (Performance Variable for Islamic Bank and Conventional Bank) will be impacted by other variables.

As far as methodology is concerned, we employ auto regressive distributive lag (ARDL) approach from Pesaran and Pesaran (1997) and Pesaran et al. (2001). This method can be applied to the variables irrespective of the order of their integration, that is ARDL approach can take care of the series that are purely I(0), purely I(1) or mixed. Since the variables used in the study are mixed of the Non stationary and stationary variables we decided to use this approach. Conventional methods employed in the literature mainly require the variables to be integrated of order one. The ARDL model has some advantages over other cointegration approaches.

Firstly, this technique is comparatively more robust in small or finite samples consisting of 30 to 80 observations (Pattichis, 1999; Mah, 2000). Secondly, it can be utilized irrespective of whether regresses are of I(0) or I(1) or mutually integrated, There is still perquisite that none of the explanatory variables is of I(2) or higher order, i.e. the ARDL procedure will, however, be inefficient in the existence of I(2) or higher order series. Thirdly, the ARDL Model applies general-to-specific modelling framework by taking sufficient number of lags to capture the data generating process. It estimates (p + 1)k number of regressions in order to obtain an optimal lag length for each variable, where p is the maximum lag to be used, and k is the number of variables in the equation. The model is selected on the basis of different criteria like SBC, AIC, RBC and HQC.

Furthermore, traditional cointegration methods may also experience the problems of endogeneity, whereas the ARDL method can distinguish between dependent and explanatory variables and eradicate the problems that may arise due to the presence of autocorrelation and endogeneity. ARDL cointegration estimates Short run and long run relationship simultaneously and provide unbiased and efficient estimates. The appropriateness of utilizing ARDL model is that the ARDL model is based on a single equation framework. The ARDL model takes sufficient numbers of lags and direct the data generating process in a general to specific modelling framework (Harvey, 1981). Unlike further multivariate cointegration techniques such as Johansen and Juselius (1988), ARDL model permits the cointegration relationship to be estimated by OLS once the lag order of the model is identified.

Error Correction Model (ECM) can also be drawn from by ARDL approach (Sezgin and Yildirim, 2003). This ECM allows drawing outcome for long run estimates while other traditional cointegration techniques do not provide such types of inferences. “ECM contains Short run adjustments and Long run equilibrium Without losing Long run information ”(Pesaran and Shin, 1999). The above advantages of the ARDL technique over other standard cointegration techniques justify the application of ARDL approach in the present study to analyze the impact of Marketing Efficiency on Banks Performance by controlling the variables Market Share, Bank Size and Banks Growth.

The study proposes a study on one of Malaysia’s biggest bank, Public Bank and Public Islamic Bank.. Data will be collected from the annual audited financial statements of the respective

banks. The total sample size will be determined based on availability of data. Significance of the study:

The results are expected to help the management of the respective banks decide on their budgetary allocation of the marketing expenses to strengthen its business. The study, first of its type in context of Islamic Banking in Malaysia, will help the managers using marketing as a strategic tool to exploit opportunities for achieving a long-term competitive advantage. The management will also be able to trace how marketing mistakes, if any, might cost them in both long and short run.

Results and Findings:

Unit Root Test:

Before we proceed analyzing the data in details and finding the cointegration between Banks Performance and Marketing Efficiency, we first need to check the suitability if the data that have been collected. To test our data, we need to ensure our data in level form are stationary, for us to see the relationship. When the data is stationary in its level form it means that its means, variance and co-variance are constant, therefore it makes it possible to estimates its movements.

There are few test that can be used to determine the stationarity of the data. The test that we have decided to conduct are Augmented Dickey Fuller Test (ADF) (1979) and Philips-Pheron Test. Below are the Results for our stationarity test for both Islamic Banks and Conventional Bank:

ISLAMIC BANK				
ADF	**Highest V.**	**Test Stat.**	**Crit. Val.**	**Decision**
Table 3: Intercept & Trend				
LKI	ADF(4)	-3.8034	-3.6263	Stationary
LIP	ADF(1)	-2.3609	-3.7128	Non-Stationary
LIM	ADF(5)	-1.0286	-3.7328	Non-Stationary
LIS	ADF(4)	-4.1796	-3.6263	Stationary
LID	ADF(4)	-2.6732	-3.6363	Non-Stationary
Table2: Intercept & No-Trend				
DKI	ADF(1)	-5.382	-3.0817	Stationary

DIP	ADF(1)	-4.0141	-3.0817	Stationary
DIM	ADF(5)	-2.1983	-3.102	Non-Stationary
DIS	ADF(5)	-6.2923	-3.102	Stationary
DID	ADF(2)	-2.9746	-2.9911	Non-Stationary

Table 2

CONVENTIONAL BANK				
ADF	**Highest V.**	**Test Stat.**	**Crit. Val.**	**Decision**
Table 3: Intercept & Trend				
LCMS	ADF(1)	-2.0474	-3.5631	Non-Stationary
LCP	ADF(1)	-2.0691	-3.5631	Non-Stationary
LCM	ADF(1)	-4.6193	-3.5631	Stationary
LCS	ADF(1)	-2.7262	-3.5631	Non-Stationary
LCD	ADF(5)	-3.5874	-3.6428	Non-Stationary
Table2: Intercept & No-Trend				
DCMS	ADF(2)	-4.0047	-2.8091	Stationary
DCP	ADF(1)	-5.8637	-2.8379	Stationary
DCM	ADF(2)	-4.932	-2.8091	Stationary
DCS	ADF(2)	-3.7333	-2.8091	Stationary
DCD	ADF(1)	-3.1157	-2.8379	Stationary

Table 3

The above results show that both for Islamic Bank, and conventional bank, in level form the data are mixture of Stationary and Non-Stationary. Which gives an indication for us to proceed with the analysis. In difference form the data are also a mixture of stationary and non stationary. This data in its difference form are a concern because in Deference form I(1) the data needs to be stationary for the analysis to be continued.

To further analyze the data, and see whether the Data are suitable to be used or not, a second test have been conducted. PP, test is also testing the stationarity of the data. Below are the results for PP test, conducted for Islamic Bank and also Conventional bank.

ISLAMIC BANK			
PP	**Test Stat.**	**Crit. Val.**	**Decision**
LKI	-3.4591	-3.5572	Non-Stationary
LIP	-5.878	-3.5572	Stationary
LIM	-2.3869	-3.5572	Non-Stationary
LIS	-3.7615	-3.5572	Stationary

LID	-3.95	-3.5572	Stationary
DKI	-6.0601	-2.9099	Stationary
DIP	-10.8635	-2.9099	Stationary
DIM	-7.0746	-2.9099	Stationary
DIS	-6.4104	-2.9099	Stationary
DID	-6.6999	-2.9099	Stationary

Table 4

CONVENTIONAL BANK			
PP	**Test Stat.**	**Crit. Val.**	**Decision**
LCMS	-2.997	-3.3861	Non-Stationary
LCP	-5.5927	-3.3861	Stationary
LCM	-4.2681	-3.3861	Stationary
LCS	-1.6054	-3.3861	Non-Stationary
LCD	-2.04	-3.3861	Non-Stationary
DCMS	-5.4348	-2.9308	Stationary
DCP	-18.7622	-2.9308	Stationary
DCM	-10.4116	-2.9308	Stationary
DCS	-5.0446	-2.9308	Stationary
DCD	-6.0688	-2.9308	Stationary

Table 5

The results above showed that the data in level form are mixture, of Stationary and Non-Stationary. In difference form the data are all stationary. With the above test, it showed that both the data for Islamic bank and conventional bank, are fit to be analyzed. Therefore, based on the results of both PP and ADF test we are to proceed with ARDL test.

ARDL Bound Test:

ARDL Bound Test or Cointegration test, is a test done to all the variables both for Islamic and Conventional bank, this is to see the relationship of all variables in a long run. Below are the result for ARDL Bound Test:

ISLAMIC BANK				
	F-STATISTIC	**LOWER BOUND**	**HIGHER BOUND**	**DECISION**
DKI	3.0798	2.782	3.827	Inconclusive

DIP	1.7726	2.782	3.827	No long run relationship
DIM	1.479	2.782	3.827	No long run relationship
DIS	2.2898	2.782	3.827	No long run relationship
DID	2.2532	2.782	3.827	No long run relationship

Table 6

Conventional Bank				
	F-STATISTIC	**LOWER BOUND**	**HIGHER BOUND**	**DECISION**
DCMS	5.26181	2.782	3.827	Long run relationship
DCP	7.6234	2.782	3.827	Long run relationship
DCM	2.1498	2.782	3.827	No long run relationship
DCS	3.2842	2.782	3.827	Inconclusive
DCD	8.3336	2.782	3.827	Long run relationship

Table 7

To see whether there are Long term relationship in the model, F-Statistics should be higher then the Upper Bound. For above cointegration test, the results showed that for Islamic bank, for all the variables there are no cointegration. On the other hand for Conventional Bank there are 3 possible long-run relationship for our model.

This by itself is a very significant finding. Up until this test, the findings of the analysis indicate that for Islamic Bank, its performance (CP), in a long run, have no relationship with our main research subject, which is its Marketing Intensity (CM). So thus for other variables (CS, CD, CMS).

Error Correction Representation (ECM):

To further analyse our findings, we are to conduct an Error Correction Representation for our variables. As the results of the ARDL Bound test showed, there are no Long Term Relationship between Islamic Bank's Performance and Marketing intensity, it makes no sense to further analyse the marketing impact towards Islamic Performance. It is empirically proved that Marketing have no impact towards Islamic Banks performance.

This ECM, are to identify which of our variables are Exogenous and which of it are Endogenous. So that we can see which of are variables that are dependent and which of them are independent.

The reason to further analyse the marketing impact towards conventional bank, is to see how are Marketing impacting conventional bank. The results will help, identify and see if marketing is impacting Banks performance significantly or not.

As mentioned above, the basis to conducting an ECM test is to ascertain, which among the variables are the leader and which among them are followers.

Below are the results for the ECM test that have been conducted to Conventional Bank:

Conventional Bank			
Variable	Coefficient	Standard Error	P-Value
dLCMS ecm(-1)	-0.078369	0.085435	0.367
dLCP ecm(-1)	-1.1991	0.14098	0*
dLCM ecm(-1)	-1.0309	0.1925	0*
dLCS ecm(-1)	-0.37209	0.13097	0.009*
dLCD ecm(-1)	-0.30518	0.11358	0.012*

Table 8

All of the above variables are Exogenous, except for the variable Market Share (MS). To determine whether a variable is exogenous or endogenous, we have to see the P-value, if the P-Value is more then 5% significant level, the variable is Endogenous and If the variables is exogenous.

By distinguishing which among the variables are Exogenous and which among the variable are exogenous, it can be identified that what are the variables that are impacting what. Even though they are no ranks given for the variables. To further identify the ranks of the variables, further analysis should be conducted.

Long-Run Coefficient:

In the Long-Run Coefficient test, we now test our model that have been specified above and see whether are there any long-run between our variables.

Conventional Bank			
Regressor	Coefficient	Standard Error	[P-Value]
LCM	0.0091655	0.14825	0.951
LCS	0.27719	0.92394	0.767
LCD	-0.69171	0.96874	0.482
LCMS	-1.1409	0.60877	0.074
INPT	12.7307	3.9276	0.004

Table 8

The above table showed that all our variables in a long run they are no relationship with banks performance, or their coefficient is not significant. Which means LCP (Conventional bank's performance) are not impacted by our main study variables which is LCM (marketing intensity) it is not impacted by any of the variables.

This is a significant findings, for both Islamic Bank and conventional bank, there are no long-run co-integration between Marketing and Performance.

The question remains unanswered, what are the functions of Advertising/Marketing for Islamic Bank if it does not impact long term performance? The study will proceed with VDC to see is there any contradictions between the results.

Vector Decomposition (VDC)

As mentioned above, as a more comprehensive analysis, VDC test is conducted towards the Conventional Bank's variable. Vector Decomposition test, is a test that gives the variables its rank, within the model that have been identified. Majority of the paper which carry the ARDL methodology does not use to carry this step. The main reason omission of this step is because of the contradicting value of the VAR order level between the automatic selection of the VAR order level to each variable by the ARDL approach and the VAR order level which use to get from normal VAR order selection. Fortunately in this study we got the VAR order level same which 1. So we continue to carry with VDC step. ARDL Although the error correction model tends to indicate the endogeneity/exogeneity of a variable, we had to apply the variance

decomposition technique to discern the relative degree of endogeneity or exogeneity of the variables.

The relative exogeneity or endogeneity of a variable can be determined by the proportion of the variance explained by its own past. The variable that is explained mostly by its own shocks (and not by others) is deemed to be the most exogenous of all.

Even though this step is not relevant according to the research question, but it is indeed relevant for the policy implication from the banker's perspective. Since the marketing budget are set by the banks they may now know, are the budget being set out impacting their performance, size, market share, and growth? If it is so, more budget should be set out. As for Islamic bank, it may also benefit from this test. If marketing are to be significant for conventional banks, Islamic Bank should improve its marketing strategy to in order to compete with its conventional counterpart.

The VDC test are being done in two time horizon, in short horizon (7 quarters) and longer horizon (28 quarters). The Results are as follows:

CONVENTIONAL BANK								
	HORIZON	LCMS	LCP	LCM	LCS	LCD	TOTAL	RANK
LCMS	7	39.61%	8.67%	14.85%	7.81%	29.07%	100.00%	4
LCP	7	16.12%	47.10%	14.99%	9.90%	11.90%	100.00%	2
LCM	7	13.39%	4.73%	64.68%	11.17%	6.02%	100.00%	1
LCS	7	15.92%	16.73%	10.93%	35.08%	21.34%	100.00%	5
LCD	7	30.42%	3.81%	10.93%	13.97%	40.87%	100.00%	3

Table 9

CONVENTIONAL BANK								
	HORIZON	LCMS	LCP	LCM	LCS	LCD	TOTAL	RANK
LCMS	28	38.75%	10.18%	14.54%	8.05%	28.48%	100.00%	3
LCP	28	16.60%	47.17%	14.25%	10.11%	11.87%	100.00%	1
LCM	28	18.13%	21.00%	45.79%	9.73%	5.35%	100.00%	2
LCS	28	24.35%	48.84%	6.88%	13.28%	6.65%	100.00%	5
LCD	28	26.68%	40.59%	7.19%	10.76%	14.77%	100.00%	4

Table 10

The above table shows the rank of the variables for conventional bank, in a short run (7 quarters and 28 quarters. VDC test have regress all the variables, and rank the variable base on its rank. In a short run the most exogenous variable is CM (marketing), second exogenous is CP (performance). The most endogenous variable in a short run are bank size (CS) whereas the second most endogenous variable in a short-run is the Market share.
In a long run, the ranking of the variables changes. In quarter 28, the most exogenous variables are Bank's performance (CP), followed by Bank's Marketing intensity (CM) and the most Endogenous is bank's size.

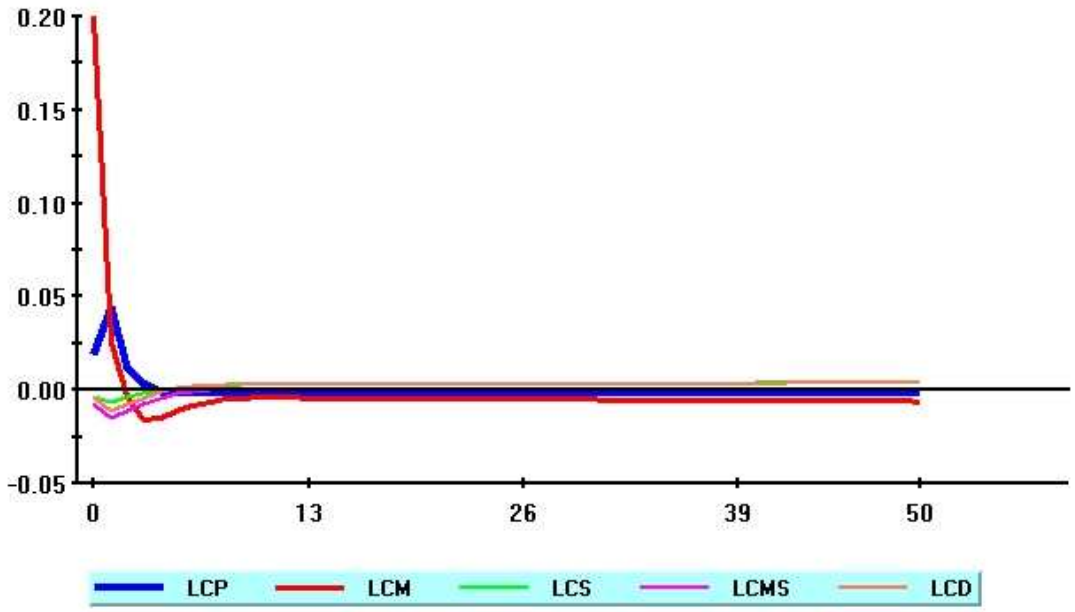
This means that Bank are only impacting bank performance in a short fun, but not in a long, this maybe because banks uses marketing as as short term tool to promote itself. This may happened, also because marketing as an investment gets overshadowed by short term performance orientation.

In a long run, marketing intensity are not impacting banks performance, this are caused by, the size of the bank it self act as a marketing tool to promote itself. Bank that have been in the market longer, tend to do better, because, the time that they have been in the industry, are proves that they survived. New Bank that just entered to the market, needs to spend more on marketing, because, older banks that are in the industry marketing intensity are not impacting its performance.

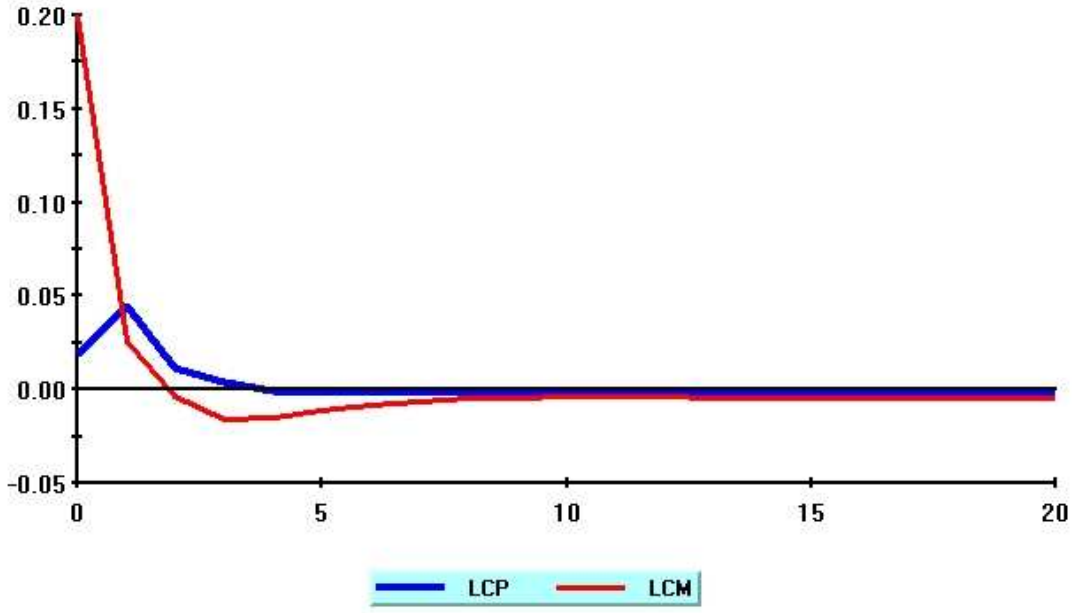
This is in line with the Brozen (1974) Brozen Hypothesis, which says corporations are benefiting from marketing is when they are in an infancy stage, and when they gets bigger it tends to negatively correlated.

Impulse Response Functions (IRF)

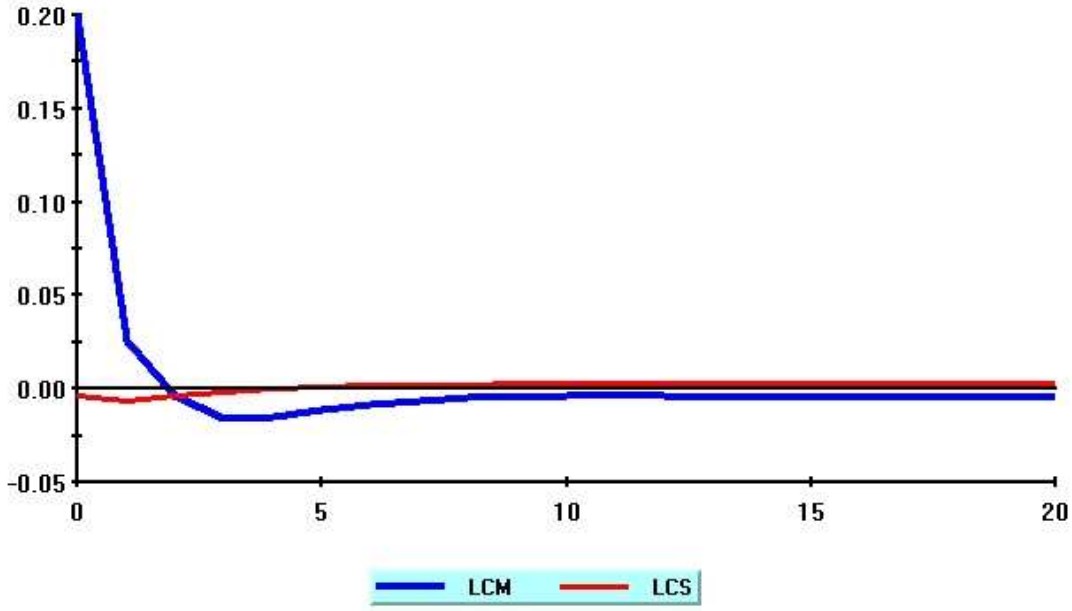
IRF is just a graphical representations of our VDC. In IRF, we can see that when one variables are shocked, how other variables would react and how long would it take for the variables to move back to its equilibrium. We have tested IRF to the model, to see how marketing (CM), when shocked, will impact other variables.



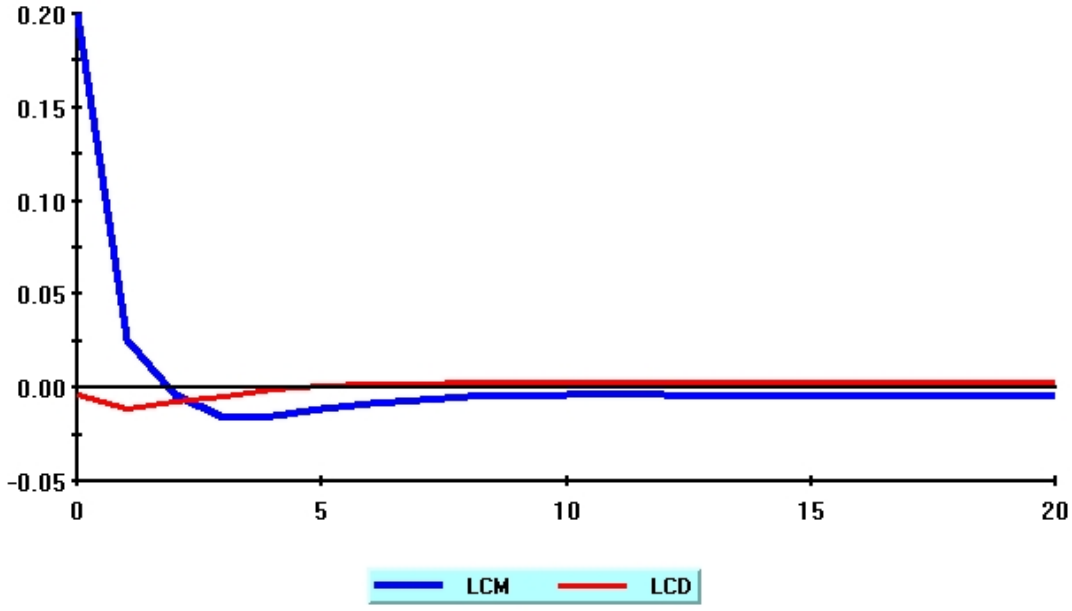
Graph 1



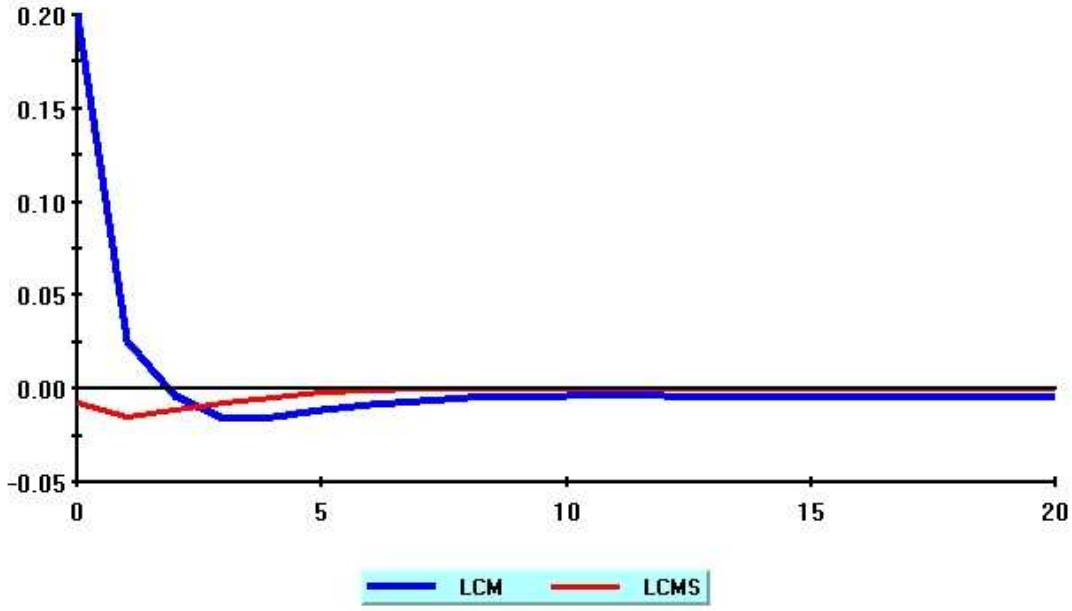
Graph 2



Graph 3



Graph 4



Graph 5

Graph 1 Shows the impact of all variables when marketing is shocked, we can see that the short-term impact of it, and it only take short period time for all other variables to return back to its equilibrium state. Graph-2 to Graph 5, show impact of individual Variables when Marketing intensity are shocked.

This concurs with the results of the VDC, which says that, Marketing will only impact performance in the short-run.

Conclusion:

It may be concluded that, performance of Public Islamic Bank as a proxy to Islamic bank in Malaysia, in the long-run and in the short run are not impacted by its marketing intensity. Further study should be done, on what basis is the bank still spending its advertising budget (Marketing)? This contradicts with Comanor and Wilson (1967, 1974) the *informative view* advertising intensity and other variables causes profitability.

Marketing is not impacting Islamic Bank because of the factor of Islamicity. Customers engage with Islamic bank because of its religious prohibitions to engage with financial sector that involve Riba activities as their income.

As for Conventional Bank, Marketing is regarded as short term marketing tools to increase awareness. Once the bank reaches a certain size, marketing will not impact banks performance because, old customers are loyal and new customers trust old bank rather than new banks. Banks who can survive in a market perform better and this performance attracted more customers. Therefore our findings are in line with *Brozen's hypothesis* which suggests a negative relationship between advertising expenditures and market share, as firms with smaller market shares spend more on advertising to increase their customer base compared to larger firms that have little customer base left to extend.

The study considered the matured banks having an operational history of more than 20 years, although full dataset for these banks were not available. The inclusion of second and third generations of banks might bring interesting findings to the context. The performance parameters considered in this study especially of Deposit, Loans, and business (deposit plus loan) were balance sheet items and therefore cumulative in its form and includes many adjustments. To compare with these variables, the quarterly cumulative value of the marketing expenditures might have established a comparable relationship between the variables. Information on the contribution of the specific marketing activities on the performance of the banks might elicit meaningful findings. It requires data that is internal to the banks.

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