Information Management & Business Review
(IM&BR)

| Vol. 9 No. 2 | ISSN 2220-3796 |

Published by

Editorial

Information Management and Business Review (IMBR) provides a unique platform to scholars around the world to share their knowledge and publish research work in the fields of information management, business, management and related disciplines. The work submitted for publication consideration in IMBR should address empirical and theoretical developments in the subjects related to scope of the journal in particular and allied theories and practices in general. Scope of IMBR includes: subjects of finance, accounting, auditing, cost & management accounting, financial psychology, financial literacy, marketing, information management, human resource management, knowledge management, innovation, change management, enterprise management, e-commerce and information system. Author(s) should declare that work submitted to the journal is original, not under consideration for publication by another journal, and that all listed authors approve its submission to IMBR. It is IMBR policy to welcome submissions for consideration, which are original, and not under consideration for publication by another journal at the same time. Author (s) can submit: Research Paper, Conceptual Paper, Case Studies and Book Review. The current issue of IMBR comprises of papers of scholars from Malaysia, Pakistan and Indonesia. Examining the linkage between poverty and macroeconomic variables, impact of financing on SMEs profitability, testing microstructure theory, growth prospects and customer expectations in islamic banking and organizational commitment and pay-for-performance are some of the major practices and concepts examined in these studies. Journal received research submission related to all aspects of major themes and tracks. All the submitted papers were first assessed by the editorial team for relevance and originality of the work and blindly peer reviewed by the external reviewers depending on the subject matter of the paper. After the rigorous peer-review process, the submitted papers were selected based on originality, significance, and clarity of the purpose. Current issue will therefore be a unique offer, where scholars will be able to appreciate the latest results in their field of expertise, and to acquire additional knowledge in other relevant fields.

Prof. Dileep Kumar, M., Ph. D.
Editor In Chief

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PAPERS

Examining the Linkage between Poverty and Macroeconomic Variables in Malaysia: A Co-integration Analysis

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Abstract: The purpose of this paper is to examine the linkage between the macroeconomic variables i.e. gross domestic product per capita (GDP), unemployment (UNE), tourist receipts (TOU), consumer price index (CPI) and poverty rate (POV) in Malaysia from 1969-2014. The econometric techniques used are unit root test and the Johansen Cointegration. The Granger Causality test using Block Exogeneity Wald test was added to analyze the causal relationships between the variables. The unit root test showed that all variables were stationary at first difference and thus the Johansen Co-integration test is an appropriate technique to employ. The evidence from co-integration test indicates that all the five series have three (3) co-integrating equations and significance at 1 percent level of significance. The causality test indicated there is a significant unidirectional causality between POV on GDP, CPI on POV, POV on TOU, GDP on UNE, GDP on TOU and CPI on TOU and bidirectional causality between POV and UNE. This paper is possibly the first to discuss these relationships in Malaysian context using Co-integration analysis. The finding implies that poverty is the key issue that should be addressed to achieve a high-income country status in the year 2020.

Keywords: *Poverty; Macroeconomic variables; Unit Root test; Johansen Cointegration test; Granger Causality test*

1. Introduction

Malaysia's economy is highly open and in the upper middle-income group advancing towards high- income status by 2020. It has developed from an agriculture-dominated economy in the 70s to a manufacturing based economy in the 21st century. The economy has successfully maintained a growth rate of 6% per year for the past 60 years (Budget, 2017). However, with this vision and success the main concern, which is also a universal issue, is poverty. Poverty is an unacceptable human condition and a major social problem in this century. Poverty in Malaysia has reduced tremendously over the years, but there remain stubborn pockets of poverty that elude current policy measures and new forms of poverty are emerging which becomes a challenging issue to achieve a high- income status (Nair & Sagaran, 2015). Poverty is a proof of inequality and a reflection of government performance (Affandi & Astuti, 2014). According to Nair & Sagaran (2015) the current policy measures to address poverty are inadequate and what is required is an actual plan to address real poverty. Generally, there are two different types of strategies that can be adopted to manage poverty. The first strategy is to target the poor directly by breaking the vicious circle of poverty. The other strategy is to formulate policies which would augment the macroeconomic variables that have linkages with poverty (Chani, Pervaiz, Jan, Ali & Chaudhary, 2011). This paper analyses the long-run linkage between poverty and macroeconomic variables: economic growth, unemployment, inflation and tourism in Malaysia. By having established the relationship between these variables the government can formulate policies to alleviate poverty.

In Malaysia, poverty line depends on which region the household's lives, Peninsular Malaysia, Sabah or Sarawak. The average household monthly income of the poor in Peninsular is below RM760, Sabah is RM1050 and Sarawak is RM910. This average monthly income for the poor is computed based on the income level "deemed" necessary to maintain a certain standard of consumption. Extreme poverty is based on the amount necessary to fulfill basic needs that is a household earning less RM460 in Peninsular Malaysia, RM630 in Sabah and RM590 in Sarawak. The vulnerable group, on the other hand, is households with an income of less than RM2000 per month (Jala, 2015). There are 56,557 households who are poor, 44,643 hard-core poor and 83, 364 in the vulnerable category. The problems of poverty are said to be complex and multidimensional. The poor have limited access to basic necessities, are exposed to exploitation and vulnerable to the environment (Zainal, Kaur, Ahmad, & Khalili, 2012). Poverty undermines the quality of life for everyone in the economy. As there is a "hidden cost" of poverty that is, deteriorating value of real estate

and increasing the expenditure for law enforcement, reformative and health care centers, which is borne by everyone. Therefore, the implication of poverty is not only on the poor, but also on the population at large.

Malaysia has been experiencing a notable growth over the last few decades as it is well-endowed with natural resources and established infrastructure. Malaysia's Vision of 2020 of being a high-income nation began with the advent of the New Economic Policy (NEP) from the year 1970 to 1990, followed by the National Development Plan (NDP) from the year 1991 to 2000, then the National Vision Policy (NVP) from the year 2001 to 2010 and finally New Economic Model (NEM) from the year 2010 to 2020. The NEP had a two-pronged strategy of eradicating poverty and restructuring the economy and NDP incorporated Economic Imbalance, followed by NVP building a resilient and competitive nation and finally NEM achieving high-income nation status. The success of this policy was seen through the reduction in poverty, unemployment, and increase in per capita income. This study includes tourism because the tourism sector is the 2nd largest foreign exchange earner in Malaysia and the 6th largest contributor to gross domestic product. Tourism in the context of Malaysia is the most important sector as it has top tourism destination with respect to national parks, wilderness areas and cultural diversity. Pro-poor tourism was put on the agenda in 1999. Even though it is relatively a new phenomenon, some elements can be observed in tourism development. The impact of tourism can be seen with respect to its contribution to GDP (14.9%), employment (13%) and investment (6.8%). According to WTTC (2014) tourism contribution will increase in the future. According to Croes (2014), developing countries are focusing on tourism activity to reduce poverty.

This study examines the linkage between poverty and selected macroeconomic variables: economic growth, unemployment, consumer price index, and tourism receipts. The link between macroeconomic variables and poverty is complex and has not been fully investigated in the context of Malaysia. As Malaysia is formulating aggressive macroeconomic policies to accomplish the high-income country status by 2020, it is crucial to examine this linkage. Previous studies on poverty concentrated mostly on microeconomics, however, it has been recognized that macroeconomic variables have an influence on poverty. This study investigates this linkage in Malaysian context using cointegration analysis. This paper examines the long-run relationship between poverty rates and macroeconomic variables.

2. Literature Review

This section presents some literature on poverty and between poverty and selected macroeconomic variables.

Poverty: The World Development Report 1990 constructed two indices based on consumption level and standard of living. The first is based on the amount of income necessary to provide for basic needs such as food, clothing and shelter. It is country-specific and is defined as absolute poverty. Poverty is related to failed income "dollar a day". The second is relative poverty which is based on the situation of the individual within the social structure (Gascón, 2014) and is assessed against the variation in the standard of living (Iceland, 2005). Most studies used headcount ratio based on the standard measure of poverty (Akhtar, Hunjra, Safwan, & Ahmad, 2012) as the data is easily available and easy to understand (Tyler, El-Ghonemy & Couvreur, 1993). However, some studies have used alternative measures as the official poverty baseline threshold is considered low. Defina (2002) used revised headcount rate where the poor are identified using a higher poverty threshold approved by a Panel on Poverty and Family Assistance and Powers (1995) used consumption poverty measure. Poverty in Malaysia is measured in the absolute term that is the percentage of poor households to the total population. The Poverty Line Index is determine by the minimum consumption required by an average size household for food, clothing, shelter and other non-food needs such as fuel, transport and education (Nations, 2015). Studies in Malaysia normally use this poverty line to measure poverty (Ahmed, 2014; Hatta & Ali, 2013).

Poverty and Economic growth: Economic growth is said to be an influential instrument to reduce poverty and most extensively studied. The rate at which poverty reduces when income increases is said to be different and depend on various factors. From the macroeconomics perspective, the extent to which economic growth affects the poverty reduction depend on the distribution effect of economic policy (Ravallion, 1997). A study was done by Amini & Dal Bianco (2016) using the GMM estimator found the poverty elasticity to

growth is -2%, however, the relationship is more favorable at the lower initial level of poverty and inequality compared to higher levels at both $1.25 and $2 poverty line. Studies using different methodology specification found a significant negative relationship between growth and poverty and proposed strategies to reduce poverty. Afzal, Malik, Begum, Sarwar, & Fatima (2012) used time series data and applied ARDL Model for Pakistan revealed that there is a significantly inverse relationship between poverty and economic growth in the long-run. Using Toda-Yamamoto Augmented Granger Causality (TYAGC) Test they concluded a bi-directional causality between these variables. The study also suggested that pro-poor growth strategies can be adopted to reduce poverty. Another study was done in Pakistan by Tahir, Perveen, Ismail, & Sabir (2014) using OLS suggested the low pace of growth in Pakistan has to be addressed by job creation and employment opportunities to reduce poverty. Belke and Wernet (2015) using the GMM estimator for 59 developing countries concluded that investment induces growth rate whereas population growth increases poverty. On the contrary,Page & Shimeles (2015) in their study in Africa found that in spite of solid growth in per capita GDP poverty reduction was minimal with an income elasticity of 0.95. The weak link was caused by the lack of structural changes and aid was given to support education and health but not for job creation. Studies were also conducted to investigate the relationship between poverty and different measurement of economic growth. Vanegas (2014), measured economic growth based on per capita GDP and by disaggregating growth into economic sector components using unbalance panel data revealed the relationship between poverty, inequality and economic growth varied relatively very slight between these different measures and the coefficients are highly significant with expected signs.

Poverty and Tourism: In the 1990s, the relationship between tourism and poverty reduction gave rise to pro-poor tourism (PPT) strategies. PPT uses tourism as a tool to increase the net income of the poor. Kakwani & Pernia (2000) defines pro-poor tourism as tourism related activities that can assist the poor to participate actively in and also significantly benefit from economic activity. PPT can be applied to micro and macro level of development (Ashley & Mitchell, 2007). Benefits from tourism are multifold. Benefits from tourism are direct when tourists purchase goods and services, benefiting the business owners and labor. Indirect benefits arise from purchases of inputs and inter-sectoral linkages among firms to boost the tourism industry. Long-term benefits arise from tourism as it will promote larger investment in infrastructure, employment and other economic activities. World Tourism Organization promotes the view that states "the power of tourism – one of the most dynamic economic activities of our time – can be more effectively harnessed to address the problems of poverty more directly" (WTO, 2002: 17). A study done by Croes & Vanegas (2008) revealed a long-run relationship between tourism, economic growth and poverty reduction. According to Carbone (2005) developing tourism sector is favourable to pro-poor growth because of the multiplier effects and the opportunities the informal sector provide for female and unskilled labor. However, some studies revealed that tourism increases net income at the expense on inequality. Gascón (2014) revealed that tourism created a new elite group that gained from tourism and the remainder improvised as they lost access to some resources. Saayman, Rossouw, & Krugell (2012) in their study on South Africa concluded that tourism income did not trickle down to the poor and deliberate actions are needed to use tourism receipt to help the poor.

Poverty and Unemployment: The relationship between poverty and unemployment is unique as the poor has only one asset that is labour. Their main source of income is through the labour market. The unemployed tend to have the highest risk of experiencing poverty. A study done by Defina & Thanawala (2009) explored the impact of unemployment and inequality on Canadian poverty using province-panel data from 1980-1998 for both overall population and selected sub-group. The study concluded that unemployment and inequality have a significant effect on overall poverty. Studies have investigated different poverty measures to examine this linkage. Research done by Defina (2002) revealed that revised poverty headcount rate has a much weaker relationship compared to the official headcount poverty rate. Akinbobola & Saibu (2004) used the human capital index to measure poverty found that when public expenditure increases unemployment decrease and the human capital index improves.

Poverty and Inflation: The consumer price index is used to measure inflation rate. Inflation tends to hurt the poor more than the rich, as the rich has access to financial instruments compared to the poor who tend to hold cash in their portfolio. Easterly & Fischer (2001) study in 38 countries found that high inflation lowers

the share of the bottom quintile. Son & Kakwani (2008) findings captured the price elasticity of poverty with respect to headcount as 1.44%, poverty gap ratio as 1.77% and severity of poverty as 2.01%.

Poverty and Macroeconomic Variables*:* Studies have incorporated selected macroeconomic variable in their study on poverty to predict the relationship and for policy making. Vijayakumar (2013) used OLS to study the relationship between poverty, GDP growth, dependency ratio and employment with respect to industrial employment and agriculture employment in 41 developing countries. The study found that age dependency ratio and economic growth significantly affects poverty. Kashi & Tash (2014) explored using the bootstrap technique found that economic growth is negatively related to poverty whereas unemployment rate and inflation is positively related. Sabir & Tahir (2012) investigated the association between GDP growth, inflation, on poverty in Pakistan. The study concluded that in the long run poverty reduction is driven by changes in macroeconomic variables. Chani et al. (2011) in their study "Poverty, inflation and economic growth: empirical evidence from Pakistan" examined the relationship between the economic growth, inflation and poverty using ARDL over the period of 1972-2008. The study revealed a long run relationship between economic growth and inflation. Their result also concluded that inflation, economic growth and investment have the expected signs. The short run analysis showed that economic growth and inflation has a negative and positive impact respectivly on poverty. Akhtar, et al., (2012) using cointegration found that CPI, literacy rate and population growth have a significant long-run relationship with poverty in Pakistan. Powers (1995) examined the association between inflation, unemployment and poverty. His findings revealed that unemployment and poverty are positively related to both poverty rates that is conventional and JS poverty, whereas inflation has a large positive influence only on JS poverty rate.

3. Empirical modeling

Econometric analysis: This section will discuss the econometric techniques employed to examine the relationship between the macroeconomic variables and poverty rate. The techniques used are Johansen Co-integration test and the Granger Causality test. However, before applying the appropriate time-series econometric technique, the unit root test is crucial to determine the stationary status of data using the Augmented Dickey Fuller (ADF) and Phillips-Perron (PP) tests. The economic model starts with the function as:

$$POV = f\ (GDP,\ UNE,\ TOU,\ CPI) \tag{1}$$

Where POV =poverty rate
GDP =economic growth
UNE =unemployment rate
TOU =tourism receipts
CPI =consumer price index
Basically, the econometric modeling would be:

$$lnPOV_t = \beta_0 + \beta_1 lnGDP_t + \beta_2 lnUNE_t + \beta_3 lnTOU_t + \beta_4 lnCPI_t + \varepsilon_t \tag{2}$$

Where β_0 *is constant;* $\beta_1,\ \beta_3 < 0$ *and* $\beta_2,\ \beta_4 > 0$
ln = logarithm
t = time-period from 1969-2014
ε = error term

The first part of the analysis will test the existence of unit root shown by the equation:

$$\Delta Y_t = \beta_0 + \beta_1 T + \beta_2 Y_{t-1} + \sum_{j=1} \Psi_i^p\ \Delta Y_{t-j} + \varepsilon_t \tag{3}$$

Where Δ refers to the change in *Y* and *Y* is the natural logarithm of the five variables (POV, GDP, UNE, TOU and CPI), β_0 is constant while T is the trend variable. Parameters β and Ψ are estimated, and ε denotes the error term. When the variables integrated order is identified, the appropriate model is set up. Since all the variables were integrated at order I (1), it suggests that the series will converge to a long run equilibrium over time. In

other words, theoretically, when a cointegration relationship exists, it means the dependent and independent variables will share a common trend. Thus, the chosen appropriate technique employed would be Johansen and Juselius test which is based on trace statistics. The equation is stated as:

$$\Delta y_t = \mu + \Pi y_{t-1} + \sum_{i=1}^{p-1} \Gamma_i \, \Delta y_{t-i} + \varepsilon_t \qquad (4)$$
$$\text{Where } \Pi = \sum_{i=1}^{p} A_i - I \text{ and } \Gamma_i = -\sum_{j=i+1}^{p} A_j$$

y_t is the vector of variables i.e. poverty rate, GDP, unemployment, tourism and CPI that are integrated of order one, I(1). The number of cointegration vectors, r, is determined by the maximum eigenvalue test and the trace test using the likelihood ratio test. If the maximum eigenvalue test and trace test were conflicting, the chosen number of the cointegration vector should be based on the former, since the test has a better alternative hypothesis. The cointegration test may explain the long run relationship among these variables; however, the test would not indicate the direction of their causal relationship. Hence, the Granger Causality applying the Block Exogeneity Wald test was added to indicate their short run causality relationship among them. The test statistic is shown as:

$$(T - 3p - 1)(log|\Sigma_{re}| - log|\Sigma_{un}|) \sim \chi^2(2p) \qquad (5)$$

Where T is the time period, Σ_{un} is variance of the unrestricted VAR system while Σ_{re} is variance of the restricted system when the lag variable is excluded from the system; and p refers to the number of lags. When the null hypothesis is rejected, it means that in this case if all lags of GDP cannot be excluded from the POV equation, POV is said to be an endogenous variable and thus causal relationship runs from GDP to POV. However, this test statistic may not explain the strength of the impact of each variable.

Definition of variables and Data sources: Organization for Economic Cooperation and Development (OECD) defines poverty rate as the ratio of the number of people below the poverty line and the total population. The poverty line is defined as half the median household income. In Malaysia, a household is considered poor if and only when their monthly income is below Poverty Line Income (PLI) that is US$8.50 per day in 2012 (Jala, 2015). GDP per capita is computed by dividing the gross domestic product by midyear population measured in constant U.S dollars. The unemployment rate measures the percentage of labor that is both jobless and is looking for a job, which is in accordance with International Labor Organization (ILO). Tourism annual receipt is measured in RM billion and defined as an activity of travelling to a place for pleasure. The consumer price index reflects the weighted average **price** of a basket of goods and services such as food, transportation, clothes, and medical care of the country. Data of each variable spanning from 1969 to 2014 are gathered annually for 46 years. These time-series data are obtained from different reliable sources. The data on poverty was gathered from the Economic Planning Unit website of Malaysia. Whereas data on GDP per capita and consumer price index was extracted from World Development Indicators. The data on unemployment rate from was gathered from Malaysian Economic Report from year 1969 to 2014. Tourism receipt data was gathered from World Travel & Tourism Council and Tourism Malaysia website.

4. Findings

The findings begin with the descriptive analysis of each variable as shown in Table 1. Basically, the table displays the characteristics of each series of variables from 1969-2014. Starting with POV, it has the mean of 18.189 and the standard deviation of 15.309 followed by GDP with a mean of 5422.098 and standard deviation of 2550.783. UNE has the mean and the standard deviation of 4.826 and 2.083 respectively. Next is TOU, the mean and standard deviation scores of 17.549 and 20.685 respectively, and, last CPI with mean of 63.498 and standard deviation of 25.974. The data reveals a reasonable goodness–fit measure based on their skewness of the series which is close to zero. On the other hand, the height of the distribution relative to a normal distribution measured by Kurtosis depicts a normal distribution since the values of the series have a uniform distribution of about 3.

Table 1: Descriptive statistics

	POV	GDP	UNE	TOU	CPI
Mean	18.189	5422.098	4.826	17.549	63.498
Median	13.530	4934.950	3.750	7.095	60.660
Std. deviation	15.309	2550.783	2.083	20.685	25.974
Skewness	0.737	0.339	0.957	1.333	0.107
Kurtosis	2.232	1.8548	2.498	3.356	1.870
Jarque-Bera	5.292	3.397	7.504	13.870	2.533
Probability	0.071	0.183	0.023	0.001	0.282

The first step of the analysis was to run the unit root test using the ADF and PP tests for the five variables with constant and time trend, and the results are reported in Table 2. The results reveal that the unit root test is not stationary at their levels i.e. I(0). When applying the first order-differencing I(1), all the variables become stationary at 1% level of significance. Therefore the results evidently proved that the null hypothesis of the presence of unit root is rejected, implying that the variables can cointegrate.The next step is to proceed with the testing for the presence of a common trend, or equivalently, a long run co-integrating relationship between the variables. Since the Johansen cointegration method needs to identify the lag length used, a series of nested likelihood ratio tests is utilized to determine the optimum lag length. A maximum lag length of six has been chosen based on the sample size of the series. The optimal lag length is given as five and this lag is utilized throughout the estimations. Tables 3a and 3b reveal the evidence of performing the Johansen cointegration tests using the software e-views 9. The trace and maximum eigenvalue statistics will determine the existence of the long-run equilibrium relationship among the variables. Table 3a reports the trace test, while Table 3b reports the maximum eigenvalue test. Each column (1) until (5) report the number of cointegrating vectors, the eigenvalue, the trace statistic or maximum-eigen statistic that equal to each number of co-integrating vectors, the critical value at 5% significance level and the *p*-value, respectively. The hypothesis to consider is that the variables are not cointegrated (r=0) against the alternative of one or more cointegrating vectors (r>0).

Table 2: Unit root test

Variables	Unit root based on level I(0)		Unit root based on first difference I(1)	
	ADF	PP	ADF	PP
POV	-0.949	-0.348	-7.178	-7.173
	(0.941)	(0.987)	(0.000)	(0.000)
GDP	-1.996	-2.093	-5.857	-5.857
	(0.588)	(0.535)	(0.000)	(0.000)
UNE	-2.608	-2.314	-4.746	-4.746
	(0.279)	(0.418)	(0.000)	(0.000)
TOU	0.998	0.982	-5.980	-5.960
	(0.999)	(0.999)	(0.000)	(0.000)
CPI	-1.814	-2.176	-5.147	-5.149
	(0.682)	(0.491)	(0.001)	(0.001)

Referring to the third column of Table 3a, the trace statistic values are 223.175, 117.371, 47.493, 11.252 and 0.002, respectively. Since the value of trace statistic at most 2 i.e. 47.493 exceeds the critical value (29.797) at the 5% significance level, the null hypothesis of two cointegrating vectors (r=2) can be rejected. In other words, the results show that there are more than two cointegrating vectors (r>2). On the other hand, since the value of trace statistic at most 3 stated 11.252 is less than the critical value (15.495) at 5% significance level, one cannot reject the null hypothesis of r ≤ 3.

Table 3a: Johansen co-integration test based on Trace Statistic

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Probability**
(1)	(2)	(3)	(4)	(5)
None*	0.929	223.175	69.819	0.000
At most 1*	0.826	117.371	47.856	0.000
At most 2*	0.596	47.493	29.797	0.002
At most 3	0.245	11.252	15.495	0.197

Trace test indicates 3 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Table 3b: Johansen co-integration test based on Maximum Eigenvalue Statistic

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Probability**
(1)	(2)	(3)	(4)	(5)
None*	0.929	105.804	33.877	0.000
At most 1*	0.826	69.878	27.584	0.000
At most 2*	0.596	36.242	21.132	0.002
At most 3	0.245	11.249	14.265	0.142

Max-eigenvalue test indicates 3 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Similarly, Table 3b shows that the Maximum Eigenvalues statistic of 105.804, 69.878, 36.242, 11.249 and 0.002, respectively. The test of the null hypothesis r=3 against the specific alternative r=4 cannot be rejected at 5% level of significance because the Maximum Eigenvalue at most 3 stated 11.249 is less than 14.265. This unanimously suggests that the number of cointegration vectors is three (3). The result indicates that the five series POV, GDP, UNE, TOU and CPI have three (3) co-integrating equations. The evidence of cointegration only implies the existence of causality at least in one direction but there is no indication of the direction of the causal relationship. Hence, the next step is to conduct the Granger Causality test using the Block Exogenity Wald test to test the null hypothesis of non-causality between poverty and each of the variables. Table 4 presents the results of the direction of causality between POV and the four macroeconomic variables.

Table 4: Granger causality test using the Block Exogenity Wald test
Dependent Variable: LNPOV

Excluded	Chi-square	df	Probability
LNGDP	2.807	4	0.591
LNUNE	10.566	4	0.032
LNTOU	2.148	4	0.709
LNCPI	14.567	4	0.006
ALL	12.333	16	0.721

Dependent Variable: LNGDP

Excluded	Chi-square	df	Probability
LNPOV	10.566	4	0.032
LNUNE	5.942	4	0.204
LNTOU	6.564	4	0.161
LNCPI	2.960	4	0.565
ALL	24.208	16	0.085

Dependent Variable: LNUNE

Excluded	Chi-square	df	Probability
LNPOV	14.567	4	0.006

LNGDP	12.212	4	0.016
LNTOU	7.720	4	0.102
LNCPI	6.635	4	0.157
ALL	29.103	16	0.023
Dependent Variable: LNTOU			
Excluded	Chi-square	df	Probability
LNPOV	11.213	4	0.024
LNGDP	21.553	4	0.000
LNUNE	6.142	4	0.189
LNCPI	21.406	4	0.000
ALL	43.726	16	0.000
Dependent Variable: LNCPI			
Excluded	Chi-square	df	Probability
LNPOV	6.638	4	0.457
LNGDP	7.429	4	0.115
LNUNE	2.466	4	0.651
LNTOU	5.036	4	0.284
ALL	31.815	16	0.011

Table 4 consists of four columns which begin with the stated macroeconomic variables (column 1) followed by the value of chi-square (column 2), degrees of freedom (column 3) and *p*-value (column 4), respectively. The last row reports the joint statistics of the four variables excluded from the equation. The first part of the table describes the result to examine whether one should exclude each variable out of the equation of LNPOV. Similarly, each following tables reports the results for the equation of LNGDP, LNUNE, LNTOU and LNCPI, respectively. The test suggests that the four variables GDP, UNE, TOU and CPI are not exogenous, since the *p*-values of the joint test for each equation are 0.085, 0.023, 0.000 and 0.011, respectively except for POV with a *p*-value of 0.721. The results show that the null hypothesis of excluding GDP and TOU from the POV equation cannot be rejected at 1% level of significance, since the values of the chi-square are 2.807 and 2.148, and their *p*-values are 0.591 and 0.709 respectively. These suggest that GDP does not cause POV, and TOU does not cause POV. The unidirectional causality occurs among these variables which are POV on GDP, CPI on POV, POV on TOU, GDP on UNE, GDP on TOU and CPI on TOU. This test also proves bidirectional causality occurs only between POV and UNE. All these causalities are significant at 5% level of significance. One setback of this test is that it does not indicate the relationship between the variables for example whether GDP and UNE have a positive or negative effect on POV as well as to determine their relative strength between the variables.

5. Conclusion and Recommendations

This paper applies the Johansen Co-integration test to examine the long run equilibrium relationship between the macroeconomic factors i.e. Gross domestic product per capita (GDP), unemployment (UNE), tourist receipts (TOU), consumer price index (CPI) and poverty rate (POV) in Malaysia from 1969-2014. The co-integration test indicates that five variables are co-integrated and have a long run relationship. The Granger causality test indicated a significant unidirectional causality between POV on GDP, CPI on POV and POV on TOU. There is also evidence that the two-way causalities occur between POV and UNE. The findings show that poverty is the key concern to promote economic growth, tourism and employment. The findings are consistent with the policies implemented in Malaysia. The government's pro-active strategies formulated in the "Five-Year" Malaysia Plans have not only successfully reduced poverty over the year from 49.3% in 1970 to 1% in 2013 but has also generated robust economic growth alongside promoting tourism and creating employment.

However, policy-makers need to be mindful of the existing hard-core poor and the vulnerable group with respect to spatial and community variation. New categories of poverty are emerging from globalization consisting of foreign migrant workers and urbanization that is the rural-urban migration in search for job opportunities. Besides this, the issue of an aging population is surfacing, as by the year 2020 the number of

Malaysian above 60 years will reach 3.25 million an increase of 210% from the year 1990 (Mafauzy, 2000) and are vulnerable to poverty as their employment opportunities are limited (Masud & Haron, 2014). As mentioned by Nair & Sagaran (2015) comprehensive policies which are dynamic that pulls the poor out of their doldrums and integrate with the modern sector to move up the value chain are needed to address poverty. Addressing the various aspects of poverty by formulating inclusive policy is the key challenge for Malaysia to achieve high-income status by the year 2020. There are various methods to examine this linkage. This study uses cointegration analysis to determine the long-run relationship and Granger causality to examine the direction of the relationship between poverty and selected macroeconomic variables. For future studies to explore this linkage it is recommended to use headcount ratio for poverty and Gini coefficient.

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Testing Microstructure Theory on Karachi Stock Exchange

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Abstract: We are analyzing the various measures of liquidity of Karachi Stock Exchange Market on the basis of microstructure theory. The concept of microstructure is focusing on the difference between the supply price and demand price of securities in any market. In other words, the price formation of the bid-ask spread is based on the supply and demand prices. Empirical studies conducted by different researchers have made a lot of contribution in this regards. As they concluded that bid-ask spread is constituted on the basis of different theories of liquidity. Historical background of microstructure literature shows that bid–ask spread constitutes the fundamental measure of the liquidity in any market. As a result of this it contributes to identify the best structure of stock market. There may be other admitted measures of liquidity. In the opinion of different researchers the internationally accepted measures of liquidity formation in any market include the Lambda, Turnover of the concerned security, Depth of that market, The Cost of Trip, Trade of security, etc. And they work as strong indicators of liquidity. Our study is a contribution to the literature as we try to explore those correlated variables that can be significantly and sequentially change. And they are serving a measure of the individual's securities that are already traded in Karachi Stock Exchange Market. These admitted variables of our study are trading volumes of securities, number of transactions in the market, security return, volatility of securities prices, arrival of new information etc. we take a sample of 350 quoted securities in Karachi Stock Exchange Market, from 1990-2015. As far as result is concerned, depth showed a negative correlation with all spread measures in the Karachi Stock Exchange Market. But at the same time, perfect positive correlations are shown between spread measures in the analysis. It is a perfect proof of existence and validity of these liquidity measures in KSE. The results is evidencing that the arrival of new information, return on investment, volume of traded securities; are contributing a lot to explain significantly the sequential changes in KSE. At the same time various measures of the securities regarding liquidity are proving and confirming the previous researcher's claim. In the end, analysts are in a better position to explain that the arrival of new information from different sources and different groups is functioning as a principal aspect for the variant contributories of liquidness of the Karachi Stock Exchange.

Keywords: *Ask Spread, KSE, Liquidity Measurement, Theory of Microstructure, Price Information, Liquidity and its Commonality*

1. Introduction

This research is reviewing the empirical literature on liquidity and asset pricing model. Detailed scrutiny of literature is evidencing, the liquidity how affecting the security return, and how link is created between these two. Some researchers think that liquidity is a complicated phenomenon and it may be explained as how easily the security is traded in the market. Friction free market is a market created on the basis of Asset Pricing Models (i.e. Option Pricing Model, (MEO), Capital Asset Pricing Model (CAPM) and Arbitrage Pricing Theory (APT). Friction or illiquidity is formed with market microstructure influencing inversely the price and liquidity of the market. Liquidity of market is a guarantee to the investor that he can trade security without delay and without loss. And this liquidity is a best measure of capital market. Liquidity does not bother about the traded volume. Investors are interested in exchange without delay. Various elements of market upon which the liquidity depends are nature of exchange, structure of market and other factors. Demsetz (1968) studied micro market structure and he realized that primary reason is bid ask spread. Other literature studied that transaction cost and market efficiency are also closely related. During its life time whenever any security is traded the buyer/ seller has to incur this transaction cost, brokerage cost, transaction taxes and order processing fee are all exogenous cost and all are causing illiquidity. Similarly they explained "quoted bid ask spread" is also a poor measure of checking of market liquidity. Researchers like Amihud (1989) studied that bid ask and bid trade is only a precise measure of liquidity. Then defect of traditional measures of liquidity friction like transaction cost (like bid ask spread) was studied by Hasbrouck (1993) and he introduced a new measure of liquidity like "trading restrictions".

Liquidity measure variable used by early researchers like Chordia and Subrahmanyam (2000), are trading volume and security rate rotation. Similarly quoted spread, affective spread and quoted depth were also taken as measures of liquidity by Chordia. Other researchers consider volatility of prices, lambda, CRT (cost of round trip trade) as measures of liquidity. Bagehot (1971) considered the pattern of bid ask spread and trading volume as a measures of liquidity. Eagle and Lange (1997) explained that liquid market is that market where trade can be carried on without any cost. Different researchers still used "bid ask spread" as a measures of liquidity. Cost of completing a small trade is measured rightly by the above said variable *(Michael .j. Fleming)*. Still the researchers are interested in finding out those variables, which can affect the liquidity of the market.

Researchers like Bellalah & Simon (1999), studied the microstructure of market and literature on liquidity. Brennan (1996) explored inverse relationship between trading value and return. Similarly strong correlation was observed by Chordia and Subrahmanyam (2000) between measure of liquidity (spread depth) and trading value. Few other researchers try to find out the relationship between market liquidity and other variables like quoted tick size, volatility of securities and number of transactions, information, etc. Our study is relating to the determination of measures of factors of microstructure relating to the measure of liquidity in Karachi stock exchange. In this ground extensive literature relating to the liquidity has been explored. Efforts have been made to explore the various determinants of liquidity in Pakistan Stock Exchange Market. We are further trying to determine various variables which determine price quoted traded volume in stock exchange of Pakistan. The rosy face of this research is the presentations of institutional and methodical interest. On the head side of this coin, various theories like bid ask spread theory version and theory version microstructure of the financial market; are determinants of market liquidity and measures of liquidity will be explored on their basis. On the tail side of the coin, new parameters of liquidity measuring like depth of the market and spread is to be explored.

2. Concept of Market Microstructure Theory in Pakistan

Price is the reflection of all public information as narrated by Canonical Model of efficient market. Price at market level remains at expected level due to the agent information and due to absence of any ridiculous frictions. Similarly, Asset Pricing Model *(MEDAF, MEO, and APT)* are all based on the concept of independency of market design, transaction cost and dealers behavior. It is the evidence of existence of the market that is free from frictions. On the other hand, heterogeneity of market information and friction of prices is the subject matter of microstructure theory of market. Various frictions like transaction cost disagreement between dealers are not reflected in the price of market. Demsetz (1968) considered these friction bid ask spread as the subject matter of market microstructure theory. The difference between buyer price (bid) and seller price (ask) is called Bid ask spread. For the purpose of analysis bid ask spread is to be divided into 2 parts (Clyman, 1998). First portion of the bid ask spread is the potential loss indemnity and the second portion will make a difference between inventory holding cost and order processing cost.

How to Explain the Measures of Liquidity in KSE: Liquidity has wide ranging effects on the capital markets. It is hard to explore the concept of liquidity. So Liquidity of an asset means that its transfer to another person without any decrease in prices on immediate basis into dollar value (Keynes, 1930). Two important concepts explained in this definitions include "short-term" and the "without loss price." On the other hand if this definition is practically applied to financial market model, then it is clearly observed that financial market is said to be liquid, if the buyer and seller of securities can get their desired quantity of securities at a fixed price". Literature review regarding liquidity explored the two faces of liquidity, i.e. time and cost. Both these two constituents of liquidity enjoy inverse relationship with each other. Investor is ready to get maximum advantage but time is inversely affecting price of transaction. Patience is required to get this advantage. Liquidity has a complex face where four different dimensions are defined by (Black, 1971) to measures this in market. These include immediacy, depth, fighters and resilience as observed. By immediacy, we consider the hurriness to perform transaction. On the other side depth is the situation where the larger orders can be executed without affecting price in the market. Bid ask spread is the measure of tightness of the market. While resiliency refers to phenomenon i.e. the time of original position after asks and bid schedules are over.

Liquidity in Pakistan Stock Exchange: Pakistan Equity Market has geared another year of stellar, returns

where over *KSE-100* index target of *14,350* points offers an upside of 27% from current levels. Our primary objective is to analyse the liquidity determinants in Pakistan. There is a scarcity in this field in Pakistan as far as the topic is concerned. Only a few studies so far here have been carried on in Pakistan. So due to this reason and to fill the gap, this topic is selected for our study. Frino (2006) carried on his study "the effects of liquidity on stock return." different researchers in other countries conducted their studies on the topic. In spite of this fact, that a large work done in foreign countries, its true face cannot be seen so far. This research in Pakistan is a source of helping a lot both in academia and practitioners side. Clyman (1998) considered the different factors which are responsible for smooth working and better performance of the capital market anywhere in the world. They are identified as economic actions are grown in country; stability of foreign currency rate is present, reduction in debt service charges, liabilities and loans of the country decrease, deferment and repayment of external loans, and global joint ventures. Clyman (1998) explored that political, legal, and economic factors are affecting stock exchange market and capital market in Pakistan. Historical background shows that KSE is the oldest market in Pakistan. It is emerging in South Asia. Pakistan largest market was established in 18-09-1947 as the first stock exchange after the independence of Pakistan on 14-08-1947. In 1974 LSE (Lahore Stock Exchange) was established and ISE (Islamabad Stock Exchange) was constituted in 1997. Effects of any political instability can be easily seen in stock exchange market in Pakistan (Muneer et al., 2011). In Pakistan SECP is responsible for checking and the smooth working of stock exchange. Terrorism and the law and order situation are now major issues of Pakistan. Recent attack on Pakistani school children (16 December, 2014) has brought all the political forces of Pakistan, the Government of Pakistan, all major religious parties and the civil & military establishment, on one page. This is helping to improve the country's sluggish economy.

Numerous studies have been conducted on stock market issue and macroeconomics factors in Pakistan. Macroeconomics factors like investment at domestic level, level of income in the country, liquidity of capital market, development and growth at banking segment, capital inflow at private level, and institutional determinants such as law & order, political risk and bureaucratic quality are the basic elements that determine the basic stock market (Charles Amoy arty, 2008). In Pakistan since (2001-2005) stock market was working very well and it was quite liquid (Frino, 2006). Many well-known global fund managers like Morgan Stanley, Merrill, Lynch, Goldman, Sashes etc. also gained entry in Karachi stock market as global fund manager. Later on in 2005 and 2006 market lost liquidity and declined sharply. Due to negative real interest, high inflation rate further decrease the interest rates due to State bank of Pakistan monetary policy. However, Govt took certain steps to improve liquidity in the market. In Pakistan stock market tightly controlled margin trading system (*MTS*) was introduced and dealing requirements in the deliverable future market (DFM) were made ultra-stringent. Naqvi (the News 2011) explained that Pakistani Stock exchange market is facing two types of problems (Khan et al., 2013).

A- Problem of speculation. B- Problem of liquidity: State Bank of Pakistan is seriously taken certain steps to resolve these problems. SECP (*Securities and Exchange Commission of Pakistan*) being a frontline regulator of stock exchange and the APEX another regulator is trying to create an environment, where cheating is minimized, the systematic risk is contained and there are check and balance on excessive greed by means fair or foul.

Steps of Liquidity Measurement: The exploration of financial literature by different researchers has explained that a number of measures have been used to determine the liquidity of the market anywhere in the world. The view of microstructure theory has considered different problems in determination of liquidity of market. The precise survey of the Karachi stock market shows that delicacy is required for the liquidity determination which totally depends upon quotations and the market design. Various measures of liquidity determination used in the financial literature may include the spread, liquidity ratio, ratio of rotation of security, Cost of round trip, the volume of trading activities, VNET, market depth, etc. in the Karachi stock exchange market.

Trading Volume explained: In the opinion of Demsetz (1968) "liquidity is measured by trading volume. This is maladjusted, because it disregards perspectives of the concept of liquidity (immediacy, tightness, depth and the resiliency as it is considered previously)."

Concept of the Liquidity Ratio: Another important researcher Copeland (1983) studied that it is the reporting of the absolute prices variations to the volume traded in the market. For further understanding of this concept we may take it as the measure of liquidity degree of securities in the liquid market.

The concept of Turnover in the market: By Turnover we mean that the phenomenon is used to measure the financial asset liquidity of the market. If we want to calculate "turnover" by a simple formula; we consider it as, it is the sum total of all the securities exchanged there in a deal dividing it by the sum total of the circulating securities in that market at that time. There may the chances of criticism on this measure of market liquidity as it ignores to integrate traits of the phenomenon of liquidity for any further clarification.

The concept of ask-bid spread: In the opinion of different researchers the best measure of the concept of liquidity in market of the world is called as the spread. It is helpful for us if we want to make a difference between the concept of quoted spread and the concept of the effective spread for the purpose of our research. In the opinion of some other researchers, illiquidity may be measured with the help of the spread.

Market and concept of its Depth: Literature explained that "Depth" is treated as the stronger proxy of liquidity measurement in the financial literature. It may be explained as follows, "Depth" is calculated as the number sum total of securities open for offer to "*ask*" dollar value including the sum total of securities requested and required at "*bid*" dollar value in the market. Its measurement is made as follows; the quantity of monetary units (dollars depth) or quantity securities exchanged (depth quantity) in any market. Researchers considered that floor-based markets do not offer this feature as it is the special feature of the electronic markets. In the former case many people are treated as the supplier of liquidity but unable to comply with some orders due to its existence in the market.

The concept of Lambda: In the opinion of Kyle (1985), slope of the linear line is measured with help of the lambda. As he observed that to explore the degree of illiquidity of securities there exist direct equality relationships between quantities to be taken in a note orders-book[1] and market prices. We assume that there is the existence of a linear association between the prices in the market and quantities exchanged.

[1]in an order-note book unites details regarding categories, volumes and dates; including the orders which are in waiting list waiting relating to the asked price and the prices which are open offer.

The concept of excess VNET buying: Another group of known researchers like Robert and Lange (1997) explored this innovative idea of liquidity measurement in the market. The brighten side of this new variable of market liquidity measurement "VNET" is that it is framed by the extra volume regarding purchase and sale presence in capital market. As it is also an important source of explaining the shifts in price in the market. We treat market as illiquid, if price of different securities are increasing with a feeble excess buys. And on the other hand the depth of the market is more important if the similar rise in the price is seen with a big excess of buys in that market. This excess VNET is a source of measuring that volume which is available for trading before prior to the adjustment of the prices in the market. If it is appearing that V.NET converge to zero, and then very liquid market will exist.

The concept of CRTRP (the cost of round trip trade): An external measure of market liquidity, i.e. CRTRP is proposed and designed by Paul and George (2000). They consider it as follows ,"All low values of buyer prices "bid" and those of the high values of seller prices "ask" are respectively: Pr-1> Pr-2> Pr-3>….. and Pr1 <Pr2 <Pr3 <….and so on. Quantities of securities offered and asked are represented by the vector: Qt (… .Qt-2 Qt-1 Qt-0 Qt0 Qt1 Qt2….)." For further explanation of the new definition of two pointers: I $_k$ and I $_{-k}$ that is in relation to the order given by the buyer and the order given by the seller and the value is explained in dollars. This is described as follows

How Different Factors Are Influencing the Liquidity of The Stock Market: In order to increase the confidence of investors, a keen study of all those factors is necessary which determine the liquidity of financial market. These various factors include market design regulators and measurement of investment and also other factors. Previous studies carried on by different researchers explained those factors which serve

as basis of measuring liquidity (Kyle, 1985; Amihud and Mendelson, 1986; Admati and Pfleiderer, 1988).

Reaction of Insider's Transaction & Information's: Two types of asymmetric information are available in the market. To check their impact on bid-ask spread, different studies are carried on by the prominent researchers. Goldstein & Kavajecz (2000) carried on analysis of all occurrences and changes in data at the time of declarations of earnings. In first case, the investors are informed by financial analysis or by the insider's before the announcement. In the second case, asymmetric information is made public. Due to this information flow, investor can get better advantage over the other. Glosten, Lawrence and Milgrom, (1985) explored the history of bid-ask spread on quarter basis outcome declared on the study of 25 securities quoted on the OTCNTR (over the counter). The sample of 25 securities comprised of period from 1973-76. But the insignificant results are shown on the change of the bid-ask spread around the date of announcement. Ho (1981) explored the history of the "quoted depth" and "quoted spread" (it is assumed that it is a "Proxy" of measurement of liquid position of the market) on 80 interims of a 30 minutes where earnings declaration in the market. Market liquidity was deteriorated as results of entry of insiders. Annaïck (2001) studied quoted spread evolution of following insider's transactions. Resultantly, criminal transaction was completed by insiders as the transaction was enlarged on days: where quotations session was over the normal level was recovered.

Reaction of Returns and Liquidity Consideration in the Market: Some researchers explained that return may be influenced by the measures of liquidity. As transaction cost is high in less liquid market hence investor must be compensated so expected returns is a decreasing function of liquidity (Amihud and Mendelson, 1986). He further explored that investment decision does not depend only on specific risk but also to their liquidity risk. Portfolio techniques help the investor to diversify his investment to reduce risk. Amihud and Mendelson (1986) further studied that liquidity has important measurable effect on return. So they tried to asset pricing for the measurement of liquidity on the basis of bid-ask spread available in the market. Their exploration and investigation regarding the predictable return may a strong concave function of ask-bid spread. The strong positive relation was observed during a study on New York Stock Exchange (Amex, ordinary Stock during 1961-80). It is evident from the results that weak liquid investment generates elevated returns for their holders. Similarly, Portfolio choice and investment have certain implications.

Reaction of the Tick Size Liquidity Choice for the Investors: Literature is rich with this topic i.e. Tick size as a measure of liquidity. It is the minimum price changes experienced for quoting and trading stock. Fixation of tick size may be either by price level percentage or by the authorities of market without keeping in view the price. As it is in the form of subsidy paid to liquidity provider hence reduction in tick size will naturally a source of reduction in liquidity (Harris 1994). Market liquidity provision is decreased due to reduction in tick size as liquidity providers reduce their intervention into market. Bid-ask spread is positively related to tick size as studied by Hara (1987), Harris (1994).

Concept of Trading Volume and Liquidity in the Market: Confliction has arisen among researchers as far as the trading volume and liquidity concept is concerned. Due to the difference among the behavior of operators, they choose to negotiate at that time, when there is liquidity in securities (elevated depth and narrow spread). Different studies explored positive relation between trading volume and liquidity as explained by Chordia and Subrahmanyam (2000). There exists an inverse and negative relation between these two items i.e. quoted spread (quoted depth) and trading volume. Contrary results are shown by the studies of Glosten, Lawrence and Milgrom, (1985) supporting that forceful liquidity does not require high volume. Illiquid market will not show a prediction of a symmetrical variation of the ask prices and the bid prices and vice versa. Ask price lower towards the bid price and bid price go up toward ask price.

Evolving Volatility and Liquidity Treatment in the Market: Volatility has shown negative result towards spread as predicted by inventory and asymmetry information model (Goldstein & Kavajecz, 2000). Bid-ask spread are enlarged as a result of increase in volatility in the market. When loss of unexpected price variation is experienced during the period of strong volatility, then it is the duty of market makers to require high return (enlarged of bid-ask spread) for the compensation of the losses.

Reaction in different Days of the Season and Liquidity in the Market: "U" curve was observed by Mannaî (1997) in his study as analyzing the behavior of an in trading spread calculated at interval of 30 minutes for 1902 quoted securities on NYSE/AMEX. As American stock markets has been a source of measuring of liquidity. Simultaneously, the studies of Chordia and Subrahmanyam (2000) explored the effects of days of the weak on liquidity. Depth was positively and spread was negatively significant on Tuesday Wednesday and Thursday. Studies found an increase in depth during holidays and also on Friday and decrease in liquidity was experienced and Elevated co-efficient in total value than the remaining week days as far as Tuesday is concerned.

How Pakistan Stock Market is considered with these Concepts: In order to improve the liquidity of Pakistan KSE, SECP has already taken some strong measure to improve the activities at the exchange market and to facilitate the liquidity in the capital market. "BANAMI" transactions have been banned. After the crisis of 2005, severe action was taken by SECP based on transparency and necessity of diffusion of information in real time (Secp, 1997). Similarly, certain enhancement measures regarding liquidity are also taken. This study is based on the domain of market microstructure of KSE. This study is going to explore different measures of liquidity in this emerging market of the south Asia. Due consideration is given to all those factors which measure the quoted stock. Secondary data is available from website of KSE for different securities and stock. Financial intermediaries (workers) and financial analysts are also a source of providing necessary information of daily price, bid ask price, number of shares traded at the bid and ask quoted. Sunday is holiday in Pakistan and Saturday is also a bank holiday and other local holidays also excluded from study as no stock is quoted in these holidays. The study is based on the information from 1990-2014. The study sample is based on the more than 350 securities quoted in KSE.

3. History of various measures of liquidity in Karachi stock market

The basic idea of our study is the calculation of different measures of liquidity on the grounds of average data available on weekly basis: the quoted depth (DE), quoted spread (S), the effective spread also called as lambda (SE) and the proportional effective spread (SP) Now it is desirable to explain these Measures of the Liquidity which we used in the form of a formula:

-Quoted Spread: S = Ln (log) (Ask/Bid); (treating "*Ask*", being the price offered by the seller and Bid, is the price offered by buyer).
-The depth: DP = Ln (Q ask) + Ln (Q bid)
(It is suppose that *asked quantity and bided quantity is explaining* about the quantity being available with guarantee for the purpose of trading at the quoted price ask quoted price bid)

Now in the second instance, we are looking to check the assumption that:
"All measures of spread are positively correlated with each other across time and negatively correlated with depth". The collective liquidity of the market measures is given Table 1.it is also presenting the variable correlation

Table 1: Correlation

	SPM	SM	SEM	DEM
SPM	1			
SM	0.93	1		
SEM	0.91	0.93	1	
DEM	-0.12	-0.19	-0.33	1

As precious studies revealed and we expected, depth (DPEM) is showing negative correlation with all Spread measures. Other than this, it is observed that perfect positive correlations between spread measures. Thus the strength of these measures of liquidity has been proved by the results from data taken from Karachi stock exchange market.

Relationship between individual liquidity of stock with over all liquidity in the Market Liquidity: First of all, we have to estimate autoregressive model of the proxy of liquidity regarding individual stocks and study; is the outcomes from the autoregressive model are correlating for the different stocks at individual level? According to our expectations, we deduce a correlation which is showing a positive figure for 230 regressions out of 249 regarding each measure of liquidity in KSE. Result compiled shows that the average correlation is to the 0.31 value is for proportional effective spread, 0.23 for Depth, 0.33 for lambda and 0.36 for quoted spread. As it is evident from this result, that it is yielding to the studies explored by Huberman & Halka (2001) and is a proof of the existence of the ordinary factors of liquidity in Karachi stock market. Conclusively we may associate these ordinary factors to those factors those are in variation with other measures. They include volatility and lag variable of liquidity measure, traded volume, return on securities and number of transaction trade and so many others. Chordia and Subrahmanyam (2000) studied to estimate the simple "market model". As it is observed that the outcomes of the estimate of market model in eq. (4) are strong enough so far as this sample is considered. Results show that, all coefficients have positive value; anyhow 11% is not only significant. It is proved now that the aggregated market liquidity is sturdy correlated with the individual stock liquidity, which is once again a source of reinforcement for the hypothesis of the authentication of the market model modified to various measures of liquidity in KSE Pakistan. Surprising it is clear that, the descriptive power of previous model is unimportant in KSE. Actually, the coefficients average determination for the variant liquidity measures shown results; 27% for the effective spread, 17% for the quoted depth, 32.3% for the lambda and 30% for the quoted spread in this study. It is to be assumed that there may be the presence of noise. There may be the existence of other dominating liquidity factors for individual stocks in the Karachi stock market.

Important Studies on Individual Determinants of the Liquidity in the KSE: The empirical literature on market microstructure and the various studies proved the hypothesis that liquidity is directly collateral to the premeditated norms computing market performance. These factors include: number of trades, lag variable of liquidity measure, trading volume, volatility, return and others.

Concept of the Trading volume: It is considered that the ambivalent effect on the spread on the basis of trading volume is experienced under certain conditions. In the language of finance, trading volume is the bus which carries the bulletin that is ignore by the market maker. Under these cases, the enlargement of spread is made by him to hedge his situation in the market. But due to the competition, the situation in the market is against his expectations. So, he could be gratified to decrease spread and change the volume in order to smooth the market. The depth of market and the effects of the trading volume are showing a positive relation as explored in various studies. The estimation of this equation has required us to use of Panel data for 350 stocks quoted in continuous and most active on the KSE on the period going from 1990 to 2015, for each stock. Actually, in this case, a lot of observations have taken for each variable so far.

Table 2: Contributors to the General Variations in Liquidity of the Market

PANEL		C	V	R	S(-1)	R^2
S		0.018485	-0.001286	-0.025352	0.264798	0.131083
	t-cal	(5.402999)*	(-4.121660)	(-0.661348)	(5.506235)	
SP		0.005766	-0.000442	-0.0773348	0.339254	0.221406
	t-cal	(7.193580)*	(-3.7816875)	(-3.73234)	(7.509629)	
DE		2.812189	-0.046168	31.05190	0.508769	0.321134
	t-cal	(3.306671)*	(-1.142465)	(5.6942387)	(12.99661)	
SE		0.001569	-0.000147	-0.010645	0.387519	0.271791
	t-cal	(5.102276)*	(-4.926551)	(-2.091210)	(8.519462)	

- *Explanation of trading volume:* Results regarding the trading volume is evidencing a significantly negative association for the distinct measures of illiquidity in the Table. At the same time, the relationship of depth is showing inverse association with trading stock volume. This is an insignificant association (showing t-calculated -1.14).
- *Explanation of Return:* There is significant negative association between Return and the quoted & listed spread (showing t-calculated *-0.661348*); similar result are shown by above table towards "lambda" (shown t-calculated -2.09) and also for proportional effective spread (showing t-calculated *-3.73*). Apart from this, return is significantly positive association to quoted depth (t-calculated *5.69*) in this study on KSE.
- *Explanation of Past information revealed*: As indicated by Tables 2 that, even if various measure so counted for the variable return, volume, the previous revealed information remains a tactical variable that adds intensely & meaningfully. It is used fruitfully for the explanation of the behaviour of the diverse measures of liquidity of various stocks in KSE.

Contradiction is shown by our results regarding this assumption that return and the traded volume backing sharply in the liquidity explanation in the KSE. It is concluded then; return and the volume of the traded stock has nothing to do with the with variant measures of the liquidity. And they don't establish a shared aspect for the diverse measures of the liquidity of the securities listed in constantly in KSE. On the other hand it may be considered, probably, that the past information so revealed in the market serve as a important contributor regarding the diverse measures of liquidity for total listed stock in incessant in KSE .

4. Conclusion

Financial Literature is rich with different studies which reveal that market microstructure is exploring a variety of liquidity measures, such as: lambda, proportional effective spread, the quoted spread, quoted depth &many others as liquidity determinants. In order to verify this fact & legitimacy of the measures in the Pakistani stock exchange market. Testing of the assumption of variation inversely proportionality of variant measure of illiquidity to the quoted depth in this market. These measures of illiquidity are proportional effective spread, quoted spread and lambda. Last hypothesis was reinforced as the sample of 350 company's quoted stock was continuously traded. As it is mentioned that the individual stocks and the total stock of all the market in Pakistan. The main purpose of the study is to check through research the assumption whether variable explained are actually existing in the Karachi stock and capital market. All these variables are swaying listed liquid stocks in nonstop in the Karachi stock market. Surprising observed outcomes are shown by our study in this regard and they are as follows:

Finally it is proved that there exists a "market model" for liquidity in Pakistan stock market. In this study trading volume is showing significantly positive association with the liquidity of the stocks in Pakistan stock market. There is ambiguity regarding the effect of the quantity of traded volume on liquidity of the stocks. Another important fact is revealing that with liquidity of stocks is showing a significantly positive association with return in this Pakistani stock market. In our market insignificant relationship is shown between liquidity and the volatility. In this study of Pakistani market, liquidity is auto-regressive of order 1. Hence it is revealed that the current liquidity scenario is best explained by the lagged liquidity in the market. It is necessary to believe that the past revealed evidences and the data in the form of different information is also one of the important contributor for the explanation of diverse measures of liquidity for all stocks regarding Pakistani stock market.

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Impact of Financing on Small and Medium Enterprises (SMEs) Profitability with Moderating Role of Islamic Finance

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Abstract: Small and medium enterprises (SMEs) are the very significant for the development of economy of the country, grasp the attention of government and policy makers in developed as well as in developing countries. SMEs in Pakistan have their vital role in economic growth. Therefore, it is essential that SMEs have right to use sources of finance. The study used the quantitative approach that was accomplished by survey questionnaires. Two hundred SMEs and seventy bank branches were selected in Faisalabad region in Pakistan, to get response on questionnaires about their financing patterns and effects of Islamic financing as moderator in their fixed assets, set up and current assets financing. The study showed that fixed assets, set up and current asset financing have positive relation with the growth of SMEs and Islamic modes of financing was not behaved as moderator in Faisalabad city in Pakistan.

Keywords: *Islamic finance, Islamic modes of financing, SMEs, fixed asset, set up, current assets financing*

1. Introduction

Small and medium enterprises are chief factor for the economic progress in the most of countries weather these are developed or developing countries (Zarook, Rahman & Khanam, 2013; Islam, Yousuf & Rahman, 2014; Zubair, 2014; Mohammed, 2015 a). Most of the authors such as Harvie and Lee (2002) and Beaver and Prince (2004) explained that the SMEs contribution in job creation, innovation in the market, in exports and in private sector, are very prominent in developed as well as in developing countries. In Arab countries, they increased the job opportunities, develop the skilled work force and gave choices in the market for customer at reasonable cost and also improved the quality of product by increasing competition in the market (Al-wugayan and Alshimmri, 2010; Emine, 2012). As the Pakistan is also a developing country, so the role of SMEs in Pakistan is not more different from other world. SMEs sector in the Pakistan has tremendous ability to grow and having capability to make Pakistan as regional financial center. It can also make the Pakistan as trade hub for investment in private sector. But the main problem in their way of progress is limited sources of financing (Cowling et al., 2012; Dong and Men, 2014; Karadag, 2015). Kauser, Durrani, Hussain and Hasan (2012) pointed out that banks were promoting large enterprises and neglecting the small enterprises which gave rise to huge financial gap between small enterprises and large enterprises, about 75% of finance applications of small enterprises were rejected in the one year by the commercial banks. There are many researchers (Aggarwal & Youssef, 2000; Ahmed, 2009; Ahmed, 2010; Al-Jarhi, 2013; Gheeraert, 2014; Abdelsalam & El Komi, 2014) worked to promote the Islamic finance to provide the solution financing obstacles for SMEs. The financing of SMEs through Islamic modes put direct effect on the growth of SMEs (Imam and Kpodar, 2015, Shaban et al., 2014, WB-IDB, 2015).

The scenario in the Pakistan is not more different for SMEs financing. Mostly SMEs are encountered with lack of collateral for loan and asymmetric information which hinders the financing institution to lend money. To encounter these problem, there should be need to encourage the Islamic financing in Pakistan for SMEs to get finance at easy conditions (Mohammad et al., 2007). Due to the lack of the literature in Islamic finance and commercial finance, relation between them to support the SMEs and also scarce literature to support the importance of Islamic finance for SMEs specifically in Pakistan, it is very essential and timely to study the role of Islamic finance and SMEs growth in Pakistan (Nurul, Mahfuzur, and Mohamed, 2014). Faisalabad is considered one of the main cities in Pakistan for business and also known as Manchester of Pakistan because of majority of industries is in this city, especially it is consider as hub of textile industry. So, SMEs in Faisalabad are studied for this paper. The contribution of this research is to go to check the impact of financing through Islamic financing on the growth of SMEs.

2. Literature Review

The business sector of the world has two major parts, one is public sector and other is small and medium enterprises (SMEs) sector. The most significant thing is that the SMEs have been reflecting the major contribution in the development of this world for many years. The World Bank defines SMEs using the following indices (Ayyagari et al., 2005; Ardic et al., 2011):

- Micro enterprise: number of employ 10,assests having the worth of $100,000 and sale are up to $100,000
- Small enterprises having about 50 employees, assets and sales are about $3million.
- Medium enterprises contain 300employes, having assets and sales up to $15million.

Major parts of economic prosperity in developed and developing countries are due to SMEs (Sadi & Henderson, 2010; Muneer & Rehman, 2012). SMEs is the factor of job creation, it provided about 51% of new jobs and have share about 22% of GDP in Saudi Arabia (Mohammed, 2015 b).There are about 60-70% of employment is based on SMEs sector in OECD countries (OECD, 2006). SMEs are not only giving the jobs but also are the sources of producing innovating things which fulfill the needs of society appropriately (OECD, 2006; Sadi & Henderson, 2010; Shaban et al., 2014). SMEs are also source of innovation and flexibility in the market which gathered more value in developed as well as developing countries (Al-Disi, 2010; Zeitouni, 2012; Karadage, 2015). According to the business statistics of 2013 in European Union countries almost all companies were SMEs. Especially it captured the manufacturer market up to 95% in most of countries. 99.9% in Turkey, 80% in United States manufacturers are SMEs (OECD, 2005). Beck & Kunt (2006), Cowling et al. (2012) accounted that there are 4 million SMEs in United Kingdom and making the 46% of private sector employment.

By analyzing the value of SMEs in world, Pakistan has also observed the importance of this sector for economic development. In 1972, the government of Zulifiqar Ali Bhutto introduced the concept of SMEs in Pakistan. Small business Finance Corporation (SBFC) was come into being by the section of parliament act 1972, to support the small enterprises to establish cottage industry. Due to bad practices and corruption, SBFC was amalgamated into in SMEs bank limited in January 2002 (SMEs bank, 2009). In January 2002, two other institutions were merged into SMEs Bank limited which was regional development finance corporation (RDFC) and Small Business Finance Corporation (SBFC). The state bank of Pakistan defined SMEs as:
"A small Enterprise (SE) is a business entity which having the at most fifty employees and (including contract employees) and annual sales turnover limit is up to Rs.150 million. Small Enterprises can be enhanced finances up to Rs.25 Million. Medium Enterprise (ME) is a business entity, ideally not a public limited company which having the employment limit is 50 to 100 employees (including contract employees).The employment standard in case of manufacturing & service establishments is between 50 to 250 employees (including contract employees). For all MEs annual sales turnover is over Rs.150 million and up to Rs.800 million. Medium Enterprises can be extended finances over Rs.25 Million to Rs.200 Million" (SBP, 2010)

The participation of SMEs in Pakistan is very imperative; it contributes 90% of business. It provides the labor force (Non-Agriculture) about 80%, 25% of export, 35% manufacturing business and most valuable contribution in GDP which is almost 30% (Economic Survey, 2009-10) .The most of loaning for SMEs by financial institution in are in Punjab, which are 90% of total loan portfolio of SMEs. This ratio in Sind is 25.93%, 10% in Khyber Paktukawan, Gilgitbaltistan, Baloshitan, Azad Jammu and Kashmir (SBP, 2009). The literature explains not only the importance of SMEs sector but also highlights the obstacles facing by SMEs in the world. The financing obstacle is very frequent and prominent problems for SMEs (OECD, 2006). Getting the source of finance is the main hurdle in growth of SMEs (Cowling et al., 2012; Dong and Men, 2014; Karadag, 2015). Beck and Kunt (2006) are also of this mind that the main cause of failure of this sector is not find the source of finance because of some reasons such as SMEs do not bear more risk, asymmetric information, high cost of small services transaction and low production. This is also explained in the studies of authors such as Beck et al. (2006), Beck et al. (2011), Cowling et al. (2012), and Shaban et al. (2014) Islam et al. (2014). Like the other countries, In Pakistan, mostly SMEs also encounter with lack of collateral for loan and asymmetric information which hinders the financing institution to lend money. There are many other reasons such as lack of accounting information, low ability to earn more profit level, high liquidity and many

more performance criteria for loan proposal (ISPB, 2005).Pakistan is developing country so SMEs also encounter here with lack of capital, miss management and lack of skills and marketing policies (SBP, 2009). So, SMEs financing is most valuable in Pakistan. Appropriate financing of fixed assets, set up and current assets can up lift the growth rate of small firms. SMEs planning and control is affected by fixed assets financing. Fixed assets are the source of collateral when debts are granted by any financial institutions (Vatavu, 2012). Fixed assets financing have positive relationship with profitability of firm (La Rocca et al., 2011). Beside fixed assets financing, the next important activity for SMEs is to build up the set up for business activities. The newly start business needs finance to arrange the mechanism for the business operations So, the finance that is used for making set up of the business is known as set up financing. Shaban et al. (2014) showed the significant relationship between set up financing and SMEs profitability. To run the routine business activities, firm needs the current assets. The short term assets usually less than one year are categorized as current assets. Lazridis and Tryfonidis (2006) announced that current assets management has importance especially in small firms in both developed and developing countries. Mathuva (2009) showed that there is significant relationship between SMEs profitability and current assets financing.

Figure 1: Theoretical Frame Work
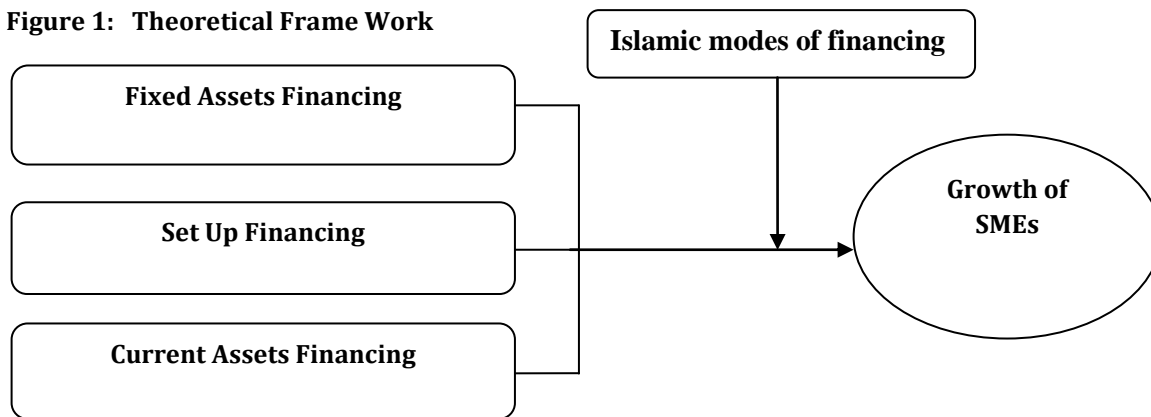
But a lot of literature has showed that SMEs faced many obstacles in financing through conventional means (Steijvers et al., 2010; Rocha et al., 2011; Vasilenko & Arbaciauskas, 2012; Zubair, 2014). Many researchers (Khan & Bhatti, 2008; Aggarwal & Youssef, 2000; Ahmed, 2009; Ahmed, 2010; Abdelsalam & El-komi, 2014; Ernst & Young 2014; Naceur, Barajas, Massara, 2015) support the Islamic financing because it increase the growth rate in double digit and now a days it is most growing sector of economy. Islamic banking and financing has very great importance in Pakistan in gearing up the growth of SMEs. It was started from 1977 to 1978 with an effort to make the interest free commercial bank in Pakistan. To check the impact of financing of variables (fixed assets, set up and current assets) and role of Islamic finance as moderator, the following hypothesis are developed:

Hypothesis 1:
H1: fixed assets financing is positively related to profitability of SMEs.
H1a: fixed assets financing is not positively related to profitability of SMEs.

Hypothesis 2:
H2: set up financing is positively related to profitability of SMEs.
H2a: set up financing is not positively related to profitability of SMEs.

Hypothesis 3:
H3: current assets financing is positively related to profitability of SMEs.
H3a: current assets financing is not positively related to profitability of SMEs.

Hypothesis 4:
H4: Islamic modes of financing acts as a moderator is affecting on the profitability of SMEs.
H4a: Islamic modes of financing acts as a moderator is not affecting the profitability of SMEs

3. Methodology

The research has been carried to develop the awareness about Islamic modes of financing which are used by Small and Medium Enterprises. This study is conducted to test hypothesis and to develop a relationship between the dependent variable "Small and Medium Enterprises growth" and the independent variables "fixed assets financing, setup financing, current assets financing" with moderating effect of Islamic finance. Survey questionnaires are used to collect the response from the target population. The population is specified as all the Small and Medium Enterprises and banks in Faisalabad city. The sample for this study is comprised of 200 SMEs and 70 banks branches operating within the geographical territory of Faisalabad. A total of two hundred and seventy questionnaires were delivered to the small and medium enterprises and banks, out of which one hundred and ninety seven responses were received back. During data entry, 10 questionnaires were incomplete and considered as redundant. Remaining 187 questionnaires were considered for the analysis. The feedback rate of the existing study is fine to characterize the population. To test the hypothesis, Structural Equation Modeling (SEM) is applied by using partial least square (PLS, 3.02).

4. Results

For the data analysis in SEM, it is necessary that the data should be reliable. "Reliability is the instrument's ability to fabricate similar outcomes over the period of time" (Bonds-Raacke and Rackee, 2012). Reliability is measured in this study by using standard Cronbach's Alpha (1951).The benchmark value for Cronbach's Alpha reliability is 0.5. The given table shows the Cronbach's Alpha values collectively and separately variables one by one.

Table 1: Reliability Assessment

	Cronbach's Alpha	Items
Overall Reliability	.898	19
Fixed Asset Financing	.614	2
Set Up Financing	.629	2
Current Asset Financing	.679	2
Islamic Modes Of Financing	.644	5
Growth Of SMEs	.860	10

In this research, the firm performance is linked with the four variables. First is fixed assets financing, second one is set up financing, third one is current asset financing and the last variable is Islamic mode financing which is used as moderator. The model values show the contribution of each factor in assessing the firm performance. Fixed assets financing, set up financing and current asset financing contributes (0.351), (0.314), (0.232) and these variables define the firm performance about (0.586) is shown by fig #2. It indicates that the more factors are also effects the firm performance. The values of t- statistics and R 2 showed in table indicate that the whole model is significant.

Figure 2: Predictive Relevance of Structure

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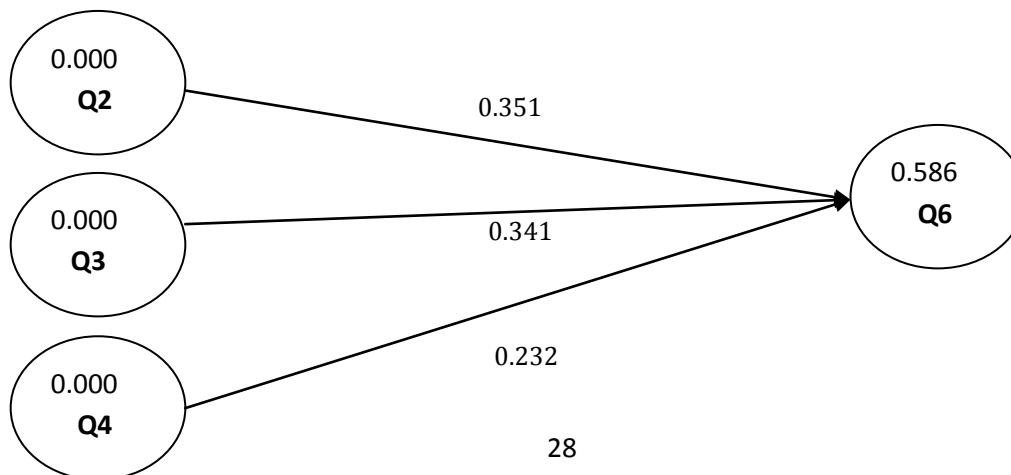
Note: Q2 (fixed assets financing), Q3 (set up financing), Q4 (current assets financing), Q6 (firm performance)

Table 2: Model Summery

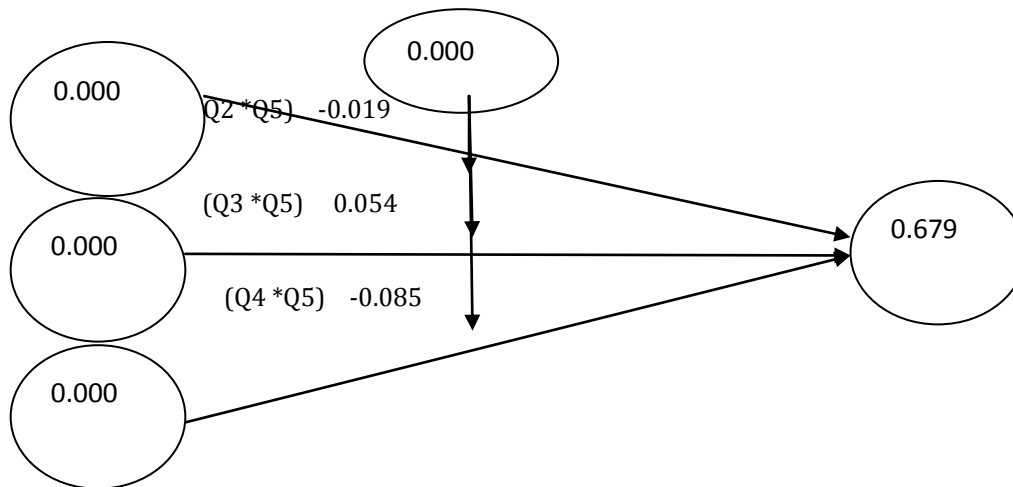| Hypothetical Relationship	Path Coefficient	Absolute statistic value	t-	Value of R2	Value of Q2
Q2 – Q6	0.351***	6.945			
Q3-Q6	0.314***	5.599			
Q4-Q6	0.232***	4.426			
Q6				0.586	0.261

The Islamic modes of financing are acting as moderator in this study. When Islamic modes of financing is taken as an independent variable (IV) to check its impact on firm performance and its shows (Q5=.637) of firm performance which is good of total firm performance. The value of R2 is significant because it should be more than .5 Cronbach's (1951). But the impact of Islamic modes of financing (Q5) with fixed asset financing (Q2) is shown the combined effect up to 69.2 % on firm performance (Q6) with path values fixed assets financing (Q2) is 0.290 and Islamic modes of financing (Q5) is 0.638. The multiplicative path coefficient value of fixed assets financing and Islamic modes of financing (Q2*Q5) is -0.019 which is very low and it showed that Islamic modes of financing may be behaved as an independent variable, have some impact of firm performance but not working as a moderator which is illustrated in following figure #3 and model summary.

Figure 3: Predictive Relevance of Structure for moderator

Note: Q2 (fixed assets financing), Q3 (set up financing), Q4 (current assets financing), Q5 (Islamic modes of financing), Q6 (firm performance)

Table 3: Model Summery

Hypothetical Relationship	Path Coefficient	Absolute statistic value	t-	Value of R2	Value of Q2
Q2-Q5	-0.019	0.192			
Q6				0.692	Not moderator
Q3-Q5	0.054	0.724			
Q6				0.679	Not moderator
Q4-Q5	-0.085	0.957			
				0.661	Not moderator

Secondly, the relation between Islamic modes of finance (Q5) and set up financing (Q3) is examined on the financial performance of SMEs (Q6). Both of the parameters (Q3) and (Q5) have combined 67.9 % impact on SMEs performance (Q6) with having path values (Q3=.264) and (Q5=.601). Multiplicative path coefficient value of set up financing and Islamic modes of financing (Q3*Q5) is 0.054 which is very low as shown in figure#3 and table#3.Its mean that Islamic modes of financing (Q=5) is also not worked as a moderator in this

relation. Next ,the parameters Islamic modes of financing (Q5) and current asset financing (Q4) have shown collectively 66.1 % impact on firm growth (Q6) and have path values (Q4=.207) and (Q5=.714). Path coefficient value of Islamic modes of financing and current assets financing (Q4*Q5) is -0.085 which is significantly low, as given above figure#3 and table. It shows that Islamic modes of financing (Q=5) is not worked as a moderator and not effecting the relationships between independent (IV) and dependent variable (DV) significantly.

5. Conclusion

The data analysis of the study shows that the SMEs which are financing their fixed assets through Islamic finance the observed 69.2% contribution in profitability. The analysis also reveals that mostly 10% to 20% SMEs are using Islamic finance to finance their fixed assets. It also examined the majority of the SMEs are used Islamic financing to finance their vehicles to reduce their operational and carriage cost.25% Ijara financing and18% musharka financing instrument are used for this purpose. The fixed assets financing through Islamic modes is significantly positive relation with profitability of SMEs. In Pakistan, if SMEs use the Islamic mode to finance then they will show more growth as compared to ordinary method of finance and for this the most suitable instrument are Ijara and Musharaka to use. SMEs which are financing their set up cost through Islamic finance the observed 67.9% contribution in profitability. 20% to30% SMEs are using Islamic finance to finance their set up financing.38.6% mudarbah financing and18.4% musharka financings instrument are used for this purpose. Therefore, it is concluded that SMEs with more set up financing affects more the growth rate. The set up financing through Islamic modes is significantly positive relation with profitability of SMEs and for this the most suitable instrument used are mudarbah and Musharaka.

The data analysis of the study also shows that the SMEs which are financing their current assets through Islamic finance the observed 66.1% contribution in profitability. 10 to.20% SMEs are using Islamic finance to finance their current assets. It also examined that it is preferable for SMEs to use Islamic financing for finance their current assets to reduce their operational cost. 33.3% murabaha financing, 21.5% istisna financing instrument and 18.8% musharka financing instrument are used for this purpose. Therefore, it is concluded that SMEs with more current assets financing affects more the growth rate. The current assets financing through Islamic modes is significantly positive relation with profitability of SMEs and for this the most suitable instrument used are murabaha and Musharaka and istisnah. The second objective of the present study was to examine the behavior of Islamic modes of financing as moderate the relationship between fixed assets, set up, current asset financing and profitability of SMEs in Faisalabad Pakistan. But Islamic finance might be worked as a moderator in any other economy but not worked in Faisalabad due to have insignificant values of variables as the product of Islamic finance, in Pakistan. This study also explains that Islamic financing work as an independent variable that have some affect on profitability of SMEs.

Limitations of the Research Study: Regardless of high ambition, the study is limited by low resources, both financial and non-financial resources. Because of limitation of time and finance, scope of the researcher became confined into some specific areas and forced to study limited but important aspect of the SMEs sector. Moreover the research problem and questions are linked many fields of research problem but the time and finance constrain prohibits the researcher to study all the areas of research problems. Because of limited access to scare resources, this study could not research SMEs in all regions of Pakistan. The selected SMEs located in Faisalabad city took as the target population. Moreover, there is no proper knowledge about the SMEs sector in Pakistan. The literature on SMEs which are using Islamic finance to finance their activities are very rear and relation of these activities with performance is also very less. Limited legislation about the SMEs financing is the another problem in Pakistan.

Suggestions for Future Research: This study was designed to examine relationships between Islamic modes of financing and SMEs profitability. Its limitations were explained above are suggest further research to expand areas that could not be captured in this research. Additional implications of this study for the further research could include the following:
- Findings on Islamic modes of financing could be used as the basis for specific and detailed research into every separate aspect of financial practices in Pakistan

- The model of SME profitability developed in this study could be applied as the basis for the further research on building competitive strategies for SMEs.
- This model can checked in other cities of Pakistan to check the influence the Islamic financial practices.
- Government support for the SME sector is still limited to offering finance, but the study found that the government could play a significant role in supporting the SME sector. Therefore, the role of government for supporting SMEs is very healthy topic for further research.
- Results of the research have both theoretical and practical suggestion for enhancing financial management practices especially in small enterprises for expansion of this sector of Pakistan.

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Growth Prospects and Customer Expectations in Islamic Banking

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Abstract: Islamic Banking has gained enormous popularity in Pakistan in a short span of time and still has a huge potential to grow in the market. Many Conventional Banks having Islamic Banking windows and a few full-fledged Islamic banks are striving hard to remain alive in the stiff competition for market share, resulting in more banking choices for the customers. Still there is lot to be achieved and the whole banking system has to get rid of the curse in the form of Riba, which has strongly been denounced and prohibited in the Holy Quran. Islamic Banks at the moment hold merely 9.4% of the whole banking Market which is far below than desired. In this study, an attempt will be made to analyze the growth trends in the Islamic banking and its implications for the society and the economy in particular. Customers' perceptions & expectations and certain myths regarding Islamic banking will also be captured during the study. This will not only help us in understanding the potential and opportunities available in the industry but also give an idea that what the customers want and expect from Islamic banking. Moreover, the study will also add to the latest pool of knowledge on the subject. There seems a dearth of updated quality research on the matter and this will serve as an important reference and latest work on Islamic Banking in Pakistan.

Keywords: *Islamic Banking, Growth Trends, Customer Expectations, Conventional banking*

1. Introduction

Islamic Banking in Pakistan was formally introduced way back in 2001 when the government chose to support Islamic banking in a steady approach and function parallel and well-suited system that is in line with international best practices. As a result, Meezan Bank Limited (MBL), the first Islamic Bank of the country started its operations during March, 2002. Since then the industry has been constantly performing with remarkable growth, outshining the growth rates witnessed by the conventional banks in the last few years. Having large majority of religiously conservative people, the ever growing Islamic Banking industry of Pakistan offers ample opportunities to a reasonably large segment of the public which are unbanked yet. As a result there shall be financial soundness in the country and hence the industry will play a role in achieving overall national economic objective, i.e. expansion of financial sector. State bank of Pakistan has also established the Islamic banking framework to make sure sound, stable, transparent and flexible legislation for Islamic Banks.

Islamic Banking Industry Overview: The Islamic Banking Industry kept growing and reaching new markets and developing innovative products to the customers according to their needs. As of September 2014, a total of 22 banks with 1423 Branches spread across the country were involved in Islamic Banking practices with an asset base of PKR 1,102 billion. Islamic banking assets and deposits have captured a market share of 9.9 percent and 10.7 percent respectively by end September 2014.

Islamic Banking Branch Network Analysis: Islamic Banking Industry (IBI) branch network has grown tremendously over the years and in a very short span of time it has added more than 1423 branches. By analysis of the distribution of branch network of IBI, we can see that the network is heavily concentrated in two provinces i.e. Punjab and Sindh as both these provinces account for nearly 78 percent branches of overall Islamic Banking Industry (IBI) branch network.

In Pakistan there are 5 fully specialized Islamic Banks having a branch network of 838 branches as of September 2014. 17 Conventional Banks have 488 Islamic Branches spread over all the country. Apart from this, different banks have 97 Islamic sub Branches are operating in the market catering to thousands of customers. Following is the list of All Islamic Branches in the country.

Table: 1 Province Wise Additional Branches as of September 2014

Province	Total Number	Share (percent)
Punjab	634	44.6
Sindh	476	33.5
Khyber Pakhtoonkhawa	152	10.7
Baluchistan	59	4.1
Gilgit Baltistan	5	0.4
FATA	4	0.3
Federal Capital	78	5.5
AJK	15	1.1
Total	1423	100

2. Literature Review

No one can deny the importance of the Banking industry in making funds available to industries and contributing towards economic and financial growth and stability. A deep-rooted and sound banking industry has the ability to with stand economic down turns in the economy and plays an important role in the development of the country (Aburime, 2009). In Pakistan too, banking sector has evolved as a strong industry over the years and become the backbone of the fragile but resilient economy, although initially at the time of independence it faced tremendous challenges like acute scarcity of resources and uncertainty due to prevailing political and socioeconomic conditions but today it stands out as one of the best performing sector having deposit base of more than 7,195,817 Million Rupees with 38 banks (Local & Foreign) over 10,361 branches spread all over the country. (Financial Stability Review 2013) Pakistan started making serious efforts for Islamic Banking in 1970s when an article 38 (f) was included in the Constitution of 1973 which holds the State responsible for eliminating "Riba as soon as possible" (Memon, 2007).

However, a major step was taken in the early 80s to adapt the banking system according to the tenants of Islamic principles. Various legislations were modified to accommodate non-interest based transactions and for doing this the relevant authorities and the banking system were allowed definite timeline to transform the conventional banking sector into Islamic one. But during early nineties, some of the decisions and exercise was challenge in the Federal Shariat Court which declared some products and processes being used by the banking system un-Islamic (Saeed, 2011). After reviewing the flaws and rectifying the objections raised by the honorable court, State Bank of Pakistan issued new guidelines for setting up of Islamic banks in late 2001. As a result the first license for Islamic Banking was issued to Meezan Bank Limited was allowed to function as a full-fledged Islamic bank in January, 2002.

In this study, an attempt has been made to analyze the growth trends in the Islamic banking and its implications for the society and the economy in particular. Customers' perceptions & expectation and certain myths regarding Islamic banking have also been captured during the study. This will help us in understanding the potential and opportunities available in the industry but will give an idea what the customers want and expect from Islamic banking. Moreover, the study has added to the latest pool of knowledge on the subject. During the study it was revealed that there is a dearth of updated quality research on the matter and this will serve as an important reference and latest work on Islamic Banking in Pakistan. After the commencement of Islamic banking in the country, we have seen great promotion and advocacy of Islamic banking services and many Banks jumped into this business. Today, there is a huge potential for further growth and thus the potential for Islamic banking services should be harnessed as quickly as possible through active education drives for the population and training of bank staff. The research project has highlighted the current trend of rapid growth of Islamic banking sector in Pakistan and its impacts on the development of a Riba Free economy. Customers' perceptions and certain myths regarding Islamic banking have also been captured during the study. This will not only help us in understanding the potential and opportunities available in the industry but will give an idea what the customers want and

expect from Islamic banking. Moreover, the study will also add to the latest pool of knowledge on the subject. There seems a dearth of updated quality research on the matter and this will serve as an important reference and latest work on Islamic Banking in Pakistan

History and Evolution of Islamic Banking System

International Perspective: It is believed that the first ever Islamic banking was established in Egypt without directly using the Islamic concept. Ahmad El Najjar of Egypt was the founder and pioneer of a saving bank in a small town of Mit Ghamr in 1963 which was based on profit sharing. There after many such banks were established across the country and by the end of 1967 there were 9 such banks in Egypt (Ahmad, 2010). These banks were basically not commercial entities but were in fact saving-investment institutions. Later on, a fully Interest-free commercial bank named Nasir Social Bank was founded in Egypt without any reference to Islam or Shari'ah (Hayat, 1993). In the 1970s, as the political scenario was changed over Islamic World, Islamic Banks and financial institutions were no more hiding their identity like those of Egyptian banks. Scores of Islamic Banking Institutions were established across Middle East catering to the needs of the customers and Islamic Bank thus flourished in many Islamic states like Bahrain, UAE, Egypt, and Sudan over the years (Ahmad, 2010). Islamic Banks were not only confined to Islamic Countries but some countries like Philippines started promoting Interest free banking without direct reference to Islamic Shariah. The Philippines Amanah Bank (PAB) founded in l973, was completely not an Islamic bank but efforts are underway to convert the PAB into a full-fledged Islamic bank (Iqbal, 2010; Makiyan, 2010). In South east Malaysia was the first country to introduce Islamic banking in l983. Although Earlier, Muslim Pilgrims Savings Corporation (MPSC) was established in 1963 with the sole purpose to motivate people to save for performing Islamic Haj. MPSC was later merged into the Pilgrims Management and Fund Board in 1969, which is now popularly known as the Tabung Haji. Late on, Bank Islam Malaysia Berhad (BIMB), a full-fledged Islamic Bank was set up in 1983 inspiring from the success of Tabung Haji (Hayat, 1993 and BIMB).

In December 1973 The Organization of Islamic Countries (OIC), established Islamic Development Bank with an objective to promote economic & social development of member countries and Muslim communities separately or jointly in accordance with the principles of Shari'ah. The Islamic Development Bank offers not only financial services against certain fees but also gives financial aid on profit-sharing bases to its member countries (Source: IDB). Interestingly, Islamic banking concept has impressed some non-Muslim Countries too. During seventies, there were interest free savings and loan societies established in some localities (Ahmad, 2010). In Europe, the first ever The Islamic Banking institution was established in Luxembourg in l978. Later on, Islamic Bank International (IBI) and the Islamic Investment Company (IIC) have been established in Copenhagen, Denmark and Melbourne, Australia respectively (Hayat, 1993). In the late 20th century, a number of Islamic banks were created, to cater to this particular banking market. In short, from a modest commencement from a small village in Egypt in the early 60s, Islamic Banking has now spread across the globe and has been recognized as a genuine alternative the conventional banking system. In a very short span of time, it has established strong foothold all over the world. There is a great potential for Islamic Banking to grow stronger and dominate the financial world very soon.

Pakistan's Perspective: Pakistan has witnessed sharp growth in Islamic Banking and its popularity is growing day by day. In Pakistan, during 1970s, some serious efforts started towards Islamisation of the financial system. In the constitution of 1973 an article was included in which state was held responsible for making efforts for elimination of Riba from the country. But practical and comprehensive initiatives were undertaken during 1980s when different legislations like State Bank Act of 1956, The Banking Companies Ordinance 1962, Negotiable Instruments Act of 1882 & Recovery of Loans Laws were amended to make them according to Islamic Principles. Pakistan is among one of the few first countries in the world to have started non-interest based banking. The advisory committee established under the Constitution of 1973, The Council of Islamic Ideology (CII) also reviewed certain laws and submitted its report in 1980 in which recommendations were made to replace the interest based banking system with a PLS Based banking system. In another recommendation, Government was asked to set up interest-free *'common pool of funds'* on cooperative basis to replace the existing interest bearing government securities (Sheikh et al., 2010). As a result, Participation Term Certificate (PTC) for commercial Financing was launched which was

later swapped with Term Finance Certificate. Later on, many more non-interest based products were introduced. Conventional Banks started to adopt the Islamic Banking steadily, and undertook certain steps like opening separate interest free counters at the branches. Banks developed certain products like Musharika in 1982 for their customers who required funds for meeting working capital needs of trade and industry. But Banks formally launched their PLS Products in April, 1985 (Saeed, 2011).

The SBP primarily took far-reaching decisions for the implementation and development) of financial instruments based on Islamic ideology. But this pace could not be continued throughout due to certain reasons and the whole process came to a standstill. In 1991, The Government of Pakistan established the Federal Shariat Court which ordered banks especially the State Bank to remove interest based transactions by the end of 2001. This was a big decisions and a challenge to the banks because it was not possible to act on the order in such a short period of time. Since 2002 in Pakistan Islamic Banks have witnessed stiff competition among themselves and as well as from conventional banks. The Government has not only allowed Conventional and Islamic banking to operate in parallel but conventional banks can offer Islamic banking services through dedicated Islamic windows. Subsequently, Today in Pakistan we have 5 dedicated Islamic Banks working with a branch network of 838 branches as of September 2014. Moreover, 17 Conventional Banks have 488 Islamic Branches spread over all the country. Apart from this, 97 Islamic sub Branches of different banks are operating in the market catering to hundreds of thousands of customers. They are competing in a highly competitive environment for the provision of quality services according to customers' expectations (Nassir-Shaari et al., 2011).

In addition to banking institutions, several Islamic Finance instruments like Islamic Mutual Funds, Takaful Companies, Mudaraba Companies etc have been serving Islamic Customers. And recently Government has been serious in creating an Islamic Sukuk (bond) market. However, it is concluded that although Islamic banking growth has performed at a very rapid pace but when compared with conventional banks, the growth of Islamic banks lacks a mile behind that of conventional banks. Figures reveal that Assets of the Islamic banking industry have reached to Rs. 1,102 billion in September 2014. Similarly deposits of the Islamic banking industry witnessed growth over the years and were recorded as Rs 934 billion. Total Islaminking Assets and deposits have managed to capture an overall market share of 9.9% and 10.7% respectively by the end of September 2014. Profitability of the Islamic banking industry has also witnessed an increase reaching to Rs 9.4 billion, substantially higher than Rs 5.6 billion profit earned by Islamic banking industry by the end September 2013. However, its shares in terms of asset percentage of banking industry were just 3.2% while comparing conventional banking assets (IBB, SBP- September 2014).

3. Methodology

For this study, we have extensively relied on both primary as well as secondary data. The primary data is basically used to determine the growth of Islamic Banking in Pakistan. We have studied the growth trend in market share, asset size, investment and profitability of Islamic Banks in the country over years and have produced them here in the form of tables and charts. Secondary data was collected from different sources. State Bank of Pakistan has Islamic Banking Department which provides useful information about Islamic Banking in the country. We thoroughly visited the website and found useful and high quality data on the subject. State Bank of Pakistan publishes a quarterly Islamic Banking Bulletin where lot of analysis is done regarding different parameters. We have also consulted the project "KAP Study" undertaken and published by State bank of Pakistan along with an International Development Agency. Besides this, a large number of websites including those of some Islamic Banks, different journals, and research studies were consulted to gather the secondary data for this study. To understand customer satisfaction and perception regarding the quality of service and operations of the Islamic Banks, Primary data was collected through a structured questionnaire. As mentioned earlier there are five full-fledged Islamic banks and Seventeen (17) Conventional banks offering Islamic Banking services with over 1400 branches across the country. It was not possible to cover all of them. So, as sample customers of three branches of Islamic banks i.e. Meezan Bank Ltd, Raast Banking (Islamic Banking Group) of the Bank of Khyber and Bank Alfalah Islamic situated in Peshawar Cantt were selected for the customers of Islamic Banks. For Conventional Banks, Branches of Soneri Bank, Habib Bank Ltd and the Bank of Khyber were selected at convenience. A sample of 100 questionnaires was distributed equally through the branch officers who were kind enough to help in getting the forms filled from their respective customers. The overall findings and their interpretations are presented in Table 3.

Growth of Islamic Banks in Pakistan: After the establishment of Meezan Bank Limited in 2002 as the first full-fledged Islamic Bank, Pakistan has witnessed a tremendous growth in Islamic Banks in Pakistan. Presently, 5 fulls- fledged Islamic Banks and 17 conventional banks have opened more than 1423 branches across the country. I have collected data for the last 12 years about Total Assets, Net Investments, Total Deposits and number of Branches of the Islamic Banking Industry and analyzed the growth trends of these parameters.

Total Assets: Total Assets of the Islamic banks have grown exponentially over the years. In 2002 Total Assets of the Industry were just 7 billion Rupees which have now reached Rs. 1,102 Billion as of September 30, 2014. In the beginning the growth was steady but increased sharply after 2009 when many banks started Islamic Banking operations. The market share of total assets of Islamic banks in overall banking industry increased to 10.7 percent by end September 2014.

Total Deposits: Many New Islamic banks entered the market and successfully mobilized huge deposits over the years and captured a market share of 10.7 % as of September 30, 2014. The total assets stand at 934 Billion Rupees at the end of the third quarter of 2014. The market share of total deposits of Islamic banks in overall banking industry increased to 9.9 percent by end September 2014.

Net Financing and Investments: Financing and Investments are the major source of revenue for the banks and therefore it is imperative for the banks to lend money prudently and invest in safe places to ensure maximum return for the shareholders. In this regards as we can see from the figure below that Islamic Banks have increased their investments substantially over the years and posted an upward trend. Net Investments of the bank had reached their peak in 2013 but the figures have declined due to economic slowdown during 2014.

Branch Network and Islamic Banking Institutions: Islamic Banks grew sharply during the initial years but steadied after 2007. Some banks were merged or acquired thereby numbers fluctuated between 18, 19 and later on declined to 17 in 2011. But recently new conventional banks have entered the market causing the number to rise to 22 at the end of September 2014.

Table 2: Total Islamic Banking Institutions and total number of Islamic Branches

Growth in Islamic Banking	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total Assets	7	13	44	71	119	206	276	366	476	641	837	1014	1102
Deposits	5	10	30	48	73	138	186	226	338	475	626	709	934
Net Financing & Investment	5	8	30	50	84	147	202	282	392	522	706	868	693
Total Islamic Banking Institutions	1	4	9	11	14	18	18	19	18	17	18	19	22
Total No. of Branches		17	48	70	150	289	311	611	720	882	1097	1304	1423

4. Results

A set of sixteen questions was developed in the form of questionnaire which was distributed among one hundred customers of three Islamic Banking Branches and three Conventional banking branches. Among them 50 customers of Islamic Banks were requested to fill out the forms and another 50 customers of conventional banks completed the questionnaire. Following are the findings of the research.

Reputation of Islamic Banks: Following Figure indicates that 56% of respondents at Islamic Banks agreed that Islamic Banks are more reputable than conventional banks as compared to 14% respondents at Conventional Banks who were in agreement. While 26% & 40% were neutral to the question in cases of Islamic & Conventional Banks respectively. 46 % of the respondents at Conventional Banks did not agree about the notion that Islamic Banks were more reputable than Conventional Banks.

Quality of Service: 48% of the respondents thought that Islamic Banks were providing better services than conventional banks while 38% were unclear about it. In case of Conventional Customers only 34% were agreed that Islamic Banks have better quality of service than
Conventional banks while 46% disagreed.

Favorable Prices of Islamic Banks: Majority of both Islamic and Conventional bank customers were indifferent about the favorability of prices of Islamic Banks as 40% and 48% of the respondents at Islamic and Conventional Banks remained neutral about the pricing of Islamic Products respectively. Only 38% of customers at Islamic Banks deemed their prices favorable as compared to 12% at conventional Banks. While 22% at Islamic Banks and 40% at conventional Branches thought that Prices of Islamic Bank Products were not favorable.

Solution to personal business needs: 50% of the respondents at Islamic Banks agreed that Islamic Banks offer solutions to personal/business needs of the customers as compared to merely 8% of the respondents at Conventional banks. While 26% of the customers of Islamic banks and 50% of the customers of conventional banks remained neutral about this particular question.

True Shariah Compliant Banking Products: 66% of the customers of Islamic banks thought that Islamic Banks offer truly Shariah Compliant Islamic Banking Products to their customers as compared to only 10% of the customers of Conventional bank customers. It is worth mentioning here that about 90% of customers of the Conventional Banks either remained neutral or disagreed with the notion that Products of Islamic Banks were Truly Shariah Compliant.

Religious Satisfaction and Comfort in doing Business with Islamic banks: An overwhelming majority of customers i.e. 74% of the respondents at Islamic banks felt religious satisfaction and comfortable in doing business with Islamic Banks. While 58% of the respondents of the Conventional Banks remained undecided in this regards and 34% of them disagreed with this notion.

Choice of Selection of the Branch: Customers were asked about the choice for bank selection on the basis of convenience of location instead of other facilities offered and as a result 32% of the respondents at Islamic Banks agreed and another 32% disagreed that their selection of branch was based on convenience of location. But 62% of the conventional bank customers agreed that they chose Banks based on the convenience of location instead of other facilities offered.

Contribution of Islamic Banks in Societal Balance, Human Prosperity and Welfare: Only 26% of the respondents at Islamic banks and 18% at the Conventional Banks agreed that Islamic Banks contribute to the societal balance, Human prosperity and welfare. While majority of the customers at both Islamic and Conventional Banks either disagreed or remained neutral in this regards.

Islamic Banks as a Complete Alternative Banking System: 62% of the Islamic Bank customers deemed that Islamic Banks served as a complete alternative banking system in the country while 38% of the respondents of conventional banks disagreed with this notion. While 42% decided to remain neutral in this regards.

Willingness to pay more for Islamic Products: Only 32% of the respondents at Islamic Banks were willing to pay more for Islamic products because they are Shariah Compliant while only 2% of the conventional bank customers were willing to pay more. 70% of the conventional and 32% of the Islamic bank customers was not willing to pay more for Islamic Products.

Table 3: Tabular Representation of Results

		Islamic Customers	%age of Islamic Customers	Conventional Customers	Conventional Customers
Age group (Years)					
	18-30	17	34%	9	18%
	31-40	13	26%	11	22%

	41-50	10	20%	15	30%
	51-60	8	16%	9	18%
	61 and above	2	4%	6	12%
Gender					
	Male	39	78%	38	76%
	Female	11	22%	12	24%
Educational Qualification					
	Primary	2	4%	-	0%
	High School	8	16%	8	16%
	Intermediate	12	24%	12	24%
	Graduate	21	42%	18	36%
	Graduate & Higher	7	14%	12	24%
Monthly Income (Rs)					
	Less than 20,000	4	8%	6	12%
	20,001-40,000	19	38%	14	28%
	40,001-60,000	18	36%	16	32%
	60,001-80,000	6	12%	10	20%
	80,001 and	3	6%	4	8%
Purpose of opening of Bank Account					
	Salary Account	24	48%	26	52%
	Saving	11	22%	6	12%
	Business	11	22%	13	26%
	Online Transaction	4	8%	5	10%
	Others	-	0%	-	0%
Understanding the key concepts of Islamic Banking					
	Yes	34	68%	18	36%
	No	16	32%	32	64%
Islamic Banks are more reputable than Conventional Banks					
	Agree	28	56%	7	14%
	Neutral	13	26%	20	40%
	Disagree	9	18%	23	46%
Islamic Bank provides better Services than Conventional Bank					
	Agree	24	48%	17	34%
	Neutral	15	30%	15	30%
	Disagree	11	22%	18	36%
Prices of Islamic Products are more favorable than Conventional Bank Products.					
	Agree	19	38%	6	12%
	Neutral	20	40%	24	48%
	Disagree	11	22%	20	40%
Islamic Banks offer solutions to Personal/business needs of the customers.					
	Agree	25	50%	4	8%
	Neutral	13	26%	25	50%
	Disagree	12	24%	21	42%

Islamic Banks offer truly Shariah Compliant Islamic Banking Products					
	Agree	33	66%	5	10%
	Neutral	12	24%	22	44%
	Disagree	5	10%	23	46%
One feels religious satisfaction and comfortable in doing business with Islamic Banks.					
	Agree	37	74%	4	8%
	Neutral	10	20%	29	58%
	Disagree	3	6%	17	34%
Your choice for bank selection is based on convenience of Location of instead of other facilities offered					
	Agree	16	32%	31	62%
	Neutral	18	36%	12	24%
	Disagree	16	32%	7	14%
Islamic Banks can contribute more to the societal balance, human prosperity and welfare.					
	Agree	13	26%	9	18%
	Neutral	19	38%	18	36%
	Disagree	18	36%	23	46%
Islamic Banks serve as a complete alternative banking system in the country.					
	Agree	31	62%	10	20%
	Neutral	12	24%	21	42%
	Disagree	7	14%	19	38%
I am willing to pay more for Islamic product because they are Shari'a Compliant					
	Agree	16	32%	1	2%
	Neutral	18	36%	14	28%
	Disagree	16	32%	35	70%

5. Conclusion

As evident from the findings, the recent expansion of Islamic Banking in the Country has been extremely successful and the credit for this success goes to all the stakeholders i.e. The Government, SBP, and Private Sector. SBP's multi-pronged strategy for development of Islamic Banking in the country has been very effective and bore fruits. The recent growth in Islamic Banking has been remarkable by all standards. Islamic banks have been able to achieve a market share of more than 10% in about 12 years in such a competitive banking sector which is truly an outstanding achievement. The re-launch incident has been very useful and provides as a strong foundation on which the strategy has been put in place. The research findings also reveal that Islamic banking clients are more satisfied, well informed and consider Islamic banks as their first choice. Still lot has to be done and more customers need to attract towards Islamic banking by offering new innovative products and alternative solutions to the needs of the customers. Customers of Conventional Banks were indifferent to Islamic Banking and their perceptions should be changed.

Recommendations: This entire debate clearly states that Islamic Banking has grown decently as compared to the Conventional Banking system in Pakistan over the past few years, and according to SBP, Islamic Banking has great potential to grow further in coming years. Following are a few recommendations for the betterment of the industry. The Banks need to give special attention to the awareness among the people, people should be educated about the operation and significance of Islamic Banking concept

because many people in Pakistan and all around the world think that Islamic Banking is just a delusion and that there is actually no difference between Conventional and Islamic banks and that the only difference is in the name. Due to phenomenal growth and expansion of Islamic Banking in the country, one must ensure there is adequately skilled human resource available in the market. Islamic Banks and specially State Bank of Pakistan and Institute of Bankers, Pakistan (IBP) need to play their due role in imparting and arranging extensive training programs for the workforce so that in times of high demand adequate resources are available to be employed

Branch Network should grow and reach out to those non-banked areas (especially the rural areas) and capture more and more of the market share. Islamic Banks usually are left with very few options when it comes to invest in Shariah Compliant instruments. Resultantly they end up investing in Government Securities and Shares which affects the spirit of Islamic Banking Concepts. Sukuk Bonds etc should be introduced in the market as soon as possible. Islamic Bank should launch several competitive financial products so that they can easily compete with the products of conventional banking and that can attract the new customers for the Islamic Bank. Recently Islamic Banking industry mainly depends on KIBOR which is not Islamic in any ways but still we have not been able to establish exclusive Bench Mark. Scholars in Islamic banking should research and come up with an alternative to this KIBOR. More Research is required to develop new products and for better understanding of the market

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Locus of Control as a Moderator of the Effects of Organizational Commitment and Pay-for-Performance on Performance of Tax Officers

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Abstract: This study aims to determine the effect of organizational commitment and pay-for-performance on performance of tax officers with locus of control as moderating variable. This research is a quantitative descriptive study. Data on this research was obtained through questionaires. Population of this study consists of 104 tax officer of South Makassar Small Taxpayers Office of which is randomly chosen 83 tax officers as a sample to answer research questionnaires. Analysis of this study is using regression analysis with residual analysis method to test the effect of moderating variable. The results of this research indicate that (1) organizational commitment has a positive effect on performance of tax officers, (2) locus of control is able to moderate the effect of organizational commitment on performance of tax officers, (3) pay-for-performance has a positive effect on performance of tax officers, and (4)) locus of control is able to moderate the effect of pay-for-performance on performance of tax officers.

Keywords: *Organizational commitment, pay-for-performance, locus of control, performance, tax officers*

1. Introduction

Taxes play an important role for the government because tax revenues are the main source of state revenues in Indonesia that needed for financing the government spending as well as the key point of implementation the sustainable national development. The contribution of revenues from tax sector managed to provide more than80% of total state revenue. Thus without taxes, most of the government spending activities are hardly undertaken. However, during the last decade, the realization of tax revenue target was only achieved in 2008. The performance realization from several types of tax showed the growth was slowed down due to the volatility of the global economic condition affecting the domestic economy, while on the other hand; state tax revenues target is increasing from time to time. Therefore, the Directorate General of Taxes (DGT) needs to implement strategic policies and technical policies that can improve the achievement of tax revenue and also continue tax reform to continuously improve the DGT's performance. There are two important elements of tax reform, first, DGT institution itself and, second, its human resources. Improving the management control system is needed to be done to help implementation of tax reform, so there will be a goal congruences between the employees and the organization. Employees' performance is the key elements in increasing the organization performance. According to Gibson et al. (2012:10), individual performance is the foundation of organizational performance. This employees performance establishes the organization performance, thus understanding individual behavior is therefore a critical issue for creating effective management control system.

The strategic objectives of DGT's human resources management development is the formation of excellent performance employee. DGT's institutional strengthening in human resources management sector is directed to achieve the objective of excellent performance employee, marked by high level of competence, satisfaction, and employees commitment. The character, attitude, behavior and work culture of a competence DGT's employee, depend on his or her commitment in realizing the excellent performance. The commitment strength of every employee will support the achievement of DGT's objectives. However, the phenomenon that often occurs in an organization is not achieved organizational goals caused by high turnover rate and high absenteeism of the employee, which is an indication of the low level of organizational commitment owned by employees. Employees with low levels of organizational commitment have great potential to negatively affect performance of both colleagues and organization as a whole. Organizational commitment is one of the internal factors that can affect employee performance. Organizational commitment, according to Mowday, Steers and Porter (1979: 226), represents a strong belief in and acceptance of the organization's goals and values, a willingness to exert considerable effort on behalf of the organization, and a strong desire to maintain

membership in the organization. Some studies suggest that there is a positive relationship between organizational commitment and employee performance. According to Meyer et al. (2002: 36) affective and normative commitment correlated positively, and continuance commitment correlated negatively, with job performance. Study conducted by Marganingsih & Martani (2010) showed that organizational commitment proved to have a positive effect on performance. The result of Nydia's (2012) study stated that organizational commitment consisted of affective commitment and continuance commitment have a positive effect on performance, whereas normative commitment has positive effect but not significant on employee performance. However, Murty & Hudiwinarsih (2012) found that organizational commitment partially had no significant effect on performance. Organizational commitment, therefore, remains one of the challenging and intriguing concepts of study in the field of behavior.

The next targets from human resources management development in order to encourage the optimization of DGT's organizational performance are the provision of competitive compensation for employees. The implementations was the issuance of Presidential Regulation No. 37 Year 2015 regarding Performance-Based Benefit of the Directorate General of Taxes' Employee. Provision of performance-based benefits (pay-for-performance) is one of the tool for management to control its employee's behavior. It is hoped that with the existence of competitive performance-based benefits can create goal congruence between tax officer and DGT institution, so with the motivation of employee in doing their job will increase the achievement of tax revenue target as the purpose of organization. Pay-for-performance is one of the external factors that influence the effort in improving employee performance. Several previous studies have shown that giving a performance-based benefits has a positive effect on employee performance. Studies conducted by Muryanto (2011) & Iqbal et al. (2013) show that compensation including benefits has a significant effect on employee performance. The results of this study also supported by Hardani et al. (2016) which states that the pay-for-performance affects the performance of civil servants. However, research conducted by Marganingsih & Martani (2010) states that monetary rewards, in the form of salaries and benefits, are not proven to have a positive effect on performance. Murty & Hudiwinarsih (2012) also shows that compensation has no significant effect on employee performance.

Both pay-for-performance and organizational commitment are a condition and behavior that affect employee performance. The condition that comes from within the individual is called the internal factor (individual), while the condition that comes from outside the individual is called the external factor (situational). The factors that affect the performance consist of internal factors and external factors (Mangkunegara, 2006:15). These internal and external factors are the types of attributions that affect one's performance. The application of attribution theory in behavioral accounting study is using locus of control variable. Using locus of control, work behavior may be explained by whether employees perceive their outcomes as controlled internally or externally (Luthans, 2011:174). According to Rotter (1966:1) locus of control is define as the degree to which the individual perceives reinforcement or outcome in their lives. A person termed as an individual who has internal locus of control, if the person perceives that the event is contingent upon his own behavior or his own relatively permanent characteristics, so when they perform well, they belief that it is due to his own efforts. While individuals with external locus of control expect that the reinforcement or outcome is a function of chance, luck, or fate, are under the control of powerful others, or is simply unpredictable, so when they perform well they are convinced that it is luck.

Study conducted by Abdulloh (2006) shows that locus of control has a positive effect on employee performance. The results of this study are also supported by Erdawati (2015) which shows that locus of control has a positive effect on employee performance. It can be said that the stronger the locus of control the stronger the performance of employees (Ayudiati, 2010: 58). More detailed results indicated by Saputra (2012) study which states that internal auditors who have internal locus of control show higher performance than internal auditors who have external locus of control. In this study, we analyzed the organizational commitment and pay-for-performance on performance of tax officers. The difference of this study with previous studies lies in using locus of control as moderating variables. The use of other variables acting as a moderating variable is a contingency approach used in resolving differences due to inconsistencies in results from various studies. By means of whether organizational commitment and pay-for-performance will increase or decrease performance depending on contingency variables that moderate the relationship between these variables. Coleman, Irving, and Cooper (1999:999) found significant relations between locus of

control and organizational commitment, specifically, significant relations between internal locus of control and affective commitment. In addition, the relationship between locus of control and reward, according to Spector (1982:493) that organizational setting in which rewards are tied to performance would be expected to work well with internals and poorly with externals. Thus, we assume that internal locus of control will increase the relationships between organizational commitment and employee performance, and will also improve the relationship between pay-for-performance and employee performance.

We conducted study on tax officer at one of vertical unit of Directorate General of Taxes of Ministry of Finance of the Republic of Indonesia, that is South Makassar Small Taxpayers Office (SMO) which have working area i.e. sub-district Panakkukang, Manggala, Rappocini, and Makassar. As one of the tax office that serves taxpayers in the business district of Makassar City, South Makassar SMO employees are required to perform excellently in providing services to taxpayers and to increase tax revenue. Excellent performance employee is characterized by a high commitment to the organization. Also, employees of South Makassar SMO have received a pay-for-performance in accordance with Presidential Regulation No. 37 Year 2015 in order to improve employee performance. The purpose of this study are to test and analyze the effect of organizational commitment and pay-for-performance on the performance of tax officers, and also the effect of organizational commitment and pay-for-performance on the performance of tax officers moderated by the locus of control.

2. Literature Review

Attribution Theory: Attribution theory helps us to understand how people perceive the causes of events, assess responsibility for outcomes, and evaluate the personal qualities of the people involved (Schermerhorn et a., 2014:61). The attribution process involves deciding whether an observed behavior or event is caused mainly by the person (internal factors) or by the environment (external factors) (McShane et al., 2010:75). When we observe an individual's behavior, we attempt to determine whether it was internally or externally caused (Robbins and Judge, 2013:168). That determination, however, depends largely on three factors:
- *Distinctiveness,* refers to whether an individual displays different behaviors in different situations.
- *Consensus*, if everyone who faces a similar situation responds in the same way.
- *Consistency*, if the person responds the same way over time.

Expectancy Theory: Victor Vroom's expectancy theory says a person's motivation to exert some level of effort depends on three things: the persons *expectancy* (in terms of probability) that his or her effort will lead to performance; *instrumentality*, or the perceived connection (if any) between successful performance and actually obtaining the rewards; and *valence*, which represents the perceived value the person attaches to the reward (Dessler, 2012:394). Expectancy theory argues that the strength of our tendency to act a certain way depends on the strength of our expectation of a given outcome and its attractiveness. In more practical terms, employees will be motivated to exert a high level of effort when they believe it will lead to a good performance appraisal; that a good appraisal will lead to organizational rewards such as bonuses, salary increases, or promotions; and that the rewards will satisfy the employees' personal goals (Robbins and Judge, 2013:224).

Reinforcement Theory: Reinforcement theory sees behavior as a consequences of environment. B.F. Skinner's reinforcement/behavior modification theory means changing behavior through rewards or punishments that are contingent on performance. There are two main principles, first, that behavior that appears to lead to a positive consequence (reward) tends to be repeated, whereas behavior that appears to lead to a negative consequence (punishment) tends not to be repeated; and second, that, therefore, managers can get someone to change his or her behavior by providing the properly scheduled rewards (or punishment) (Dessler, 2012:395). Usingarewardto encourage high performance is consistent with dengan reinforcement theory, which holds that behavior is caused by chains of antecedents and consequents. A key principle from reinforcement theory is thus that compensation should be based on performance so that better performers receive more than low performers, in practice is known as pay-for-performance (Stewart and Brown, 2011:419-420).

Performance: Performance means a result of work or work achievement. Job performance is a contribution that individuals make to the organization that employs them (Stewart and Brown, 2011:297). Mangkunegara

(2006:9) defines performance of employees as work achievement or output both quality and quantity achieved by employees in period of time in carrying out their work duties in accordance with the responsibilities given to him. Performance appraisals are used to assess an employee's performance and provide a platform for feedback about past, current, and future performance expectations (Mathis & Jackson, 2011:329). The objectives of performance appraisals are to reward past performance and to motivate future performance improvement (Gomes, 2003:135). The tax officers' performance of this study was assessed by dimensions according to Chung and Megginson (1981: 375-376) in Gomes (2003: 142), as follows.

a. *Quantity of work*, the amount of work specified in a period of time.
b. *Quality of work*, the suitability of work quality based on the conditions specified.
c. *Job knowledge*, the breadth of knowledge about jobs and skills possessed.
d. *Creativeness*, authenticity of ideas raised and actions to solve problems.
e. *Cooperation*, willingness to cooperate with others.
f. *Dependability*, awareness and can be trusted in terms of attendance.
g. *Initiative*, the spirit to carry out new tasks and have initiatives in their work.
h. *Personal qualities*, integrity, leadership, hospitality, and professionalism.

Organizational commitment: Organizational commitment is the degree of loyalty an individual feels toward the organization (Schermerhorn et al., 2014:85). Commitment is a psychological state that characterizes the employee's relationship with the organization, and has implications for the decision to continue or discontinue membership in the organization (Meyer and Allen, 1991:67). Meyer and Allen identified three distinct themes in the definition of organizational commitment in the three-component model include three approaches as affective, continuance and normative commitment as described below.

a. The *affective* component of organizational commitment, proposed by the model, refers to employees' emotional attachment to, identification with, and involvement in, the organization. Employees with strong affective commitment remain with the organization because they want to (Meyer and Allen, 1990:1-3).
b. The *continuance* component refers to commitment based on the costs that employees associate with leaving the organization. This means there is an advantage associated with the continuity of participation in the organization and also the costs associated of leaving the organization. Employees with strong continuance commitment remain with the organization because they need to (Meyer and Allen, 1990: 1-3).
c. The *normative* component refers to employees' feelings of obligation to remain with the organization. The internalization of normative believes in the duty and obligation to make a person feel obliged to continue his membership in the organization. Employees with strong normative commitment remain with the organization because they feel they ought to do so (Meyer and Allen, 1990: 1-3).

Pay-for-performance: Pay-for-performance is one of the component of compensation in financial form of direct payment pay which is a quantitative reward received by employees in return for their performance. The overall purpose according to Mondy dan Martocchio (2016:247) is to attract, retain, and motivate employees. Pay-for-performance are incentive plans that tie employee's pay to the employee's performance (Dessler, 2012:395).Pay-for-performance represents income other than salary given to employees based on competence and performance. Pay-for-performance within the Ministry of Finance are given to the employees monthly in accordance with employee's grading and employee's performance achievement, especially within the DGT is also based on the performance of the tax revenue realization. Performance of each employee is measured in accordance with the achievement of performance indicators targets that have been set. Through this mechanism, then the output of employees can be assessed objectively and then the assessment results are used as a reference in determining the performance-based benefits received.According to Sidig (2016: 45) performance allowances are relativelly measured to the following dimensions.

a. *Employee's performance*, realization of performance indicators, quality of work, and achievements of tax revenue realization.
b. *Employee's potentials*, technical competence, work experience, and level of education.
c. *Employee's activities*, workload, working hours and job risk level.
d. *Employee's contribution to organizational productivity*, tenure and work experience.
e. *Employee's needs*, ability to meet the primary needs.

Locus of Control: Locus of control is defined as a person's general belief about the amount of control he or she has over personal life events (McShane et al., 2010:45).Locus of control refers to the degree to which persons expect that a reinforcement or an outcome of their behavior is contingent on their own behavior or personal characteristics versus the degree to which persons expect that the reinforcement or outcome is a function of chance, luck, or fate, is under the control of powerful others, or is simply unpredictable because of the great complexity of the forces surrounding them (Rotter, 1966:1). A person who perceive internal locus of control fell that they personally can influence their outcome through their own ability, skills, or effort. A person who perceives external locus of control fell that their outcomes are beyond their own control, that external forces such as luck control their outcomes.Locus of control consists of the following dimensions.

a. Internals, a person's feelings as if the consequences of his actions depend on his personal behavior or characteristics, and believe that destiny is controlled by oneself.
b. Externals, a person's belief that what happens to him is beyond his control and determined by external forces, and assumes that outcomes are the result of luck, destiny or opportunity, and the consequences are usually unpredictable.

The Effects of Organizational Commitment on Performance: Meyer dan Allen in three-component model of commitment theory express organizational commitment perceived by employees as a simultaneous mindset that includes affective, normative and continuance commitment. This commitment is a construct of work attitude that reflects a fundamental evaluation of one's work experience and which will ultimately predict behaviors such as turnover and employee performance. The study results of Mguqulwa (2008), Marganingsih & Martani (2010), Nydia (2012), Memari et al. (2013), and Giri et al. (2016) showed that organizational commitment has a positive effect on performance. This results are in accordance with Mowday, Steers and Porter (1979) suggesting that organizational commitment may lead to higher levels of performance. Based on the description earlier, we assume that someone who has a commitment to the organization will have a positive impact on performance. The following hypothesis summarizes the prediction that performance depends on organizational commitment.

H1: Organizational Commitment has a positive effect on performance of tax officers

The Effects of Organizational Commitment and Locus of Control on Performance: Employees' initial commitment to an organization is determined largely by their individual characteristics and how well their early job experiences match their expectations (Hellriegel et al., 2011:92). Personality characteristics can be explained by attribution theory, according to Gibson et al. (2012:97) is a causes of one's behavior. Attribution theory provides insight into the process by which we assign cause or motives to people's behavior that emphasize some aspect of the individual (dispositional attribution) or emphasizes the environment's effect on behavior (situational attribution). One's personality characteristics can be described from their locus of control, which explains how people see the control of their lives as coming from inside themselves (internalizers) or people who believe that their lives are controlled by external factors (externalizers) (Qamar et al., 2012:111). Several studies showed locus of control associated with affective commitment (McMahon, 2007: 35) that in accordance with what described by Meyer et al. (2002: 32) in meta-analysis of variables associated with organizational commitment i.e. external locus of control negatively associated with affective commitment. Locus of control also was related to normative commitment and continuance commitment, such that individuals with internal locus of control tend to feel obligated to their organizations and those with external locus of control tend to report a need to work for their organizations (McMahon, 2007:35).Locus of control also have a significant relations with organizational commitment, specifically, significant relations between internal locus of control and affective commitment (Coleman, Irving, & Cooper, 1999:999). Other studies have also find that locus of control and organizational commitment have a positive effect on performance (Julianingtyas, 2012).Internal locus of control affecting organizational commitment, so the effect of organizational commitment to performance will also increase. The following hypothesis summarizes the prediction described above.

H2: Locus of control moderates the effect of organizational commitment on performance of tax officers

The Effects of Pay-for-performance on Performance: Attribution theory explains that one's behavior can be caused by a combination of internal factors and external factors. Based on these two factors, one will be motivated to understand the environment and the causes of certain events. The expectancy theory states that individuals are motivated to work when they believe that effort will be followed by a particular level of performance (expectancy), performance will lead to reward (instrumentality), and satisfaction that an individual feel toward the rewards (valence). The implication of expectancy theory to motivate employees is changing one's expectations of the effort-to-performance, performance-to-reward, and reward valence relationships (Hellriegel et al., 2011; McShane et al., 2010). To improve employees' performance, the organization must ensure that the employees believe that successful performance will in fact lead to getting reward. Using compensation mechanisms, incentive can be a powerful if linked to employees performance. The compensation system that link rewards to performance is known as pay-for-performance. The concept of pay-for-performance is also consistent with the reinforcement theory. It states that behavior that appears to lead to a positive consequence (reward) tends to be repeated, and someone can change his or her behavior by providing the properly scheduled rewards (Steward, 2011; Dessler, 2012). The principle is that compensation should be based on performance so that better-performing employees earn higher payouts. Bonner et al. (2000) indicates that financial incentives have a positive effect on performance. Muryanto (2011) also found a positive and significant influence of compensation on performance. It is also supported by Hardani et al. (2016) state that performance-based benefits have a significant positive effect on the performance of civil servants. In accordance with the expectancy theory and reinforcement theory, we assume that incentive given to employees on the basis of its performance has a positive effect that can increase their employees' performance. The following hypothesis summarizes the prediction described above.

H3: Pay-for-performance has a positive effect on performance of tax officers

The Effects of Pay-for-performance and Locus of Control on Performance: Pay-for-performance is one of the environmental factors that affect one's performance, which is also related to their behavior. In the expectancy theory Vroom (1964) explained that effort will lead to good job performance and that good performance will lead to rewards. If an individual hold both expectancies strongly, he or she will have high job motivation and will perform well (Spector, 1982:487). If related to locus of control, then someone who has internal locus of control should hold higher expectancies of both varieties than externals would, thus, internals are motivated to perform better. Internals will show greater effort towards achieving rewards or achieving goals because they are more likely to believe their efforts will result in good performance. Spector (1982) states that organizations that link rewards to performance or performance-based reward systems will motivate someone with internal locus of control to perform better than external. According to Spector (1982: 488), employee with internal locus of control will perform better than externals in complex task situations because they exhibit stronger beliefs in their own competence as well as the likelihood of rewards being accepted. Hyatt (1995), Hyatt and Prawitt (2001), Noer & Raharjo (2007) studied the relations between locus of control and performance, stated that performance was affected by locus of control. Julianingtyas (2012) and Erdawati (2015) also supported this result, which suggest locus of control has a positive effect on performance. Based on the description above, we assume that locus of control affects a person in achieving performance with performance-based rewards as a motivation, thus, improving the relationship between pay-for-performance and employees' performance. The following hypothesis summarizes the prediction described above.

H4: Locus of control moderates the effect of pay-for-performance on performance of tax officers

3. Methodology

Participants and Data Collection Procedure: The population of this study is all employees at South Makassar SMO consisting of 104 employees. Sampling technique used to determine total sample of this study is probability sampling with simple random sampling technique. Determination of the number of samples in this study using Slovin formula in Sujarweni and Endrayanto (2012: 17). Thus, the study sample taken for a population of 104 tax employees at 95% confidence level, and 5% error rate are 83 respondents. Data collection techniques conducted in this study is using questionnaires that were delivered to employees at South Makassar SMO.

Instruments

***Performance*:** Performance instruments use the scale adopted from Nydia (2012) based on Chung and Megginson (1981) as well as Gomes (2003: 142) indicators. This instrument consists of 14 items of statements that have choices from strongly agree (5) to strongly disagree (1). Cronbach Alpha value of organizational commitment is 0.924. Cronbach Alpha value of Performance is 0.882.

Organizational Commitment: Organizational commitment instruments adopt the Organizational Commitment Scale (OCS) developed by Meyer, Allen and Smith (1993). This instrument uses 15 statement items, i.e. 5 Affective Commitment Scale items (ACS), 5 Continuance Commitment Scale items (CCS), 5 Normative Commitment Scale items (NCS), which have choices from strongly agree (5) to strongly disagree (1).

Pay-for-performance: Pay-for-performance instrument adopted from Sidig (2016) and based on Presidential Regulation No. 37 Year 2015. This instrument consists of 12 items of statements that have choices from strongly agree (5) to strongly disagree (1). Cronbach Alpha value of pay-for-performance is 0.953.

Locus of Control: The locus of control instrument adopted the Work Locus of Control Scale (WLCS) developed by Spector (1988). WLCS is a measurement of locus of control in the work environment. This instrument uses 8 items of WLCS Spector (1988) which has a score of 1 (strongly disagree) to 6 (strongly agree). Cronbach Alpha value of locus of control is 0.949.
The result from validity test of instrument of organizational commitment, pay-for-performance, locus of control, and performance by using Pearson's Correlation Product Moment showing all item of the statement are valid because it has significance value <0,05.

Analysis: Data analyzed using IBM SPSS Statistics 23 and hypotheses tested by using regression analysis. The method used to test the effect of moderating variable is residual test. This method is used because interaction test and absolute difference test has a tendency to occur high multicollinearity among independent variables, so that would violate the classical assumption in ordinary least square regression (OLS). This residual analysis tests the effect of deviations from a model that focuses on the mismatch resulted from the deviation of the linear relationship between the independent variables. If there is a match between independent variables and moderator variables (small or zero residual values) i.e. high independent variables and moderation variables are also high, then the dependent variable is also high. Conversely, if there is a mismatch between independent variables and moderation variables (large residual values) i.e. high independent variables and low moderation variables, then the dependent variable will be low. The existence of the moderation variable is shown by the significant and negative regression coefficient (β) in the absolute value of residual regression equation, which mean the moderator variable is able to moderate the relationship between the independent variable and the dependent variable (Ghozali, 2016:228).
The equation for the first hypothesis (H1) testing between Organizational Commitment (OC) and Performance (P) is as follows.

$$P = \alpha + \beta_1 OC + \varepsilon \quad\quad\quad (1)$$

The steps of residual analysis in the second hypothesis (H2) testing with independent variables Organizational Commitment (OC), moderating variable Locus of Control (LOC), and dependent variable Performance (P) are as follows.

$$LOC = \alpha + \beta_2 OC + e \quad\quad\quad (2)$$
$$|e| = \alpha + \beta_2 P + \varepsilon \quad\quad\quad (3)$$

The equation for the third hypothesis (H3) testing between Pay-for-Performance (PfP) and Performance (P) is as follows.

$$P = \alpha + \beta_1 PfP + \varepsilon \quad\quad\quad (4)$$

The steps of residual analysis in the fourth hypothesis (H4) testing with independent variables Pay-for-Performance (PfP), moderating variable Locus of Control (LOC), and dependent variable Performance (P) are as follows.

$$LOC = \alpha + \beta_4 PfP + e \quad\quad\quad (5)$$
$$|e| = \alpha + \beta_4 P + \varepsilon \quad\quad\quad (6)$$

Notes:

α	=	constant	|e|	=	absolute value of residual
β	=	regression coefficients	ε	=	error
e	=	residual			

4. Result

Assumptions Of The Classical Model Test

Normality Test: Normality test is done by using histogram and normal probability plot analysis. Based on the histogram graphical view and the normal probability plot it can be concluded that the histogram graph shows the normal distribution pattern, whereas in the normal graph the probability plot shows spots spread around the diagonal line and follows the direction of the diagonal line. These two graphs show that the regression model meets the assumption of normality. The results of the graph analysis show that the residual data is normally distributed. It is also reinforced by Kolmogorov-Smirnov (K-S) statistical test with the value of Test Statistic K-S is 0.076 and the probability value of Monte Carlo significance is 0.701> 0.05, so it can be concluded the residual data is normally distributed.

Heteroscedasticity Test: Heteroscedasticity test was performed by using glejser test. Based on the results of glejser test, there is no independent variables statistically significant affect the Absolute Residual of Performance (AbsUt). The probability value of significance above the confidence level 5%. So, it can be concluded the regression model does not contain any heteroskedasticities in the error variance. The glejser test giving the following results.

$\|\widehat{Ut}\|$	=	7,725	- 0,055 OC	+ 0,008 PfP	-0,057 LOC		
se	=	(2,516)	(0,037)	(0,043)	(0,045)		
t	=	(3,071)	(-1,489)	(0,186)	(-1,253)	R^2 =	0,011

Hypothesis Testing

First Hypothesis Testing: The first hypothesis testing (H1) between organizational commitment (OC) and performance (P) is using linear regression analysis. The regression is presented in the following results.

$\widehat{P}$	=	48,795	+ 0,180 OC		
se	=	(3,134)	(0,056)		
T	=	(15,572)	(3,196)	R^2 =	0,101

The regression result shows that the adjusted R^2 is 0.101. This means that 10.1% of performance variation can be explained by organizational commitment, while the remaining 89.9% is explained by other variables or causes by other beyond the model. The regression coefficient value of organizational commitment is 0.180 and the t value is 3.196 with a probability significance of 0.002 far below 0.05. This means that the performance is affected by organizational commitment.

Second Hypothesis Testing: The second hypothesis test (H2) between organizational commitment (OC) and performance of tax officers (P) with locus of control (LOC) as moderator variable, is using residual test. The regression of the absolute value of the locus of control (X_3) residuals obtained from regression with organizational commitment (X_1), were regressed on performance (Y), giving the following results.

$\widehat{e}$	=	17,273	- 0,186 Performance		
se	=	(5,409)	(0,092)		
T	=	(3,193)	(-2,030)	R^2 =	0,037

The results of residuals test above shows the regression coefficient parameters value is -0.186 with probability significance of 0.046. A variable is said to be a moderator variable if it has a negative and

significant parameter coefficient value. Thus the locus of control is considered as a moderator variable because it has a negative and significant parameter coefficient value at 5% error rate which means it can strengthen the relationship between organizational commitment and performance.

Third Hypothesis Testing: The third hypothesis test (H3) between pay-for-performance (PfP) and performance (P) is using linear regression analysis. The regression is presented in the following results.

$\widehat{P}$	=	48,902	+ 0,212 PfP		
se	=	(3,064)	(0,066)		
T	=	(15,958)	(3,235)	R^2 =	0,104

The regression result shows that the adjusted R^2 is 0.104. This means that 10.4% of performance variation can be explained by pay-for-performance, while the remaining 89.6% is explained by other variables or causes by other beyond the model. The regression coefficient value of organizational commitment is 0.212 and the t value is 3.235 with a probability significance of 0.002 far below 0.05. This means that the performance is affected by pay-for-performance.

Fourth Hypothesis Testing: The fourth hypothesis test (H4) between pay-for-performance (PfP) and performance of tax officers (P) with locus of control (LOC) as moderator variable, is using residual test. The regression of the absolute value of the locus of control (X_3) residuals obtained from regression with pay-for-performance (X_2), were regressed on performance (Y), giving the following results.

$\widehat{\|e\|}$	=	18,608	- 0,210 Performance		
se	=	(5,402)	(0,092)		
T	=	(3,444)	(-2,293)	R^2 =	0,049

The results of residuals test above shows the regression coefficient parameters value is -0.210 with probability significance of 0.024. A variable is said to be a moderator variable if it has a negative and significant parameter coefficient value. Thus the locus of control is considered as a moderator variable because it has a negative and significant parameter coefficient value at 5% error rate which means it can strengthen the relationship between pay-for-performance and performance.

Discussion

Organizational Commitment Positively Affects Performance of Tax Officers: As predicted, organizational commitment has a positive effect on performance of tax officers at South Makassar SMO. Thus, hypothesis 1 is supported because it is empirically proven. These results prove that the organizational commitment can increase performance of the employees. The result of this study is consistent with Giri et al. (2016), Memari et al. (2013), Marganingsih & Martani (2010), and Mgulqulwa (2008). The results of their research generally state that organizational commitment possessed a positive effect on one's performance. The results of this study reinforce theoretical concepts by Mowday et al. (1979:240-241) that say the commitment to be modestly related to employee performance, that employee who has high level of organizational commitment may also lead to higher levels of performance. This study also confirms the attribution theory. Organizational commitment as an internal factor that comes from within a person affects his behavior. Organizational commitment establishes causal relationships with behavior, which can influence a person in responding behavior and act in the future. Employees tend to show high performance when they associate their success with internal factors. Meyer and Allen (1991:78) said that employees who perform at a high level of proficiency may become committed to that level of performance and, consequently, develop a more positive attitude toward the organization. Once developed, the attitude may ensure the continuation of high level of performance in the future.

Locus of Control Moderates the Effects of Organizational Commitment on Performance of Tax Officers: The results prove that locus of control is a moderating variable in the relationship between organizational commitment and performance of tax officials at South Makassar SMO. Thus, hypothesis 2 is supported because it is empirically proven. The results of this study indicate that the internal locus of control can

strengthen the influence of organizational commitment on the performance of the employees, so the higher the internal locus of control and organizational commitment that an employee has, the higher the performance of the employee. This result is consistent with Coleman et al. (1999) and Spector (1988) which states that the internal locus of control is related to organizational commitment. Luthans et al. (1987) provided potential explanations for the relationship between locus of control and commitment, i.e. those with internal locus of control are likely to report higher levels of commitment because they perceive that they have control over their work environment, so internals will feel more committed to the organization that they decide to join, and are expected to remain with an organization. This study also confirms the attribution theory. Attribution theory divides the cause of a person's behavior in general that is influenced by self (internal factor) or environment (external factor). Locus of control as a personal characteristic can affect a person's behavior and consequences in their life. Locus of control has two main forms: internal and external. Internals tend to attribute positive outcomes to their abilities and negative outcomes with their weaknesses, while external tend to attribute outcomes to environmental reasons. Internal locus of control would perform better on the job than external because they hold greater expectancies that effort will lead to performance (Spector, 1982: 488). That's also confirms the expectancy theory, which internally exert greater efforts because they show a strong belief in their competence, and ultimately, greater effort should lead to better performance across individuals.

Pay-for-Performance Positively Affects Performance Of Tax Officers: As predicted, pay-for-performance has a positive effect on performance of tax officers at South Makassar SMO. Thus, hypothesis 3 is supported because it is empirically proven. These results prove that using performance-based benefits is the key to increasing the employees' performance because it can encourage employees to work better, so that will impact on improving overall performance of organization. The results of this study is consistent with Hardani et al. (2016), Muryanto (2011), Weibel et al. (2009), and Bonner et al. (2000), which indicates that pay-for-performance or compensation and incentives provided on the basis of performance achievement have a positive effect on employees' performance. Similarly, the results of this study indicate that the implementation of the provision of benefits based on performance can encourage employees to increasing its performance in order to increase state revenue from the taxes sector. This is in line with the objective of the stipulation of Presidential Regulation Number 37 Year 2015 in DGT.

This study also confirms the theory of attribution, i.e. the behavior of a person is determined by the cause or motive in relation to personality characteristics or with the situation where it happens. In this case, someone will respond to the reward to act in the future. When a person is rewarded for a task or a job, they tend to relate his behavior to the reward. In addition, the results of this study also confirm the theory of expectancy and reinforcement theory. According to expectancy theory, performance-reward relationship, where rewards are linked to one's performance, there will be a tendency to meet his performance standards and hoping in maximizing the rewards that they received. According to reinforcement theory, behavior that appears to lead to a reward tends to be repeated, and someone can change his or her behavior with the reward received. Rewards were reliably found to increase the likelihood that the behavior would emit again, an effect that persisted as long as the reward contingency was operative, so rewards can be used as motivational strategies and behavior-change programs (Deci et al., 1999: 627). Similarly, if pay-for-performance associated with performance. Employees tend to link their behavior with pay-for-performance, so they will meet their performance indicators or standard with the hope of getting maximum rewards. This behavior will continue to be repeated, so it can change employees' behavior with pay-for-performance and then it will lead to higher performance of employees.

Locus of Control Moderates the Effect of Pay-for-Performance on Performance Of Tax Officers: The results prove that locus of control is a moderating variable in the relationship between pay-for-performance and performance of tax officers at South Makassar SMO. Thus, hypothesis 4 is supported because it is empirically proven. The results of this study indicate that the internal locus of control can strengthen the effect of pay-for-performance on performance of tax officers at South Makassar SMO, so the higher the internal locus of control and level of satisfaction that an employee feel about pay-for-performance received, the employees' performance will also be higher. This result is consistent with Pisca (2011) which states that an employee with incentive and internal locus of control has higher performance than an employee with an external locus of control. Gagne and Deci (2005) suggests that individuals with internal locus of control are

less likely to see external factors such as rewards as a control over their behavior and are, therefore, less likely to feel externally controlled over the rewards. Consequently, the individual with the internal locus of control views the reward as an opportunity and indicator of his or her competence, thus experiencing a positive influence on rewards on his intrinsic motivation when he feels responsible for his or her performance.

This study also confirms the attribution theory. Attribution theory divides the cause of a person's behavior in general that is influenced by internal factor or external factor. Locus of control can affect a person's behavior and consequences in their life. Locus of control has two main forms: internal and external. Konopaske et al. (2016:70) explains that in organizational settings, internals usually do not require as much supervision as do externals because they are more likely to believe their own work behavior will influence outcomes such as performance, promotions, and pay. Internal locus of control hold greater expectancies that effort will lead to good performance, and good performance will get reward(Spector, 1982:488). Hal ini sesuai denganTheory expectancy, yang berfokus pada effort-performance relationship dan performance-reward relationship. Clearly, as has been state in reinforcement theory, the locus of control is the common hope of a person with respect to the forces that determine reward and punishment (Rotter, 1966). Desirable or reinforcing consequences (e.g., recognition in the feedback program of doing an excellent job) will increase the strength of a behavior (e.g., high-quality performance) and increase its probability of being repeated. Undesirable or punishment consequences will decrease the strength of a response and decrease its probability of being repeated (Konopaske et al., 2016:164).

5. Conclusion

Based on research objectives, hypotheses, and the results of analysis and discussion, then the conclusions of this study are as follows.
- There is a positive effect of organizational commitment on the performance of tax officers at South Makassar SMO. The results of this study indicate that the higher the commitment of employees to the organization, the higher the performance of the employees.
- Locus of control is able to moderate the effect of organizational commitment on the performance of tax officers at South Makassar SMO. The results of this study give the meaning that the higher internal locus of control and organizational commitment owned by employees, the higher the performance of employees.
- There is a positive effect of pay-for-performance on the performance of tax officers at South Makassar SMO. The results of this study indicate that performance-based benefits can encourage and motivate employees to perform well.
- Locus of control is able to moderate the effect of pay-for-performance on the performance tax officers at South Makassar SMO. The results of this study indicate that the higher the internal locus of control and employee satisfaction on the performance-based benefits they received, the higher the performance of the employee.

Suggestions: Based on the conclusions as described above, it can be raised some suggestions related to increasing the performance of tax officers and advice for future research as follows. Increasing organizational commitment can be done by reviewing policies related to human resources management in order to foster a sense of identification, involvement and loyalty of employees to the organization, so that employees will feel accepted as an integral part of the organization, creating an atmosphere of mutual support between employees and organization, and also the willingness of employees to contribute with maximum effort for the organizational goals. Conduct monitoring and evaluation in relation to the conformity of performance-based benefits received by employees with employee performance indicators, employees' potentials, employees' activities, employees' contribution to organizational productivity, and employees' primary needs that must be filled. This is expected to satisfy personal goals and employee needs. Also, pay-for-performance should still be considered attractive by employees, so that employees feel appreciated for their work or efforts to achieve organizational goals.

Personal characteristic factor i.e. locus of control has relations within increasing the effect of organizational commitment and pay-for-performance on employees' performance. The internal locus of control has a

stronger effect than the external. Therefore, employees should be given the opportunity to contribute, take the initiative in making decisions, so that employees are more confident and always try to improving his ability to complete the task as expected. The independent variables included in this study are still limited. Not all issues related to employees' performance are included in this study. Therefore, it is necessary to add other factors that influence the performance of employees so that future study will make more complete research. It's still needed to do study on locus of control aspect which acts as moderator variable to see consistency of the result in this study. In addition, there are other moderator variables that may increase the effect of organizational commitment and pay-for-performance that affecting on increasing employees' performance.

Limitations of Study: This study has some limitations that should be an attention for the future study. The limitations in this study are as follows. The questionnaire to assess the performance variable is susceptible to the possibility of perception bias because the respondent provides a performance assessment on his own (self-rating). The respondent is likely to give an excessive assessment of him or herself (covering up the actual situation).This study only using tax officers from South Makassar Small Taxpayer Office, there may be differences of perception of tax officers on other Tax Office.

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