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FINANCIAL AND ECONOMICAL DETERMINANTS OF INDIRECT INVESTMENT

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ABSTRACT

The study aims at identifying the most important financial and economic determinants of indirect investment at Amman Stock Exchange-ASE during 2003-2017. The study adopted descriptive and analytical approach in conducting the research and testing hypotheses by employing secondary sources that include the literature related to the subject of the study. The study community consisted of indirect investments (Stock) at ASE while industrial and services sectors were selected as the study sample due to these sectors contributions in the Jordanian economy. The study concluded the absence of any statistical impact of the economic and financial indicators on the annual growth rate of indirect investments volume in the industrial sector while economic indicators has a statistically significant effect on the annual growth rate of Indirect investments within the services sector, where rate of economic growth and stock multiplier have reflected the highest impact on the annual in service sector.

Based on the above results, the study recommends, decreasing interest rate and seeking to provide a suitable platform to encourage direct and indirect investment in the country, that ultimately will lead to overall economic development. More attention should be exercised toward increasing the country`s production capacity, that will improve the economic indicators trend.

Keywords: Determinants, Indicators, Economic Indicators, Indirect Investments, Amman Stock Exchange

INTRODUCTION

Financial system role is considered to be economic growth yardstick. A well-developed and organized financial system enhances investments by exploring and financing business opportunities, driving savings, allocating resources efficiently and diversify risks (Mishkin, 2001). The role played by financial markets development, in particular securities market in elevating economic growth is no longer a disputable issue (Al-Malkawi et al., 2012; Greenwood et al., 2013; Uddin et al., 2013). Recently financial markets are critically becoming more unstable and volatile. Stock markets instability and volatility increases risk associated with investment. Factors that causes stock market fluctuation has always been an area of concern for investors, academicians professionals.

Investment is one of the main drivers of the country`s economy, as it is defined as "investing funds in a particular asset or a number of assets in order to obtain future flows" (Reilly & Brown, 2003), also (Kevin, 2008) has defined investment as "abandoning the individual's funds in a certain moment versus obtaining future flows to compensate it in the future". Economic activity can be stimulated by increasing the volume of investments, which has a positive impact on the financial market (Ranjan, 2009). The importance of investing in securities lies in financing projects, especially in the light of the limited and insufficient availability of internal financial resources. There is a kind of disagreement regarding financial markets

importance in pooling local savings and attracting foreign investment portfolios, especially a large part of the international capital movement is reflected in the form of the purchase of title deeds or debt securities. In this context, developing countries, including Arab countries, have tended to establish stock markets, and have sought to develop them continuously in order to increase their efficiency, and attract investments, through the enactment of various laws and regulations that regulate their work and control their dealings (Al Shabib, 2011). Additionally, through adopting the latest communication and dissemination technology and the enactment of financial liberalization policies, to link domestic financial market with global financial markets and by allowing the entrance of foreign investors, in an effort to increase its capacity of pooling savings and attract foreign investment, this ultimately will lead to overall economic advancement (Beata, 2004).

Financial markets are considered one of the most important markets that offer financial assets which include stocks, bonds and sophisticated trading methods. Financial markets are considered as a channel for savings as well as investment in the economic system. The major economic importance of the financial market is to increase fiscal surpluses attraction, and stimulate the national economy by driving economic development (Mody & Murshid, 2005).

Amman Stock Exchange is one of the most important channels in Jordan devoted toward the flow of available domestic and foreign financial resources. This study will investigate the impact of financial indicators such as (Stock Market Value Risk Degree-SMRD, Earnings Per Share-EPS, Book Value Per Share-BVS, Stock Turnover-ST, Stock Price Multiplier-SPM) and economic indicator namely: (Rediscount Rate-RR, Inflation Rate-IR, Economic Growth Rate-EG) on indirect investment volume at ASE (Industrial Sector and Industrial Sector).

PROBLEM STATEMENT

Since financial markets are the major channels that pool savings and direct them to various economic activities, but still there are many studies that have shown contradicting results regarding the success of financial markets in attracting indirect investment. Kodithuwakku (2016); Zurigat & Gharaibeh (2011) concluded a positive impact on investment, while Chaudhuri & Smiles (2004) indicted a negative impact on investment. Financial markets trading volume is a key indicator of the country's economic growth rate, economic health and investment activity level, thus, many countries endeavor to encourage and attract investment in security market through reducing investment constraints and facilitating the exchange of funds and its mobility. This study will focus on two major issues: the key determinants of indirect investment volume and determining the most important variables that impose a major impact on indirect investment at ASE.

LITERATURE REVIEW AND PREVIOUS STUDIES

Investment is of prominent importance to both national economy as well to business entities, particularly banks, financial institutions and stock exchanges. Investment is considered as key element in maximizing enterprise’s value through the huge volume of cash flow involved and its impact on growth rates and shares` market value (Lucio, 2008). The growing importance of securities market around the world has reinforced the concept that finance is an important component for economic growth. Most economists perceive that a well-organized security market is pivotal for deploying both the national and international capital. Thus, Brealey & Myers (2002) suggest, capital market deals with attracting financial resources and channeling them in the most feasible investments.

Investment Concept

Economists' views regarding investment`s definition differ. Kenneth (2007) defined Investment as: “Giving up money owned by an individual at a certain period of time with a view to obtaining future financial flows that compensate him for the present value of the invested funds, as well as the expected decrease in their purchasing value due to the inflation factor, while providing a reasonable return, against risk element”. Kevin (2008) defined investment as "invest surplus funds in various investment tools and areas with the aim of creating new production or expanding current production and increasing capital formation at the level of the economy, society and wealth”. Based on that, we conclude that, investing is to concede funds in a particular project for a specific period of time to achieve better returns in the future.

Investment Determinants

Investment is the main pillar of achieving capital accumulation, which is the basis for any economic progress, as it plays a major role in economic development, but there are a number of factors that affect investment effectiveness, and these factors can be divided into direct factors, for their association with the effectiveness of investment, where they affect the economic productive capacity directly such as: economic surplus, labor, national income, consumption, general price trend, scientific technological progress Shafi (2014). While, indirect factors may be attributed to risk degree, political stability, economic stability and interest rate (Zaid, 2011).

Financial Markets Importance

Financial markets play a major role in providing financial resources for investment projects that experience a financial deficit through effective employment of the available financial resources and surplus, as it enhances the effective use of available resources and thus elevate economic development (AL-Qudah et al., 2016). Al Shabib (2011) defined financial markets–FM as 'stock markets, so that funds saved by individuals and entities, then are transferred to investing companies through long-term financial instruments, most notably stocks and bonds'. Joseph (2008) defined FM as 'the framework were securities sellers bring together a buyer of these securities, regardless of the means by which this combination is achieved or where it is made, but provided that effective channels of communication are available among market clients.

Investments Volume at ASE

According to ASE, trading volume is defined as the value of shares that are traded at the stock market and the volume of market activity, so that the increase in trading volume indicates investors` optimism while its decline indicates their pessimism, which may lead to the liquidation of their investments. Trading volume is an important indicator to measure the performance and development of the stock market because it expresses stock market liquidity (Hanafi, 2002). Table (1) below, display total trading volume at ASE for the period 2007-2017:

Table 1
VOLUME IN ASE FOR THE PERIOD (2007-2019) – MILLION DOLLAR

Year	2007	2008	2009	2010	2011	2012	2013
Trading Volume - JOD	12,348	20,318	9,665	6,689	2,850	1,979	3,027
% of Annual Change	-13.1	64.5	-52.4	-30.8	-57.4	-30.6	53

Year	2014	2015	2016	2017	2018	2019	
Trading Volume - JOD	2,263	3,417	2,329	2,926	2,319	1,585	
% of Annual Change	-25.2	51	-31.8	25.6	-20.7	-31.6	

Source: by researcher based on ASE published data.

It is clear from table (1) that the volume of annual investments at ASE during (2007-2017), has witnessed a great fluctuation, with an average decline of 7.65% for the period. This is attributed mainly to the financial crisis which imposed a dramatic negative impact on ASE and also due to political instability in surrounding countries, that forced investors to be reluctant to invest.

Table 2
SECTORAL INVESTMENT VOLUME IN ASE FOR THE PERIOD (2007-2019)

Year	Industrial Sector	Services Sector	Financial Sector	Total in JOD	% Annual Change
2007	1,910,874,879	1,657,992,661	8,779,234,370	12,348,101,910	---
2008	5,256,835,871	5,422,241,866	9,638,936,814	20,318,014,551	64.50%
2009	1,270,692,520	2,030,846,061	6,363,773,746	9,665,312,327	-52.40%
2010	771,210,968	1,744,663,490	4,174,112,697	6,689,987,155	-30.80%
2011	516,894,934	576,006,319	1,757,351,376	2,850,252,629	-57.40%
2012	385,377,323	403,893,684	1,189,542,872	1,978,813,879	-30.60%
2013	397,685,580	408,120,453	2,221,449,153	3,027,255,186	53.00%
2014	379,094,502	373,463,671	1,510,846,421	2,263,404,594	-25.20%
2015	345,825,912	723,462,452	2,347,790,662	3,417,079,026	51.00%
2016	703,718,949	423,639,322	1,202,107,859	2,329,466,130	-31.80%
2017	655,749,827	375,025,623	1,895,458,140	2,926,233,591	25.60%
2018	978,852,913	226,981,140	1,113,491,923	2,319,325,977	-20.70%
2019	289,319,275	256,672,968	1,039,445,249	1,585,437,494	-31.60%
	13,862,133,453	14,623,009,710	43,233,541,282	71,718,684,449	-7.21%

Source: by researcher based on ASE published data.

Table (2) shows the values of annual investment volume – sector wise at ASE during the period (2007-2017). We note that, 2008 has witnessed a huge increase in investment volume by 64.5% comparing to 2007, but in subsequent periods, we note a significant decrease in the volume of investment in all sectors in varying proportions, due to the global financial crisis that affected Jordan economy adversely, and also because of the political circumstances surrounding the neighboring countries, where the rate of change in investment volume for the period declined by -7.21%.

LITERATURE PREVIEW

Empirical studies so far has not agreed upon as what are the determinants of stock market development. In other words, there is no agreeable list of factors that influence stock market development in the existing empirical literature. It is for this reason that the knowledge of what factors determine stock market development are of paramount importance as that has a bearing on economic growth.

Kaehler, et al., (2014) disclosed that Iraq Stock Exchange development during 2004 to 2014 was affected by inflation, GDP, overall security situation, exchange rates and interest rates.

Cherif & Gazdar (2010) examined the main determinants related to 14 MENA region countries stock market development, for the period 1990 to 2007. They conclude that, interest rates, level of income, banking sector development and stock market liquidity were the main factors that affected MENA region stock market development. Rahman, et al., (2009) investigated into the factors influencing Malaysian stock market development. They revealed that foreign currency reserves, exchange rates, interest rates, money supply and industrial production index are the major determined the stock market rate of development in Malaysia stock market. Islam, et al., (2017) exposed that economic growth; inflation and total market capitalization were the most critical variables that influenced Dhaka stock market development in Bangladesh.

Barayandema & Ndizeye (2018) concluded that economic factors are the most influential vector that affect investment volume in securities followed by psychological factors, social factors and then demographic factors. AL-Qudah, et al., (2016), found the impact of both the return on assets, debt ratio, company`s age and company`s size do reflect a statistical impact on investment volume. A study by Al Shorafa, et al., (2016) examined behavioral financing factors that influence equity investors decision in the Saudi stock market, finding that behavioral financing factors such as risk avoidance, blind confidence and risk perception have a significant impact on equity investment decisions and that demographic variables (age, income and experience) have no substantial implications in the investor's decision, with the exception of the demographic variable (education) that makes significant differences in the investor's decision. Kodithuwakku (2016) study analyzed company's own factors on the stock prices of industrial companies listed on the Colombo Stock Exchange (2010-2014), found a positive relationship between the company's factors such as dividends and net assets per share on share market value. Purohit, et al., (2015) study stated that, return on shareholders' equity, book value per share and dividends per share are the main determinants of stock prices on the Bahrain Stock Exchange. Shafi study (2014), disclosed that there are many determinants that influence individual investor's behavior in the stock market, as some factors mainly affect while others have a slight impact on individual investor behaviors such as demographic, economic, social and psychological factors. Obamuyi (2013) identified that the key factors that possess a significant impact on investment decisions are: previous performance of the company's shares, capital increase, expected stock division, profit distribution policy and rapid wealth achievement), and there are less influential factors such as religions, rumors and loyalty to service and product. In another study by Al-Abedallat & Al Shabib (2012) on the ASE (1990-2009), found a relationship between the macroeconomic indicators (investment and GDP) and the ASE index, and that the impact of the change investments volume was greater on the ASE index. Zurigat, et al., (2011) focused on analyzing the psychological aspect of Jordanian investors on their investment decision, the study found that Jordanian investors have excessive confidence in their business skills and investment decisions and that there is general agreement that long experience, knowledge of financial principles, investor qualifications and analysis of disclosed financial statements increases investor confidence, and that experience is the only factor that greatly increases excessive confidence.

RESEARCH METHODOLOGY

The study has relied on descriptive and analytical approach in order to test the hypothesis. The study population consist of (72) industrial companies and (61) service companies that are listed at ASE. Independent variables (Economic indicators and Financial indicators) and dependent variables (investment volume growth at ASE – industrial sector and services sector) were extracted and calculated for the period 2003–2017. The practical aspect of this study will be examined by showing the financial and economic determinants of indirect investment volume at

ASE. The models validity, Normal/Natural Distribution, Multi-collinearity test, and Pearson Linear Correlation Matrix were employed in this study.

Data Validity

Silverman (2018) stated that study data should follow normal distribution pattern, otherwise, non-parametric test should be run to test the data validity, before conducting the statistical analysis. Also multi-collinearity should be tested to ensure that high correlation does not exist between the study independent variables. Using (Kolmogorov-Smirnov), it was noticeable that (p-value) of all study`s quantitative variables were more than 5% (Appendix -1) and this imply that the study variables follow normal distribution. Thus, parametric tests can be employed in illustrating the financial and economic indicators that may impact indirect investments at Amman Stock Exchange–ASE. Regarding multi-collinearity, the VIF value for all variables are below 10 (appendix -2), and thus no variable should be excluded (Alin, 2010). Additionally, if the variable tolerance value is below 0.20 it should be removed from the model, but all variables tolerance values were in the range of 23.1% (stock turnover–industrial sector) and 89.3% (stock turnover– services sector)–(appendix -2).

Pearson Linear Correlation Matrix Test

In order to evaluate correlation relationship between the study variables, Pearson Linear Correlation Matrix test was adopted. Results are demonstrated in table (3) below:

Table 3
RESULTS OF PEARSON LINEAR CORRELATION MATRIX - INDUSTRIAL SECTOR

		Independent Variables								Dependent Variable
		Economic Indicators			Financial Indicators					
		IA_1	IA_2	IA_3	IB_1	IB_2	IB_3	IB_4	IB_5	IC
		Rediscount Rate	Inflation Rate	Economic Growth Rate	Stock Market Value Risk Degree	Earnings Per Share	Stock Book Value	Stock Turnover	Stock Price Multiplier	Industrial Sector Investments
Economic Indicator	IA_1	1								
	IA_2	0.468	1							
	IA_3	0.638*	0.384	1						
Financial Indicators	IB_1	-0.199	0.014	0.433	1					
	IB_2	0.354	0.694**	0.354	0.028	1				
	IB_3	-0.329	-0.238	-0.644**	-0.343	-0.053	1			
	IB_4	0.620**	0.471	0.639**	0.171	0.542*	-0.667**	1		
	IB_5	-0.273	-0.387	-0.427	-0.138	-0.642**	0.378	-0.396	1	
	IC	0.1	0.375	0.323	0.031	0.189	-0.178	0.376	0.178	1

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

IA1, IA2 and IA3 represent rediscount rate, inflation rate and economic growth rate respectively. IB1, IB2, IB3, IB4 and IB5 represent stock market value risk degree, earnings per share, stock book value, stock turnover and stock multiplier respectively. While IC represent the study dependent variable (industrial sector indirect investment). Based on the above depicted

results, it's obvious that neither economic indicators nor financial indicators have any kind of statistical correlation with the industrial sector indirect investments (α>0.05). While There is statistically positive significant correlation between rediscount rate and economic growth rate (R=0.638, Sig.=0.010). The highest correlation amongst industrial sector financial indicators, was between stock book value and stock turnover (R=-0.667, Sig.= 0.007). Earnings per share and stock turnover reflected the lowest correlation between the financial indicators (R=0.542, Sig.=0.037). The result in table (3) articulates many correlation relationships between the financial indicators and economic indicators.

Pearson Linear Correlation Matrix results showed that, there is no correlation factor more than 80% between the study independent variable, which imply that there is no correlation dilemma (Cohen et al., 2012), and this support the multi-collinearity results demonstrated above.

Table 4
RESULTS OF PEARSON LINEAR CORRELATION MATRIX - SERVICE SECTOR

		Independent Variables								**Dependent Variable**
		Economic Indicators			**Financial Indicators**					
		SA_1	**SA_2**	**SA_3**	**SB_1**	**SB_2**	**SB_3**	**SB_4**	**SB_5**	**SC**
		Rediscount Rate	**Inflation Rate**	**Economic Growth Rate**	**Stock Market Value Risk Degree**	**Earnings Per Share**	**Stock Book Value**	**Stock Turnover**	**Stock Price Multiplier**	**Industrial Sector Investments**
Economic Indicator	**SA_1**	1								
	SA_2	0.468	1							
	SA_3	0.638*	0.384	1						
Financial Indicators	**SB_1**	-0.194	-0.018	0.43	1					
	SB_2	0.349	0.147	0.578*	0.412	1				
	SB_3	-0.115	-0.043	0.520*	0.472	0.168	1			
	SB_4	0.054	0.411	0.22	-0.006	0.266	-0.087	1		
	SB_5	-0.125	0.057	-0.324	-0.356	-0.655**	-0.282	-0.133	1	
	SC	-0.216*	0.433	0.561*	0.17	0.546*	0.509*	0.158	-0.296*	1
*. Correlation is significant at the 0.05 level (2-tailed).										
**. Correlation is significant at the 0.01 level (2-tailed).										

SC – Dependent Variable (Services Sector Indirect Investment)

Table (4) results manifest that there a statistically significant correlation between the dependent variable and the economic indicators, as economic growth rate reflected the highest positive correlation (R=0.561, Sig.=0.029) and the lowest adverse correlation was attributed to rediscount rate (R=-0.216). Regarding financial indicators, the correlation factor ranges between (R=-0.296) related to stock price multiplier and (R=0.509) of stock book value, while stock market value risk degree and stock turnover reflected no correlation with services sector indirect investments. Also Pearson Linear Correlation Matrix outcomes showed that, there is no correlation factor more than 80% between the study independent variable, which imply that correlation problem does not exist (Cohen et al., 2012), and this support the multi-collinearity results demonstrated above.

HYPOTHESES TESTING

For the purpose of specifying the result of the principal hypothesis, the study used multiple regression analysis, and adopted the value of (Sig F) to accept or reject the study models and evaluate its appropriateness in representing the impact of independent variables on the dependent variable, where the rule of decision refers to that the model is acceptable when the value of (Sig F) is less than 0.05. Where the rule of decision stipulates that there is an impact when the significant value (Sig.t) is less than (0.05) in order to accept the principal hypothesis and reject the null one; and to refer to how accurate the independent variables explain the dependent variable, Adjusted R Square was used.

H1 *Economic indicators do not have a statistical significant impact on the annual growth rate of Industrial Sector indirect investments volume at ASE.*

$$IC=\beta_0+\beta_1A_1+ \beta_2A_2+\beta_3A_3+\varepsilon_{it} \text{ ------- First Model}$$

Table 5
MULTIPLE REGRESSION TEST RESULTS OF THE STUDY FIRST MODEL – ECONOMIC INDICATORS

Variable	T-Statistic	Prob.(Sig.t)	Coefficient	Std. Error	B
Constant	0.396	0.7	----------	0.746	0.295
SA_1	-0.891	0.392	-0.322	18.802	-16.474
SA_2	1.257	0.235	0.378	0.06	0.076
SA_3	1.107	0.292	0.383	0.094	0.104
Adjusted R-square	0.024				
R-squared	0.049				
R	0.233				
Prob. (Sig. F-statistic)	0.384				
F-statistic	1.116				
S.E. of regression	0.713				

Based on Multi regression analysis related to the impact of economic variables (SA_1, SA_2 and SA_3) on the annual growth rate of industrial sector indirect investments. The results show that F value =1.116 which is which is not statistically significant (p>0.05) as Sig. f=0.384 and this indicate that the study first model does not possess any explanatory power. Even not of the economic variables have demonstrated any significant impact on the dependent variables (annual growth rate of industrial sector indirect investments).

H2 *Financial indicators do have a statistical significant impact on the annual growth rate of industrial sector indirect investments volume at ASE.*

$$IC=\beta_0+\beta_1IB_1+ \beta_2IB_2+ \beta_3IB_3+ \beta_4IB_4+ \beta_5IB_5+ \varepsilon_{it} \text{ ------- Second Model}$$

Table 6
MULTIPLE REGRESSION TEST RESULTS OF THE STUDY SECOND MODEL – FINANCIAL INDICATORS

Variable	T-Statistic	Prob.(Sig.t)	Coefficient	Std. Error	B
Constant	0.073	0.944	----------	2.634	0.192
IB1	-0.08	0.938	-0.023	0.294	-0.023

IB2	0.995	0.346	0.055	2.561	2.547
IB3	-0.6	0.563	-0.128	0.974	-0.584
IB4	0.258	0.802	0.145	0.018	0.005
IB5	1.594	0.145	0.071	0.01	0.017
Adjusted R-square	0.093				
R-squared	0.118				
R	0.344				
Prob (Sig. F-statistic)	0.501				
F-statistic	0.938				
S.E. of regression	0.73				

The results related to the study second model pertaining to industrial sector indicators collectively, and its impact on the annual growth rate of industrial sector indirect investments, it's obvious from table (6), that the model possess no explanatory power as F=0.938 and Sig. f=0.501, which direct us to reject the second hypothesis (H2). Moreover, taking into consideration each independent variable separately, it is also very noticeable that they own no statistical impact on the dependent variable (Sig. f>0.05).

H3 *Economic indicators do have a statistical significant impact on the annual growth rate of service sector indirect investments volume at ASE.*

$$SC=\beta_0+\beta_1A_1+ \beta_2A_2+\beta_3A_3+\varepsilon_{it}$$ ------- Third Model

Table 7
MULTIPLE REGRESSION TEST RESULTS OF THE STUDY THIRD MODEL – ECONOMIC INDICATORS

Variable	T-Statistic	Prob.(Sig.t)	Coefficient	Std. Error	B
Constant	0.245	0.804	----------	0.82	0.208
SA1	-2.126	0.025	-0.372	2.379	-5.058
SA2	1.377	0.196	0.353	0.066	0.091
SA3	2.256	0.005	0.663	0.104	0.234
Adjusted R-square	0.403				
R-squared	0.445				
R	0.667				
Prob(Sig. F-statistic)	0.008				
F-statistic	5.938				
S.E. of regression	0.784				

Investigating the impact of economic indicators on the annual growth rate of service sector indirect investments at ASE. Multi regression results state that the third model is fit (f=5.938, Sig. f=0.008) that is less than 5%. This means that third hypothesis is accepted, and that economic indicators have a statistical impact on the annual growth rate of services sector indirect investments. The results also represent that, 40.3% of the fluctuation in the dependent variable is attributed to these economic indicators. Additionally, the regression model, elucidate that, (A_1; rediscount Rate (Sig.=0.025) and A3; economic growth rate (Sig.=0.005)) do statistically impact the annual growth in services sector indirect investments. Rediscount rate beta coefficient reflect a negative sign, meaning that if rediscount rate decreases, this will enhance investment, as cost of borrowing will decline, leading to an increase in the indirect investment at ASE. Also, economic growth rate displayed a positive impact (B=0.234), and this is true, as if economic growth rate

increases in the country, this will spread an optimistic environment between investors leading to more investment in the stock exchange.

H4 *Financial indicators do have a statistical significant impact on the annual growth rate of the service sector indirect investments volume at ASE.*

$$SC=\beta_0+\beta_1SB_1+\beta_2SB_2+\beta_3SB_3+\beta_4SB_4+\beta_5SB_5+\varepsilon_{it}$$ ------- Fourth Model

Table 8
MULTIPLE REGRESSION TEST RESULTS OF THE FOURTH STUDY MODEL – FINANCIAL INDICATORS

Variable	T-Statistic	Prob.(Sig.t)	Coefficient	Std. Error	B
Constant	-3.736	0.005	----------	3.291	-12.296
SB1	-1.683	0.127	-0.379	0.288	-0.485
SB2	3.339	0.009	0.512	10.494	35.036
SB3	3.21	0.011	0.487	1.447	4.645
SB4	0.031	0.976	0.006	0.008	0
SB5	2.586	0.007	-0.666	0.046	-0.119
Adjusted R-square	0.536				
R-squared	0.702				
R	0.838				
Prob (Sig. F-statistic)	0.029				
F-statistic	4.234				
S.E. of regression	0.635				

Based on multi-regression model outcomes, the results show that the model is fit and retain an explanatory power regarding the impact of financial variable on the annual variance of services sector indirect investment volume. The financial indicators explain 53.6% of the change in the dependent variable volume and this is significantly evident (Prob. (Sig. F-statistic)=0.029). This means, that financial indicators collectively do have a statistical significant impact on the annual growth rate of the service sector indirect investments volume at ASE. Earnings per Share (SB_2), Stock Book Value (SB_3) and Stock Multiplier (SB_5) suggested a significant impact on services sector indirect investment (P=0.009, 0.011 and 0.119) respectively. We can observe that, EPS has demonstrated the highest impact on indirect investment volume (B=35.036), which indicate that the higher the stock returns, more indirect investment will be realized, as this will add value to stock holders, due to increase in stock book value.

DISCUSSION AND RECOMMENDATIONS

The study found a number of results, including: The absence of any impact related to economic indicators on the annual growth rate of indirect investment, in bopth industrial sector and services sector, and this result is inconsistent with Al-Abedallat & Al Shabib (2012); Barayandema & Ndizeye (2018); Islam, et al., (2017) studies. This may be attributed unstable economic condition in Jordan attributed to the general political unrest in the region. On the other hand, the robust empirical results are that, financial indicators have collectively reflected a positive significant impact on both sector indirect investments volume (Obamuyi, 2013; Purohit et al., 2015). This means that, investors should rely on listed companies' financial indicators trend before undertaking investment decision. In this regard, EPS had the highest significant positive

impact on the annual growth rate of services sector indirect investments, while rediscount rate signaled the highest adverse impact.

Based on the results, the study recommend that government should encourage financial institution to decrease interest rate to boost investment at ASE, also it should facilitate foreign investment in order to pool more fund to security market that will definitely improve its performance. Supporting and catalyzing indirect investment, due to its crucial role toward increasing production capacity and the achievement of comprehensive economic development.

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