



## **The impact of firm and market performance on foreign portfolio investments in Sri Lanka**

L.A.A.D. Liyanaarachchi<sup>1</sup> and M. R. P. Wijesinghe<sup>2,\*</sup>

<sup>1,2</sup> Department of Finance, University of Kelaniya, Sri Lanka.

\*Corresponding author: [ruwanmrp@kln.ac.lk](mailto:ruwanmrp@kln.ac.lk)

### ***Abstract***

*This study investigates the impact of foreign portfolio investments on market and firm performance in the Colombo Stock Exchange. For this purpose, the companies listed in Colombo Stock Exchange from 2011 to 2019 financial years have been selected. To conduct the analysis, the study employed panel data regression using E Views. The study used foreign purchases, sales, and net investments to measure the study's dependent variable, foreign portfolio investments. Return on asset return on equity, return on sales, market value added, and All Share Price Index return were taken as the study's independent variables. The study's findings evidenced that firm performance has a significant positive impact on foreign purchases and net foreign portfolio investments. Market performance in terms of market value added has a significant positive effect on foreign purchases and sales, whereas market performance in terms of ASPI return negatively impacts net foreign portfolio investments. The findings of the study contribute to identify the effect of firm and market performance on foreign portfolio investments. The results are significant for stakeholders, especially the investors, for their cross-border portfolio investment decisions.*

**Keywords:** *Firm performance, foreign portfolio investments, market performance, Sri Lanka.*

## 1. Introduction

Holding financial assets from another country, such as equities, bonds, mutual funds, and traded funds, is known as foreign portfolio investment (FPI). There have been a lot of studies on foreign direct investments, but here have dearth of studies on foreign portfolio investments (Borin & Mancini, 2015; Gurbuz & Aybars, 2010). Furthermore, those studies focused mostly on market performance and foreign portfolio investments (Zahirullah & Shah, 2019; Haider, Khan, Saddique, & Hashmi, 2017), and the combination of market and firm performance is an issue that needs to be looked at further. Because foreigners may be more interested in the performance of a company rather than the performance of the market. Even in Sri Lanka, it appears that few studies have been performed to investigate the impact of market performance on FPI (Kumara & Dayaratne, 2015). As a result, the current research focuses on the impact of firm and market performance on foreign portfolio investment. According to the Colombo Stock Exchange's (CSE) FPI statistics, the study divided FPI into three categories: foreign purchases, foreign sales, and net foreign investments, which is the difference between foreign sales and foreign purchases.

Firm performance is the outcome of a firm's operations, and it does not depend only on the firm's efficiency. Measurement of a firm's performance can be done using different proxies. In this study, aligning with a few prior scholars (Hong, 2017; Aydin, Sayim & Yalama, 2007; Jusoh, 2016; Shrivastav & Kalsie, 2017), performance was measured by using four proxies namely return on assets (ROA), return on equity (ROE), return on sales (ROS), market value added (MVA). Earnings is the summary of the performance of an entity, and it is an essential factor that investors consider for their economic decisions (Abeysekera & Guthrie, 2005; Amr et al., 2019; Ball & Brown, 1968). Furthermore, the importance of earnings for the investors and the creditors is highlighted in the Conceptual Frameworks of the International Accounting Standard Board (IASB, 2018). Therefore, foreign investors may also interest on the performance of an entity before making their investment decision. Numerous studies are available to investigate this impact worldwide with different outcomes (Zahirullah & Shah, 2019; Haider et al., 2017; Al-Smadi, 2018; Ojong, Anthony & Arikpo, 2017; Nguyen, 2017). For examples, Haija and Alrabba (2017) and Mihai (2012) concluded that there is no significant relationship between foreign ownership and firm performance.

Moreover, while some studies revealed a negative relationship (Hong, 2017), other studies concluded with a significant and positive impact from foreign ownership on ROA and ROE (Azzam, Fouadb & Ghoshe, 2013). At the same time, there are limited studies in the Sri Lankan context in this area (Kumara & Dayaratne, 2015; Ariyaratna & Wijesinghe, 2014). For example, Ariyaratna and Wijesinghe (2014) examined only the impact of foreign institutional and individual investment on stock market performance. Therefore, it is evidenced that to the best of our knowledge, and prior studies have not combined the firm performance and market performance variables to investigate the impact on FPI.

With this backdrop, the main objective of this study is to investigate whether the firm and market performance have any significant impact on FPI on listed manufacturing companies at CSE. Hence, the current study incorporated two main research objectives. Firstly, to examine the impact of firm performance on FPI in manufacturing companies listed at CSE and secondly to investigate the impact of market performance on FPI in manufacturing companies listed on CSE. This study provides an essential contribution to the practice by examining the unfilled gap existing in the context of Sri Lanka. More specifically, the study contributes to identifying both the firm and market performance impact on FPI. Also, this study helps to enhance the quality of the investment decision-makers. Further, the study identified FPI as foreign purchase, foreign sales, and net foreign investment.

The rest of the paper is outlined as follows. The following section discusses the previous studies on the area, while section three outlines the study's methodology. After that, the results and discussion is presented in the fourth section. Finally, the conclusion of the study along with the limitations and directions for future studies are presented. Hence, the next section looks at the review of prior studies with the study's theoretical background.

## **2. Literature review**

FPI is a type of investment that holds financial assets in another country in the expectation of a future return but does not transfer firm ownership to foreign investors directly (Goldstein & Razin, 2005). The FPI was defined by Haider, Khan, and Abdulahi (2016) as the capital inflow or foreign investment into the country. As a result, the FPI is given indirect ownership of the company's financial assets by the investors. As a result, the investor can use FPI to look for opportunities in other countries. FPI is more liquid than foreign direct investments because it is traded on a stock exchange, and it is a shorter-term investment than foreign direct investments (Haider et al., 2016). The current study used a few theories. According to Standard Neoclassical Theory, when it comes to the theoretical basis, capital flows are determined by differences in return among countries. That is, if the returns are high, the market will attract more investors. The development of hypotheses is also aided by agency theory and resource-based theories. Stephen Ross and Barry Mitnick's work expressly states that a theory of agency was developed in 1973 (Mitnick & Barry, 2019). Then, to address the disagreement between the principle (manager) and the agent, I used the agency theory (owner). The fundamental rationale for this agency theory is the asymmetry of information between the principal and the agent. The agency theory assumes that the manager's and owner's interests are always not aligned.

Before investing foreigners in a company, they may examine whether the firm has lucrative performance in their investment period. Between stock owners and managers having low conflict, it may lead to an increase in the firm performance. Therefore, foreign investment can be increased when the firm has better performance. Further, the high conflict between stock owners and managers may lead to lower firm performance, creating a decreased foreign investment of the company. Markowitz introduced the portfolio investment diversification theory in 1952. The portfolio investment diversification theory included the idea that investors make decisions based on two factors: risk and return. Investors, according

to this notion, diversify their risk and optimize their rewards. When the prices of securities move in lockstep, investors diversify their portfolios. The All Share Price Index (ASPI) is a daily indicator of market performance. Investors can compare other countries' stock market indexes to the Sri Lankan ASPI to understand the market's risk and return. According to the theory, the investor chooses the low-risk, high-return investing market. As a result, ASPI was used in the present research to measure market performance. Another critical theory that can be identified is the capital asset pricing model (CAPM). When securities from different countries show low levels of correlations, investing in foreign assets improves the efficiency of a portfolio by reducing its overall variance (Bonizzi, 2013). Furthermore, the efficient market hypothesis (EMH) developed by Fama (1970) also can be considered. Because, as per the EMH, the investors act quickly to new information to buy, sell, or hold securities of that market where new performance information serves as the new information. With this theoretical backdrop, the empirical studies on the relations are discussed below.

The relationship between FPI and stock market indicators has been investigated in several countries. For example, Zahirullah and Shah (2019) have investigated in the context of Pakistan. The study incorporated net foreign portfolio investment (NFPI) as the dependent variable while using five independent variables: stock market capitalization, market returns, market turnover, market risk, and market indices. The study concluded that market returns, market turnover, and market indices positively impact NFPI while market risk has a negative and significant impact on NFPI. In China, Haider et al. (2017) examined the impact of stock market performance and inflation on FPI. They employed the Autoregressive distributed lag model, and the results revealed a significant positive impact of stock market performance on the FPI. At the same time, inflation has been significantly negatively associated with the FPI. Al-Smadi (2018) conducted research on determinants of FPI in Jordan and found out the variables that can affect FPI. This study used eight independent variables: aggregate economic activity, inflation, interest rate differentiation, stock market performance, risk diversification, country creditworthiness, governance, and corruption. The study revealed that stock market performance is not significant to the overall model. Furthermore, Ojong et al. (2017) researched the impact of the capital market on FPI in the Nigerian context. They found that there is a significant relationship between all share index and FPI in Nigeria. Moreover, it is evidenced that exchange rates, uncertainties of interest rates, and stock market returns have a significant positive impact on FPI (Nguyen, 2017).

Since it is evidenced different findings in several countries, Singhanian and Saini (2017) examined the determinants of FPI in developed and developing countries. Interest rate, trade openness, and stock market performance were selected as the independent variables in developed countries, and freedom index, interest rate, trade openness, and stock market performance were considered independent of developing countries. However, the study found that stock market performance significantly impacts FPI in both developed and developing countries. Henceforth, it appears that there is contradictory evidence for the determinants of FPI in different countries. In the Sri Lankan context, studies have mainly considered the ownership structure and financial performance. For example, Balagobei and Velnampy (2017) studied the impact of ownership structure on the financial performance of

The impact of firm and market performance on foreign portfolio investments in Sri Lanka

listed Beverage Food and Tobacco companies. However, limited studies are available to investigate the FPI (Ariyaratna and Wijesinghe, 2014; Kumara & Dayaratne, 2015). For example, Kumara and Dayaratne (2015) examined the determinants of FPI in Sri Lanka, and Ariyaratna and Wijesinghe (2014) examined the impact of foreign institutional and individual investment on the stock market performance. The findings of their study concluded that NFPI has a causal effect on the CSE.

While many scholars research the relationship between foreign ownership and firm performance, Haija and Alrabba (2017) and Mihai (2012) concluded an insignificant relationship between foreign ownership and firm performance. Similarly, Hong (2017) also reported a negative relationship between foreign ownership firm performance, and Azzam, Fouad, and Ghosh (2013) concluded that foreign ownership has a highly significant and positive effect on ROA and ROE. Most of the studies examined the relationship between foreign ownership and firm performance (Haija & Alrabba, 2017; Hong, 2017) and revealed that foreign ownership has a positive relationship (Azzam et al., 2013) with firm performance. On the one hand, some studies showed that there is negative relationship and on the other hand, some studies concluded there is no any relationship between foreign ownership and firm performance (Mihai, 2012). As a result, those research findings cannot be directly applicable to the Sri Lankan situation. Based on this, it can be found that the majority of the studies examined the impact of market performance on FPI. But, it is not accessible to identify research about the effect on firm performance on foreign portfolio investment. Based on the literature survey conducted, it is found that no studies examined the impact of firm and market performance on FPI, especially in the Sri Lankan context.

In summary, it appeared that different studies had used different performance variables and have given different conclusions for various countries. For example, Zahirullah and Shah (2019) and Haider et al. (2017) conducted research and found that market indices positively impact NFPI in Pakistan and China, respectively. These studies provide more information and can be used to identify the linkage between FPI and firm performance. However, it is difficult to identify the studies that investigated the impact of firm and market performance on FPI as one study. Some studies concluded a positive effect of market indices on FPI (Zahirullah & Shah, 2019), while others concluded that stock market indices were insignificant to FPI (Al-Smadi, 2018). In the next section, the methodological concerns of the study are discussed.

### **3. Research methodology**

The research design, population and sample selection, data collection methods, theoretical background, hypotheses, the definition of variables, conceptual framework, and model formulation are all covered in this section.

#### **3.1 Sample, data and data collection**

The present study is quantitative, and secondary data was gathered from annual reports and the CSE by the researchers. For nine years, from 2011 to 2019, the study used annual data to

assess the influence of firm and market performance on foreign portfolio investments in listed manufacturing companies. As of January 20, 2020, the CSE had 290 businesses spanning 20 business sectors, with a market valuation of Rs.2748.10 billion. The second-largest companies, according to the CSE company category, are in the manufacturing industry. Furthermore, manufacturing enterprises have received the fourth greatest foreign investments in the last nine years. As a result, the focus of this research is on the manufacturing industry. Prior researchers have also underlined the importance of investigating industrial companies. Mihai (2012), for example, measured foreign-owned enterprises and firm performance using manufacturing companies in his research. FPI is the study's dependent variable. Foreign purchases, foreign sales, and net foreign investments have all been used to calculate the FPI. Firm performance and market performance are the study's independent variables. Financial performance indicators and a market performance indicator were used to assess firm's performance. The study used ASPI to measure market performance, which was used to measure the performance of the entire stock market. Table 01 shows the operationalization of the independent variables.

Table 1  
Operationalization of independent variables

Variable	Measurement	References
Firm performance		
Financial performance indicators	ROA ROE ROS	Azzam et al. (2013); Mihai (2012); Hong and Loan (2017); Mihai (2012)
Market performance indicators	MVA	Hong and Loan (2017)
Market performance (entire share market)	ASPI	Kumara and Dayaratne (2015); Ariyaratna and Wijesinghe (2014)

### 3.2 Development of hypotheses

According to the agency theory, which was developed by Stephen Ross and Barry Mitnick in 1973, low agency conflict leads to higher performance, attracting foreign investors to invest in the company. Thereby, a positive relationship can be expected. In the same vein, hypotheses formulated in this study are based on the Neoclassical theory, Markowitz's portfolio investment diversification theory, and the EMH. The details of these theories were discussed in the literature review. Accordingly, the following hypotheses can be outlined with the theories identified above and the previous studies (Bonizzi, 2013; Fama, 1970; Markowitz, 1952).

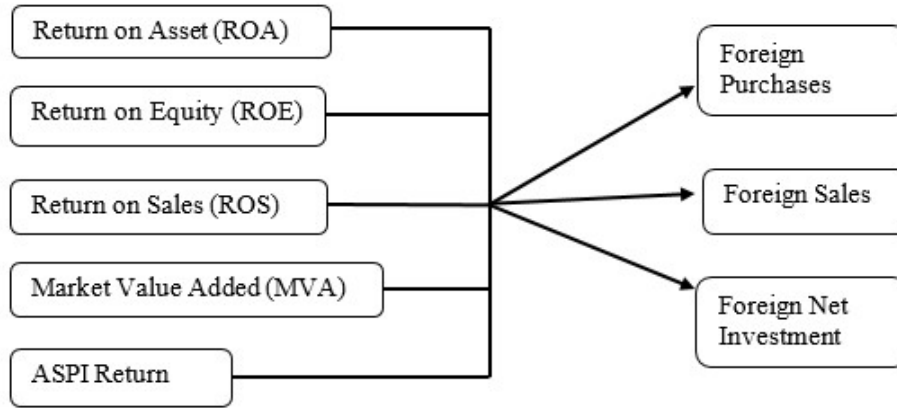
H1: There is an impact of firm and market performance on foreign purchase

H2: There is an impact of firm and market performance on foreign sales

H3: There is an impact of firm and market performance on net foreign investment

The impact of firm and market performance on foreign portfolio investments in Sri Lanka

Researchers identified the following conceptual framework to find out the impact of firm and market performance on foreign investments.



**Figure 1** Conceptual framework of the study

Source: Developed by researchers.

According to the conceptual framework drawn in Figure 1, all the independent variables are taken at once and run the model with one dependent variable. The independent variables are ROA, ROE, ROS, MVA, and ASPI return, and foreign purchases, foreign sales, and net foreign investments are the dependent variables. Different statistical models are used to examine the impact of firm and market performance on FPI, and the study employed the following regression equations.

$$FP = \beta_0 + \beta_1 ROA + \beta_2 ROE + \beta_3 ROS + \beta_4 MVA + \beta_5 ASPI + \epsilon_{it} \dots \dots \dots 1$$

$$FS = \beta_0 + \beta_1 ROA + \beta_2 ROE + \beta_3 ROS + \beta_4 MVA + \beta_5 ASPI + \epsilon_{it} \dots \dots \dots 2$$

$$NFI = \beta_0 + \beta_1 ROA + \beta_2 ROE + \beta_3 ROS + \beta_4 MVA + \beta_5 ASPI + \epsilon_{it} \dots \dots \dots 3$$

Where,

- FP = Foreign purchase
- FS = Foreign sales
- NFI = Net foreign investments
- $\beta_0$  = Constant variable
- $\beta_1$  = Coefficient of constant term
- ROA = Return on asset
- ROE = Return on equity
- ROS = Return on sales
- MVA = Market value added
- ASPI = All share price index
- $\epsilon_{it}$  = Error term

The study used Eviews software to run the regression models. As indicated above, three regression models were employed to test the hypotheses of the study as follows.

Model 01 – Foreign purchase and firm and market performance

Model 02 – Foreign sales and firm and market performance

Model 03 – Foreign net investments and firm and market performance

The descriptive statistics and correlation analysis were completed prior to performing the regression analysis. After that, all diagnostic tests were done, including stationary, multicollinearity, and autocorrelation. Furthermore, the Hausman test was utilized to determine which regression model should be used to evaluate the panel data. The results of these tests, as well as their implications, are presented in the next section.

#### 4. Data analysis, results and discussion

According to the descriptive statistic (Please see Table 2) calculated with raw data, NFP is negatively skewed, and all other variables are positively skewed, while except ROA and ROS, other variables are highly positively skewed because their values are greater than 1. Kurtosis is the measurement of peakness or flatness of the distribution of the series. According to the descriptive statistic, all the variables have Leptokurtic distribution due to positive kurtosis; the value is greater than 3. Once converting variables into log values, the descriptive statistics have dramatically changed, which supports the analysis of the study.

Table 2  
Results of the descriptive statistics

	LOGFP	LOGFS	LOGNET	LOGMVA	LOGASPI	LOGROA	LOGROE	LOGROS
Mean	15.702	16.017	15.405	13.166	0.963	-2.806	-2.281	-2.067
Median	15.895	16.252	15.558	13.293	0.254	-2.601	-2.066	-2.125
Maximum	22.276	22.240	20.933	16.452	3.154	-0.330	0.554	1.003
Minimum	7.659	8.0640	7.2602	5.7064	-0.186	-6.725	-6.437	-6.377
Std. Dev.	2.663	2.3608	2.5929	1.5727	1.011	1.039	1.018	1.164
Skewness	-0.623	-0.5607	-0.3137	-1.0926	0.551	-1.022	-1.192	-0.308
Kurtosis	3.464	3.7611	2.9023	5.4682	1.980	4.577	5.504	4.621
Jarque-Bera	18.283	18.981	4.1663	112.29	23.323	68.958	123.598	31.105
Probability	0.000	0.000	0.1245	0.000	0.000	0.000	0.000	0.000

Source: Analysis data.

Since the study deal with panel data, the economic theory requires that variables be stationary before applying standard econometric techniques to the model. That means the data should be stationary or have no unit root before for run the regression model. Stationarity implies that the mean, variance and autocorrelation of a variable do not change



## The impact of firm and market performance on foreign portfolio investments in Sri Lanka

with time. The unit root can be tested using Levin, Lin and Chu, Im, Pesaran and Shin, augmented Dickey-Fuller (ADF) and Fisher PP tests. The probability value of the test is less than 5%, which means that the data set is stationary, and if not, the data set is non-stationary, or the data set has a unit root. According to the results, foreign purchases, foreign sales, ROS, ROE, and ASPI were stationary at level (Appendixes 01) while NFPI, ROA, MVA were stationary at the first difference (Appendixes 02).

The study used the variance inflation factor (VIF) to examine for collinearity between independent variables and discovered that ROA and ROE have collinearity, suggesting a multicollinearity problem. Appendix 03 provides the multicollinearity results. Furthermore, based on the results of correlation analysis, it shows a 92% correlation between ROA and ROE offers 92%. This also confirms the problem of multicollinearity between ROA and ROE. Therefore, a researcher may have to drop one variable and conduct further analysis. Accordingly, the study excluded the ROE and executed the model with ROA to overcome the multicollinearity effect.

The correlation analysis depicts the correlation between the independent variables of the study. As per the results (Please refer to Appendix 04), there is a significant positive correlation between ROA and ROE. Further, there is a 63% significant moderate level positive correlation between ROS and ROE. The correlation analysis also indicates that there is a 55% significant positive relationship between ROS and ROE. The correlation between MVA and ROA and MVA and ROS show a significant weak relationship.

Subsequently, the study checked the autocorrelation. The term autocorrelation refers to a link between the present value of a data set and its previous value. The Durbin Watson value can be used to determine whether or not a series has autocorrelation. The Durbin Watson value for the model with foreign purchases as dependent variables and other independent factors is 0.77. When foreign sales took as the dependent variable and run with the independent variable, the Durbin Watson value was 0.99. When s NFPI took as the dependent variable and ran the model, the Durbin Watson value was 1.3. The calculated Durbin Watson values were higher than their standard ranges. Therefore, to ensure the models are free from autocorrelation errors, the study tested the autoregressive model with the lag values of foreign purchases, foreign sales and NFPI as the independent variables.

The study consists of panel data which comprise both time series and cross-sectional data. Before running the regression model, the researcher should test the most appropriate model for running the regression. The Hausman was used to test whether the model uses the Fixed effect model or the Random effect model. The probability of the chi-square value being less than 5% significant level cannot reject the null hypothesis and reject the alternative hypothesis, which means the fixed effect model is appropriate. Hence, the fixed-effect model is appropriate to run those three models. The results of the Hausman test is attached with Appendix 05. Additionally, the study converted variables into log values before executing the regression analysis.

According to Table 3, model one presents the impact of firm and market performance on foreign purchases. According to the above results, only MVA and ROA are significant. The goodness of fitness of the model can be measured in R- squared value. According to the results, the adjusted R- square value is 13%. This emphasizes that the explanatory power of model one is 13%. The F statistic of the model is 5.12, and it is significant at 1% level. As per model one, a one percent increase in MVA will increase 33% of foreign purchases, whereas a one percent increase in ROA will increase 48%. Model two considered foreign sales as the dependent variable and ran the regression model.

Table 3  
Results of the panel regression analysis

	Model 01		Model 02		Model 03	
	Coefficient	P value	Coefficient	P value	Coefficient	P value
Intercept	12.515	0.000	12.668	0.000	11.520	0.000
LOGMVA	0.3342	0.004	0.294	0.003	0.434	0.000
LOGROA	0.4877	0.039	0.340	0.094	0.434	0.046
LOGROS	-0.2683	0.198	-0.240	0.151	-0.102	0.575
LOGASPI	-0.1251	0.109	-0.071	0.660	-0.404	0.023
Adjusted R squared	0.130		0.118			
F statistic	5.12		3.72		0.1507	
Probability(F)	0.0000		0.0000		4.54 0.0000	

*Note: All three models are based on Fixed effects model*

*Source: Analysis data.*

As per results, only ROA is significant, and other independent variables are not significant. Adjusted R- Squared of the model is 11.8%. Therefore, it can be identified that the foreign sales are explained 11.8% by the independent variables. The F statistic is 3.72, and the probability value of the F statistic is 0.0000, which reveals the model is significant at a 1% level. Model three presented the results of the impact of net foreign investments. As per the results, MVA, ASPI, and ROA are individually significant to the model. The adjusted R square of the model is 15.07%, and it denotes that net foreign investment is explained in 15.07% by the changes in selected independent variables. More importantly, model three reveals a negative impact from ASPI to the NFPI. When ASPI return increases by one percent, the NFPI will decrease by 40% and vice versa. This is significant at a 5% confidence level. The overall model is significant at a 1% level. Based on the above results, the status of the developed hypotheses are presented in Table 4.

The impact of firm and market performance on foreign portfolio investments in Sri Lanka

Table 4  
Summary of hypotheses testing

Hypotheses	Status
There is an impact of firm and market performance on foreign purchase	Supported
There is an impact of firm and market performance on foreign sales	Supported
There is an impact of firm and market performance on foreign net investment	Supported

Based on the above results, when considering firm performance, ROA is significant to the model, but ROS is not significant. Therefore, this indicated that the majority of the selected variables of firm performance do not impact foreign purchases of the manufacturing sector companies. Further, when considering market performance, MVA is the only significant variable to model one and two, which can be concluded that market performance impacts foreign purchases of the manufacturing sector companies. Interestingly, model three indicates that there is a negative impact on the NFPI from ASPI return. Therefore, the study can reject the null hypothesis and accept the alternative hypothesis. This means that both firm and market performance significantly impact foreign purchases in listed manufacturing sector companies CSE. When considering firm performance factors, ROS is not significant to the model. However, MVA and ROA are significant to the model. Therefore, the majority of results presented that firm performance impacts foreign sales of the manufacturing companies. ASPI return is also significant to model three. Hence it can be concluded that market performance has an impact on the NFPI of manufacturing sector companies. Finally, the researchers identified that firm and market performance significantly impacts CSE foreign sales of the listed manufacturing companies.

Therefore, it can be rejected the null hypothesis and accepted alternative hypothesis. According to output, ROS is not significant to the model. But, MVA and ROA are significant to models one and two. The ASPI return is significant to model three. Hence, it can be concluded that firm performance has an impact on NFPI on manufacturing sector companies. MVA and ASPI return used to test market performance is also significant to the models and can be concluded that market performance has a significant impact on net foreign investment. Hence, the study rejects the null hypothesis and accepts the alternative hypothesis. Most of the studies were conducted in developed countries (Haider et al., 2017). However, it is challenging to find studies about the impact of firm performance on foreign investment. Further, to the best of our knowledge, it cannot identify studies conducted with both the firm and market performance to examine the impact on foreign investment. This study fulfilled this main gap and provided a conclusion in the Sri Lankan context.

Zahirullah and Shah (2019) used stock market indices and examined any impact of market performance on foreign net investment on Pakistan. Haider et al. (2017) researched the impact of stock market performance on FPI in China. When considering previous literature (Zahirullah & Shah, 2019; Haider et al., 2017) there is a significant positive impact of market performance on foreign investment. However, Al-Smadi (2018) revealed that stock market indices have no any significant impact on foreign investment. When considering the Sri Lankan context, it is evidence that ASPI has statistically significant and long-run positive effect on foreign purchases (Kumara & Dayaratne, 2015). Further, the findings of this study are in line with the conclusions of Singhania and Saini (2017). In summary, the results revealed that MVA and ROA have a significant positive impact to foreign purchases and foreign sales whereas MVA, ROA and ASPI return significantly impact to the NFPI in the manufacturing sector companies from 2011 to 2019.

## **5. Conclusion**

Researchers examined the impact of firm and market performance on foreign portfolio investments in the CSE from 2011 to 2019. For this purpose, we employed a panel data regression model using E views. The study used three models as three dependent variables: foreign purchases, foreign sales, and net foreign investments. Each of the dependent variables is tested by all independent variables at once. To measure the firm performance ROA, ROS were used, and to measure the market performance MVA and ASPI was used. The findings of the study evidenced that the firm performance has a significant positive impact on foreign purchases, sales, and NFPI. The market performance also has a significant positive impact on foreign purchases, sales, and NFPI. The findings have implications for the stakeholders, especially the investors, to take their cross-border investment decisions. The finding also will be benefited to the regulators to take their policy decisions. Hence, the results contribute to identifying the impact of firm and market performance on foreign portfolio investment. Besides that, these findings help especially for investors for their cross-border investment decisions.

The study has few limitations. The study considered only the listed manufacturing companies for 9 years from 2011 to 2019. Further, study used annual data, and the study is not investigating the impact of qualitative factors that may have an impact on foreign portfolio investments on listed manufacturing companies. Henceforth, the study suggests future researchers to extend the same for other sectors and to increase the time span. Moreover, future studies can be done using qualitative factors such as political stability, infrastructure as dummy variables which may affect the findings.

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The impact of firm and market performance on foreign portfolio investments in Sri Lanka

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**Annexures**

Appendix 01: Stationary at Level

Variable	Levin, Lin & Chu t*	Im, Pesaran and Shin W-stat	ADF - Fisher Chi-square	PP - Fisher Chi-square
FP	0.000	0.000	0.000	0.000
FS	0.000	0.000	0.000	0.000
ROE	0.000	0.033	0.003	0.000
ASPI	0.000	0.012	0.000	0.000
ROS	00000	0.013	0.008	0.000

Variable	Levin, Lin & Chu t*	Im, Pesaran and Shin W-stat	ADF - Fisher Chi-square	PP - Fisher Chi-square
D (NFPI)	0.000	0.000	0.000	0.000
D(ROA)	0.000	0.020	0.011	0.000
D(MVA)	0.000	0.027	0.018	0.000

Appendix 02: Stationary results

Appendix 03: Multicollinearity test

	Collinearity Statistics	
	Tolerance	VIF
LOGASPI	.995	1.005
LOGMVA	.944	1.059
LOGROA	.139	7.200
LOGROE	.159	6.291
LOGROS	.598	1.672



The impact of firm and market performance on foreign portfolio investments in Sri Lanka

Appendix 04: Result of Correlation Analysis

Correlation Probability	LOGMVA	LOGROA	LOGROS	LOGASPI	LOGROE
LOGMVA	1 -----				
LOGROA	0.229 0.0002	1 -----			
LOGROS	0.141 0.024	0.630 0.000	1 -----		
LOGASPI	0.007 0.901	-0.015 0.809	-0.045 0.473	1 -----	
LOGROE	0.227 0.000	0.916 0.000	0.559 0.000	-0.027 0.664	1 -----

Appendix 05: Model selection (Hausman Test)

	FP	FS	FIN
Chi-Sq. Statistic	16.3	11.94	12.21
Chi-Square	4	4	4
Probability	0.002	0.0177	0.015