

The impact of investment diversification on firms' performance: A comparison of domestic and multinational firms operating in Pakistan

Said Shah

Department of Management Sciences, University of Swabi, KPK, Pakistan saidshah64@yahoo.com

SAF Hasnu

Department of Management Sciences, COMSATS Institute of Information Technology,
Abbottabad, Pakistan

ABSTRACT

Most of the previous studies have concentrated on the working of multinationals operating in advanced countries like USA, UK and Japan ignoring emerging economies like Pakistan. This study examines the corporate policies of multinational firms operating in Pakistan and comparing with the policies followed by domestic firms. The study also investigates the variation in financial performance between domestic and multinational firms because of their corporate policies. For testing the hypotheses and other statistics, we employed correlation, ratio and regression analyses techniques using 10 years (2004-2013) secondary data of 153 manufacturing firms including both domestic and multinationals listed on Pakistan Stock Exchange. The results indicate that the performance of multinational firms is better than domestic firms primarily because of investment diversification indicating an effective role of location in determining firms' performance due to variations in their corporate policies related to working capital and corporate governance. This interface between investment diversification and firms' profitability are more serious in face of unpredictable oil and commodity prices across the country ultimately drastically influencing the national economy.

Keywords: developing countries, East Asian firms, foreign direct investment, Japan, multinational firms, Pakistan **JEL classification:** F23

INTRODUCTION

A significant impact on firms' corporate policies with regard to capital structure, dividend, working capital (WC) and corporate governance (CG) due to investment diversification is expected through multinational firms, leading to variations in firms' financial performance when compared to domestic firms. Generally, multinational firms are expected to show better financial results than domestic firms because of better WC management policies, expertise, resourcefulness and competitive advantages (Ameer 2010; Grant, 1987). This interface between internationalization of investment and firms'

profitability sounds more seriously in the wake of uncertainty prevailing with regard to unpredictable oil as well as commodity prices across the country ultimately influencing national as well as international economies including both advanced and developing countries. Cross border investments are supposed to bring diversified (and expectedly high) profits for firms. It is commonly believed that certain types of capital inflows are more useful for host as well as foreign countries. Particularly, foreign direct investment (FDI) is generally regarded as more beneficial due to its having quality of promoting growth and development in host countries by encouraging transfer of new technology, providing employment opportunities and bringing skills. A multinational firm (MNF) having presence in more than one country and strong financial standing brings many benefits to itself as well as its stakeholders in the form of (1) reduction in labor and transportation costs, (2) benefit of tax variations, (3) increasing the consumer base by transferring them the benefit of reducing prices due to low production costs and low taxes and (4) providing the benefits of increase in tax revenues and employment for the country of origin and (5) the most importantly maximization of profit and earnings per share.

Most of the previous studies have focused multinationals working in advanced countries like USA, UK, Japan and countries like that (Grant 1987; Tallman & Li 1996; Farooqi et al. Ngo 2014; Hemmert & Jackson 2016) neglecting developing countries like Pakistan. This study examines the corporate policies of multinational firms operating in Pakistan and comparing with the policies followed by domestic firms. The study also investigates the variation in financial performance between domestic and multinational firms because of their corporate policies. The study uses the term location as euphemism for origin, viz. multinational and domestic firms. For the purpose of this study, a domestic firm (DF) is one which is owned, controlled and operated by the host country's citizen (s). An enterprise is considered to be a multinational one which owns and controls income generating assets in more than one

country (Hood & Young, 1979; Dunning, 1998). Markusen (1995) defined multinationals as firms that engage in direct foreign investment, acquires controlling shares in a foreign firm or sets up a subsidiary in a foreign country. Going beyond the borders of a state for investing may be in the form of establishing an individual company or other economic units in overseas states and creating an association among investments of different countries. The main purpose of cross border investments is to provide a base for economic links between capitalist countries leading to an expansion of the global labor division and internationalization of production.

Internationalization of investments empower firms already in monopolistic position in their host countries to hold control of outside market, resulting in concentrating a substantial part of the world production in their hands. For example as reported in *The Great Soviet Encyclopaedia* (1979), the largest American oil companies were holding about half of their assets outside the borders of USA in late 1960's. Similarly, Imperial Chemical Industries--a British chemical concern concentrated 32 percent of its production outside United Kingdom. This process increases the efficiency of firms operating in developing countries particularly and those working in developed countries generally. A key role of cross border investments is to interlink financially strong firms of developed countries as well as to provide a sustainable growth to the economies of developing countries. MNFs bring benefits to their respective countries of origin too besides maximizing their organizational profitability. For example, in the mid-1960's, US companies owned 33 percent of the share capital of Philips—an electro-technical concern (which is controlled by Dutch capital), French companies owned 10 percent, Swiss companies owned 9 percent, and West German companies owned 2 percent (*The Great Soviet Encyclopaedia* 1979).

MNFs are beneficial in many ways both for host and home countries. The benefits of MNFs for the host countries include: 1 increase in their investment, employment and income levels; 2 transfer to latest technology from foreign countries to host countries; 3 transfer of business management expertise from foreign countries to host countries; 4 increase in volume of host countries' trade; 5 enhancement in the competitiveness of host countries' firms; 6 transfer of research and development by foreign industries to domestic industries; 7 Improvement in the balance of payment of host countries by reducing imports and increasing exports due to goods produced by MNF's in the host countries and; 8 Increase in the level of industrial and economic development of host countries due to the growth of MNF's in these countries. The benefits of MNFs for home countries are: 1 increase in marketing opportunities for the products produced by MNFs; 2 increase in employment opportunities to the people of home countries both at home and abroad; 3 boost to industrial activities of home countries; 4 maintaining favorable balance of

payment of the home country in long run and; 5 Opportunities to get the benefit of foreign culture brought by MNFs.

MNFs may also bring some disadvantages both for host and home countries. Main disadvantages of MNFs for the host countries may be: (1) Fear of transferring technology which may have become outdated in the home country, (2) risk to the economic and political sovereignty of host countries from MNFs due o their non-operation within the national autonomy, (3) risk of monopoly from MNFs to the domestic industry, (4) Indiscriminate use of natural resources of the host countries by MNFs for maximizing their profit causes depletion of these resources and (5) A huge outflow of money in terms of payments towards profits, dividends and royalty of foreign countries (origin to MNFs). Main disadvantages of MNFs for the home countries are: (1) Fear unfavorable balance of payment due to transfer the capital from the home countries to different host countries, (2) No increase in employment opportunities of home countries' people if MNFs adopt geocentric approach and (3) Avoiding the home countries industrial and economic development by MNFs if investments in home countries are more profitable.

There are many factors affecting firms' performance such as CG practices, utilization of external sources (for example debt), firms' size, WC management and many others. However, because of the magnitude of investment in current assets and quantum of current liabilities, effective and efficient WC management practices also deserve greater attention both from DFs and MNFs. Certain industries like cement factories may have a high level of fixed assets and a lower level of current assets but most consumer goods manufacturers have a fairly high percentage of their total assets held in the form of current assets. For example as per the data obtained from State Bank of Pakistan for 2004-13, average receivables are 11.91%, inventory 10.95% and payables 20.48% of total assets in (nonfinancial) corporate sector of Pakistan. Because of the magnitude of investment in current assets and quantum of current liabilities, effective and efficient WC management practices both by DFs and MNFs deserve greater attention.

MNFs, in addition to following the law of their parent country are also bound to observe the law of their respective host countries. This offers only a limited impediment to their profit maximization objective. MNFs enjoy a considerable edge over DFs in terms of financial performance due to their diversified expertise and exposures and strong resource base. MNFs having huge sources of finance considerably influence world as well as domestic economies.

This study examines the corporate policies of multinational firms operating in Pakistan and comparing with the policies followed by domestic firms. The study also investigates the variation in financial performance between domestic and multinational firms because of their corporate policies. Once a company is able to create a harmony between its location (cross border investments) and corporate policies, it will be able to reap

the benefits at the operational levels with visible impact on the bottom line and share price. The results of the study, if implemented by the DFs as well as MNFs will have far reaching effects on the national as well as economies of MNFs origins. Besides, social benefits such as uplift of education, improvement in providing better health facilities, stability in political system and consistency in government policies are expected.

LITERATURE REVIEW

Review of literature indicates that, MNFs and DFs diverge in terms of environmental homogeneity or heterogeneity facing firms. MNFs will not feel it feasible to invest in local market if they are exactly identical to DFs. The three essential conditions recommended by Dunning (1998) for a firm to opt for cross border investment are ownership, location, and internalization. Different countries require different foreign stakes for firms to be categorized as multinationals. For example, the United States, Germany and Sweden require 10%, France 20% and Australia 25%. As per definition provided by United Nations any enterprise is considered as multinational which control assets in two or more countries, having 10 per cent control of voting stock or 25 per cent of sales or assets in a foreign subsidiary (Frank, 1980).

Besides, MNFs' contribution in the economies of host countries such as introduction of new technology, providing employment opportunities and bringing skills, these firms may also have long lasting harmful effects on the economies of these countries in the shape of enhancing their dependence upon foreign help and reducing the entrepreneurship capabilities of the local entrepreneurs (Caves, 2007; Buckley & Ghauri, 2002). Furthermore, anti-competitive practices of MNFs may reduce consumer welfare and may help build consumption patterns that are unsuited for host countries. Yet, there is another group of studies (Chen, 1999) advocating for marketing strategies and entry modes as the key determinants of MNFs' performance. Lou and Tan (1998) compared strategic choices of MNFs and DFs in response to a changing environment in an emerging market and found that an MNF's strategic behavior may not be similar to that of DFs in the same environment because of their different controlling authorities.

Many recent studies have found that (1) foreign investors envisage investment for longer term, use an acquire and own approach to take advantage of probable expansion prospects and avoid firms with riskier financial management practices providing information beneficial to domestic investors only, (2) foreign investment decreases firm stock price instability in emerging stock markets that may be considered as one of the possible advantages of increasing the stake of domestic stock markets to foreign investors, (3) global diversification combined with industrial diversification improve real activities exploitation, (4) MNFs' impact on firm value is more than the impact of DFs and that multi-nationality and intangibility directly and independently influence firm value, without

obstructing each other and (5) a firm whether directly having headquarters in offshore financial centers (OFCs) or indirectly setting up subsidiaries in OFCs, the amount of firm-specific information flowing into stock price is lower for offshore firms than for non-offshore firms (Farooqi et al. 2014; Kim & Li 2014; Batten & Vinh, 2015; Lee et al, 2015). Aabo et al. (2015) investigated the impact of multi-nationality on firms' opaqueness using multiple alternative measurements and found a positive significant relationship between the two. Trade openness provides both causes and effects for the level of income both in short and long run (Saky et al. 2015). Product qualities are not differentiated when there is no competition for firms on the labor market; however firms differentiate their products when there is competition in both product and labor markets (Hili et al. 2016).

There are MNFs having budgets exceeding some national GDPs. Due to their financial power, these large MNFs considerably influence domestic economies. To bear additional costs in connection with communications, transport, posting their staff abroad, barriers due to language, customs, and law of the land and still have room towards profit as well as to avail the benefits of scale economies, MNFs must be technically, professionally, and size-wise stronger than DFs (Markusen, 1995). To cover risks such as foreign exchange risk, different tax laws and liquidity in various currencies, Edmunds (1983) proposed an integrated approach combining corporate policies of MNFs with DFs. There are other factors also such as financial openness and quality of CG, determining investors' choices to invest in domestic or multinational markets (Byrne & Fiess, 2016). Previous studies are in agreement that MNFs are performance-wise superior than DFs although with somewhat different grounds. For example, according to Grant (1987) and Dimelis and Louri, (2002) the superiority of MNFs may be attributed to their competitive advantage and advanced technology whereas others. Barbosa and Louri (2005), Tallman & Li (1996), and Nikolovova, (2013) justified the better performance of these firms by product differentiation, international diversities, ability to exploit economies of scales due to better access to financial resources and superior CG mechanisms. These arguments are more convincing for companies operating in developing economies than in industrialized economies. According to Ameer (2010), MNFs have better WC management policies than DFs which helps to maximize their value and because of expertise and resourcefulness, foreign enterprises' shareholding are important for DFs.

Available studies have also investigated the impact of short term investments strategies of firms (for example Deloof, 2003). These studies found a positive and significant impact of foreign investors on DFs (Jurajda & Stancik, 2012; Nikolovova, 2013), positive relationship between firms' size and performance (Penrose, 1959; Fama & French, 1992; Majumdar, 1997; Hansen

& Birger, 1989) and a negative relationship between cash conversion cycle (CCC) and firms' performance suggesting that firms can increase their value by keeping CCC at minimum (Ogundipe, Idowu, & Ogundipe, 2012; Byoun & Xu, 2013; Zaremba & Konieczka, 2015; Richards & Laughlin, 1980; Smith, 1973; Kim, Mauer & Sherman, 1998; Gentry, Vaidyanathan & Lee, 1990; Teruel & Solano, 2007). Existing studies exploring the relationship between supply-chain participation and the internationalization of firms (Giovannetti et al, 2015) indicate: firstly, a positive and significant relation between being part of a supply chain and the probability of exporting as well as the intensive margin of trade; secondly, downstream producers tend to benefit more from being part of supply chain and thirdly, that even small and less productive firms, if involved in production chains, can take advantage of reduced costs of entry and economies of scale that enhance their probability of exporting.

Current studies like Hemmert and Jackson (2016) tested Western' internationalization models for East Asian firms comparing Japanese and South Korean MNFs' and found a considerable match between internationalization processes of East Asian and Western MNFs however found a diverse pattern of internationalization between Japanese and South Korean firms and suggested, in-depth studies on the internationalization of East Asian MNFs which may result in the extensions of existing theories or even new theoretical frameworks.

The available studies are more or less country specific as such the results of these studies may not have general applicability. This study identify the corporate strategies being followed by financially and operationally sound firms (whether DFs or MNFs) which will help weak firms to learn for improving their performance. Location is used as euphemism for origin; CCC as comprehensive variable to measure WC management efficiency; Current ratio (CR), acid test ratio (ATR) and cash ratio (CAR) as proxies of WCP and corporate governance index (CGI) as a measurement of CG quality testing the following hypotheses:

H₁: Location has a positive and significant relationship with firms' performance.

H₂: The performance of MNFs is better than that of DFs

METHODOLOGY

This study measures separately the performance of DFs and MNFs using ROA. The study further investigates the impact of all independent variables namely Dummy for domestic and multinational (DDM), CCC, CR, ATR, CAR and CGI on firms' performance separately for DFs as well as MNFs, controlling the effect of Market capitalization (MC) and sales growth (SG).

Sample selected for analysis consists of 153 firms listed on Pakistan Stock Exchange (formerly Karachi Stock Exchange) for ten years (2004-2013) and ten economic groups excluding financial and those firms the industrial average (IA) of which is not available. Thus a panel data set of 1,530 firm-year observations has been obtained from State Bank of Pakistan's

document "Balance Sheet Analysis" and published annual reports of firms. Industry-wide distribution of sample firms is given in table 2.

Table 1
Industry-Wide Distribution of Sample Firms

Industry	No. of Firms	Location-Wise Distribution		
		DFs	MNFs	Textiles 35 35
0				
Sugar	16	16		0
Chemicals and Pharmaceuticals	28	14		14
Fuel and Energy	19	14		5
Autos and Engineering	20	8		12
FMCGs, Foods and Allied	10	5		5
Cement	14	13		1
Paper and Board	6	4		2
Tobacco	3	1		2
Jute	2	2		0
Total firms	153	112		41

Variables Used in the Study

The complete list of dependent, independent, and control variables is given in table 3 below:

Table 2
Variables

Variable Type	Variable	Calculations
Dependent	ROA, a measure of profitability in relationship with total assets/investment	Net profit divided by total assets
Independent	DDM, representing location	Using dummies, '0' is assigned to DFs and '1' to MNFs
	CCC, used as a comprehensive measure of WC management efficiency (Deloof, 2003)	(ITDs + RTDs) - PTDs
Independent	CR, a proxy of WC policy	Current assets divided by current liabilities
	ATR, a proxy of WC policy	Quick assets (current assets minus inventory) divided by current liabilities
	CAR, a proxy of WC policy	Cash and cash equivalents divided by current liabilities.
Control	CGI, representing CG quality	See table 3 for calculation of CGI
	MC representing firms' size	Number of outstanding shares multiplied by market price per share
	SG (current year's sales - previous year's sales)/ previous year's sales	

In order to measure the quality of CG, the study uses CGI. Likert scale (Likert, 1932: 5-55) is used to numerically value each CG practice. Score awarding criteria is given in table 4.

Table 3
Score Awarding Criteria

CG category	Scoring Criteria		Score
	Range		
Board size	8-10 members		5
	Above 10 and below 8 members (up to 7) 6 members		4 3
	4-5 members		2
	4 members		1
Non-executive	75% and above of the board size		5
	65-74%		4
	55-64% 3 directors	45-54%	2
	Below 45% 1		
Presence of CFO on the board	If CFO is on the board		5
	If CFO is not on the board		1
Gender distribution	40% or above female directors on the board		5
	30-39% female directors on the board		4
	20-29% female directors on the board		3
	10-19% female directors on the board		2
	Less than 10% female directors on the board		1
Number of board meetings	8 meetings or above a year		5
	7 meetings a year		4
	6 meetings a year		3
	5 meetings a year		2
	4 meetings or less a year		1
Number of audit year meetings	8 meetings or above a year		5
	7 meetings a year		4
	6 meetings a year		3
	5 meetings a year	2 committee	4 meetings

After determining the numerical value of each CG practice, the following formula is used to calculate CGI:

$$CGI = \frac{\text{Sum of weightage given to all CG practices (2004-2013)}}{(1) \text{ Data period (in years)}}$$

The Model

Following previous studies (Luo & Tan 1998; Connor & Sehgal 2001; Deloof 2003), we used the following pooled OLS model having the benefit of covering dummies as well as other variables included in the model to bring conformity in results.

$$ROA_{it} = \beta_0 + \beta_1 (DDM) + \beta_2 (CCC) + \beta_3 (CR) + \beta_4 (ATR) + \beta_5 (CAR) + \beta_6 (CGI) + \beta_7 (MC) + \beta_8 (SG) + \varepsilon \quad (2)$$

DISCUSSIONS

As reported in location-wise descriptive statistics presented in table 5 (comparing means and SDs of ROA), financial performance of MNFs is better, stable and consistent whereas that of DFs is volatile. Means of WC policy variables ranges from 0.21 to 1.29 in DFs and 0.36 to 1.85 in MNFs whereas SDs varies from 0.87 to 1.17 in DFs and 0.49 to 1.17 in MNFs. This indicates stability and reliability among firms in terms of WC policies adopted.

Table 4
Location-Wise Descriptive Statistics

Variable	Location	Mean	Standard Error	Median	Standard Deviation
ROA	DFs	6.49	0.47	3.98	15.79
	MNFs	15.40	0.67	13.49	13.57
DDM	DFs	0.00	0.00	0.00	0.00
	MNFs	1.00	0.00	1.00	0
CCC	DFs	46.72	4.53	53.99	151.53
	MNFs	40.99	7.60	51.60	153.07
CR	DFs	1.29	0.04	1.00	1.17
	MNFs	1.85	0.06	1.51	1.17
ATR	DFs	0.80	0.03	0.51	0.98
	MNFs	1.16	0.06	0.95	1.05
CAR	DFs	0.21	0.03	0.03	0.87
	MNFs	0.36	0.02	0.16	0.49
CGI	DFs	2.34	0.01	2.33	0.44
	MNFs	2.29	0.02	2.17	0.46
MC	DFs	20.34	0.06	20.20	2.09
	MNFs	22.28	0.09	22.67	1.92
SG	DFs	0.20	0.02	0.15	0.63
	MNFs	0.24	0.05	0.14	0.97

Correlation analysis

Separate correlations for DFs and MNFs are reported in tables 6 and 7 respectively. The relationship of CCC with ROA in DFs is positive and significant at 1% whereas it is weak positive and insignificant in MNFs. This is due to a large number of DFs included in sample normally of small sizes.

Table 5
Correlations among Variables --DFs

	RO	DD	CC	CR	AT	CA	CG	MC	S	A	M	C	R	R	I	G
RO	1															
DD		1														
CC			1													
CR				1												
AT					1											
CA						1										
CG							1									
MC								1								
S									1							
A										1						
M											1					
C												1				
R													1			
R														1		
I															1	
G																1

CC	**	.a	1						
	.02	C							
CR	.39**	.a	.19**	1					
AT	.32**	.a	.07**	.91**	1				
R									
CA	**	.a	.009	.32**	.37**	1			
	.12	R							
CGI	.030	.a	-.041	.022	.053	-.04	1		
MC	.023	.a	.007	-.001	-.026	-.07	.005	1	
SG	.095*	*	.a	-.07*	-.007	.003	-.06	.003	.014
	1								

** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed). a Cannot be computed because at least one of the variables is constant

Table 6
Correlations among Variables --MNFS

RO	DD	CC	CR	AT	CA	CG	M	S	A	M	C	R	R	I	C	G
RO	1															
A																
DD	a	.a														
M																
CC	.05	.a	1													
C																
CR	.20**	.a	.28**	1												
AT	**	.a	.049	.85**	1											
R	.18															
CAR	.341*	*	.a	.018	.54**	.59**	1									
CGI	.03	.a	.018	.079	.068	.085	1									
MC	.067	.a	.033	.001	-.032	.020	.065	1								
SG	-.054	.a	.021	-.096	-.089	-.04	-.04	.08	1							

** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).

a Cannot be computed because at least one of the variables is constant

Ratio Analysis

Table 8 summarizes good and weak performing firms comparing average ROA for each firm with its respective IA. Firms with return on assets equal to or more than IA are

considered as good performing firms and less than IA or negative (even if it is more than IA), as weak performing firms.

Table 7 *Firms' Performance*

Data Segment	Good performing firms		Weak Performing Firms		Total firms	
	Number	%	Number	%	Number	%
DFs	56	50	56	50	112	100
MNFs	21	51	20	49	41	100
<u>All firms</u>	<u>77</u>	<u>50.33</u>	<u>76</u>	<u>49.67</u>	<u>153</u>	<u>100</u>

The performance of 50.33% firms is good whereas 49.67% firms are weak (table 8). The performance of MNFs (51% good firms) is slightly better than the performance of DFs (50% good firms) supporting our hypothesis 5 that 'The performance of MNFs is better than that of DFs'.

Average CCCs are compared with IAs. Firms having average CCCs less than IA are considered to be efficient in managing their WC whereas firms having average CCCs equal to or more than IA are deemed inefficient in managing their WC. Comparing profitability and CCC with IA is in line with that used by Singh (2011). Table 9 reports, classification of efficient and non-efficient firms on the basis of WC utilization.

Table 8
Efficiency-Wise Distribution of Firms

Segmentation	Efficient firms Non					
	efficient		All firms		firms	
	Number	%	Number	%	Number	%
DFs	32	29	80	71	112	100
MNFs	7	17	34	83	41	100
<u>All firms</u>	<u>39</u>	<u>25</u>	<u>114</u>	<u>75</u>	<u>153</u>	<u>100</u>

As is evident from the data provided in table 9, location does play a key role in determining the WC management efficiency of firms. Comparison of WC management efficiency between DFs and MNFs indicates that 29% out of DFs are managing their WC more efficiently whereas 17% out of MNFs are efficient in managing their WC. This shows that DFs are more efficient in managing their WC as compared to MNFs.

CR, ATR and CAR are used as proxies of WC. Averages of all these variables for the data period are compared with their respective industrial averages used as bench marks. Firms with ratios more than IA are believed to be following conservative WC policy, equal to IA are considered to be following hedging approach of WC management and firms with less than IA are grouped as following aggressive approach. As presented in table 10, both DFs and MNFs follow aggressive WC.

Table 9
WC Policy Wise Distribution of Firms

Data segment	Ratio	Aggressive		Hedging		Conservative		Total	
		%	No	%	No	%	No	%	
DFs	CR	52	46	2	2	58	52	112	100

	ATR	78	70	0	0	34	30	112	100
	CAR	69	62	0	0	43	38	112	100
MNFs	CR	14	34	0	0	27	66	41	100
	ATR	17	41	0	0	24	59	41	100
	CAR	20	49	0	0	21	51	41	100
All firms	CR	63	95	43	20	1	88	58	56
	ATR			62		0			38
	CAR	89		58	0	0	64		42
								153	100

Quality of CG is measured using CGI. Averages of all CGIs for the data period are compared with their respective sample averages. Firms with CGIs equal to or more than sample averages are considered to be having good CG practices and those having CGIs less than sample averages or negative (even if these are more than sample averages), are considered to be having weak CG practices. The results are reported in table 11.

Table 10

Distribution of Firms According to the Quality of CG

Data	Good		Weak		Total	
segment	Governance		Governance			
	No.	%	No.	%	No.	%
DFs	37	33	75	67	112	100
MNFs	5	12	36	88	41	100
All firms	42	27	111	73	153	100

As reported in table 11, location plays a vital role in determining the quality of governance. Results show that 33% out of DFs and 12% out of MNFs are following good governance practices. Higher percentage of good governance in DFs as compared to MNFs indicates that governance practices of DFs are better than those of MNFs.

Multivariate Analysis

This section presents segment-wise regression results obtained after employing various diagnostic tests such as multicollinearity, heteroscedasticity, model stability and model specification. Multicollinearity is checked using variance inflation factor (VIF). F-Statistic and p value shows that the model used in the study is best fit to estimate the results. Park test (Park, 1966) is used to check heteroscedasticity in all regressions. Based on the results of Cumulative Sum (CUSUM) recursive coefficients test (test used to check model stability), the model used for estimating the results is stable. In order to detect heteroscedasticity the study used Breusch Pagan Godfrey (Breusch and Pagan, 1979) and Park tests (Park, 1966).

The study employs FE model to analyze the data. CUSUM (Cumulative Sum) residuals test (Page, 1954) is used to check the stability of model. The results show that CUSUM residual line

is within the critical region as such the model used for estimation of results is stable.

Regression Results

Regression results are presented in table 12. CR has a strong positive and ATR strong negative relationship with firms' performance significant at 1% confidence level in DFs. CR is positively related with firms' performance at 5% significance level in MNFs. CAR has a strong positive relationship with dependent variable significant at 1% level. Location-wise regression results support our hypothesis 3b that

"The influence of WC policy varies with firms' location". SG has a positive relationship with firms' performance significant at 1%. CGI has a negative relationship with firms' performance significant at 1% in MNFs the reasons being ROA relates to the financial performance of a firm and is based on assets.

Table 11

Location-Wise Regression Results

Variable	Location	t-			
		Coefficient	SE	Statistic	Probability
C	DFs	-5.830	3.630	-1.610	0.110
	MNFs	9.430	4.980	1.890	0.060
DDM	DFs	--	--	--	--
	MNFs	--	--	--	--
CCC	DFs	0.001	0.000	-1.440	0.150
	MNFs	0.001	0.000	-0.160	0.880
CR	DFs	4.340	1.160	3.750	0.000
	MNFs	3.230	1.530	2.110	0.040
ATR	DFs	-3.870	1.340	-2.890	0.000
	MNFs	-2.120	1.720	-1.230	0.220
CAR	DFs	0.260	0.480	0.540	0.590
	MNFs	6.040	1.340	4.510	0.000
CGI	DFs	-1.320	1.470	-0.900	0.370
	MNFs	-4.420	1.760	-2.510	0.010
MC	DFs	0.000	0.000	-0.810	0.420
	MNFs	0.000	0.000	1.340	0.180
SG	DFs	2.220	0.590	3.760	0.000
	MNFs	-0.430	0.460	-0.940	0.350

On the basis of overall results (table 13), DDM has strong positive relationship with profitability significant at 1% confidence level indicating an effective role of location in determining firms' performance. This supports our hypothesis 1 that *"Location has a positive and significant relationship with firms' performance"*. The same trend is observed in ratio analysis (section 4.3) supporting our hypothesis 5 that *"The performance of MNFs is better than that of DFs"*. CCC has a negative relationship with firms' performance significant at 5% suggesting that keeping the CCC as low as possible will lead to maximization of profits. This is in line with the findings of previous studies (Teruel & Solano, 2007; Smith, 1973; Richards & Laughlin, 1980). CR has a strong positive whereas ATR has a negative relationship with firms' performance significant at 1%

confidence level. WC policy is essentially confined to CR i.e. inventory, receivables and payables. These three items generate revenues and profits; hence CR has positive relationship with profitability. On the other hand, ATR is actually an artificial ratio and is related to liquidity which has no direct impact on turnover. It is for ease in WC management and not for increasing revenue. That is why its relationship with profitability is negative.

Table 12

Regression Results of All Firms

Variable	Coefficient	SE	t-Statistic	Probability
C	-1.045	2.978	-0.351	0.726
DDM	6.701	0.852	7.864	0.001
CCC	-0.005	0.003	-1.976	0.048
CR	3.892	0.951	4.092	0.000
ATR	-2.808	1.089	-2.579	0.010
CAR	0.597	0.431	1.385	0.166
CGI	-2.677	1.182	-2.266	0.024
MC	0.001	0.000	-0.837	0.403
SG	1.158	0.408	2.841	0.005

CGI measuring the quality of CG has an inverse relationship with firms' performance significant at 5%. The inverse relationship between CGI and firms' performance is due to a large number of small and medium firms in the data set. These firms because of their size extend loans which they try to recover quickly and also get loans which they try to pay late affecting their profitability.

CONCLUSIONS

Unlike the previous studies on investment diversification that mostly focused on American and European firms, we investigated the working capital related policies of multinational firms operating in Pakistan and comparing them with similar

Aabo, T., C. Pantzalis, & J.C. Park, 2015. "Multinationality and Opaqueness". *Journal of Corporate Finance* 30: 65-84 among

policies followed by domestic firms, with a view to examining the consequences of the differences in their policies on their respective financial performances. The results indicate that the financial performance of multinational firms operating in Pakistan is better than domestic firms primarily because of Ameer R, 2010. "The role of institutional investors in the inventory and cash management practices of firms in Asia".

Journal of Multinational Financial Management 20: 126-143

Barbosa, N., & H. Louri, 2005. "Corporate Performance: Does Ownership Matter? A Comparison of Foreign and Domestic Owned Firms in Greece and Portugal". *Review of Industrial Organization* 27(1): 73-102.

Batten, J.A., & X. Vinh Vo. 2015. "Foreign Ownership in Emerging Stock Markets". *Journal of Multinational Financial Management* 32(33) 15-24

Buckley P.J., & P.N. Ghauri. 2002. "Globalization, Economic Geography and the Strategy of Multinational Enterprises". *Journal of International Business Studies* 35, 81-98.

investment diversification, indicating an effective role of location in determining firms' performance. Evidence also points out that performance of MNFs is superior to DFs due to their better corporate policies related to working capital and corporate governance areas. Results further show a negative and significant relationship between CCC and financial performance of MNFs suggesting that keeping the CCC as low as possible leads to improvement in profits. Future research is recommended to find out the ways to improve working capital management efficiency and corporate governance practices by DFs and MNFs.

REFERENCES

and Accounting 30, 573-587

Dimelis, S., & H. Louri. 2002. "Foreign Ownership and Production Efficiency: A Quantile Regression Approach". *Oxford Economic Papers*, 54(3), 449-469

Dunning, J.H., 1998. "Location and the Multinational Enterprises: A Neglected Factor?". *Journal of International Business Studies* 29(1): 45-66

Edmunds, J.C. 1983. "Working Capital Management in Multinational Companies: An Integrated Approach". *Management International Review*

Fama, E.F., & K.R. French. 1992. "The Cross-Section of Expected Stock Returns". *The Journal of Finance*, 47(2)

Farooqi, J., O. Harris, and T. Ngo. 2014. "Corporate Diversification, Real Activities Manipulation and Firm Value". *Journal of Multinational Financial Management* 27, 130-151, doi:10.1016/j.mulfin.2014.06.010 Frank I, 1980. "Foreign Enterprise in Developing Countries". The John Hopkins University Press, Baltimore Gentry J.A, R.

Business Economics 44(4), 845-865

Grant, R.M. 1987. "Multinationality and Performance

Vaidyanathan, and H.W. Lee. 1990. "Weighted Cash Conversion Cycle". *Financial Management* 19, 90-99

Giovannetti, G., E. Marvasi and M. Sanfilippo, 2015. "Supply Chains and the Internationalization of Small Firms". *Small*

Breusch, T. S., & A.R. Pagan. 1979. "A Simple Test for Heteroscedasticity and Random Coefficient Variation". *Econometric* 47(5), 1288-1290

Byoun, S., and Xu, X. 2013.: "Why Do Some Firms Go Debt Free?". *Asia-Pacific Journal of Financial Studies* 42, 1-38

Byrne, J.P., and N. Fiess. 2016. "International Capital Flows to Emerging Markets: National and Global Determinants". *Journal of International Money and Finance* 61, 82-100 Caves, R.E. 2007. "Multinational Enterprise and Economic Analysis", 3rd edition; Cambridge University Press. Chen, H. 1999. "International Performance of Multinationals: A Hybrid Model". *Journal of World Business* 34(2), 157-170

Connor, G., and S. Sehgal. 2001. "Tests of the Fama and French Model in India", *Discussion paper*, 379, London UK. Deloof,

- M., 2003. "Does Working Capital Management Affect Profitability of Belgian Firms?". *Journal of Business Finance British Manufacturing Companies*. *Journal of International Business Studies* 18 (3), 79-89
- Hansen G.S, and B. Wernerfelt. 1989. "Determinants of Firm Performance: The Relative Importance of Economic and Organizational Factors". *Strategic Management Journal*, 10(5): 399-411
- Hemmert, M., and K. Jackson. 2016. Is there an East Asian model of MNC internationalization? A comparative analysis of Japanese and Korean Firms, *Asia Pacific Business Review* DOI: 10.1080/13602381.2016.1168617
- Hili, A., R. L. Ayed, and H. Lasram 2016. "Differentiation, labor market and globalization". *The Journal of International Trade & Economic Development: An International and Comparative Review*. 25 (6), 809-833
- Hood, N., and S. Young. 1979. *The Economics of Multinational Enterprise*, Longman, London
- Jurajda, S., and J. Stancik. 2012. "Foreign Ownership and Corporate Performance: The Czech Republic at EU Entry". *Finance a úvěr-Czech Journal of Economics and Finance* 62(4), 306-324
- Kim, J.B., and T.M. Li. 2014. "Multinationals' Offshore Operations, Tax Avoidance, and Firm-Specific Information Flows: International Evidence". *Journal of International Financial Management & Accounting* 25 (1), 38-89
- Kim, C.S., D.C. Mauer, and A.E. Sherman. 1998. "The Determinants of Corporate Liquidity: Theory and Evidence". *Journal of Financial and Quantitative Analysis* 33 (3), 335-359 DOI: <http://dx.doi.org/10.2307/2331099>
- Lee, S., M. Kim and Wallace. 2015. "Value Relevance of Multinationality: Evidence from Korean Firms". *Journal of International Financial Management & Accounting* 26 (2), 111-149
- Likert, R. 1932. "A Technique for the Measurement of Attitudes". *Archives of Psychology* 140 1-55.
- Luo, Y., and J.J. Tan. 1998. "A Comparison of Multinational and Domestic Firms in an Emerging Market: A Strategic Choice Perspective". *Journal of International Management* 4 (1), 21-40
- Majumdar, S.K. 1997. "The Impact of Size and Age on FirmLevel Performance: Some Evidence from India". *Review of Industrial Organization* 12, 231-241
- Markusen, J.R. 1995. "The Boundaries of Multinational Enterprises & the Theory of International Trade". *Journal of Economic Perspectives*, 9(2), 169-189
- Nikolovova, P., 2013. "Sourcing Patterns of FDI Activity and Their Impact on the Domestic Economy". *Finance a úvěr-Czech Journal of Economics and Finance* 63 (3), 288-302
- Ogundipe, S.E, A. Idowu, & L.O. Ogundipe. 2012. "Working Capital Management, Firms' Performance & Market Valuation in Nigeria". *International Journal of Social, Education, Economics and Management Engineering* (6).
- Page, E. S. 1954. "Continuous Inspection Schemes". *Biometric* 41 (1), 100-115
- Park, R.E. 1966. "Estimation with heteroscedastic error terms". *Econometric* (34), 888.
- Penrose, E.T.1959. *The Theory of the Growth of the Firm*, 1st edition, Oxford University Press, Oxford
- Richards, V.D., E.J. Laughlin. 1980. "A Cash Conversion Cycle Approach to Liquidity Analysis". *Financial Management* 9 (1), 32-38
- Singh, D.P., 2011. "Net Working Capital Level and Return on Capital Employed in Firms of Cement Industries in India". *VSRD International Journal of Business & Management Research* 1(4), 269-280
- Tallman, S., and J. Li., 1996. "Effects of International Diversity and Product Diversity on the Performance of Multinational Firms". *Academy of Management Journal* 39 (1): 179-196
- Teruel, P.J.G., and P.M. Solano. 2007. "Effects of working capital management on SME profitability". *International Journal of Managerial Finance* 3 (2), 164 - 177
- Zaremba, A., and P. Konieczka. 2015. "Are Value, Size and Momentum Premiums in CEE Emerging Markets Only Illusionary?" *Finance a úvěr-Czech Journal of Economics and Finance* 65(1)