AFTERMARKET PERFORMANCE OF INITIAL PUBLIC OFFERINGS AND ITS DETERMINANTS IN PAKISTAN

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This thesis is dedicated to my beloved father and mother; Alamzeb and Zaheen Begum whose prayers are always a springboard for my success. Also, this thesis is dedicated to my wife, my brothers, and sister who have supported me all the way since the beginning of my studies.

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ABSTRACT

The aftermarket performance of initial public offerings (IPOs) is considered a puzzling phenomenon due to its abnormal returns in the short-run as well as in the long-run. In general, an IPO firm generates abnormal positive returns in the short-run and abnormal negative returns in the long-run, which are considered as direct and indirect losses of money for the issuing firm as well as for the investors. Previous studies mainly focused on the firm-and-offerings, and country-specific characteristics to determine the IPO's aftermarket performance. However, very little attention has been given to examining the direct impact of industry-specific characteristics on IPO's aftermarket performance. Therefore, this study aims at determining the aftermarket performance of IPOs and its determinants at industry-specific characteristics along with firm-and-offerings, and country-specific characteristics. This study contributes to the existing body of literature from three distinctive ways. Firstly, this study investigated the impact of firm-and-offering specific, and country-specific characteristics in addition to industry-specific characteristics on the IPO's short-run performance. Secondly, this study examined the impact of firm-and-offering level characteristics in addition to industry level and country level characteristics on the IPO's long-run performance. Thirdly, this study highlighted the relative importance of each level factors that best explains the IPO's short-run and long-run performance. An analysis of 77 non-financial IPO's firms listed on the Pakistan Stock Exchange (PSX) was conducted from the period of 2000 to 2015. This study utilized three estimators namely ordinary least square, logit, and probit regression to determine the both IPO's short-run and long-run performance. To examine the relative importance of each level factors, this study employed artificial nested testing procedure and nested statistics. The results demonstrated that the industry-specific factors such as munificence, dynamism, and industry concentration as well as country-specific characteristics such as rule of law, corruption perception, and political risk play an important role in determining the IPO's short-run and long-run performance. Furthermore, the industry-specific and country-specific characteristics explained about 7% and 9% of the variation in the level of IPO's short-run performance (underpricing), respectively. However, in the long-run, about 8% and 19% of the variations in the level of underperformance were caused by industry-specific and country-specific characteristics, respectively. The outcome of this study provides policy direction and practical implications for firms and investment banks to better understand the behavior of IPO's aftermarket performance in protecting the issuing firms and investors from potential losses.

ABSTRAK

Prestasi selepas-pasaran tawaran awam permulaan (IPO) dianggap sebagai fenomena yang membingungkan kerana pulangan yang tidak normal dalam jangka masa pendek dan jangka masa panjang. Secara umumnya, sebuah firma IPO menghasilkan pulangan positif tidak normal dalam jangka masa pendek dan pulangan negatif tidak normal dalam jangka masa panjang yang dianggap sebagai kerugian wang langsung dan tidak langsung untuk firma pengeluar serta pelabur. Kajian terdahulu tertumpu terutamanya kepada firma-dan-tawaran, dan ciri-ciri khusus negara untuk menentukan prestasi selepas-pasaran IPO. Walau bagaimanapun, tumpuan yang sangat sedikit diberikan untuk mengkaji kesan langsung ciri-ciri khusus industri ke atas prestasi selepas-pasaran IPO. Oleh itu, kajian ini bertujuan untuk menentukan prestasi selepas-pasaran IPO dan penentu pada ciri-ciri khusus industri berserta, firma-dan-tawaran dan ciri-ciri khusus negara. Kajian ini menyumbang kepada kajian sedia ada menerusi tiga cara. Pertama, kajian ini mengkaji kesan tahap pengukuhan dan penawaran firma di peringkat negara di samping tahap industri berdasarkan prestasi jangka masa pendek IPO. Kajian ini juga mengkaji kesan penawaran firma yang khusus dan ciri-ciri khusus negara sebagai tambahan kepada ciri-ciri khusus industri pada prestasi jangka pendek IPO. Kedua, kajian ini mengkaji kesan ciri-ciri tahap fima-dan-penawaran sebagai tambahan kepada tahap industri dan tahap ciri-ciri negara pada prestasi jangka panjang IPO. Ketiga, kajian ini menekankan kepada kepentingan relatif bagi setiap tahap faktor yang dapat menjelaskan prestasi jangka pendek dan jangka panjang IPO. Analisis ke atas 77 firma IPO bukan kewangan yang disenaraikan di Bursa Saham Pakistan (PSX) telah dijalankan dari tempoh tahun 2000 hingga 2015. Kajian ini menggunakan tiga penganggar iaitu Kuasa Dua Terkecil (OLS), logit, dan regresi probit untuk menentukan kedua-dua prestasi jangka pendek dan jangka panjang IPO. Untuk mengkaji kepentingan relatif setiap faktor tahap, kajian ini menggunakan prosedur ujian berkelompok dan statistik berkelompok. Keputusan menunjukkan bahawa faktor-faktor khusus industri seperti kelimpahan pertumbuhan, kedinamikan dan tumpuan industri serta ciri-ciri khusus negara seperti peraturan undang-undang, persepsi rasuah, dan risiko politik memainkan peranan penting dalam menentukan prestasi jangka pendek dan jangka panjang IPO. Tambahan pula, ciri-ciri khusus industri dan negara masing-masing menjelaskan lebih kurang 7% dan 9% daripada perbezaan pada tahap prestasi jangka pendek IPO (harga bawah). Walau bagaimanapun, dalam jangka masa panjang, kira-kira 8% dan 19% perbezaan pada tahap prestasi rendah adalah disebabkan oleh ciri-ciri khusus industri dan negara. Hasil kajian ini menyediakan hala tuju dasar dan implikasi praktikal untuk firma dan bank-bank pelaburan untuk lebih memahami tingkah laku prestasi selepas-pasaran IPO untuk melindungi firma pengeluar dan pelabur daripada kemungkinan mengalami kerugian.

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ANTP	-	Artificial Nested Testing Procedure
BHAR	-	Buy-and-hold Adjusted Returns
CAR	-	Cumulative Abnormal Returns
CLA	-	Corporate Law Authority
CPI	-	Consumer Price Index
EW	-	Equally Weighted
GDP	-	Gross Domestic Product
HHI	-	Herfindahl-Hirschman Index
IPO	-	Initial Public Offerings
ISE	-	Islamabad Stock Exchange
KSE	-	Karachi Stock Exchange
LSE	-	Lahore Stock Exchange
OLS	-	Ordinary Least Square
PSX	-	Pakistan Stock Exchange
PIPO	-	Privatize initial public offerings
PPP	-	Purchasing Power Parity
SBP	-	State Bank of Pakistan
SECP	-	Securities and Exchange Commission of Pakistan
VW	-	Value Weighted
WR	-	Wealth Relative

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CHAPTER 1

INTRODUCTION

1.1 General Overview

An initial public offering (IPO) or going public is the recognition of achievement for entrepreneurs, venture capitalists and board of directors to establish strong business organisation. Moreover, a business organisation also demonstrates its success by creating values for employees, customers, and investors by issuing shares to general public. According to Allison *et al.* (2008), an initial public offering is a remarkable decision in the life of a firm that enables it to enter a new stage of life as a public company that possesses its own unique opportunities, risks and challenges. Opportunities consist of a wider access to financial market, enhanced corporate reputation, and expanded products and services. On the other hand, IPO's firm has to face a unique risk of 'undervaluation' in the primary market and 'uncertainty' on the valuation of share price in the secondary market (Beatty and Ritter, 1986). Similarly, IPO firm possesses challenges of facing new obligations such as the disclosure of financial information, dilution of earnings and dilution of control (Madura, 2014).

Initial public offerings are of great interest for market practitioners and academic researchers' due to its puzzling phenomena of underpricing and underperformance. According to Ritter and Welch (2002), IPOs appeared to be underpriced in the short-run and underperformed in the long-run. The underpricing and underperformance are direct and indirect losses of money for the issuing firm and

for the investors, respectively. Loughran *et al.* (1994) argued that IPO firms and investors are more affected in the developing countries as compared to developed countries due to differences in institutional settings. Since the last three decades, researchers put forwarded several theoretical and empirical justifications to explain the aftermarket abnormal performance of IPOs. Nonetheless, the issuing firms and investors are still facing the problem of underpricing and underperformance across the globe.

1.2 Background of the Study

An initial public offering occurs when a privately held company decided to issue securities to general public for the first time (Madura, 2014). Usually, businesses start-out their operation by raising funds from private investors with limited liquidity of shares. If a business flourish and need further funds, it will at some points prefer to go public by issuing securities to general public. By issuing publicly traded equity, the firm establishes both a value for the firm and a market for its common stock. It also provides a place for trading the firm's shares, enabling its current shareholders to diversify their investments.

Going public is an important decision in the life cycle of a firm as the majority of IPO firms are young and risky. Hence, the success and failure of IPOs are highly related with the IPO's share price performance in the secondary market. A large strand of literature documented two persistent anomalies associated with IPO's aftermarket performance, which are; (i) underpricing and (ii) underperformance. Underpricing refers to the high initial returns generated by IPOs on the first trading day. It occurs when the first-day trading price (market price) is more than the offer price. In the context of IPO literature, initial return and underpricing are being used interchangeably. The term underperformance refers to the negative abnormal returns generated by IPOs over their first few years of listing compared to the market return. Thus, underpricing is associated with the short run performance of IPOs. Nevertheless, underperformance is associated with the long run performance of IPOs.

Reilly and Hatfield (1969) and Logue (1973) are the earliest researchers stating that on average, IPOs can generate abnormal positive initial returns. The observed abnormal returns of IPOs have raised several questions on the market efficiency. The first major academic study by Ibbotson (1975) highlighted that the abnormal positive returns in the secondary market are resulted from the underpricing of shares in the primary market. To address the question of why IPOs are underpriced in the primary market, researchers developed several theories and hypotheses. The most plausible explanation for underpricing phenomenon is based on the information asymmetry theories mainly in the form of ex-ante uncertainties about share prices (Ljungqvist, 2007). Additionally, asymmetric information theories of underpricing assumed information disparity between underwriter banks, investors and issuing firms.

A study by Baron (1982) identified that an underwriter has better information on market condition than the issuer, which therefore induced underpricing to achieve optimal selling target. Similarly, Rock (1986) documented the informational asymmetry among investors and argued that IPOs must be issued at discount price to attract uninformed investors. However, Welch (1989) conjectured that issuing firm has better information on the true value of the firm and accept underpricing as signal of good quality. Consistent with information asymmetric theories, Beatty and Ritter (1986) claimed that ex-ante uncertainty regarding IPO's share valuation can affect the aftermarket performance. In other words, higher the ex-ante uncertainty the higher will be the underpricing. As such, the more investors are uncertain on the valuation of shares, the higher will be the information asymmetry that leads to higher underpricing in the short-run and underperformance in the long-run. The hypothesis of ex-ante uncertainty has established remarkable empirical support since majority of the asymmetric-information theories on IPO underpricing has discovered a significant relationship between ex ante uncertainty and underpricing (e.g. Banerjee et al., 2011; Benveniste et al., 2003; Engelen and van Essen, 2010; Habib and Ljungqvist, 2001; Ljungqvist and Wilhelm, 2003; Megginson and Weiss, 1991).

In the pursuance of long-term performance, several studies documented that IPOs underperform over the longer horizon (Ritter, 1991; Aggarwal and Rivoli, 1990; Dawson, 1987; Miller, 1977; Ibbotson, 1975). The first comprehensive study on the

IPOs long run performance was conducted by Ritter (1991). He argued that the lower long-run returns of IPOs compared to other non-IPO firms indicate that IPOs in the primary market are not too much underpriced. Nonetheless, the first day aftermarket price was too high. To justify the IPOs long-run underperformance phenomena, researchers put forwarded several theories and hypotheses. The most prominent justification on the long-run underperformance is the divergence of opinion and windows of opportunity hypothesis. Miller (2000, 1977) and Aggarwal and Rivoli (1990) presented conjectured that ex-ante uncertainty is associated with IPO's share price due to the valuation differences given by optimistic and pessimistic investors. The optimistic investors assumed the growth prospect of the IPO firm and tend to purchase the issue above fair value, resulting in the increase of share prices on the first trading day. However, as more information revealed, the stock prices tend to decrease to its fair value and underperform in the long-run. The more ex-ante uncertainty exists in the market; there will be greater divergence of opinion (Bondt and Thaler, 1985). In such case, high initial returns in the short-run are followed by underperformance in the long-run. Similarly, Loughran and Ritter (1995) and Teoh *et al.* (1998) posits the "windows of opportunity" hypothesis and stated that managers take the advantage of investors' optimism and issue IPOs in the period of high volume and high initial returns causing the IPOs to over perform in the short run and subsequently underperform in the long-run.

In subsequent studies, Ibbotson and Jaffe (1975), Ritter (1984) and Aggarwal and Rivoli (1990) conjectured that IPOs appeared in the periodic patterns of cycles in terms of volume and to the extent where the initial returns are high (underpricing). These periodic cycles of high volume and high initial return are referred to as "hot issue" market. Meanwhile, the periods of relatively low volume of IPOs and low return are known as "cold issue" market. IPOs issued in 'hot market' are likely to generate high initial return in the short run and lower return in the long-run. In contrast, IPOs issued in the 'cold period' are relatively less underpriced and perform well in the long-run. Ibbotson *et al.* (1988) demonstrated that underpricing is positively related to the period of high number of offerings. There have been a few theoretical explanations for the hot issue market phenomenon. Based on the assumption that riskier issues tend to be underpriced to a greater extent, Ritter (1984) suggests changing risk composition

hypothesis that the periods where more risky firms would go public may have higher initial returns. The riskier firms are difficult to value and as such, uninformed investors will be more uncertain on the aftermarket price. Hence, these firms will have higher average initial returns followed by lower return over long-run. Similarly, Aggarwal and Rivoli (1990) argued that fads occur in hot issue periods when investors are overoptimistic about the growth potential of the firms that go public. Optimistic investors overvalued IPOs in the early market tend to generate high initial return, which then fads in the long-run.

Considerable amount of literature also focused on the behavioural aspect of investors on the aftermarket performance of IPOs. Barberis *et al.* (1998) presented a seminal model of investor sentiment and stated that investors overreact or under-react to particular event and opt to purchase shares over and above the market price. Investor sentiment is the overall attitude of investors towards a specific security or market. In the literature, of behavioural finance investor sentiment and market sentiment are interchangeable used. In contrast, to the efficient market hypothesis, investor sentiment models are based on the investor's feelings rather than firm's fundamental analysis. Following Miller (1977) and Barberis *et al.* (1998) theory of investor's behaviour, Derrien (2005), Cornelli *et al.* (2006), and Ljungqvist *et al.* (2006) showed that investor sentiment is an important determinant for IPO pricing, and underwriters take advantage of investor sentiment by setting an offer price above its intrinsic value. Investors' sentiment exhibits positive short-run returns after the offering followed by a negative return in the long run.

1.3 Background of the Problem

Numerous studies have been conducted on IPOs aftermarket price performance behaviour in different markets. Most of the works on IPOs aftermarket price performance behaviour have been thoroughly investigated in the developed countries mainly in the US and European markets. With regard to US market, Ibbotson (1975), Ibbotson and Jaffe (1975), Beatty and Ritter (1986), Ritter (1991), Tinic (1988), Peavy

(1990) and Ibbotson *et al.* (1994) reported 10% to 15% of initial underpricing and up to -17.5% underperformance in the long-run. Similarly, the studies of Levis (1993) and Khurshed *et al.* (2005) documented average underpricing of 15% to 20% and -19.92% to -24% of underperformance in different European countries. The phenomena of underpricing and underperformance appeared more severe when it comes to emerging markets. Dawson (1987) investigated the IPO's short run and long run performance in three Asian markets of Malaysia, Hong Kong and Singapore during 1978-1983. He reported the highest underpricing of 166.5 % in the emerging market of Malaysia compared to the other two. However, in the long run, Malaysian IPOs generated positive abnormal return (over-performance) of 18.2 % than Singapore and Hong Kong markets where their IPOs have underperformed in the long-run. In another study, Aggarwal *et al.* (1993) examined the performance of three Latin American countries and found 78.5%, 16.3% and 2.8% of underpricing for Brazil, Chile and Mexico, respectively.

Recently, Alanazi and Al-Zoubi (2015) found discovered extreme underpricing (227.4%) of IPOs in six Gulf Cooperation Council (GCC) countries comprising Oman, Saudi Arab, Bahrain, United Arab Emirates and Kuwait. Loughran *et al.* (1994) argued that the phenomena of underpricing and underperformance are associated with every capital market across the globe. However, the magnitude of underpricing and underperformance varies from one market to another, but found in a greater extent in developing countries. For example, the initial returns range from 4.2% in Russia to 137.4% in China, as well as 149% in Jordan and 264.5% in Saudi Arabia. The large variations in the underpricing and underperformance of IPOs across countries are due to the differences in the firm characteristics and market-specific characteristics (Moshirian *et al.*, 2010; Engelen and van Essen, 2010; Ritter, 2003).

Most studies documented that firm-specific characteristics determine IPO's short run and long run performance (Anderson *et al.*, 2015; Sahoo and Rajib, 2011, 2010; van der Geest and van Frederikslust, 2001; Hamao *et al.*, 2000; Wasserfallen and Wittleder, 1994; Carter and Manaster, 1990; Allen and Faulhaber, 1989; Beatty and Ritter, 1986). The firm characteristics such as age of firm, size of firm, leverage, ownership structure and financial strength indicate the ex-ante uncertainty surrounding

IPO's firms influencing the underpricing and underperformance (Beatty and Welch, 1996). For example, small and young firms are riskier than large and older firms, therefore exhibiting high initial returns in the short run and subsequently underperform in the long run. Similarly, Miller (2000) conjectured that due to the related ex-ante uncertainty, smaller and younger firms are subjected to divergence of opinion in the long run. Henceforth, IPOs underperform over the longer horizon. Likewise, other firm-specific characteristics such as age of firm, financial strength, growth of firm and leverage indicate ex-ante uncertainty that affects aftermarket performance of IPOs (Gasbarro *et al.*, 2003; Banu Durukan, 2002; Carter *et al.*, 1998).

Some studies have undertaken the issue of underpricing and underperformance at offering-specific level factors (e.g. Belghitar and Dixon, 2012; Carter and Manaster, 1990; Lee *et al.*, 1996a; Michaely and Shaw, 1994, 1995; Song *et al.*, 2014; Vong and Trigueiros, 2010). The offering-specific factors are the factors that are specific to the IPO's processes such as underwriter reputation, auditor reputation, oversubscription, offer size and time of listing. Carter and Manaster (1990) and Michaely and Shaw (1994) suggested that reputable underwriter and auditor reduce the ex-ante uncertainty surrounding the IPO's firm and subsequently reduce the underpricing and underperformance. Similarly, Agarwal *et al.* (2008), Lee *et al.* (1996) and Belghitar and Dixon (2012) demonstrated that offering level factors such as oversubscription, time of listing and offer size are able to influence the IPO's underpricing and underperformance. In conjunction with ex-ante uncertainty and divergence of opinion hypothesis, a large number of empirical literature has underlined the issue of underpricing and underperformance at firm and offer level together from various perspectives (Dhamija and Arora, 2017; Perera and Kulendran, 2016; Agathee *et al.*, 2014, 2012; Guo *et al.*, 2011; Alli *et al.*, 2010; Chorruk and Worthington, 2010; Francis *et al.*, 2010; Hasan and Quayes, 2008; Kerins *et al.*, 2007; Guo *et al.*, 2006; Boabang, 2005; Hibara and Mathew, 2004; Corhay *et al.*, 2002; Hameed and Lim, 1998). These studies depicted that firm-and-offering level characteristics determine the IPO's short run and long run performance.

Likewise, the seminal study of Ritter (1984) highlighted that the IPOs underpricing and underperformance also depend on the market condition at the time

of offering. Favourable pre-IPO market conditions can cause more optimistic expectations on the prospects of the firm and more favourable initial return in the short run (Lowry *et al.*, 2010). Meanwhile, Ritter and Welch (2002) argued that IPOs issued during 'hot issue' market are more underpriced in the short run and underperformed in the long run. Similarly, Rajan *et al.* (2003) documented that IPOs issued at the time of high market sentiment are highly underpriced in the short run and subsequently underperform in the long run. Likewise, Cassia *et al.* (2004) and Lowry *et al.* (2010) stated that the country level pre-IPO market sentiment, market return, hot issue market and market volatility can affect the IPO underpricing and underperformance.

Furthermore, in the literature of law and finance, La Porta *et al.* (1997, 1998, 2002) highlighted that besides the market condition, institutional quality of a country can also explain the differences in development of financial markets and subsequently the decision of business entities and investors. Thus, an effective institutional quality reflects the good governance of a country that protects investors' rights. This enables the firm to raise external capital in a better way. Similarly, Himmelberg *et al.* (2004) showed that firm operating in a weaker legal protection exhibits a high uncertainty and leads to a high cost of capital. In another study, Chiou *et al.* (2010) argued that better quality of a country's legal system provides better legal protection to investors' rights. Therefore, better quality of legal system and protection of investors' rights are associated with lower uncertainty and asset's volatility.

Following La Porta *et al.* (1997, 1998, 2002), a small number of studies have recently diverted their attention towards the impact of country-level institutional quality on IPO's underpricing (e.g. Autore *et al.*, 2014; Engelen and van Essen, 2010). Autore *et al.* (2014) argued that country level institutional quality and quality of legal enforcement keep the balance of power between insiders and outsider investors. Thereafter, this reduces the information asymmetry in the form of ex-ante uncertainty and underpricing. Moreover, Engelen and van Essen (2010) conjectured that effective institutional quality and legal enforcement of a country can reduce the ex-ante uncertainty by minimising investors' fear of expropriation from insiders that may subsequently reduce the IPO's aftermarket underpricing in the short run. The country level institutional quality in terms of investors' protection may increase or decrease

the information asymmetry surrounding IPOs firms and subsequently underpricing. Other country level factors including macroeconomic economic variables have a very weak theoretical foundation with IPO's underpricing and underperformance. As such, these variables are more concerned to the cash flow of the firm instead of information asymmetry. However, IPO's underpricing and underperformance depend on the information asymmetry between insiders and outsiders. Thus, besides market conditions of other country level factors including rule of law, judiciary system, level of corruption and political environment also have the ability to affect information asymmetry in the form of ex-ante uncertainty surrounding IPOs and thereby underpricing (Autore *et al*., 2014; Engelen and van Essen, 2010).

Furthermore, Engelen and van Essen (2010) and Autore *et al.* (2014) demonstrated the impact of country level factors only on the short run performance of IPOs. However, these studies do not address the impact of county level factors on the IPO's long run performance (underperformance). These studies revealed that the country level factors affect information asymmetry in the form of ex-ante uncertainty and thereby underpricing in the short run. Nevertheless, Miller (1977, 2000) argued that the higher the ex-ante uncertainty, the greater the divergence of opinion and henceforth causing the IPOs to underperform over the long run. Thus, based on the divergence of opinion hypothesis, country level factors may affect the long run performance of IPOs. Thus, this has endeavoured the investigation on impact of country-level factors (specifically rule of law, corruption perception and political risk) on IPO's short-run and long-run performance.

Another strand of literature documented that the variation in the IPOs underperformance and underpricing was resulted from the industry effect. For instance, Ritter (1984) reported the high average initial returns in the US during 1980s that were attributed almost entirely to just one industry, which is natural resource industry. Likewise, Johnston and Madura (2002) explained that the technology industry can perform better in the short run and poorly in the long run during dot-com bubble. Moreover, Ajlouni *et al.* (2009) examined the Jordanian IPOs and concluded that IPOs of telecom sector performed better than industrial companies though both the sectors underperformed in the long-run. Karlis (2000) explained that the industries

with little informative history are prone to more uncertainty and exhibit higher underpricing in the short-run. Nevertheless, IPOs firms belongs to high-growth and structurally attractive industries may exhibit higher ex-ante uncertainty and subsequently higher underpricing (Jain and Kini, 2006, 1999; Hensler *et al.*, 1997). Benveniste *et al.* (2003) and Benveniste *et al.* (2002) observed that the issuing firms and potential investors perceived the outcomes of firms in similar industry, which provides more reliable information than that belonged to diverse industries. Therefore, industries tend to have different issues and challenges that may influence the IPO's short-run and long-run performance differently.

The past literature indicated that industry is important to estimate and evaluate the growth and risk of a business, henceforth affecting the aftermarket performance. Single information can affect the industries differently across the whole market. Thus, industry related factors could not be ignored as it could differently affect aftermarket performance of IPOs. To the best of researcher's knowledge, previous studies mainly used industries dummies to control the industry effect (e.g. Dhamija and Arora, 2017; Reber and Vencappa, 2016; Perera and Kulendran, 2016; Anderson *et al.*, 2015; Ho, 2015; Agathee *et al.*, 2014; Boissin and Sentis, 2014; Perera, 2014; Agathee *et al.*, 2012b; Thomadakis *et al.*, 2012; Su and Bangassa, 2011; Chi *et al.*, 2010; Engelen and van Essen, 2010). Such techniques do not deliver a vibrant description displaying the existing consequence of a particular industry's direct impact on IPO's aftermarket performance. Therefore, this permits the need to investigate the direct impact of industry level determinants such as munificence, dynamism and industry concentration on IPO's short-run and long-run performance. It is noteworthy to mention that the seminal study of Certo *et al.* (2009) also suggested that the future researchers may look into the impact of industry condition (i.e. munificence, dynamism and industry concentration) on the IPOs short-run and long-run performance.

The first two variables (munificence and dynamism) are derived from the model of Dess and Beard (1984) known as multi-dimensional model of environment. This model has been used in the context of corporate strategies with variables focusing on the industry's external environmental factors to determine corporate strategy and