



# **MBA Project Paper**

"Infrastructure Project Companies: A Comparative Evaluation of IPC"

Submitted to the

Management Center

International Islamic University Malaysia

In partial Fulfilment of the Requirements for the degree of

Master of Business Administration

Submitted by

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31 October 1997

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## ABSTRACT

This study examines the performance of stocks under the Infrastructure Project Companies (IPC) sector in the Kuala Lumpur Stock Exchange (KLSE) from the period of August 28th, 1996 (the first day of listing for Powertek) to October 24th, 1997 (the last day of data collection). Using the Cumulative Abnormal Return or CAR method and comparing with non-IPC counters, namely the property sector, the study finds that IPC stocks performed comparatively poorly based on the 1-day, 1week, 1-month and 3-month period following the day of listing. Similarly, using the Market Adjusted Return (MAR) method, the study also shows that the IPC stocks repeatedly under-performed during the same periods of study. Comparison with previous studies also confirms the above findings. Additionally, IPC counters consistently attract lower oversubscription ratio versus the non-IPC counters. Furthermore, the evaluation of the price based on the DCF method indicates that the underpricing of the IPO of the IPCs tends to be negligible. From the above findings, it can be concluded that the IPO for the IPC counters failed to attract an equal the number of investors or, in other words, the amount of investment as compared to that of the non-IPC counters. Whereas IPC listing is intended for companies without the normal required track record to raise funds for infrastructure projects in the country and the region, the confidence of the majority of investors in the KLSE does not appear to be well-developed yet.

## **ACKNOWLEDGEMENT**

## Bismillahirrahmannirrahim.

First of all, I wish to offer my gratitude and appreciation to my supervisor, Dr. Mohd Azmi Omar for his guidance and assistance throughout the preparation of the MBA Project Paper. I am in particular grateful and indebted to his patience and understanding during my preparation of the paper, and furthermore, his willingness to meet me as and when required.

I wish to thank my MBA lecturers for providing me with the knowledge and tool to steer intelligently in the ever-changing business world. On special note, I gratefully acknowledge Dr. Obiyathulla Ismath Bacha and Dr. Mohd Azmi Omar for their informative lectures on finance, which further reinforce my interest and enhance my knowledge on the subject matter.

My sincere appreciation to all MBA classmates for motivating and assisting me, in one way or the other, to complete the course, in which at some juncture, it seemed unbearable and impractical to proceed.

Last, but not least, I am especially indebted to family, particularly my wife, son, mother and late father for their constant support, encouragement and understanding throughout the course, without which, the course is of no meaning to me. Wassalam

### CHAPTER I

### INTRODUCTION

The construction sector consists of the *infrastructure*, residential and non-residential sub-sectors. The infrastructure sub-sector is a major sub-sector of the construction industry, accounting for 46% of its value added. The major constituents of the sub-sector are the power plants, airports, roads, rail, water supply, ports, and sewerage and disposal facilities.

In tandem with the development targets in line with Vision 2020, infrastructural needs in terms of transportation, energy and telecommunications require greater attention. Hence these three groups of projects is estimated to account for more than 80% of the total construction value of the infrastructure sub-sector during the next five years as of 1997.

In line with the requirements of capital-intensive nature of the industry, the Kuala Lumpur Stock Exchange (KLSE) had allowed *Infrastructure Project Companies* (IPC) to undergo a direct listing on the Main Board under a new category or sector, IPC, as of September 1995. Among the requirements that need not be met for these counters are the minimum acceptable level in terms of profit track record, etc., under normal listing rules. Thus, due to the absence of historical information, the IPC are still allowed to float based on their projected income, without due justification of the historical cashflows.

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Under IPC listing rules which was released by the Securities Commission (SC) on September 19th, 1995, a Malaysian-controlled company must have a project size of at least RM500 million and a remaining concession period of 15 to 18 years. The project, either local or foreign, must be awarded by the Government or State agencies and have strong cashflow projections. Since the IPC listing is intended for companies to raise funds for infrastructure projects in the country and the region, prior to listing, the IPCs must be backed by comprehensive feasibility reports prepared by independent industry experts. Furthermore, the approval of accountants on the accounting policies used and the reasonableness of financial projections shall also be required. This is to assure investors that the company's future earnings provide a suitable rate of return on their investments. Under the new IPC guidelines, the IPCs are allowed to seek listing before completion of construction, thus bringing in third-party equity when the company need it most.

# Significance of Study

The purpose of the project paper is to provide an in-depth study of the subject matter of interest and significance to the overall management education community. The issues which shall be discussed and addressed are, but not limited to, the following:

- The listing requirements as per Securities Commission (SC).
- The determination of the Initial Public Offer (IPO) price for IPC.
- The performance of IPC upon listing (1-day, 1-week, 1-month and 3-month subsequent to the listing day).

- An in-depth comparative study between the performance of IPC counters and similar non-IPC counters (listing price, market movements, etc.).
- An in-depth study of the IPO price of IPC counters.
- The evaluation of IPC via DCF Pricing.
- The determination of factors that would affect the cashflows of the IPCs.
- The future market outlook for shareholders and investors.

The project paper also identifies the pros and cons of the relaxed requirements for the listing of IPC counters, the subscribers' response and expected listing price of the IPC's IPOs, and the market performance of IPC counters following listing. In all, the project paper shall address the following question: "Is the listing of IPC counters beneficial to the company, subscribers, shareholders, and the market as a whole?"

## Methodology

The methodology of the study shall be divided into two parts:

- (i) in-depth analyses and discussions on IPCs, and
- (ii) comparative analyses on IPO price, listing price, relative price movements and intrinsic evaluation of the IPCs.

Significant differences are expected and the relevant issues are addressed from the comparative studies of the following:

(i) IPC's listing price and price movements vs. non-IPC's

- (ii) IPC's IPO vs. non-IPC IPO oversubscription
- (iii) IPC's IPO price via cashflow (intrinsic value) vs. offer price

### CHAPTER II

LITERATURE REVIEWS AND CONTEMPORARY ISSUES ON INITIAL PUBLIC OFFERS (IPO) AND INFRASTRUCTURE PROJECT COMPANIES (IPC)

## What is an IPO?

When a company experiences rapid but sustainable growth, it may require additional funding to embark on new ventures which are potentially rewarding. The accelerated growth of the company could have imposed financial constraints on existing shareholders from making further investments. As such, an Initial Public Offer, or IPO for short, would be used to raise the required capital. In other words, an IPO is an offer to the public to participate in the equity of the company. There are basically two types of IPOs, namely a public issue and an offer for sale.

A public issue is a sale of new shares to the public by the issuer. New funds are raised for the company and the number of shares outstanding is increased. An offer for sale entails the sale of previously issued shares by their owner, rather than the issuer. No new funds are received by the company and the number of shares outstanding remains the same. In Malaysia, the IPOs are usually a combination of both types of IPOs with the proportion of each type vary depending on the issuer. For research purposes, both types are typically considered similar in nature and they are lump together in total as the number of shares to be offered to the public.

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Countless literature documents are available for Initial Public Offers (IPO) for the Malaysia capital market as well as for other countries. However, literature documents for Infrastructure Project Companies (IPC) are not available as of the time of writing of the project paper. Even the literature reviews for IPO are selected based on the relevance of previous studies to the project paper, and the significant materials are then used for comparative purposes.

The most significant number of studies on IPOs are based on the stock exchanges of the United States, the United Kingdom and Australia. The more notable and comprehensive papers published are by, from the U.S., Reilly (1969), Stoll (1970), McDonald (1972), Ibbotson (1975), Reilly (1975) and Ritter (1984); from the U.K., Davis (1976) and Buckland et. al. (1981); and from Australia, Finn (1988). In all, the studies reported that there were significant underpricing of the IPOs and positive initial performance of the stock relative to the overall market return for the first week and even, the first month of trading.

For the extent of underpricing in Malaysia, Dawson (1984) found that on average, during 1979 through 1993, IPOs involving offers for sale of existing shares had less underpricing and were smaller in size than public offers of new shares. Nevertheless, it was the original shareholders selling shares in offers for sale who incurred the greatest loss from IPO underpricing, 32.5 percent on average compared to 13.6 percent for public offers, while the original shareholders who did not participate in the offer for sale incurred no less at all from the underpricing.

According to Dawson (1984), the hypothesis that offer for sale IPOs will have less underpricing, and involve fewer shares, because underpricing was more costly for the sellers and would therefore be reduced, was supported by the data for the period 1979 through 1993. Nevertheless, because the cost of underpricing IPOs was shared by all the original shareholders in a public offer, and only by the sellers in an offer for sale, the effective cost was greater for the sellers in an offer for sale than for the original shareholders in a public offer.

Based upon the analysis by Dawson (1984), and the observed results for 1979 through 1993, several observations can be made. First, for a variety of reasons IPOs are almost always underpriced. Second, if an IPO is necessary to qualify for listing on the KLSE, and original shares are sold in an offer for sale, the loss is very unequally distributed and the selling shareholders provide a valuable service for the other original shareholders by absorbing the entire loss. Third, the losses can be reduced by getting on both sides of the transaction. Fourth, the decline reported in IPO underpricing in recent years may be at least partly a result of the increased use of offers for sale in IPOs and the greater incentives in offers for sale IPOs to the selling shareholders to reduce the underpricing.

A study by Yong (1991) on the new issues in Malaysia from 1983 to 1988 showed that the returns for these investments were high, especially for the first day, the average return being approximately 167 percent. Based on the findings of the study, it was concluded that there was no significant change in prices after the shares were

listed on the exchange. Though the returns were high on the first day of trading, they were small and insignificant after that. Price changes in the first week of trading, the first week of trading, the first six months and one year after listing were small and insignificant. This finding was similar to most of that found on the other exchanges as observed from other research. It is consistent with the efficient market hypothesis which implies that one would not make an abnormal return if he participated in the market on the day of listing and thereafter.

Yong (1991) reported that the average oversubscription for new issues during 1975 to 1990 was found to be 35 times the offered amount, which works out, for an average applicant, to a mere three percent chance of being allocated. This perception was also reinforced by reported findings that in Malaysia new issues, are underpriced 7.5 times the average normal returns in the stock market.

Yong (1991) analysed underpricing of 65 new issues over 16 years to 1990, and studied the gains to short-term speculators and long-term investors. Specifically, the extent of underpricing in this market was assessed and the reasons offered by theories for the attractiveness of new offers are traced. The findings from the comprehensive study reported the conclusion that the average return in the Malaysian new issue market is 21 percent per annum in the long-run although the first day's underpricing was very lucrative at 135 percent, which was the largest reported for any country. There was also no evidence of excessive underpricing in the longer term as the investors holding new issues over three years obtained only 21 percent

per annum. As a conclusion, the Malaysian new issues market did not generate excessive returns in the long run. Hence, the large underpricing gain was driven mostly by the short-run price pressure, and is not entirely the result of normal factors arising from the reasons advanced in theory.

A paper by Ku Ismail (1993) investigated the price performance of new issues of common stock at the time of initial listing and during the period following their initial listing on The Kuala Lumpur Stock Exchange during the period January 1980 to December 1989. The results indicated significant returns at the time of initial listing and insignificant returns during the period following their initial listing.

Ku Ismail (1993) evaluated a total of 78 companies which had their shares listed during the period January 1980 to December 1989. For the study, all companies were analysed by measuring the returns (or issue price discount) achieved by investors from these new shares upon listing, and the change in these share prices for the first week of listing, the first six months of listing and one year of initial listing.

According to Ku Ismail (1993), theoretically, efficient market hypothesis suggested that the price of newly-issued stock would quickly adjust to reflect the available set of relevant information. If the efficient market model is applicable to the KLSE market of new common stock issues, subsequent price behaviour should be independent of the initial rate of return at offering. Thus, the positive initial performance, as suggested by the authors, was due to underpricing by underwriters.

Here, underpricing means the issue price of new share of stock is lower than the market price when trading begins. It could also be concluded that the size of underpricing, or issue discount, varies from one study to another depending on the general state of the market.

Tay (1993) conducted a study to examine the one to three years aftermarket performance of the IPOs for departures from market efficiency and to examine their aftermarket performance in relation to their initial returns, degree of establishment and market value at the time of listing. Here, the group of smaller firms with the lower initial returns was found to be able to perform the best in the long run. The larger firms with higher initial returns performed the worst. In fact, it consistently underperformed the market in the three-year period. This shows that the size effect of the stocks was further compounded by the size of the initial return.

A study by Brannman (1994) revealed that Singapore initial public offerings during the sample period offer small investors returns significantly greater than could be obtained elsewhere. In addition, very large investors suffer negative average excess returns. These results appeared quite robust, having also been found in studies of Malaysian and Finnish IPO's. An inefficient response by large and small investors to the revised Singapore rationing rules was one explanation. This was supported by the inefficient response explanation, showing that the greater returns to small investors and negative to large investors effects are even more pronounced if the sample includes only oversubscribed issues.

Chang (1994) examined the return and risk behaviour of Malaysian stocks using the Composite Index and its component stocks. At the individual firm level, stock trading at the Kuala Lumpur Stock Exchange (KLSE) was found to stabilise over time within a trading day, while the index portfolio returns failed to reveal any systematic trading pattern which indicated price stabilisation. During the study period, the KLSE utilised the call market system, a periodic single-price auction, to determine order-matching prices at the market open and close of both the morning and afternoon trading sessions. The results of this study suggested that no particular benefit of reducing market volatility is achieved by the call market system. Thus, it raised a question about the justification of KLSE's decision to eliminate the continuous auction system to employ only the call market system throughout the trading hours. Also in the study, it was documented some evidence that trading volume and firm size were important factors which explained for autocorrelations, price reversals, and the behaviour of intraday and interday returns.

In his research, Mohamad (1994) stated that previous studies of initial public offer (IPO) underpricing on the KLSE concentrate on the difference between the offer price to the public and the market price once trading begins, which was a reasonable measure of underpricing for new investors, but not the appropriate measure of underpricing for issues. This paper also presented revised measure of IPO underpricing for use by issuers. They revealed that (1) underpricing measured from the issuer's viewpoint was greater than previously repored, (2) the cost of underpricing IPOs by companies about to be listed on the KLSE were quite high, and

(3) there was thus more room than previously believed for improvement in the accuracy of pricing new share issues.

Dawson (1995) conducted a study of Singapore's 29 new issues from 1979 through 1983 and found evidence, although inconclusive, that underpricing on average has been larger than necessary. The evidence included the amount of oversubscriptions and the wide gap between the underpricing in the study of Singapore market and that of the majority of United States market studies.

The existence of underpricing for IPOs was described in detail by Yong (1996). The empirical evidence accumulated during recent years for almost every capital market in the world had suggested that initial public offerings (IPOs) provide significant abnormal returns on their first day of trading. Earlier studies on the Kuala Lumpur Stock Exchange (KLSE) also documented a similar phenomenon with the Malaysian stocks. The first objective of study done by Yong was to record the levels of underpricing of IPOs in Malaysia over a more recent period than earlier cited. A total of 158 IPOs were examined in the study over the period from January 1990 to December 1993, a period which saw a substantial number of IPOs being offered, and provided a strong indication that IPOs are increasingly becoming more popular among investors in Malaysia. The second objective focused on the possible variables or factors which might have contributed to the levels of underpricing recorded.

Yong (1996) documented an average first day return of 59.253 per cent (57.379 per cent adjusted return), an average substantially lower than the earlier studies on the KLSE. The average oversubscription ratio of 28.028 times was also lower than the earlier studies. This study also showed that returns tend to decline after the first week and the first month of trading. However, significant positive mean returns could again be received after the third month. An early study by Dawson (1987), from 1978 to 1983, using 21 new issues, reported a positive average initial return (first day closing price compared to offer price) of 166.7 per cent for the Malaysian stocks. Yong (1991) documented an average initial return of 167.4 per cent; with an average oversubcription ratio of 45.9 times. The returns after one year average 26.323 per cent, was found to be significantly less, i.e. 4.886 per cent, after adjustment for market movements.

Md. Isa (1996) presented a study on the short-run and long-run aftermarket performance of Malaysian IPOs. The study analysed 126 newly listed shares over the period of 12 years starting from 1980 to 1991. The empirical findings of the paper revealed that all sectors reported initial excess returns thus suggesting that the level of underpricing of the Malaysian IPOs was great and prevalent. The figure for the entire sample was recorded up to 76.8 percent. However, returns in excess of the market thereafter was not apparent. In general, the aftermarket performance of new issues is consistent with the notion of market efficiency.

In his study, Md Isa (1996) also concluded that there was no indication of the existence of the size effect as there was no clear relationship between firm size and initial returns. However, it was observed that there were differences in performance of 'public issue' IPOs and 'offer for sale' IPOs. It was found that public issues initial premium was doubled that of offer for sale. As an explanation, the original shareholders insisted on higher offer price for the 'offer for sale' IPO, where as 'public issue' IPO is greatly influenced by pricing practices of the underwriters who preferred higher discount.

#### CHAPTER III

# INFRASTRUCTURE PROJECT COMPANIES IN MALAYSIA

Securities Commission (SC) provide the following guidelines as to the assessment of any proposal in relation to the public offering of or the listing and quotation on the stock exchange of or the public offering of and the listing and quotation on the stock exchange of securities of public companies having investments in infrastructure projects. By definition, "infrastructure project" means a project, whether located in Malaysia or outside Malaysia that contributes to the overall economic growth of Malaysia or which is in accordance with national economic objectives and policies, for which a concession or licence has been awarded by a government or a state agency, in or outside of Malaysia. The condition of the infrastructure project is that the remaining concession or licence period of is not less than 18 years from the time the proposal is submitted to the Securities Commission or with a remaining concession or licence period of not less than 15 years from the time the proposal is submitted to the Securities Commission if the Securities Commission is satisfied that the applicant is disadvantaged by the timing of the introduction of these guidelines relative to the timing of the granting of the concession or licence to the applicant. Additionally, the project costs shall not be less than RM500 million and is able to generate income of an amount sufficient to give a suitable rate of return to its shareholders.

## Specific Guidelines

The applicant must be a public company having investment in an infrastructure project. Where a public company is incorporated outside Malaysia, at least 51% of its issued and paid up capital must be held by one or more Malaysian residents and its key personnel must be Malaysian residents. The Applicant's paid up share capital must be at least be RM40 million.

The objectives of the fund-raising shall be clearly defined with the utilisation of proceeds of the fund-raising must not be for any other purposes other than the declared objectives. Proceeds of any public issuance of securities by the applicant must be wholly utilised towards the completion of the infrastructure project including the utilisation of proceeds to reduce debt borrowings. However, in the case of an infrastructure project which has already generated operating pre-tax profits for at least two consecutive years preceding the date of submission of the Proposal to the Securities Commission, the Securities Commission would consider allowing existing shareholders of the applicant to undertake an offer for sale. Where the funds raised by the applicant are to be utilised to repay debt borrowings, the merchant bank must submit to the Securities Commission documentary proof of the repayment upon settlement.

The applicant shall offer its securities such that at least 25% of the nominal issued and paid-up capital and not more than 49% of the nominal issued and paid-up capital would be in the hands of the public at the time of the applicant's admission to the

Main Board. Of the 25% nominal issued and paid-up capital of the applicant which is in the hands of the public, at least a minimum percentage of the nominal issued and paid-up capital must be held by not less than 500 investors holding not more than 10,000 shares each and not less than 500 shares each, as follows:

Nominal value of issued and paid-up capital	Minimum percentage
Not exceeding RM50 million	15%
Not exceeding RM100 million	12.5%
Not exceeding RM200 million	10%
Exceeding RM200 million	Such percentage as may be approved by the
	Securities Commission but in any case not less
	than RM20 million.

Where the nominal value of the issued and paid up capital of the Applicant is RM200 million or more, the Securities Commission would consider allowing an Applicant to apply a lower percentage of the nominal value of its paid up capital to investors who hold not more than 10,000 shares each and not less than 500 shares each but in any case the amount must not be less than RM20 million.

As a technical requirement, the applicant must have an independent feasibility report of the infrastructure project prepared by a reliable and independent expert.

ers holding less than 51% of the ordinary shares of the Applicant upon its admission to the Main Board.

The price of the securities to be offered shall be determined and agreed upon between the applicant and the underwriters. However, the Securities Commission shall approve the price of the securities to be offered to the persons forming the group of investors in consultation with the applicant and the underwriters.

The following are some information of the Infrastructure Project Companies (IPC) in this study: <u>Powertek Berhad</u>, <u>Lingkaran Trans Kota Holdings Berhad</u> (<u>Litrak</u>), <u>YTL</u> <u>Power International Berhad</u> and <u>Puncak Niaga Holdings Berhad</u>.

#### POWERTEK BERHAD

On 26 June 1996, Powertek received the approval of the Securities Commission for its listing on the Main Board of the Kuala Lumpur Stock Exchange. The approval represents a major milestone for the Malaysian Securities Industry and Powertek itself, as it makes Powertek the first infrastructure project company, or IPC, to be approved under the SC's Guidelines for the Public Offerings of Securities by sizeable IPCs (IPC Guidelines). These IPC Guidelines are a recent development and allow qualified IPCs requiring substantial investments to seek listing without a track record provided that such a company has a healthy and predictable income stream and profit potential for a remaining contractual period of at least 18 years. By this approval, Powertek has also achieved the distribution of being the first IPP to be quoted on the KLSE.

Powertek is one of the five pioneer IPPs in Malaysia. It operates a 440 MW (nominally rated) peaking power station located at Teluk Gong, Melaka and achieved full commercial operations on 18 June 1995. The Power Station utilises four dual fuel 110 MW turbines and it despatches electricity to Tenaga Nasional Berhad (Tenaga), its sole customer, as and when required. Gas for the turbines is supplied by Petronas via a dedicated spur gas pipeline. The turbines can also run on diesoline which is stored at the plant as an alternative fuel in the event of an interruption in gas supply.

As governed by the Operation and Maintenance Agreement (OMA), the operation and maintenance of the Power Station is carried out by a subsidiary company, Sendi Prima. The engagement will be for a term of 12 years with negotiation for adjustment of fees after the fifth year. There is an option to terminate if the parties to the OMA cannot agree on fee adjustment. Sendi Prima's obligations under the OMA has been guaranteed by IVO Generation. IVO Generation offers its services internationally in power plant operation, maintenance and installation to other utilities, substation operators and industry and presently operates and maintains 52 power stations globally including 19 power stations throughout Finland and 2 in England.

Powertek receives Capacity Payments from Tenaga for ensuring dependable capacity while meeting minimum operating requirements. Except in certain circumstances, Tenaga is thus obliged to make payments to Powertek even if electricity is not despatched to Tenaga. When Tenaga receives electricity from the Power Station, it is

also obliged to make energy payments to the Company to cover costs and include a minimum fair return incurred in generating electricity. The energy payments assume a certain level of operating efficiency and have a cost pass-through feature, whereby these payments vary with the cost of fuel, among other contributing factors, and feature inflation adjustments based on the Producer Price Index (PPI) for Peninsular Malaysia. The relationship between Tenaga and the Company including terms of the payments, are governed by a Power Purchase Agreement (PPA) dated 10 December 1993.

The entire power station costs of RM620 million comprised primarily of the Engineering, Procurement and Construction Turnkey Contract sum of RM472 million, custom duties and sales taxes of RM52 million, gas pipeline connection fees of RM19 million and land costs of RM18 million. The costs were financed primarily by shareholders equity of RM115 million, RM422 million of bank borrowings and deferred custom duties and sales taxes of RM52 million.

Historically, electric power generation in Malaysia was primarily underaken by government-owned utilities. However, in 1990 the Government announced its intention to privatise the electricity industry and on 30 August 1990, the Electricity Supply (Successor Company) Act 1990 was passed to facilitate the transfer of the entire assets and business of Lembaga Letrik Negara to the newly incorporated Tenaga as a first step in the privatisation of the electricity industry. The electricity Supply (Successor Company) Act 1990 was also passed to cater for the advent of