

## **Accountability in Public-Private Partnership Projects: A Financial Analysis of Malaysian Highway Authority**

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**Abstract:** In line with the current development worldwide, the provision of public infrastructure in Malaysia is undertaken using the public-private partnership approach (PPP). This study explores the way in which accountability is demonstrated in Malaysian tolled highway sector. The study uses the case study approach to examine the implications of PPP arrangement on accountability in the tolled highway sector. In addition, they study also undertakes financial analysis which is obtained from accounting items extracted from the annual reports of Malaysian Highway Authority (MHA), a statutory body. The study finds that the reporting of public sector in the tolled highway sector is opaque, indicating that the attribute of accountability is impaired.

**Key words:** Public-private partnership • Accountability • Financial statement • Qualitative content analysis  
• Malaysia

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### **INTRODUCTION**

The provision of public infrastructure has changed significantly over the last decades. Traditionally, the public sector has been the sole provider as well the financier of public infrastructure and related services. However, with the development of various policies in the public sector driven by the liberalization [1] and new public management (NPM) agenda [2, 3] there has been a move to include the private sector in the provision of public infrastructure. The new approach calls for collaboration between both the public and private sector in providing public infrastructure and amenities, hence giving birth to the concept of ‘public-private partnership’ (PPP) mechanism [4]. The change in the way of public infrastructure provision which began in the developed countries has swiftly spread to developing countries.

According to a survey of PPP work, the number of total planned and funded PPP road projects worldwide since 1985 is 1,023 with capital expenditure amounting to US\$573,205 million in comparison to sectors like rail with 289 projects and capital expenditure at US\$383,754 million; water which has 741 projects with capital costs of US\$135,635 million and buildings with 511 projects that involves capital expenditure of US\$104,685 million [5]. The

roads sector therefore has the highest amount of capital investment. This shows that road is an important sector in the public infrastructure around the globe even though the manner in which public infrastructure is provided has changed significantly.

However, despite the change in the approach of public infrastructure provision, research shows that the public is affected in the following ways: as the user of the public infrastructure as well as the taxpayers. For example, evidence in the UK shows that PPP approach is costly in comparison to the traditional method of public financing [6]. Elsewhere, in Spain, research shows that the public subsidy is required in various forms like loan provisions and compensation payment to make the arrangement work [7]. In other instances, for example in the Latin America and the Caribbean region, East Asia and Africa, the public will not only have to bear higher cost of finance; they would also be adversely affected if such projects are cancelled, taken back into public ownership or renegotiated [8].

Whilst the literature on PPP approach in the developed countries is discussed extensively, the issue is little explored in the context of a developing nation. Hence, in an attempt to address this gap, this study is undertaken with the following objectives:

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- To find out how accountability is demonstrated in Malaysian tolled highways sector by analyzing the financial affairs of the public sector as well as the manner in which the PPP financial arrangement between the public and private sector is reflected and presented in the financial statements of the public sector.
- To ascertain the manner in which the PPP financial arrangement between the public and private sector in Malaysian tolled highways has financial consequences to the public.

### **MATERIALS AND METHODS**

This section reviews the literature in PPP arrangements before discussing the notion of accountability. The background of Malaysian tolled highway sector is also discussed in this section.

**PPP - a Costly Approach?:** Public-private partnership or the PPP approach has been increasingly adopted by many countries worldwide as a way to provide public infrastructure. Whilst there are many forms of PPP mechanism which are also known in different terminologies in many countries; in essence PPP projects can be categorized as such if the following criteria are present: Firstly, the business relationship between the public and the private sector is a long term one, ranging from a more common 30 years [4] up to 60 years [9]. Secondly, in the PPP approach the role of ‘provider’ is undertaken by the private sector which is entrusted with the responsibilities of carrying tasks like designing, financing, building and operating functions [9]. Related to this feature of PPP approach, the third criteria of PPP mechanism is that the public sector will instead undertake the role of the ‘purchaser’; paying the private sector for the public infrastructure provision for an agreed period of time [4]. Fourthly, since the private sector is responsible for the provision of the infrastructure and related services, the risks associated with the projects are generally transferred to the private sector [10, 11].

The adoption of PPP approach is facilitated by the change in public sector, which was driven by the liberalization agenda [12]. In addition to this factor, PPP approach gains popularity and wide acceptance as this arrangement allows the provision of public infrastructure which the government could not otherwise afford [13]. Although the adoption of PPP method in the provision of public infrastructure has been hailed as the effective and

efficient way of providing infrastructure, international evidence shows that this arrangement is costly. For example, evidence in the UK shows that the cost of tolled highway provision doubles the cost the public finance [14, 6]. In other words, these studies find that it is much more expensive to use private funds to finance the highway than using public finance. The issue of high cost of finance if private sources of funds are used became more apparent to public interest since it is also found that not all risks associated with the infrastructure provision are effectively transferred to the private sector [8, 15, 16]. This means that the public purse would be doubly hit through firstly, increased cost of finance and secondly, through a reduction in public purse if financial support are provided to the private concession companies in the event that the projects could not be completed favourably.

**Accountability:** The literature discussed in the previous section indicates the following points: firstly, the provision of public infrastructure needs large amount of financing to undertake these projects effectively. Secondly, the provision of infrastructure constitutes public interest. The public interest in the provision of infrastructure becomes more pronounced as worldwide evidence show that the contemporary approach via PPP arrangement is costly in comparison to the traditional method of financing. In addition, the public would be adversely affected if the public purse is used to rescue problem projects. In the light of this matter, it is useful to review literature concerning accountability and its relation to the issue of public interest. Whilst it is not always easy to find a structured definition for accountability [17], Mulgan [18] provides a broad framework that encapsulates the nature of accountability in the following: ‘...who is accountable to whom, for what and how.’ It can thus be implied that the notion of accountability enfolds the following dimensions: the party held accountable, the party who requires accountability, the expected attributes of accountability and the manner in which accountability is executed.

With respect to the provision of public infrastructure, it is clear that the public is the end user of the infrastructure and related services and hence would require accountability in the execution of such projects. The government on the other hand, provides such services. In view of this circumstance, in the provision of public infrastructure ‘... the governmental entity usually has a duty to manage the assets and make use available

to the public' [19]. In discussing the governmental responsibility of managing the assets further, it is also helpful to discuss the manner in which the accountability is executed. The attribute of accountability is present if information is not kept hidden between the accountant and accountee [20] and if it exhibits openness in the disclosure of information [21]. In this regards, it is important to note that financial reporting has a role to play in achieving accountability (Governmental Accounting Standards Board (GASB) [22]).

Previous studies use financial analysis method which is based on publicly available financial statements and related secondary data to analyze the cost of financing PPP tolled highways as well as the accounting and reporting of these projects [14, 6, 7]. These studies find that the accounting and reporting of tolled highways operated using the PPP schemes are complex and opaque. Therefore, the lack of transparency surrounding PPP tolled highways accounting and reporting implies that accountability is not apparent in this type of arrangement.

Earlier studies on PPP arrangements focus on the development of such schemes in the developed countries. There is little literature that discusses the accountability of PPP arrangement in developing countries. This study hopes to contribute to the body of literature on accountability and accounting and reporting of PPP projects by providing a discussion on Malaysian tolled highway sector based on the financial analysis of a public body.

**Malaysian Tolled Highway Background:** In Malaysia, the tolled highways were first built, developed, operated and financed by the Malaysian Highway Authority (MHA); which was set up by Act of Parliament as a statutory body on the 24<sup>th</sup> October 1980. However, following the implementation of privatization policy which was announced on 25<sup>th</sup> February 1983, the highways in Malaysia were privatized under the scheme of Build-Operate-Transfer (BOT) (Malaysian Highway Authority, 1991). Under the BOT scheme, the private concession companies are responsible for the construction, operation, maintenance and the financing of the highways (Economic Planning Unit (EPU) [23]. The private companies are then granted the rights to collect tolls from the users throughout the concession period in return of various functions (described above) that they undertake; handing over the highways at no cost to the government at the end of the concession period (ibid). Based on the explanation, above, it is clear that the BOT scheme resembles the PPP approach described earlier.

Although the privatization policy was announced in 1983, privatization in tolled highway sector was only actively pursued in mid-1980s, following a sharp cut by 52 percent in MHA's budget which was reduced from RM4,428 million to RM2,139 million [24]. The large slash in government budget was due to a period of economic crisis [25] which later resulted in sizeable fiscal deficits [26]. The severe budget constraints forced MHA's construction of highways (at that time the North-South Highway) to be brought to a halt in 1988 and privatized to the private sector. As well as abrupt termination of undergoing highway construction, older highways like the Penang Bridge and KL-Karak Expressway that have been completed earlier were also privatized in 1994 to the private sector, causing MHA to lose its rights of collecting revenue from toll operations of the older highways [27]. This will be discussed further in the following section.

In relation to the implementation policy, it is useful to note that the privatization exercises in the Malaysian tolled highway sector are not carried out based on the age of the highways. There are some highways that have been completed earlier and yet privatized later. On the other hand, there is also an instance whereby one highway was privatized before the construction by MHA was completed. Details of these highways are shown in Table 1.

From Table 1, it can be seen that generally, starting from the year 1993, the highways were privately constructed by the private sector. MHA is not involved in the construction of new highways. In view of the changing circumstances brought by the implementation of privatization policy, the MHA has then reviewed its statutory functions from planning, designing and constructing to those of supervising and monitoring the development of toll expressways [28].

In discussing the research methodology of the paper it is useful to note that generally the paper adopts a case study method, with a specific focus on financial analysis of MHA. In this manner, in order to achieve the research objectives outlined earlier, data for the MHA case is obtained primarily from the financial statements which are publicly available and supported by other secondary sources contained in government and public bodies' web-sites. The financial analysis of MHA is undertaken using the financial statements of MHA, contained in MHA's annual reports starting from the years 1990 to 2005 inclusive. These were the annual reports that were available at the time of the study. In conducting the analysis, the financial statements of MHA is examined by

Table 1: Tolled Highways in Malaysia (source: MOW and MHA websites and MHA's annual reports from various years)

No	Project	Year Completed	Concession Company	Length (in km)	Privatization Note
1	Penang Bridge	1985	PBSB	13.5	Constructed and completed by MHA. The highway was later privatized in 1994 [28].
2	North-South Highway	1994	PLUS	848.0	Initially constructed by the MHA, but in 1988, i.e., before construction was completed; a proposal was then made to the private sector to complete the construction of the highway in a privatization exercise [27].
3	Shah Alam Expressway	1997	KESAS	35.0	Privately constructed, privatized in 1993 [28]
4	Seremban-Port Dickson Highway	1997	PLUS	23.0	Privately constructed, privatized in 1994 [29], by SPDH but taken over by PLUS in 2004 [30].
5	North-South Expressway Central Link	1997	ELITE	56.8	Privately constructed, privatized in 1994 [28]
6	Malaysia - Singapore Second Link	1998	Linkedua	45.7	Privately constructed, privatized in 1993 [28]
7	KL-Karak Expressway	1998	MTD	60.0	Initially constructed and completed by the MHA. This highway was privatized in 1994 for upgrading works [28].
8	Butterworth-Kulim Expressway	1998	KLBK	16.8	Privately constructed, privatized in 1994 [29]
9	Damansara-Puchong Expressway	1999	LITRAK	40.0	Privately constructed, privatized in 1996 [29]
10	Sungai Besi Expressway	1999	Besraya	16.0	Privately constructed, privatized in 1999 [29]
11	Cheras - Kajang Expressway	2000	Grand Saga	11.7	Privately constructed, privatized in 1996 [29]
12	Western KL Traffic Dispersal Scheme	2001	SPRINT	26.0	Privately constructed, privatized in 1999 [29]
13	Ampang-KL Elevated Highway	2001	PROLINTAS	7.4	Privately constructed, privatized in 1996 [29]
14	Northern Klang Straits Bypass	2002	Shapadu	15.3	Privately constructed, privatized in 1996 [29]
15	Kajang Dispersal Link Expressway	2004	SILK	37.0	Privately constructed, privatized in 2001 [31]
16	New Pantai Expressway	2004	NPE	19.6	Privately constructed, privatized in 1997 [29]
17	Guthrie Corridor Expressway	2005	GCE	25.0	Privately constructed, privatized in 2003 [31]
18	Butterworth Outer Ring Road	2005	LLB	12.0	Privately constructed, privatized in 1997 [31]

\* Year privatized is taken as the year the concession agreement is signed between the government and the private concession company. If this information is not available, the year privatized is taken as the year that the construction of the project commences.

extracting relevant accounting items for example toll collection, highway asset, fixed assets, current asset and total assets. Apart from this, the notes to the financial statements were also examined to get a further understanding on the accounting items as well as the financial arrangement between MHA and the private concession companies. The accounting items are constantly reviewed to ensure the accuracy of the analysis.

It is important to note that the study needs to be understood within the context of its limitations. The analysis is based on information that is available primarily in the public domain. Some information, for example the terms and conditions of contracts and the respective parties obligations might only be available to parties that are directly involved in the projects. The private information could contain details that are important to the analysis, but while such information remains hidden it cannot add to accountability to the public.

## RESULTS AND DISCUSSIONS

The findings of the study are divided into two broad issues and these are discussed below.

**Declining Assets:** Before this section is discussed further, it is useful to reiterate that the MHA was set up as a statutory body entrusted with the responsibility of constructing highways in 1980. This function was revised following the implementation of privatization policy. As a result of privatization exercises, these highways were removed from the MHA's balance sheet. Table 2 shows extracts from MHA's financial statements that display the value of MHA's highways, cost of highways reimbursed by government, fixed assets, total fixed assets, total current assets and other items.

Three important things can be observed from Table 2. Firstly, the implementation of the privatization policy in 1994 caused the highways to be removed from the MHA's balance sheets. According to the notes to the financial statements MHA is awaiting for the government to reimburse the highway over a long period of time. The expected payment from the government is noted as cost of highways handed over yet to be reimbursed by the government (CHRG) in the MHA's balance sheets. Secondly, since CHRG constitutes a large proportion of the MHA's total fixed assets (i.e., more than 90% in the years 1994 to 2005) and since the government reimburses the MHA for the highways each year, this causes the

Table 2: Extract of the MHA's Accounts: Highways, Fixed Assets, Total Assets and Toll Collection Income (source: Financial Statements of the MHA, 1990-2005)

Million RM	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Capital Value of Highways	929	967	969	962	0	0	0	0	0	0	0	0	0	0	0	0
Cost of Highways to be Reimbursed by Government (CHRG)	1,655	1,565	1,402	1,206	1,987	1,797	1,548	1,289	1,180	988	789	699	577	565	496	442
Total Fixed Assets (FA)	2,641	2,576	2,415	2,208	2,028	1,837	1,587	1,324	1,214	1,021	822	732	612	603	540	485
Total Current Assets (CA)	71	90	75	162	242	217	226	484	617	903	1,093	1,236	732	437	444	1,075
Total Assets (TA)	2,712	2,667	2,490	2,370	2,270	2,054	1,812	1,808	1,831	1,924	1,915	1,968	1,344	1,040	984	1,560
Toll Collection Income	49	60	64	54	6	0	0	0	0	0	0	0	0	0	0	0
% of FA over TA	97%	97%	97%	93%	89%	89%	88%	73%	66%	53%	43%	37%	46%	58%	55%	31%
% of CHRG over FA	63%	61%	58%	55%	98%	98%	98%	97%	97%	97%	96%	95%	94%	94%	92%	91%

total fixed assets to decline steadily over the years, even after adjusting for inflation. Thirdly, since the MHA lost the right to collect tolls from the privatized highways starting from 1995 and new highway projects were all constructed by private companies, the income from toll collections is nil after 1995.

**Ownership, Obligations and Payment for Privatized Highways:** Section 2.4 above explains that after the privatization policy was implemented, the highways were privatized to the private sector. The highways were removed from the balance sheet of MHA, indicating that the ownership of these highways was transferred to the private sector and hence, the private sector has the obligations to reimburse the cost of construction of the highways to MHA. However, Table 2 shows that the government instead is making the payment for the privatized highways. There were no further explanation given in the notes to the financial statements with regards to the financial arrangement between the MHA and the private sectors for the privatized highways. Thus, the financial arrangement is not presented clearly in the financial statements.

**Presentation of Financial Affairs and PPP Financial Arrangements:** The findings of this study show that although the accounting and reporting of the financial affairs of the MHA itself for example the body's fixed and current assets are clear, the PPP arrangements as well as their respective presentation in the financial statements are opaque. The obligation of the private sector in relation to the privatization of the completed highways is not clearly presented in the MHA's statements. This implies that the nature of PPP financial arrangements is complex and could not be satisfactorily captured in the presentation of financial statements. In the developed countries for example in the UK, the issue concerning ownership of public infrastructure is addressed through

the issuance of Application Note F to Financial Reporting Standard (FRS) 5: Reporting the Substance of Transactions by the Accounting Standards Board (ASB). Internationally, this issue is also addressed in the International Financial Reporting Interpretations Committee (IFRIC) 12 Service Concession Agreements, although the recognition of asset infrastructure in IFRIC 12 is contradictory to UK's ASB's Application Note F to FRS 5 [32]. The obscurity of the accounting and reporting surrounding PPP financial arrangement could be due to the inability of the current accounting and reporting requirement to address this issue.

**Financial Consequences:** Item CHRG in Table 2 clearly shows that the government is making payment in relation to the privatized highways. Removal of the highways from the MHA's balance sheet shows that the ownership has been transferred to the private sector and yet the public has to bear the financial costs. International evidence shows that the public has to bear higher cost of finance in PPP arrangements. The findings from the study suggest that the costs borne by the public are not confined to higher costs of finance, reduction in public purse can also occur through indirect financial support made to the private concession companies.

**Implications on Accountability:** The above issues raised earlier have implications on accountability in the provision of public infrastructure which is centred on the presumption that the government has a duty to manage public assets. In addition to this presumption, accountability is demonstrated if there is openness in disclosure of information and no information is kept hidden from the public. The manner in which accountability is demonstrated; ascertained through the financial analysis of MHA is summarized in the following points: firstly, opaque accounting and reporting for financial arrangements of PPP projects suggests that there

is a restriction on the flow of information from the public sector as the accountant to the public as an accountee. Secondly, the indirect financial support made to the private concession companies indicates that the public could be adversely affected. Such instance suggests that the adoption of PPP approach in Malaysian tolled highways may not advance public interests.

As a concluding remark, the study finds that transparency and openness in disclosure of information, which is an important attribute in accountability, is not present in the study. This suggests that the accountability is not demonstrated. However, the earlier discussion in the literature review discusses how accounting and reporting has a role in achieving accountability. In this regards, international development especially in the UK shows that the issue of ownership in public infrastructure is constantly debated, which may help to clear a number of obscurities surrounding accounting and reporting of PPP arrangement. Whilst accounting can help to address this issue, the current rate of development of accounting treatment for public infrastructure and service concessions does not indicate that the matter will be resolved in the near future. On another note, in comparison to the developed countries where the issue of public interests in infrastructure projects is raised academically, in Malaysia the situation is very much less prevalent. This indicates that more research on accountability in infrastructure projects needs to be undertaken.

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