

RENEGOTIATION OF PUBLIC PRIVATE PARTNERSHIP ROAD CONTRACTS: ISSUES AND OUTCOMES

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The renegotiation of road projects has been an important issue that has generated concerns in PPP procurement over the last decade. This has had serious policy implications for public procurement policy across countries because of its implications for the achievement of the objectives defined at the inception of PPP road contracts. This paper assesses the renegotiation of Public-Private Partnership (PPP) infrastructure projects in order to identify the issues involved in renegotiation and its outcomes. Data were collected through a literature review of selected studies on PPP infrastructure projects on a sectoral basis with particular emphasis on Latin America, Portugal and Spain. It was revealed that a high proportion of PPP contracts in the transport sector are renegotiated: Indeed, in the transport sector, more PPP road projects are renegotiated than other forms of transport projects. The main factors surrounding the renegotiation of road contracts are: lack of an adequate contract design, frequent opportunistic behaviour on the part of both public and private partners during the implementation of PPP road projects, changes in the conditions affecting revenue and costs beyond the reasonable assumptions accounted for in the original contract, corruption, and political and economic instability, all of which in most instances reduce the chance of the public partner achieving its objective of value for money (VfM). The paper concludes with a discussion of the need to develop a framework for integrating considerations of value for money into the renegotiation process of PPP road contracts.

Keywords: public-private partnership (PPP), renegotiation, road contracts, transport sector, value for money (VfM).

INTRODUCTION

The impact of transport infrastructure provision cannot be over-emphasised in the growth and development of any nation's economy. Gor and Gitau (2010) give credence to the role transport infrastructure plays in the enhancement of economic activities by identifying the road transport sub-sector as accounting for 90% of passenger and freight surface transport in Kenya. Because of the need to provide adequate and efficient transport infrastructure, governments of various countries have sought forms of procurement which ensure free and safe infrastructure on the most economical basis (Akintoye and Chinyio, 2005). However, the failures or inadequacies of some early forms of procurement have led most developed countries and some developing nations to adopt PPP for the delivery of transport infrastructure.

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PPP is a joint working relationship between the private sector and public bodies in which the two parties agree to pool their respective resources and share the risks of the proposed infrastructure project for mutual benefit and in the interest of members of the public or taxpayers. In spite of the numerous benefits of PPP to stakeholders, events usually occur during the implementation of projects that necessitate renegotiation of PPP contracts (Sarmiento, 2014, Acerete *et al.*, 2010). Though renegotiation may be necessary and expedient in order to align the contract to defined objectives and to keep it on track, most renegotiations of infrastructure projects have not addressed the VfM objectives and users' expectation. Instead, they have increased the costs to the public agencies, which is to the detriment of the users (Sarmiento, 2014). There is therefore a need to strategise ways to curb the negative impact of renegotiation.

This paper is based on the findings of the literature review of ongoing PhD research, targeted at developing a value-for-money framework for the renegotiation of PPP road projects. The renegotiation of PPP road contracts is assessed through a review of selected cases in the transport sector. This will be discussed with a focus on road projects in order to identify both the reasons for and the outcomes of contract renegotiation. The rationale for this focus is the high incidence of renegotiation in road projects when compared to other transport modes, coupled with their implications for the achievement of VfM. Thus the purpose of the paper will be fulfilled using literature published in journals and other sources. The authors have restricted the literature search to relevant up to date papers, i.e. those on the renegotiation of PPP transport projects within the last 10 years.

THE RENEGOTIATION IN PUBLIC-PRIVATE PARTNERSHIP CONTRACTS

Some of the definitions of renegotiation suggest that it is an un-anticipated change in the conditions or terms of a contract as a result of unexpected events which results in the amendment of the contract (Guasch *et al.* 2014 and Mackovsek *et al.* 2014). The extent of the work or the project scope could be impacted by an unexpected change. This change is not usually provided or defined in the original contract at the time of contract formation. However, there may be a clause in the contract, which provides that the contract may be subject to renegotiation.

Nikolaidis and Roumboutsos (2013) explicitly describe the process of renegotiation in PPP projects as a bargaining process, in which the parties involved seek to reach agreement on a particular option from a set of available alternatives. Renegotiation of contract has also been seen as procedure involving decision making in a collective manner (Sarmiento 2010). Thus, renegotiation is a decision making process which involves the choice or selection of a course of action from a list of alternatives or options in response to a specific need (Sarmiento and Renneboog 2014). However, the process of decision making is guided by the agreed procedure, which could differ between PPP projects and countries (Sarmiento 2014).

Renegotiations of contracts have been successful in some instances, but on other occasion they have resulted in delays and cost overruns during project implementation (Acerete *et al.* 2010). This conclusion is also supported by PPP studies conducted in Latin America (Bitran *et al.* 2013) and Spain (Acerete *et al.* 2010). The renegotiations discussed in both scientific and government reports in the past decade are thus considered in terms of their impact on the achievement of defined objectives (De Brux 2010). The reason for this is that the stakeholders in PPP contracts seek to fulfil their respective objectives during the renegotiation of PPP projects. However, the interest

of these stakeholders differ, and as a result synergy is required to achieve an outcome satisfactory to all parties while delivering the PPP project within contract provisions.

REASONS FOR THE RENEGOTIATION OF PUBLIC-PRIVATE PARTNERSHIP CONTRACTS

The driving factors for PPP contract renegotiations in Spain include: faulty contract design, defective regulation, over-estimation of traffic, inflexible contracts, changing construction risks and inadequate strategic network planning among others (Acerete *et al.* 2010). Nikolaidis and Roumboutsos (2013) also identify the inaccurate evaluation of the volume of traffic expected as a reason for major PPP contract renegotiations in Greece, which may result in a reduction or increase in the projected traffic. Gifford *et al.* (2014) notes that insufficient evidence exists with regards to drivers of renegotiation in the United States. Other reasons identified at the planning, construction and operation stage may require government to take over or provide subsidies to the project (Bi and Wang 2011). Also, Trebilcock and Rosenstock (2015) identify low-balling by private players in the competitive bidding stage, opportunism, lower than expected demand and unforeseen changes in the project environment as factors leading to major PPP renegotiations. This shows that there are many factors responsible for PPP contract renegotiations.

A comprehensive examination of all the factors associated with renegotiation reveals that opportunism is the bane of contract renegotiation (De Brux 2010). Under bidding, free riding, sitting on the job, poor quality of performance, hostile takeover, power misuse and social surplus capture have all been identified as manifestation of opportunism (Odoemena and Horita 2014). This list, along with the findings of several studies on renegotiation, has thus identified opportunism on the part of the private partner as more pronounced in transport projects (Bitran *et al.* 2013; Bi and Wang, 2011). However, governments use renegotiation as a means of evading budget scrutiny in order to increase PPP infrastructure spending (Engel *et al.* 2006), although recent studies reveal that opportunistic behaviour on the part the private partner is higher than that of public agencies in PPP infrastructure project procurement (Bitran *et al.* 2013, and Bi and Wang 2011).

RENEGOTIATION INCIDENCES IN PUBLIC-PRIVATE PARTNERSHIP ROAD CONTRACTS

An examination of renegotiation of PPP contracts around notable countries and regions of the world, including their frequency and outcomes, is necessary to advance the understanding of the subject. Recent studies have evaluated the instances of PPP contract renegotiations in Latin American and Caribbean countries (Guasch *et al.* 2014), Spain (Baeza and Vassallo 2010) and Portugal (Sarmiento 2014). These studies show that Portugal, Spain and Latin American/Caribbean countries have a long history of public service concessions that started in the late 1960s and early 1970s, initially in the transport and water sectors (Baeza and Vassallo 2010).

Specific studies have also been conducted in European countries such as Portugal (Sarmiento and Renneboog, 2014), Spain (Acerete *et al.* 2010), Greece (Nikolaidis and Roumboutsos 2013) and the UK (Bain 2010). Also, Engel *et al.* (2006) reveal that more than 1,000 PPP projects in Latin American from 1985-2000 were procured, 41.5% of which culminated on renegotiation. Evidence from some of these studies thus reinforces previous findings that toll motorway concession contracts are characterized by two features: significant traffic overestimations and frequent renegotiations (Baeza and Vassallo 2010, Acerete *et al.* 2010). In other words, road

projects have been found to be commonly renegotiated in the transport sector of most of these countries. Table 1 shows the respective incidences of renegotiations across sectors to support this conclusion.

Table 1: Incidence of Renegotiation across Selected Sector

Sectors	Guasch (2004) %	Our Sample (%)
Total	41.5	
Electricity	9.7	
Transport	54.7	
Railroads		32.2
Roads		57.3
Water & Sanitation		74.4

Source: Estache (2009)

The data presented in Table 1 supports the findings of the previous literature and puts road projects ahead of other modes of transport in terms of renegotiation. In all, it is calculated that 41.5% of projects overall were renegotiated, with the highest percentage being those in the water and sanitation sector. This was followed by the transport sector (54.7%), and within this sector road projects are the most renegotiated with 57.3%. Thus Table 2 supports these findings by showing the respective percentages of renegotiated contracts across countries and sectors.

Table 2: Incidences of renegotiations of PPP in selected regions of the world

Region/Country	Sector	% of Renegotiated Contracts	Source
Latin America & Caribbean	Total	68%	
	Electricity	41%	
	Transport	78%	Guasch et al. (2014)
	Water	92%	
Indian	All sectors	0%	Guasch et al. (2014)
US	Highways	40%	Engel et al. (2011)
France	Highways	50%	Athias & Saussier (2007)
	Parking	73%	Beuve et al. (2013)
UK (Scotland)	All Sectors	22%	NAO 2003
	All Sectors	51%	CEPA 2005

Source: Mackovsek et al. (2014)

Table 2 suggests that renegotiation of PPP road projects is common in Latin American & Caribbean countries. Contracts in the water and sanitation sector are the most often renegotiated, followed by those in the transport sector, as previously established. In the UK, no data is available with respect to the percentage of contracts renegotiation incidences on a sectoral basis, although generalised information, which cuts across all sectors is provided. However, Table 3 gives a vivid account of the frequency of renegotiation in developed countries with respect to both Portugal and Spain.

Table 3: Comparative analysis of PPP road projects renegotiation in Portugal and Spain

Road Projects		Concession & Award Period (Year)		No of Renegotiation		Year of 1 st Renegotiation	
Portugal	Spain	Portugal	Spain	Port	Spain	Port.	Spain
Lusoponte	Barcelona La Junguera	1995-2025	1967-2025	32	9	-	17
Norte	Mongat-Mataro	1999-2035	1967-1975	12	-	-	-
Oeste	Barcelona Tarragona	1999-2029	1967-1975	11	7	-	16
Brisa	Montmelo - El Papiuol	2000-2035	1967-1975	7	6	-	4
Litoral Centro	Zaragona-Mediterraneo	2004-2034	1967-1975	18	6	-	9
Scut da Beira Interior	Villalba- Villacastin	1999-2029	1967-1975	10	9	-	13
Scut da Costa de Prata	Villacastin- Adanero	2000-2030	1967-1975	12	8	-	9
Scut do Algarve	Bilbao- behobia	2000-2030	1967-1975	11	9	-	14
Scut Interior Norte	Burgos- Malzaga	2000-2030	1967-1975	5	9	-	15
Scut das Beiras Litoral Alta	Sevilla- Cadiz	2001-2031	1967-1975	7	7	-	18
Scut Norte Litoral	Tarragona- Valencia	2001-2031	1967-1975	19	9	-	10
Scut Grande Porto	Valencia Alicante	2002-2032	1967-1975	7	9	-	5
Grande Lisboa	El Ferro1-F. Portuguesa	2007-2037	1967-1975	10	14	-	1
Douro Litoral	Bilbao-Zaragoza	2007-2034	1967-1975	7	9	-	5
AE Transmontana	Leon- Campomanes	2008-2038	1967-1975	5	8	-	6
Douro Interior	Malaga-Estepona	2008-2038	1996-2008	5	1	-	4
Tunel do Marao	R-4 Madrid- Ocana	2008-2038	1996-2008	4	1	-	3
Baixo Alentejo		2009-2039		30		-	
Baixo Tejo		2009-2039		6		-	
Litoral Oeste		2009-2039		4		-	
Algarve Litoral		2009-2039		2		-	
Pinhal Interior		2010-2040		9		-	
Total Road Concession				233	121		

Source: Adopted from (Sarmiento & Renneboog 2014 and Baeza & Vassallo 2010)

Table 3 presents data for PPP contract renegotiation in Portugal and Spain. 22 PPP road projects in Portugal were investigated, while 17 road projects were investigated in Spain. The table shows the characteristics of these projects, their expected duration and the number of renegotiations per project for both countries. The figures indicate that more renegotiation occurs in the road projects of Portugal than in those of Spain, although to varying degrees: Lusoponte had the highest number of renegotiations in Portugal (32), while El Ferro F-Portuguesa was second with 14 renegotiations). A close comparison of these renegotiation incidences reveals that there are variations across countries and justifies the argument that road projects are commonly renegotiated with varying incidences in the transport sector.

THE OUTCOMES OF THE RENEGOTIATION OF ROAD PROJECTS IN SELECTED COUNTRIES

High repayment by the public sector for a long period in order to offset cost is one of the outcomes of the renegotiation of PPP transport project contracts in Portugal (Sarmiento and Renneboog 2014). In contrast, the outcomes of renegotiations in Spain and their respective percentages are: toll modification (50%), extension of the concession duration (24%), and other outcomes (26%) (Baeza and Vassallo 2010). Other studies have found the main outcomes of renegotiation in Latin America to include: tariff adjustments, revisions of cost components, adjustments of the annual fee paid by the operator to the government, changes in the asset base and extension of concession contracts (Guasch *et al.* 2014). This suggests that toll modification may be the most adopted and prominent outcome of the renegotiation of PPP concessions in Spain, which involves an alteration in the tariff or charges paid by users of the road. Furthermore, the renegotiation of road project contracts, according to Acerete *et al.*, 2010 have resulted in higher charges for Spanish road users. When there is a need for toll modification in Spain, the Spanish government has to step in to rescue the

situation. This is shown in the subsidies granted to the private sector in the case of eight old concessions in Spain in order to improve the viability of the scheme (Acerete *et al.*, 2010). Thus, the government usually steps in to rescue failing projects and those experiencing difficulties through subsidies, financial adjustments or rebalancing (Sarmiento, 2014, Xiong and Zhang, 2014).

For instances, an examination of 254 renegotiations in Portuguese infrastructure projects reveals that the road sector accounted for 233 cases which ended with compensation being paid to the private company (Sarmiento, 2014). In Latin America, experience reveals that 54.7% of transport concession contracts awarded were renegotiated and mostly benefited the concessionaires (Guasch, 2004). Furthermore, as Engel *et al.* (2009) notes, the Chilean experience reveals that firms lowball their offers, expecting to break even through renegotiation. Contrastingly, this paper also reports that governments use renegotiations to increase spending and shift the burden of payment to future administrations. Furthermore, renegotiation of these concessions thus results in increases in the future costs of service for users.

Moreover, according to Reside and Mendoza (2010), the Asian experience reveals that about 70% of PPPs are renegotiated due to currency risk, which in most instances results in increased subsidies and financial compensation for the concessionaire companies. Renegotiation of PPP projects also tends to be unfavourable to the public sector in United States of America (USA). However, the U.S. institutional framework have succeeded in protecting the public sector from private opportunism by guaranteeing service provision even in a situation where the private entity files for bankruptcy (Gifford *et al.* 2014). Thus, certain procedure or workable parameter could help in reducing public sector losses commonly experienced during renegotiation of PPP road projects.

The reason for the financial rescue and rebalancing of concession contracts by governments is based on the fact that government is a major party in the concession agreement, with a major interest in the project's completion (Nikolaidis and Roumboutsos, 2013). This is thus the main reason why public resources are usually devoted to covering private sector losses in PPP projects (Bi and Wang, 2011), which are mostly incurred as a result of the financial rescue of the projects. These losses, according to Sarmiento (2014), are then transferred to the users in the form of higher tariffs and charges. Xiong and Zhang (2014) support this view by stating concisely that "*international PPP practices have shown conflicting results in concession renegotiations*". Cases of contract renegotiation may therefore vary across countries and regions by virtue of the peculiarities and the prevailing situation. It is thus necessary to evaluate and assess renegotiation issues in the context of individual countries in order to ascertain the respective outcomes as they relate to the peculiarities and externalities of the prevailing environment.

The comprehensive review of the existing literature in the area of renegotiation of PPP road projects results in the following findings:

- Most PPP projects, and particularly road projects in the transport sector, are renegotiated;
- Analysis of the renegotiation of PPP road projects across notable countries revealed that VfM is not achieved for the public sector in most cases;
- Examination across countries, and particularly in Europe (including the UK), reveals scanty empirical data with respect to PPP road project renegotiations;
- The few studies of PPP renegotiation available show that the extent and implications of VfM achievement in road projects remains a subject of research and debate.

VALUE FOR MONEY AND THE RENEGOTIATION OF PUBLIC PRIVATE PARTNERSHIP ROAD PROJECTS

Recent academic studies on PPP/PFI have focused on VfM in PPP projects (Sarmiento and Renneboog 2014) because of its importance. Grimsey and Lewis (2005) define VfM as the optimum combination of whole life cycle costs, risks, completion time and quality in order to meet public requirements. VfM could therefore be viewed as a way of reducing the life cycle costs of PPP products through better risk allocation, faster implementation, improvement of the product and service quality and thus as a means of generating higher revenue for a public project. Based on this description, VfM is an important issue in infrastructure procurement, and has been considered the principal objective of any PPP project (Henjeweles *et al.* 2011).

It has been established from these studies that the achievement of VfM is an issue which has constituted a challenge in PPP procurement over the years. This indicates there is a need for further research, and motivated the present study. Few empirical studies have succeeded in exploring the ‘presumed’ relationships between renegotiation and VfM, which has been an issue in PPP procurement. Although these studies have established the importance of evaluating of renegotiation in terms of VfM achievement, few empirically assess the relationship between these two concepts in order to address the challenge of under- or non-achievement of VfM in PPP road project transactions.

The investigation of PPP road projects is in response to the factors militating against the achievement of VfM, which is relevant and germane in the contemporary world. Investigation of PPP renegotiation in the road sector will go a long way to ensuring that an approach which incorporates VfM thinking can be identified and embedded in the renegotiation process. Such an approach will involve the development of a framework that provides both a theoretical and a practical guide to stakeholders in the renegotiation of PPP road projects. The VfM framework proposed in this paper can be defined as one which seeks the reduction of whole life cycle costs through the development of workable parameters for the avoidance of cost and time overruns to facilitate implementation within budget and on time, improvement of service quality, and generation of appropriate and commensurate revenue for a public project without compromising profitable returns on the stakeholders’ investment. Fig 1 shows the conceptual classification of the research areas of the proposed PPP VfM renegotiation framework for road projects.

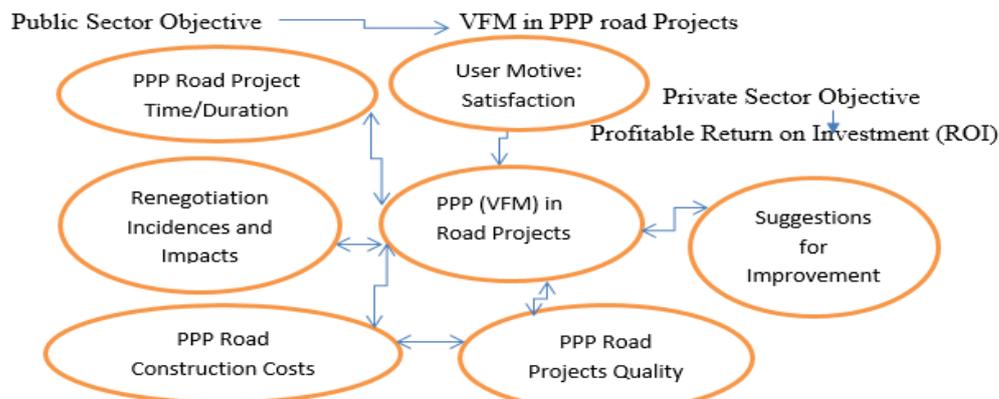


Fig 1: Conceptual Classification of the Research Areas of Proposed PPP VfM Renegotiation Framework for Road Projects

ONGOING RESEARCH TOWARDS THE DEVELOPMENT OF VALUE FOR MONEY FRAMEWORK

This review has significance in that it arises from ongoing PhD research, and its focus relates to the aim of that research, which is to investigate through empirical data collection the appropriate phases of PPP projects in order to ascertain renegotiation problems and issues that impact VfM implementation. Incidences and outcomes of renegotiation as well as the beneficiaries of the renegotiation process have been established for the following countries: Brazil, Chile, Colombia, Peru, Portugal, Spain and Greece, as well as Caribbean countries. However, not much work/research has been done in the context of the European Union (EU), and particularly of the UK. Mackovsek *et al.* (2014) claim that the paucity of research in the area of PPP renegotiation is due to a lack of data on renegotiations and the nature of renegotiations in PPP projects (including road projects).

This ongoing research therefore intends to investigate public agencies and concessionaires involved in PPP road projects in the UK. The reason for the adoption of the UK is that the UK has Europe's largest programme of PPPs, with 400 infrastructure projects in operation, which means that the UK constitutes around 25% of the overall EU PPP market (European Investment Bank 2004). In contrast, other countries such as Portugal, Spain and South Korea, all of which have adopted PPP for the delivery of road projects have initiated around 40 PPPs each (Baeza and Vassallo, 2010; Reside and Mendoza 2010) but which have been the subject of a handful of studies on PPP renegotiation. It is therefore surprising that in spite of the profile of the UK in terms of its adoption of PPP for infrastructure projects, few theoretical studies have investigated renegotiation to evaluate the issues surrounding its occurrence during PPP project implementation.

Indeed, studies conducted in the UK have not made available empirical data with respect to incidences of PPP renegotiation, the outcomes of PPP renegotiation or other issues inherent in implementation. This may be due to the fact that private firms rarely share information on such agreements and are even more unlikely to reveal information about renegotiation decisions and outcomes (Sarmiento 2014). This is one of the challenges the research intends to overcome through the collection of data. Moreover, most PPP road projects in the UK are currently in the operation stage, and few have been completed.

The study therefore investigates only long-standing PPP road projects and those which have been completed with the aim of remedying the dearth of empirical data on renegotiation in the UK. Thus, empirical data will be collected as a basis for appraising factors driving renegotiation, and the research will further assess the implications of value for money (VfM) achievement as a result of the renegotiation of road contracts as a basis for developing a workable framework for VfM implementation.

CONCLUSION

The findings of this review reveal that private concessionaires are mostly beneficiaries of the renegotiation process because of the frequent intervention of the government to financially rescue PPP road projects, which are failing or experiencing difficulties. In other words, the outcome of most incidences of renegotiation favour the private concessionaire. In contrast, the outcome of the renegotiation of road projects has not always been in the best interest of members of the public. In this situation, value for money has mostly eluded the public agency. This is evidenced in increases in tariffs

and user charges, and in cost and time overruns. On this note, this paper concludes that there is need for the assessment and evaluation of the renegotiation of road projects in consideration of the failure to achieve value for money for the public sector in most instances. The ongoing research seeks to address this gap in knowledge through the development of a value for money framework for managing the renegotiation of PPP road projects.

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